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Foreword

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1 Scope

The present document defines the NR UE Radio Access Capability Parameters.

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[2] 3GPP TS 38.101-1: "NR; User Equipment (UE) radio transmission and reception Part 1: Range 1 Standalone".

[3] 3GPP TS 38.101-2: "NR; User Equipment (UE) radio transmission and reception Part 2: Range 2 Standalone".

[4] 3GPP TS 38.101-3: "NR; User Equipment (UE) radio transmission and reception Part 3: Range 1 and Range 2 Interworking operation with other radios".

[5] 3GPP TS 38.133: "NR; Requirements for support of radio resource management".

[6] 3GPP TS 38.211: "NR; Physical channels and modulation".

[7] 3GPP TS 37.340: "Evolved Universal Terrestrial Radio Access (E-UTRA) and NR Multi-connectivity".

[8] 3GPP TS 38.321: "NR; Medium Access Control (MAC) protocol specification".

[9] 3GPP TS 38.331: "NR; Radio Resource Control (RRC) protocol specification".

[10] 3GPP TS 38.212: "NR; Multiplexing and channel coding".

[11] 3GPP TS 38.213: "NR; Physical layer procedures for control".

[12] 3GPP TS 38.214: "NR; Physical layer procedures for data".

[13] 3GPP TS 38.215: "NR; Physical layer measurements".

[14] 3GPP TS 36.101: "Evolved Universal Terrestrial Radio Access (E-UTRA) radio transmission and reception".

[15] 3GPP TS 36.306: "Evolved Universal Terrestrial Radio Access (E-UTRA) User Equipment (UE) radio access capabilities".

[16] 3GPP TS 38.323: "NR; Packet Data Convergence Protocol (PDCP) specification".

[17] 3GPP TS 36.331: "Evolved Universal Terrestrial Radio Access (E-UTRA) Radio Resource Control (RRC); Protocol Specification".

[18] 3GPP TS 38.101-4: "NR; User Equipment (UE) radio transmission and reception Part 4: Performance requirements".

[19] 3GPP TS 36.213: "Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer procedures".

[20] 3GPP TS 25.306: "UE radio access capabilities".

[21] 3GPP TS 38.304: "User Equipment (UE) procedures in Idle mode and RRC Inactive state".

[22] 3GPP TS 37.355: " LTE Positioning Protocol (LPP)".

[23] 3GPP TS 38.340: "NR; Backhaul Adaptation Protocol (BAP) specification".

[24] 3GPP TR 38.822: "NR; User Equipment (UE) feature list".

[25] 3GPP TS 37.324: "E-UTRA and NR; Service Data Adaptation Protocol (SDAP) specification"

[26] 3GPP TS 38.314: "NR; Layer 2 Measurements".

[27] 3GPP TS 36.133: "Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management".

[28] 3GPP TS 38.300: "NR; NR and NG-RAN Overall Description; Stage-2".

[29] 3GPP TS 26.247: "Transparent end-to-end Packet-switched Streaming Service (PSS); Progressive Download and Dynamic Adaptive Streaming over HTTP (3GP-DASH)".

[30] 3GPP TS 26.114: "IP Multimedia Subsystem (IMS); Multimedia Telephony; Media handling and interaction".

[31] 3GPP TS 26.118: "Virtual Reality (VR) profiles for streaming applications".

[32] 3GPP TS 37.213: "Physical layer procedures for shared spectrum channel access".

[33] 3GPP TS 38.401: "NG-RAN; Architecture description".

[34] 3GPP TS 38.101-5: "NR; User Equipment (UE) radio transmission and reception; Part 5: Satellite access Radio Frequency (RF) and performance requirements".

[35] 3GPP TS 38.104: "NR; Base Station (BS) radio transmission and reception".

[36] 3GPP TS 38.322: "NR; Radio Link Control (RLC) protocol specification".

[37] 3GPP TS 23.501: "System Architecture for the 5G System; Stage 2".

3 Definitions, symbols and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in TR 21.905 [1] and the following apply. A term defined in the present document takes precedence over the definition of the same term, if any, in TR 21.905 [1].

eRedCap UE: a UE with enhanced reduced capabilities as specified in clause 4.2.22.1.

Fallback band combination: A Uu band combination that would result from another Uu band combination (parent band combination) by releasing at least one SCell or uplink configuration of SCell, or SCG, or SUL. A PC5 band combination that would result from another PC5 band combination (parent band combination) by releasing at least one sidelink carrier. An intra-band non-contiguous band combination is not considered to be a fallback band combination of an intra-band contiguous band combination. A fallback band combination supports the same channel bandwidth(s) for each carrier as its parent band combination(s).

Fallback per band feature set: A feature set per band that has same or lower capabilities than the reported capabilities from the reported feature set per band for a given band.

Fallback per CC feature set: A feature set per CC that has same or lower capabilities than the capabilities of UE (e.g. supported MIMO layers, BW, modulation order) while keeping the numerology the same from the reported feature set per CC for a given carrier per band. The *supportedMinBandwidthDL*/*supportedMinBandwidthUL* defines the lower bound of the bandwidth supported by the UE.

RedCap UE: The UE with reduced capabilities as specified in clause 4.2.21.1.

SON report(s): A SON report corresponds to one report from UE such as Random Access report, Radio Link Failure report, Connection Establishment Failure report, Mobility History Information report, Successful Handover report, and Successful PSCell change report.

Switching SCell (sSCell): The SCell configured with cross-carrier scheduling to PCell/PSCell.

3.2 Symbols

For the purposes of the present document, the following symbols apply:

MaxDLDataRate: Maximum DL data rate
MaxDLDataRate_MN: Maximum DL data rate in the MN
MaxDLDataRate_SN: Maximum DL data rate in the SN
MaxULDataRate: Maximum UL data rate
MaxSLtxDataRate: Maximum SL data rate in transmission
MaxSLrxDataRate: Maximum SL data rate in reception

3.3 Abbreviations

For the purposes of the present document, the abbreviations given in TR 21.905 [1] and the following apply. An abbreviation defined in the present document takes precedence over the definition of the same abbreviation, if any, in TR 21.905 [1].

A-CSI Aperiodic-CSI
AI/ML Artificial Intelligence/Machine Learning
ATG Air To Ground
BAP Backhaul Adaptation Protocol
BC Band Combination
BPS Body Proximity Sensing
BT Bluetooth
CCS Cross Carrier Scheduling
CLTM Conditional L1/L2 Triggered Mobility
CMR Channel Measurement Resource
CPAC Conditional PSCell Addition/Change
DAPS Dual Active Protocol Stack
DL Downlink
DSR Delay Status Report
EHC Ethernet Header Compression
FS Feature Set
FSPC Feature Set Per Component-carrier
FWA Fixed Wireless Access
GSO Geosynchronous Orbit
HSDN High Speed Dedicated Network
IAB-MT Integrated Access Backhaul Mobile Termination
IDC In-Device Coexistence
MAC Medium Access Control
MHI Mobility History Information
MBS Multicast/Broadcast Service
MCG Master Cell Group
MN Master Node
MO-SDT Mobile Originated Small Data Transmission
MRB MBS Radio Bearer
MR-DC Multi-Radio Dual Connectivity
MSD Maximum Sensitivity Degradation
MT-SDT Mobile Terminated Small Data Transmission
mTRP Multiple TRP
MUSIM Multi-Universal Subscriber Identity Module
NCJT Non-Coherent Joint Transmission
NCR Network Controlled Repeater

NCR-MT	NCR Mobile Termination
NCSG	Network Controlled Small Gap
NES	Network Energy Savings
NGSO	Non-Geosynchronous Orbit
NTN	Non-Terrestrial Network
P-CSI	Periodic CSI
PDCP	Packet Data Convergence Protocol
PSI	PDU Set Importance
QoE	Quality of Experience
RLC	Radio Link Control
RTT	Round Trip Time
SCG	Secondary Cell Group
SDAP	Service Data Adaptation Protocol
SDL	Supplementary Downlink
SN	Secondary Node
sTRP	Serving TRP
SUL	Supplementary Uplink
TN	Terrestrial Network
TRP	Transmit/Receive Point
UDC	Uplink Data Compression
UL	Uplink
VSAT	Very Small Aperture Terminal
WLAN	Wireless Local Area Network
XR	eXtended Reality

4 UE radio access capability parameters

4.1 Supported max data rate

4.1.1 General

The DL, UL and SL max data rate supported by the UE is calculated by band or band combinations supported by the UE. A UE supporting NR (NR SA, MR-DC) shall support the calculated DL and UL max data rate defined in 4.1.2. A UE supporting NR sidelink communication shall support the calculated SL max data rate defined in 4.1.5.

4.1.2 Supported max data rate for DL/UL

For NR, the approximate data rate for a given number of aggregated carriers in a band or band combination is computed as follows.

$$\text{data rate (in Mbps)} = 10^{-6} \cdot \sum_{j=1}^{J} \left(v_{Layers}^{(j)} \cdot Q_m^{(j)} \cdot f^{(j)} \cdot R_{\max} \cdot \frac{N_{PRB}^{BW(j),\mu} \cdot 12}{T_s^{\mu}} \cdot \left(1 - OH^{(j)}\right) \right)$$

wherein

J is the number of aggregated component carriers in a band or band combination
R_{max} = 948/1024
For the j-th CC,

$v_{Layers}^{(j)}$ is the maximum number of supported layers given by *maxNumberMIMO-LayersPDSCH* for downlink and maximum of *maxNumberMIMO-LayersCB-PUSCH* and *maxNumberMIMO-LayersNonCB-PUSCH* for uplink.

$Q_m^{(j)}$ is the maximum supported modulation order given by *supportedModulationOrderDL* for downlink and *supportedModulationOrderUL* for uplink.

$f^{(j)}$ is the scaling factor given by *scalingFactor* or *scalingFactor-1024QAM-FR1* and can take the values 1, 0.8, 0.75, and 0.4.

μ is the numerology (as defined in TS 38.211 [6])

T_s^μ is the average OFDM symbol duration in a subframe for numerology μ, i.e. $T_s^\mu = \frac{10^{-3}}{14 \cdot 2^\mu}$. Note that normal cyclic prefix is assumed.

$N_{PRB}^{BW(j),\mu}$ is the maximum RB allocation in bandwidth $BW^{(j)}$ with numerology μ, as defined in 5.3 TS 38.101-1 [2], 5.3 TS 38.101-2 [3], and 5.3 TS 38.101-5 [34], where $BW^{(j)}$ is the UE supported maximum bandwidth in the given band or band combination.

$OH^{(j)}$ is the overhead and takes the following values

0.14, for frequency range FR1 for DL
0.18, for frequency range FR2 for DL
0.08, for frequency range FR1 for UL
0.10, for frequency range FR2 for UL

NOTE 1: Only one of the UL or SUL carriers (the one with the higher data rate) is counted for a cell operating SUL.

NOTE 2: For UL Tx switching between carriers, only the supported MIMO layer combination across carriers that results in the highest combined data rate is counted for the carriers in the supported maximum UL data rate.

The approximate maximum data rate can be computed as the maximum of the approximate data rates computed using the above formula for each of the supported band or band combinations. For the CCs where UE supports *pdsch-1024QAM-2MIMO-FR1-r17* for the concerned band, data rate shall be derived as maximum what UE would support if using 1024 QAM (when *mcs-Table-r17* or *mcs-TableDCI-1-2-r17* is configured) or 256 QAM.

For single carrier NR SA operation and except for UEs supporting *supportOfERedCap-r18*, the UE shall support a data rate for the carrier that is no smaller than the data rate computed using the above formula, with $J = 1$ CC and component $v_{Layers}^{(j)} \cdot Q_m^{(j)} \cdot f^{(j)}$ is no smaller than 4.

NOTE 3: As an example, the value 4 in the component above can correspond to $v_{Layers}^{(j)} = 1$, $Q_m^{(j)} = 4$ and $f^{(j)} = 1$.

For single carrier NR SA operation and for UEs supporting *supportOfERedCap-r18*, the UE shall support a data rate for the carrier that is the data rate computed using the above formula, with $J = 1$ CC and:

if the UE supports *eRedCapNotReducedBB-BW-r18:*

- component $v_{Layers}^{(j)} \cdot Q_m^{(j)} \cdot f^{(j)}$ is 0.75 if $v_{Layers}^{(j)} = 1$, or;
- component $v_{Layers}^{(j)} \cdot Q_m^{(j)} \cdot f^{(j)}$ is 0.8 if $v_{Layers}^{(j)} = 2$;

else:

- component $v_{Layers}^{(j)} \cdot Q_m^{(j)} \cdot f^{(j)}$ is 3.2, and;;
  - $N_{PRB}^{BW(j),\mu}$ is 25 if μ = 0 or, 12 if μ = 1;

For EUTRA in case of MR-DC, the approximate data rate for a given number of aggregated carriers in a band or band combination is computed as follows.

Data rate (in Mbps) = $10^{-3} \cdot \sum_{j=1}^{J} TBS_j$

wherein

J is the number of aggregated EUTRA component carriers in MR-DC band combination

TBS_j is the total maximum number of DL-SCH transport block bits received or the total maximum number of UL-SCH transport block bits transmitted, within a 1ms TTI for j-th CC, as derived from TS 36.213 [19] based on the UE supported maximum MIMO layers for the j-th CC, and based on the maximum modulation order for the j-th CC and number of PRBs based on the bandwidth of the j-th CC according to indicated UE capabilities.

The approximate maximum data rate can be computed as the maximum of the approximate data rates computed using the above formula for each of the supported band or band combinations.

For MR-DC, the approximate maximum data rate is computed as the sum of the approximate maximum data rates from NR and EUTRA.

4.1.3 Void

4.1.4 Total layer 2 buffer size for DL/UL

The total layer 2 buffer size is defined as the sum of the number of bytes that the UE is capable of storing in the RLC transmission windows and RLC reception and reassembly windows and also in PDCP reordering windows for all radio bearers.

The required total layer 2 buffer size in MR-DC is the maximum value of the calculated values based on the following equations:

- *MaxULDataRate_MN * RLCRTT_MN + MaxULDataRate_SN * RLCRTT_SN + MaxDLDataRate_SN * RLCRTT_SN + MaxDLDataRate_MN * (RLCRTT_SN + X2/Xn delay + Queuing in SN)*

- *MaxULDataRate_MN * RLCRTT_MN + MaxULDataRate_SN * RLCRTT_SN + MaxDLDataRate_MN * RLCRTT_MN + MaxDLDataRate_SN * (RLCRTT_MN + X2/Xn delay + Queuing in MN)*

Otherwise it is calculated by *MaxDLDataRate * RLC RTT + MaxULDataRate * RLC RTT*.

NOTE: Additional L2 buffer required for preprocessing of data is not taken into account in above formula.

The required total layer 2 buffer size is determined as the maximum total layer 2 buffer size of all the calculated ones for each band combination and the applicable Feature Set combination in the supported MR-DC or NR band combinations. The RLC RTT for NR cell group corresponds to the smallest SCS numerology supported in the band combination and the applicable Feature Set combination.

wherein

X2/Xn delay + Queuing in SN = 25ms if SCG is NR, and 55ms if SCG is EUTRA

X2/Xn delay + Queuing in MN = 25ms if MCG is NR, and 55ms if MCG is EUTRA

RLC RTT for EUTRA cell group = 75ms

RLC RTT for NR cell group is defined in Table 4.1.4-1

Table 4.1.4-1: RLC RTT for NR cell group per SCS

SCS (kHz)	RLC RTT (ms)
15KHz	50
30KHz	40
60KHz	30
120KHz	20
480KHz	20
960KHz	20

4.1.5 Supported max data rate for SL

For NR sidelink, the approximate data rate is computed as follows.

$$\text{data rate (in Mbps)} = 10^{-6} \cdot v_{Layers} \cdot Q_m \cdot f \cdot R_{max} \cdot \frac{N_{PRB}^{BW,\mu} \cdot 12}{T_s^{\mu}} \cdot (1 - OH)$$

wherein

R_{max} = 948/1024,
v_{Layers} is the the maximum number of supported layers for sidelink transmission (or reception) given by UE capability on supporting rank 2 PSSCH transmission and *rankTwoReception*,
Q_m is the maximum supported modulation order between 6 or 8 given by *sl-Tx-256QAM* and *sl-Rx-256QAM*,
f is the scaling factor for sidelink transmission and reception given by *scalingFactorTxSidelink* and *scalingFactorRxSidelink* respectively, as specified in TS 36.331 [17] and TS 38.331 [9], and can take the values 1, 0.8, 0.75, and 0.4.
μ is the numerology (as defined in TS 38.211 [6])
T_s^{μ} is the average OFDM symbol duration in a subframe for numerology μ, i.e. $T_s^{\mu} = \frac{10^{-3}}{14 \cdot 2^{\mu}}$. Note that normal cyclic prefix is assumed.
$N_{PRB}^{BW,\mu}$ is the maximum possible RB allocation in bandwidth BW for PSSCH, where BW is the UE supported maximum bandwidth in the given band or band combination,
OH is the overhead and takes the following values

0.217, for frequency range FR1 for SL
0.25, for frequency range FR2 for SL

4.1.6 Total layer 2 buffer size for NR SL

The total layer 2 buffer size for NR sidelink communication is defined as the sum of the number of bytes that the UE is capable of storing in the RLC transmission windows and RLC reception and reassembly windows and also in PDCP reordering windows for all radio bearers for NR sidelink communication.

The required total layer 2 buffer size for NR sidelink communication is the maximum value of the calculated values based on the following equations:

*MaxSLtxDataRate * RLC RTT + MaxSLrxDataRate * RLC RTT.*

NOTE: Additional L2 buffer required for preprocessing of data is not taken into account in above formula.

The required total layer 2 buffer size for NR sidelink communication is determined as the maximum total layer 2 buffer size of all the calculated ones for each band combination and the applicable Feature Set combination in the supported NR sidelink band combinations. The RLC RTT for NR sidelink communication corresponds to the smallest SCS numerology supported in the band combination and the applicable Feature Set combination.

wherein

RLC RTT for NR sidelink communication is defined in Table 4.1.6-1

Table 4.1.6-1: RLC RTT for NR sidelink communication per SCS

SCS (kHz)	RLC RTT (ms)
15KHz	200
30KHz	100
60KHz	50
120KHz	25

4.2 UE Capability Parameters

4.2.1 Introduction

The following clauses define the UE radio access capability parameters. Only parameters for which there is the possibility for UEs to signal different values are considered as UE radio access capability parameters. Therefore, mandatory features without capability parameters that are the same for all UEs are not listed here.

The network needs to respect the signalled UE radio access capability parameters when configuring the UE and when scheduling the UE.

For capabilities that required to be set consistently for all FDD-FR1 bands (i.e. capabilities that are supposed to be per UE), the UE shall also set capability values for all SUL bands with same values for FDD-FR1 bands if SUL band is supported by the UE.

The UE may support different functionalities between FDD and TDD, and/or between FR1 and FR2. The UE shall indicate the UE capabilities as follows. In the table of UE capability parameter in subsequent clauses, "Yes" in the column by "FDD-TDD DIFF" and "FR1-FR2 DIFF" indicates the UE capability field can have a different value for between FDD and TDD or between FR1 and FR2 and "No" indicates if it cannot. "(Incl FR2-2 DIFF)" in the column by "FR1-FR2 DIFF" indicates the UE capability field can have a different value for between FR2-1 and FR2-2. Regarding to the per UE capabilities that are FDD/TDD differentiated(i.e. capabilities indicated as "Yes" in the column by "FDD-TDD DIFF"), the corresponding capabilities indicated by the FDD capability is applied to SUL/SDL if SUL/SDL band is supported by the UE. "FD" in the column indicates to refer the associated field description. "FR1 only" or "FR2 only" in the column indicates the associated feature is only supported in FR1 or FR2 and "TDD only" indicates the associated feature is only supported in TDD and not applicable to SUL/SDL carriers. "N/A" in the column indicates it is not applicable to the feature (e,g. the signalling supports the UE to have different values between FDD and TDD or between FR1 and FR2).

1> set all fields of UE-NR/MRDC-Capability except fdd-Add-UE-NR/MRDC/Sidelink-Capabilities, tdd-Add-UE-NR/MRDC/Sidelink-Capabilities, fr1-Add-UE-NR/MRDC-Capabilities and fr2-Add-UE-NR/MRDC-Capabilities, to include the values applicable for all duplex mode(s) and frequency range(s) that the UE supports;

1> if UE supports both FDD (or SUL/SDL) and TDD and if (some of) the UE capability fields have a different value for FDD (or SUL/SDL) and TDD:

2> if for FDD (and, if the UE supports SUL/SDL, for SUL/SDL), the UE supports additional functionality compared to what is indicated by the previous fields of UE-NR/MRDC-Capability/SidelinkParameters:

3> include field fdd-Add-UE-NR/MRDC/Sidelink-Capabilities and set it to include fields reflecting the additional functionality applicable for FDD;

2> if for TDD, the UE supports additional functionality compared to what is indicated by the previous fields of UE-NR/MRDC-Capability/SidelinkParameters:

3> include field tdd-Add-UE-NR/MRDC/Sidelink-Capabilities and set it to include fields reflecting the additional functionality applicable for TDD;

1> if UE supports both FR1 and FR2 and if (some of) the UE capability fields have a different value for FR1 and FR2:

2> if for FR1, the UE supports additional functionality compared to what is indicated by the previous fields of UE-NR/MRDC-Capability:

3> include field fr1-Add-UE-NR/MRDC-Capabilities and set it to include fields reflecting the additional functionality applicable for FR1;

2> if for FR2, the UE supports additional functionality compared to what is indicated by the previous fields of UE-NR/MRDC-Capability:

3> include field fr2-Add-UE-NR/MRDC-Capabilities and set it to include fields reflecting the additional functionality applicable for FR2;

NOTE 1: The fields which indicate "shall be set to 1" or "shall be set to *supported*" in the following tables means these features are purely mandatory and are assumed they are the same as mandatory without capability signalling.

NOTE 2: For the case where the UE is allowed to support different functionality between FDD and TDD and between FR1 and FR2 according to the specification, the UE capability indication is clarified in Annex B.

NOTE 2a: In this release of the specification, if the UE is allowed to support different functionalities between FDD and TDD, and/or between FR1 and FR2, these functionalities are signalled per band with the text "UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands, all TDD-FR2-1 bands and all TDD-FR2-2 bands respectively".

For optional features, the UE radio access capability parameter indicates whether the feature has been implemented and successfully tested. For mandatory features with the UE radio access capability parameter, the parameter indicates whether the feature has been successfully tested. In the table of UE capability parameter in subsequent clauses, "Yes" in the column by "M" indicates the associated feature is mandatory and "No" indicates the associated feature is optional. "CY" in the column indicates the associated feature is conditional mandatory and the condition is described in the field description and the associated feature is considered mandatory with capability parameter, when the described condition is satisfied. "FD" in the column indicates to refer the associated field description. Some parameters in subsequent clauses are not related to UE features and in the case, "N/A" is indicated in the column.

UE capability parameters have hierarchical structure. In the table of UE capability parameter in subsequent clauses, "Per" indicates the level the associated parameter is included. "UE" in the column indicates the associated parameter is signalled per UE, "Band" indicates it is signalled per band, "BC" indicates it is signalled per band combination, "FS" indicates it is signalled per feature set (per band per band combination), "FSPC" indicates it is signalled per feature set per component carrier (per CC per band per band combination), and "FD" in the column indicates to refer the associated field description. "Per band and per band combination" indicates a UE capability parameter defined in both per band and per band combination with same feature components.

For a capability with same comprised parameter(s) defined "per band and per band combination":

- When the UE signals "per BC" but does not signal "per band" capability on some subset of the bands in the CA combination, the UE does not support the capability/comprised parameter(s) in the band without "per band" capability.

- When the UE signals "per band" but does not include "per BC" for a certain BC, the UE supports the capability/comprised parameter(s) as indicated in the "per band" without further per BC limitations. The UE shall also support the signalled "per band" capabilities in any CA combination composed of the respective band.

- When the UE signals both "per band" and "per BC" capability, if capability/ comprised parameter(s) is not counted across CCs, the minimum capability between "per BC" capability and "per band" capability is applied to a band for which the UE capability is signalled; if the comprised parameter(s) is counted across CCs and CA is not configured, the "per band" capability is applied regardless of reported "per BC" capability; if the comprised parameter(s) is counted across CCs of intra-band CA (all CCs over the CA are within the same band) and/or inter-band CA (all CCs over the CA are associated with more than one band), the "per band" capability is applied across CCs within the corresponding intra-band CA, the "per BC" capability is applied across CCs within the corresponding inter-band CA.

For "per band and per band combination" capabilities with prerequisite capability in "per band and per band combination", the UE shall indicate support of the prerequisite capability in the corresponding band/BC, respectively.

NOTE 3: Unless otherwise specified, for dependent capabilities with prerequisite capability in a finer granularity, the UE should indicate support of the prerequisite capability in at least one finer granularity. And the dependent capability is supported only in the finer granularity where the prerequisite capability is supported, e.g. a UE indicating support of *supportNewDMRS-Port-r16* (dependent capability which is defined per band) should indicate at least one band combination where *singleDCI-SDM-scheme-r16* (prerequisite capability which is defined per feature set) is supported in the corresponding band. In this case, *supportNewDMRS-Port-r16* is considered supported only in the corresponding band of the band combination where *singleDCI-SDM-scheme-r16* is supported.

4.2.2 General parameters

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
accessStratumRelease Indicates the access stratum release the UE supports as specified in TS 38.331 [9].	UE	Yes	No	No
airToGroundNetwork-r18 Indicates whether the UE supports air to ground network access. If the UE indicates this capability the UE shall support the following ATG essential features, e.g., acquiring ATG cell specific SIB22 and ATG cell specific P-Max.	UE	No	No	FR1 only
crossCarrierSchedulingConfigurationRelease-r17 Indicates whether the UE supports using *crossCarrierSchedulingConfigRelease* to release the configurations configured by *crossCarrierSchedulingConfig*.	UE	No	No	No
delayBudgetReporting Indicates whether the UE supports delay budget reporting as specified in TS 38.331 [9].	UE	No	No	No
dl-DedicatedMessageSegmentation-r16 Indicates whether the UE supports reception of segmented DL RRC messages.	UE	No	No	No
drx-Preference-r16 Indicates whether the UE supports providing its preference of a cell group on DRX parameters for power saving in RRC_CONNECTED, as specified in TS 38.331 [9].	UE	No	No	No
drx-PreferenceCellDTX-DRX-r19 Indicates whether the UE supports providing its preference of a cell group on DRX parameters for power saving and its preference on cell DTX/DRX related parameters for PCell in RRC_CONNECTED, as specified in TS 38.331 [9].	UE	No	No	No
gNB-SideRTT-BasedPDC-r17 Indicates whether the UE supports gNB-side RTT-based PDC, as specified in TS 38.300 [28]. A UE supporting this feature shall also support *rtt-BasedPDC-CSI-RS-ForTracking-r17* and/or *rtt-BasedPDC-PRS-r17*.	UE	No	No	No
hardSatelliteSwitchResyncNTN-r18 Indicates whether UE supports hard satellite switch with re-sync, as specified in TS 38.331 [9]. A UE supporting this feature shall also indicate the support of *nonTerrestrialNetwork-r17*. When UE supports this feature and does not support *softSatelliteSwitchResyncNTN-r18*, this UE is able to perform hard satellite switch with re-sync in a network supporting soft satellite switch with re-sync, as specified in TS 38.331 [9].	UE	No	No	No
inactiveState Indicates whether the UE supports RRC_INACTIVE as specified in TS 38.331 [9]. This capability is not applicable to NCR-MT.	UE	Yes	No	No
inactiveStateNTN-r17 Indicates whether the UE supports RRC_INACTIVE in NTN as specified in TS 38.331 [9]. It is mandated if the UE indicates the support of *nonTerrestrialNetwork-r17*.	UE	CY	No	No
inactiveStatePO-Determination-r17 Indicates whether the UE supports to use the same i_s to determine PO in RRC_INACTIVE state as in RRC_IDLE state.	UE	No	No	No
inDeviceCoexInd-r16 Indicates whether the UE supports reporting of affected NR carrier frequencies in IDC assistance information as specified in TS 38.331 [9].	UE	No	No	No
inDeviceCoexIndAutonomousDenial-r18 Indicates whether the UE supports IDC autonomous denial as specified in TS 38.331 [9]. A UE supporting this feature shall also support *inDeviceCoexInd-r16*.	UE	No	No	No
inDeviceCoexIndFDM-r18 Indicates whether the UE supports reporting of affected NR carrier frequency ranges in IDC assistance information as specified in TS 38.331 [9]. A UE supporting this feature shall also support *inDeviceCoexInd-r16*.	UE	No	No	No
inDeviceCoexIndTDM-r18 Indicates whether the UE supports reporting of IDC TDM assistance information as specified in TS 38.331 [9]. A UE supporting this feature shall also support *inDeviceCoexInd-r16*.	UE	No	No	No

<table>
<tr><td>lpwus-SupportedBandList-r19
Indicates whether the UE supports LP-WUS operation in IDLE/INACTIVE mode for a list of frequency bands. The UE shall support UEID based subgrouping for a frequency band if it indicates supporting of LP-WUS operation for the frequency band. A UE supporting this feature shall also indicate the support of at least lpwus-OOK-r19 or lpwus-OFDM-r19.
For each supported band, the capability signalling comprises of the following parameters:
- supportedBandIndicator-r19 indicates the frequency bands where UE supports LP-WUS operation in IDLE/INACTIVE mode;

- lpwus-OOK-r19 indicates whether the UE supports LP-WUS operation in IDLE/INACTIVE mode based on OOK signal. The UE indicating this feature supports LP-WUS operation in IDLE/INACTIVE mode to trigger paging monitoring based on OOK signal, LP-SS based RRM measurement, all M values {1, 2, 4} for FR1 for LP-WUS, M value 1 for 120 kHz SCS FR2 for LP-WUS and all M values {1, 2, 4} for LP-SS;

- lpwus-OFDM-r19 indicates whether the UE supports LP-WUS operation in IDLE/INACTIVE mode based on OFDM overlaid sequence. The UE indicating this feature supports LP-WUS operation in IDLE/INACTIVE mode to trigger paging monitoring based on OFDM overlaid sequence, SSB-based RRM measurement, all M values {1, 2, 4} for FR1 for LP-WUS, M value 1 for 120 kHz SCS FR2 for LP-WUS;

- lpwus-LP-SS-r19 indicates whether the UE supports LP-SS based RRM measurement in IDLE/INACTIVE mode when LP-SS overlaid sequence is configured. The UE indicating this feature also supports all M values {1,2,4} for LP-SS. A UE supporting lpwus-LP-SS-r19 shall also indicate support of lpwus-OFDM-r19;

NOTE: If LP-SS overlaid sequence is configured, and if both SSB based and LP-SS based thresholds are configured for RRM measurement, it is up to UE implementation which threshold to use.

- minimumTimeGap-r19 indicates the minimum time gap between LP-WUS reception and UE to start PDCCH monitoring. The values of 'cap1', 'cap2' and 'cap3' for each SSB periodicity are shown in the below table:
<table>
<tr><th>SSB periodicity (ms)</th><th>cap1 (ms)</th><th>cap2 (ms)</th><th>cap3 (ms)</th></tr>
<tr><td>5/10/20</td><td>70</td><td>500</td><td>900</td></tr>
<tr><td>40</td><td>130</td><td>600</td><td>1000</td></tr>
<tr><td>80</td><td>250</td><td>800</td><td>1200</td></tr>
<tr><td>160</td><td>490</td><td>1200</td><td>1600</td></tr>
</table>
</td><td>UE</td><td>No</td><td>No</td><td>No</td></tr>
<tr><td>lpwus-SupportedBandsIdleInactiveOFDM-r19
Indicates the frequency bands where UE supports LP-WUS operation in IDLE/INACTIVE mode based on OFDM overlaid sequence as specified in TS 38.304 [21].</td><td>UE</td><td>No</td><td>No</td><td>No</td></tr>
<tr><td>lpwus-SupportedBandsIdleInactiveOOK-r19
Indicates the frequency bands where UE supports LP-WUS operation in IDLE/INACTIVE mode based on OOK signal in TS 38.304 [21].</td><td>UE</td><td>No</td><td>No</td><td>No</td></tr>
<tr><td>maxBW-Preference-r16, maxBW-Preference-r17
Indicates whether the UE supports providing its preference of a cell group on the maximum aggregated bandwidth for power saving in RRC_CONNECTED, as specified in TS 38.331 [9].</td><td>UE</td><td>No</td><td>No</td><td>Yes (Incl FR2-2 DIFF)</td></tr>
<tr><td>maxCC-Preference-r16
Indicates whether the UE supports providing its preference of a cell group on the maximum number of secondary component carriers for power saving in RRC_CONNECTED, as specified in TS 38.331 [9].</td><td>UE</td><td>No</td><td>No</td><td>No</td></tr>
</table>

maxMIMO-LayerPreference-r16, maxMIMO-LayerPreference-r17 Indicates whether the UE supports providing its preference of a cell group on the maximum number of MIMO layers for power saving in RRC_CONNECTED, as specified in TS 38.331 [9].	UE	No	No	Yes (Incl FR2-2 DIFF)
maxMRB-Add-r17 Indicates the additional maximum number of MRBs that the UE supports for MBS multicast reception in RRC_CONNECTED as specified in TS 38.331 [9]. For the UE indicating support of *multicastInactive-r18*, this capability is also applicable to multicast reception in RRC_INACTIVE, as specified in TS 38.331 [9].	UE	No	No	No
mcgRLF-RecoveryViaSCG-r16 Indicates whether the UE supports recovery from MCG RLF via split SRB1 (if supported) and via SRB3 (if supported) as specified in TS 38.331[9].	UE	No	No	No
minSchedulingOffsetPreference-r16 Indicates whether the UE supports providing its preference on the minimum scheduling offset for cross-slot scheduling of the cell group for power saving in RRC_CONNECTED, as specified in TS 38.331 [9].	UE	No	No	No
mpsPriorityIndication-r16 Indicates whether the UE supports *mpsPriorityIndication* on RRC release with redirect as defined in TS 38.331 [9].	UE	No	No	No
mt-SDT-r18 Indicates whether the UE supports initiating MT-SDT procedure via random access procedure with 4-step RA type and if UE supports *twoStepRACH-r16*, with 2-step RA type, in response to the reception of MT-SDT indication in paging message, as specified in TS 38.331 [9].	UE	No	No	No
mt-SDT-NTN-r18 Indicates whether the UE supports initiating MT-SDT procedure in NTN via random access procedure with 4-step RA type and if UE supports *twoStepRACH-r16* for NTN, with 2-step RA type, in response to the reception of MT-SDT indication in paging message, as specified in TS 38.331 [9]. A UE supporting this feature shall also indicate the support of *nonTerrestrialNetwork-r17*.	UE	No	No	No
musim-CapabilityRestriction-r18 Indicates whether the UE supports providing MUSIM assistance information with temporary capability restriction and capability restriction indication (i.e., *musim-CapRestrictionInd*), as defined in TS 38.331 [9]. For a UE supporting *nr-NeedForGap-Reporting-r16*, this field also indicates UE supports providing *musim-NeedForGapsInfoNR-r18* with temporary capability restriction as defined in TS 38.331 [9].	UE	No	No	No
musim-GapPreference-r17 Indicates whether the UE supports providing MUSIM assistance information with MUSIM gap preference and related MUSIM gap configuration, as defined in TS 38.331 [9]. UE supporting this feature supports 3 periodic gaps and 1 aperiodic gap.	UE	No	No	No
musim-GapPriorityPreference-r18 Indicates whether the UE supports providing MUSIM assistance information with periodic MUSIM gap priority preference and related periodic MUSIM gap priority configuration, and its preference of keeping all collided MUSIM gaps, as defined in TS 38.331 [9]. A UE supporting this feature shall support *musim-GapPreference-r17.*	UE	No	No	No
musimLeaveConnected-r17 Indicates whether the UE supports providing MUSIM assistance information with indication of leaving RRC_CONNECTED state as defined in TS 38.331 [9].	UE	No	No	No
nonTerrestrialNetwork-r17 Indicates whether the UE supports NR NTN access. If the UE indicates this capability the UE shall support the following NTN essential features, e.g., timer extension in MAC/RLC/PDCP layers and RACH adaptation to handle long RTT, acquiring NTN specific SIB and more than one TAC per PLMN broadcast in one cell.	UE	No	No	No
ntn-CHO-OnlyLocationTimeTrigger-r18 Indicates whether the UE supports conditional handover with only a location-based or a time-based trigger event, i.e. *condEventD1, condEventD2* or *condEventT1*, as specified in TS 38.331 [9]. A UE supporting this feature shall also indicate the support of at least one of *locationBasedCondHandover-r17* or *timeBasedCondHandover-r17* or *locationBasedCondHandoverEMC-r18*.	UE	No	No	No

ntn-Redirection-r19 Indicates whether the UE supports redirection from a NR terrestrial network to a NR non-terrestrial network frequency as specified in 38.331 [9]. A UE supporting this feature shall also indicate the support of *nonTerrestrialNetwork-r17*.	UE	No	No	No
ntn-RedirectionWithSatelliteInfo-r19 Indicates whether the UE supports receiving satellite assistance information via *RRCRelease* for redirection from a NR non-terrestrial network to a NR non-terrestrial network frequency, as specified in TS 38.331 [9]. A UE supporting this feature shall also indicate the support of *nonTerrestrialNetwork-r17*.	UE	No	No	No
ntn-ScenarioSupport-r17 Indicates whether the UE supports the NTN features in GSO scenario or NGSO scenario. If a UE does not include this field but includes *nonTerrestrialNetwork-r17*, the UE supports the NTN features for both GSO and NGSO scenarios, and also supports mobility between GSO and NGSO scenarios.	UE	No	No	No
ntn-VSAT-AntennaType-r18 Indicates whether a VSAT UE uses electronic or mechanical steering antenna in FR2-NTN bands above 14.5 GHz. A UE supporting this feature shall also indicate the support of *nonTerrestrialNetwork-r17*.	UE	No	No	FR2 only
ntn-VSAT-AntennaTypeKuBand-r19 Indicates whether a VSAT UE uses electronic or mechanical steering antenna in FR1-NTN and/or FR2-NTN bands between 10.7 GHz and 14.5 GHz as defined in TS 38.101-5 [34]. A UE supporting this feature shall also indicate the support of *nonTerrestrialNetwork-r17*.	UE	No	No	No
ntn-VSAT-MobilityType-r18 Indicates whether a VSAT UE is a mobile or fixed VSAT in FR2-NTN bands above 14.5 GHz. A UE supporting this feature shall also indicate the support of *nonTerrestrialNetwork-r17*.	UE	No	No	FR2 only
ntn-VSAT-MobilityTypeKuBand-r19 Indicates whether a VSAT UE is a mobile or fixed VSAT in FR1-NTN and/or FR2-NTN bands between 10.7 GHz and 14.5 GHz as defined in TS 38.101-5 [34]. A UE supporting this feature shall also indicate the support of *nonTerrestrialNetwork-r17*.	UE	No	No	No
onDemandPosSIB-ConnectedCtrlParam-r19 Indicates whether the UE supports the on-demand request procedure of posSIB(s) with control parameters while in RRC_CONNECTED, as specified in TS 38.331 [9]. A UE supporting this feature shall also indicate the support of *onDemandSIB-Connected-r16*.	UE	No	No	No
onDemandSIB-Connected-r16 Indicates whether the UE supports the on-demand request procedure of SIB(s) or posSIB(s) while in RRC_CONNECTED, as specified in TS 38.331 [9].	UE	No	No	No
onDemandSIB1-r19 Indicates whether the UE supports the on-demand request procedure of SIB1 as specified in TS 38.331 [9].	UE	No	No	No
overheatingInd Indicates whether the UE supports overheating assistance information.	UE	No	No	No
pagingAdaptation-r19 Indicates whether the UE supports paging adaption as defined in TS 38.331 [9].	UE	No	No	No
pagingAdaptionPEI-SupportBandList-r19 Indicates whether the UE supports receiving paging early indication in DCI format 2_7 as specified in TS 38.304 [21] for a list of frequency band for paging adaption. The UE shall support UEID based subgrouping for a frequency band if it indicates supporting of paging early indication reception for the frequency band. The set of OFDM symbols within a slot where UE can monitor the PEI PDCCH in Type 2A CSS is the same as the requirement for paging PDCCH in Type 2 CSS for IDLE and INACTIVE mode UEs. A UE supporting this feature shall also indicate support of pagingAdaptation-r19. A UE supporting this feature shall also indicate support of receiving paging early indication in DCI format 2_7 as specified in TS 38.304 [21] for the same band(s) in *pei-SubgroupingSupportBandList-r17*.	UE	No	No	No
pei-SubgroupingSupportBandList-r17 Indicates whether the UE supports receiving paging early indication in DCI format 2_7 as specified in TS 38.304 [21] for a list of frequency band. The UE shall support UEID based subgrouping for a frequency band if it indicates supporting of paging early indication reception for the frequency band. The set of OFDM symbols within a slot where UE can monitor the PEI PDCCH in Type 2A CSS is the same as the requirement for paging PDCCH in Type 2 CSS for IDLE and INACTIVE mode UEs.	UE	No	No	No

partialFR2-FallbackRX-Req Indicates whether the UE meets only a partial set of the UE minimum receiver requirements for the eligible FR2 fallback band combinations as defined in Clause 4.2 of TS 38.101-2 [3] and Clause 4.2 of TS 38.101-3 [4]. If not indicated, the UE shall meet all the UE minimum receiver requirements for all the FR2 fallback combinations in TS 38.101-2 [3] and TS 38.101-3 [4]. The UE shall support configuration of any of the FR2 fallback band combinations regardless of the presence or the absence of this field.	UE	No	No	No
ra-InsteadCG-SDT-r18 Indicates whether the UE supports the selection of RACH resources instead of configured grant type 1 resource when triggering resume for MO-SDT or MT-SDT and next configured grant type 1 resource is too far, as specified in TS 38.331 [9]. A UE supporting this feature shall also indicate the support of *cg-SDT-r17,* or *mt-CG-SDT-r18.*	UE	No	No	No
ra-SDT-r17 Indicates whether the UE supports initiating MO-SDT procedure (i.e., transmission of data and/or signalling over allowed radio bearers in RRC_INACTIVE state) via Random Access procedure (i.e., RA-SDT) with 4-step RA type and if UE supports *twoStepRACH-r16,* with 2-step RA type, as specified in TS 38.331 [9].	UE	No	No	No
ra-SDT-NTN-r17 Indicates whether the UE supports initiating MO-SDT procedure (i.e., transmission of data and/or signalling over allowed radio bearers in RRC_INACTIVE state) in NTN via Random Access procedure (i.e., RA-SDT) with 4-step RA type and if UE supports *twoStepRACH-r16* for NTN, with 2-step RA type, as specified in TS 38.331 [9]. A UE supporting this feature shall also indicate the support of *nonTerrestrialNetwork-r17*.	UE	No	No	No
redirectAtResumeByNAS-r16 Indicates whether the UE supports reception of *redirectedCarrierInfo* in an *RRCRelease* message in response to an *RRCResumeRequest* or *RRCResumeRequest1* which is triggered by the NAS layer, as specified in TS 38.331 [9].	UE	No	No	No
reducedCP-Latency Indicates whether the UE supports reduced control plane latency as defined in TS 38.331 [9]	UE	No	No	No
referenceTimeProvision-r16 Indicates whether the UE supports provision of referenceTimeInfo in *DLInformationTransfer* message and in SIB9 and reference time information preference indication via assistance information, as specified in TS 38.331 [9].	UE	No	No	No
releasePreference-r16 Indicates whether the UE supports providing its preference assistance information to transition out of RRC_CONNECTED for power saving, as specified in TS 38.331 [9].	UE	No	No	No
requirementTypeIndication-r18 Indicates whether the UE supports network controlled indication of the MTTD/MRTD and RF requirements by *nonCollocatedTypeMRDC-r18* for TDD-TDD inter-band EN-DC with overlapping or partially overlapping bands as specified in TS 38.331 [9]. This field is only applicable to the UE indicating *interBandMRDC-WithOverlapDL-Bands-r16*.	UE	No	No	FR1 only
resumeAfterSDT-Release-r18 Indicates whether the UE supports immediate RRC connection resume procedure triggering after receiving *RRCRelease* message with a *resumeIndication* included during an ongoing SDT procedure, as specified in TS 38.331 [9]. The UE indicating support of this feature shall also support any of *ra-SDT-r17*, *ra-SDT-NTN-r17*, *cg-SDT-r17*, *mt-SDT-r18, mt-SDT-NTN-r18* or *mt-CG-SDT-r18*.	UE	No	No	No
resumeWithStoredMCG-SCells-r16 Indicates whether the UE supports not deleting the stored MCG SCell configuration when initiating the resume procedure.	UE	No	No	No
resumeWithStoredSCG-r16 Indicates whether the UE supports not deleting the stored SCG configuration when initiating resume. The UE which indicates support for *resumeWithStoredSCG-r16* shall also indicate support for *resumeWithSCG-Config-r16*.	UE	No	No	No
resumeWithSCG-Config-r16 Indicates whether the UE supports (re-)configuration of an SCG during the resume procedure.	UE	No	No	No
sib19-Support-r18 Indicates whether the UE in RRC_CONNECTED in a TN cell supports reception of SIB19 to acquire satellite assistance information for NTN access. A UE supporting this feature shall also indicate the support of *nonTerrestrialNetwork-r17*.	UE	No	No	No

sliceInfoforCellReselection-r17 Indicates whether the UE supports slice-based cell reselection information in SIB and on RRC release for slice-based cell reselection in RRC _IDLE and RRC INACTIVE as defined in TS 38.304 [21].	UE	No	No	No
splitSRB-WithOneUL-Path Indicates whether the UE supports UL transmission via MCG path and DL reception via either MCG path or SCG path, as specified for the split SRB in TS 37.340 [7]. The UE shall not set the FDD/TDD specific fields for this capability (i.e. it shall not include this field in *UE-MRDC-CapabilityAddXDD-Mode*).	UE	No	No	No
softSatelliteSwitchResyncNTN-r18 Indicates whether UE supports soft satellite switch with re-sync, as specified in TS 38.331 [9]. A UE supporting this feature shall also indicate support of *hardSatelliteSwitchResyncNTN-r18.*	UE	No	No	No
splitDRB-withUL-Both-MCG-SCG Indicates whether the UE supports UL transmission via both MCG path and SCG path for the split DRB as specified in TS 37.340 [7]. The UE shall not set the FDD/TDD specific fields for this capability (i.e. it shall not include this field in *UE-MRDC-CapabilityAddXDD-Mode*).	UE	Yes	No	No
srb3 Indicates whether the UE supports SRB3 which is a direct SRB between the SN and the UE as specified in TS 37.340 [7]. The UE shall not set the FDD/TDD specific fields for this capability (i.e. it shall not include this field in *UE-MRDC-CapabilityAddXDD-Mode*). This field is not applied to NE-DC.	UE	Yes	No	No
srb-SDT-NTN-r17 Indicates whether the UE supports the usage of signalling radio bearer SRB2 for MO-SDT (over RA-SDT or CG-SDT) or MT-SDT (over RA or CG-SDT) in NTN, as specified in TS 38.331 [9]. A UE supporting this feature shall also indicate support of *ra-SDT-NTN-r17*, *cg-SDT-r17*, *mt-SDT-NTN-r18* or *mt-CG-SDT-r18* in NTN bands. A UE supporting this feature shall also indicate the support of *nonTerrestrialNetwork-r17*.	UE	No	No	No
srb-SDT-r17 Indicates whether the UE supports the usage of signalling radio bearer SRB2 for MO-SDT (over RA-SDT or CG-SDT) or MT-SDT (over RA or CG-SDT), as specified in TS 38.331 [9]. A UE supporting this feature shall also indicate support of *ra-SDT-r17 cg-SDT-r17*, *mt-SDT-r18* or *mt-CG-SDT-r18*.	UE	No	No	No
ul-GapFR2-Pattern-r17 Indicates FR2 UL gap pattern(s) supported by the UE for NR SA, for NR-DC without FR2-FR2 band combination, for NE-DC, and for (NG)EN-DC, if UE supports a band in FR2. The leading / leftmost bit (bit 0) corresponds to the FR2 UL gap pattern 0, the next bit corresponds to the FR2 UL gap pattern 1, as specified in TS 38.133 [5] and so on. The UE shall set at least one of the bits to 1 for FR2 UL gap pattern 1 and 3, if the UE indicates support for *ul-GapFR2-r17* in an FR2 band.	UE	CY	No	FR2 only
ul-RRC-MaxCapaSegments-r17 Indicates whether the UE supports uplink RRC segmentation of *UECapabilityInformation* according to the network indication *rrc-MaxCapaSegAllowed* as specified in TS 38.331 [9].	UE	No	No	No
ul-RRC-Segmentation-r16 Indicates whether the UE supports uplink RRC segmentation of *UECapabilityInformation* according to the network indication *rrc-SegAllowed* as specified in TS 38.331 [9].	UE	No	No	No
ul-TrafficInfo-r18 Indicates whether UE supports sending UE assistance information with UL traffic information, including at least one of jitter range, burst arrival time, data burst periodicity and PDU Set and PSI identification, as specified in TS 38.331 [9].	UE	No	No	No

4.2.3 SDAP Parameters

Definitions for parameters	Per	M	FDD-TDD DIFF
as-ReflectiveQoS Indicates whether the UE supports AS reflective QoS.	UE	No	No

4.2.4 PDCP Parameters

Definitions for parameters	Per	M	FDD-TDD DIFF
continueEHC-Context-r16 Indicates that the UE supports EHC context continuation operation where the UE keeps the established EHC context(s) upon PDCP re-establishment, as specified in TS 38.323 [16].	UE	No	No
continueROHC-Context Defines whether the UE supports ROHC context continuation operation where the UE does not reset the current ROHC context upon PDCP re-establishment, as specified in TS 38.323 [16].	UE	No	No
ehc-r16 Indicates that the UE supports Ethernet header compression and decompression using EHC protocol, as specified in TS 38.323 [16]. The UE indicating this capability and indicating support for at least one ROHC profile, shall support simultaneous configuration of EHC and ROHC on different DRBs/multicast MRBs.	UE	No	No
extendedDiscardTimer-r16 Indicates whether the UE supports the additional values of PDCP discard timer. The supported additional values are 0.5ms, 1ms, 2ms, 4ms, 6ms and 8ms, as specified in TS 38.331 [9].	UE	No	No
jointEHC-ROHC-Config-r16 Indicates whether the UE supports simultaneous configuration of EHC and ROHC protocols for the same DRB/multicast MRB.	UE	No	No
maxNumberROHC-ContextSessions Defines the maximum number of ROHC header compression context sessions supported by the UE across all DRBs and multicast MRBs, excluding context sessions that leave all headers uncompressed.	UE	No	No
maxNumberEHC-Contexts-r16 Defines the maximum number of Ethernet header compression contexts supported by the UE across all DRBs and multicast MRBs and across UE's EHC compressor and EHC decompressor. The indicated number defines the number of contexts in addition to CID = "all zeros" as specified in TS 38.323 [16].	UE	No	No
outOfOrderDelivery Indicates whether UE supports out of order delivery of data to upper layers by PDCP.	UE	No	No
pdcp-DuplicationMCG-OrSCG-DRB Indicates whether the UE supports CA-based PDCP duplication over MCG or SCG DRB as specified in TS 38.323 [16].	UE	No	No
pdcp-DuplicationMoreThanTwoRLC-r16 Defines whether the UE supports PDCP duplication with more than two RLC entities as specified in TS 38.323 [16]. The UE supporting this feature supports secondary RLC entity(ies) activation and deactivation based on duplication RLC Activation/Deactivation MAC CE as specified in TS 38.321 [8]. A UE supporting this feature shall also support *pdcp-DuplicationMCG-OrSCG-DRB*, *pdcp-DuplicationSplitDRB*, *pdcp-DuplicationSplitSRB* and *pdcp-DuplicationSRB*.	UE	No	No
pdcp-DuplicationSplitDRB Indicates whether the UE supports PDCP duplication over split DRB as specified in TS 38.323 [16].	UE	No	No
pdcp-DuplicationSplitSRB Indicates whether the UE supports PDCP duplication over split SRB1/2 as specified in TS 38.323 [16].	UE	No	No
pdcp-DuplicationSRB Indicates whether the UE supports CA-based PDCP duplication over SRB1/2 and/or, if (NG)EN-DC or NR-DC is supported, SRB3 as specified in TS 38.323 [16].	UE	No	No
psi-BasedDiscard-r18 Indicates whether the UEs supports PSI based discard (i.e. *discardTimerForLowImportance-r18* configuration, as specified in TS 38.331 [9]). UE supporting *psi-BasedDiscard-r18* shall also support the ability to identify PDU sets and PSI for UL XR traffic.	UE	No	No
shortSN Indicates whether the UE supports 12 bit length of PDCP sequence number.	UE	Yes	No

supportedROHC-Profiles Defines which ROHC profiles from the list below are supported by the UE: - 0x0000 ROHC No compression (RFC 5795) - 0x0001 ROHC RTP/UDP/IP (RFC 3095, RFC 4815) - 0x0002 ROHC UDP/IP (RFC 3095, RFC 4815) - 0x0003 ROHC ESP/IP (RFC 3095, RFC 4815) - 0x0004 ROHC IP (RFC 3843, RFC 4815) - 0x0006 ROHC TCP/IP (RFC 6846) - 0x0101 ROHC RTP/UDP/IP (RFC 5225) - 0x0102 ROHC UDP/IP (RFC 5225) - 0x0103 ROHC ESP/IP (RFC 5225) - 0x0104 ROHC IP (RFC 5225) A UE that supports one or more of the listed ROHC profiles shall support ROHC profile 0x0000 ROHC uncompressed (RFC 5795). An IMS voice capable UE shall indicate support of ROHC profiles 0x0000, 0x0001, 0x0002 and be able to compress and decompress headers of PDCP SDUs at a PDCP SDU rate corresponding to supported IMS voice codecs.	UE	No	No
supportOfPDU-SetDiscard-r18 Indicates whether the UE supports PDU set based discard operation (i.e. *pdu-SetDiscard-r18* configuration, as specified in TS 38.331 [9]). UE supporting this feature shall also support the ability to identify PDU sets for UL XR traffic.	UE	No	No
supportOfSN-GapReport-r18 Indicates whether the UE supports PDCP SN gap reporting as specified in TS 38.323 [16] and TS 38.331 [9].	UE	No	No
udc-r17 Indicates whether the UE supports the uplink data compression operation as specified in TS 38.323 [16]. The capability signalling comprises of the following parameters: - *standardDictionary-r17* indicates whether the UE supports UL data compression with SIP static dictionary as defined in TS 38.323 [16]. - *operatorDictionary-r17* indicates whether the UE supports UL data compression with operator defined dictionary. In this release, the UE can only support one operator defined dictionary. If the UE supports operator defined dictionary, the UE shall report *versionOfDictionary-r17* and *associatedPLMN-ID-r17* of the stored operator defined dictionary as defined in TS 38.331 [9]. This parameter is not required to be present if the UE is in VPLMN. The *associatedPLMN-ID-r17* is only associated to the operator defined dictionary which has no relationship with UE's HPLMN ID. - *continueUDC-r17* indicates whether the UE supports continuation of uplink data compression protocol operation where the UE does not reset the buffer upon PDCP re-establishment, as specified in TS 38.323 [16]. - *supportOfBufferSize-r17* indicates which compression buffer size the UE supports as specified in TS 38.323 [16]. Value kbyte4 means the UE supports 4096 bytes for compression buffer per UDC DRB. Value kbyte8 means the UE supports 8192 bytes for compression buffer per UDC DRB. A UE that supports the uplink data compression operation shall support 2048 bytes for compression buffer per UDC DRB and support up to 2 UDC DRBs.	UE	No	No
uplinkOnlyROHC-Profiles Indicates the ROHC profile(s) that are supported in uplink-only ROHC operation by the UE. - 0x0006 ROHC TCP (RFC 6846) A UE that supports uplink-only ROHC profile(s) shall support ROHC profile 0x0000 ROHC uncompressed (RFC 5795).	UE	No	No

4.2.5 RLC parameters

Definitions for parameters	Per	M	FDD-TDD DIFF
am-WithShortSN Indicates whether the UE supports AM DRB with 12 bit length of RLC sequence number.	UE	Yes	No
extendedT-PollRetransmit-r16 Indicates whether the UE supports the additional values of *T-PollRetransmit timer*. The supported additional values are 1ms, 2ms, 3ms and 4ms, as specified in TS 38.331 [9].	UE	No	No
extendedT-StatusProhibit-r16 Indicates whether the UE supports the additional values of *T-StatusProhibit timer*. The supported additional values are 1ms, 2ms, 3ms and 4ms, as specified in TS 38.331 [9].	UE	No	No
remainingTimeBasedPolling-r19 Indicates whether the UE supports remaining-time-based RLC polling at the transmitting side of an AM RLC entity, as specified in TS 38.322 [36] and TS 38.323 [16].	UE	No	No
remainingTimeBasedRetransmission-r19 Indicates whether the UE supports remaining-time-based RLC retransmission at the transmitting side of an AM RLC entity, as specified in TS 38.322 [36] and TS 38.323 [16].	UE	No	No
rxRLC-Discard-r19 Indicates whether the UE supports detecting of discard of AMD PDU(s) based on timer *t-RxDiscard* at the receiving side of an AM RLC entity, as specified in TS 38.322 [36].	UE	No	No
txRLC-StopReTxDiscardedSDU-r19 Indicates whether the UE supports stopping RLC transmission and retransmission of discarded SDUs at the transmitting side of an AM RLC entity, as specified in TS 38.322 [36].	UE	No	No
um-WithLongSN Indicates whether the UE supports UM DRB with 12 bit length of RLC sequence number.	UE	Yes	No
um-WithShortSN Indicates whether the UE supports UM DRB with 6 bit length of RLC sequence number.	UE	Yes	No

4.2.6 MAC parameters

4.2.6.1 *MAC-Parameters*

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
additionalBS-Table-r18 Indicates whether the UE supports using the refined buffer size table for BSR and, if *delayStatusReport-r18* is supported, DSR, as specified in TS 38.321 [8] and TS 38.331 [9].	UE	No	No	No
autonomousTransmission-r16 Indicates whether the UE supports autonomous transmission of the MAC PDU generated for a deprioritized configured uplink grant as specified in TS 38.321 [8]. A UE supporting this feature shall also support *lch-priorityBasedPrioritization-r16*.	UE	No	No	No
cg-RetransmissionMonitoringDisabling-r18 Indicates whether the UE supports disabling *drx-HARQ-RTT-TimerUL* for PUSCH transmissions using configured grants corresponding to a *ConfiguredGrantConfig* as specified in TS 38.321 [8] and TS 38.331 [9]. A UE supporting this feature shall also indicate support of at least one of *configuredUL-GrantType1*, *configuredUL-GrantType2*, *configuredUL-GrantType1-v1650*, *configuredUL-GrantType2-v1650*, *configuredUL-GrantType1-r16*, *configuredUL-GrantType2-r16*.	UE	No	No	No
delayStatusReport-r18 Indicates whether the UE supports the delay status report of the buffered data as specified in TS 38.321 [8], TS 38.331 [9], TS 38.323 [16] and TS 38.322 [36].	UE	No	No	No
delayStatusReportNonDelayReportingData-r19 Indicates whether the UE supports including non-delay-reporting data ahead of delay-reporting data in the data volume calculation for delay status report using reporting threshold(s), as specified in TS 38.321 [8], TS 38.331 [9], TS 38.323 [16] and TS 38.322 [36]. A UE supporting this feature shall also indicate support of *multipleEntryDelayStatusReport-r19*.	UE	No	No	No
directMCG-SCellActivation-r16, directMCG-SCellActivation-r17 Indicates whether the UE supports direct NR MCG SCell activation, as specified in TS 38.321 [8], upon SCell addition, upon reconfiguration with sync of the MCG, as specified in TS 38.331 [9].	UE	No	No	Yes (Incl FR2-2 DIFF)
directMCG-SCellActivationResume-r16, directMCG-SCellActivationResume-r17 Indicates whether the UE supports direct NR MCG SCell activation, as specified in TS 38.321 [8], upon reception of an *RRCResume* message, as specified in TS 38.331 [9].	UE	No	No	Yes (Incl FR2-2 DIFF)
directSCellActivationWithTCI-r17 Indicates whether the UE supports direct NR SCell activation with activated TCI states configuration (i.e. *tci-ActivatedConfig*). A UE supporting this feature shall also indicate support of at least one of *directMCG-SCellActivation-r16*, *directMCG-SCellActivation-r17*, *directMCG-SCellActivationResume-r16*, *directMCG-SCellActivationResume-r17*, *directSCG-SCellActivation-r16*, *directSCG-SCellActivation-r17*, *directSCG-SCellActivationResume-r16*, and *directSCG-SCellActivationResume-r17*.	UE	No	No	No
directSCG-SCellActivation-r16, directSCG-SCellActivation-r17 Indicates whether the UE supports direct NR SCG SCell activation, as specified in TS 38.321 [8], upon SCell addition and upon reconfiguration with sync of the SCG, both performed via an *RRCReconfiguration* message received via SRB3 or contained in an *RRC(Connection)Reconfiguration* message received via SRB1, as specified in TS 38.331 [9] and TS 36.331 [17]. A UE indicating support of *directSCG-SCellActivation-r16* shall indicate support of EN-DC or support of NGEN-DC as specified in TS 36.331 [17] or support of NR-DC as specified in TS 38.331 [9].	UE	No	No	Yes (Incl FR2-2 DIFF)

directSCG-SCellActivationResume-r16, directSCG-SCellActivationResume-r17 Indicates whether the UE supports direct NR SCG SCell activation, as specified in TS 38.321 [8]: - upon reception of an *RRCReconfiguration* included in an *RRCConnectionResume* message, as specified in TS 38.331 [9] and TS 36.331 [17], if the UE indicates support of EN-DC or NGEN-DC, and support of *resumeWithSCG-Config-r16* as specified in TS 36.331 [17], - upon reception of an *RRCReconfiguration* included in an *RRCResume* message, as specified in TS 38.331 [9], if the UE indicates support of NR-DC and of *resumeWithSCG-Config-r16* as specified in TS 38.331 [9]. A UE indicating support of *directSCG-SCellActivationResume-r16* shall indicate support of EN-DC or NGEN-DC and support of *resumeWithSCG-Config-r16* as specified in TS 36.331 [17] or indicate support of NR-DC and of *resumeWithSCG-Config-r16* as specified in TS 38.331 [9].	UE	No	No	Yes (Incl FR2-2 DIFF)
drx-Adaptation-r16, drx-Adaptation-r17 Indicates whether the UE supports DRX adaptation comprised of the following functional components: - Configured *ps-Offset* for the detection of DCI format 2_6 with CRC scrambling by *ps*-RNTI and reported *MinTimeGap* or *MinTimeGapFR2-2* before the start of *drx-onDurationTimer* of Long DRX - Indication of UE whether or not to start *drx-onDurationTimer* for the next Long DRX cycle by detection of DCI format 2_6 - Configured UE wakeup or not when DCI format 2_6 is not detected at all monitoring occasions outside Active Time - Configured periodic CSI report apart from L1-RSRP (*ps-TransmitOtherPeriodicCSI*) when impacted by DCI format 2_6 that *drx-onDurationTimer* does not start for the next Long DRX cycle - Configured periodic L1-RSRP report (*ps-TransmitPeriodicL1-RSRP*) when impacted by DCI format 2_6 that *drx-onDurationTimer* does not start for the next Long DRX cycle The capability signalling includes the minimum time gap between the end of the slot of last DCI format 2_6 monitoring occasion and the beginning of the slot where the UE would start the *drx-onDurationTimer* of Long DRX for each SCS. The value *sl1* indicates 1 slot. The value *sl2* indicates 2 slots, and so on. Support of this feature is reported for licensed and unlicensed bands, respectively. When *drx-Adaptation-r16* is reported, either of *sharedSpectrumChAccess-r16* or *non-SharedSpectrumChAccess-r16* shall be reported, at least. When *drx-Adaptation-r17* is reported, either of *sharedSpectrumChAccess-r17* or *non-SharedSpectrumChAccess-r17* shall be reported, at least. In this version of the specification, this feature is not applicable in NTN.	UE	No	No	Yes (Incl FR2-2 DIFF)
enhancedSkipUplinkTxConfigured-r16 Indicates whether the UE supports skipping UL transmission for a configured uplink grant only if no data is available for transmission and no UCI is multiplexed on the corresponding PUSCH of the uplink grant as specified in TS 38.321 [8].	UE	No	Yes	No
enhancedSkipUplinkTxDynamic-r16 Indicates whether the UE supports skipping UL transmission for an uplink grant addressed to a C-RNTI only if no data is available for transmission and no UCI is multiplexed on the corresponding PUSCH of the uplink grant as specified in TS 38.321 [8].	UE	No	Yes	No
enhancedUuDRX-forSidelink-r17 Indicates whether UE supports sidelink related Uu-DRX mechanisms for PDCCH monitoring. This field is only applicable if the UE supports *sl-TransmissionMode1-r16*.	UE	No	No	No
extendedDRX-CycleInactive-r17 Indicates whether UE supports the extended DRX in RRC_INACTIVE with values of 256, 512 and 1024 radio frames as specified in TS 38.331 [9]. The UE may indicate support for extended DRX in RRC_INACTIVE only if it supports extended DRX in RRC_IDLE.	UE	No	No	No
extendedDRX-CycleInactive-r18 Indicates whether UE supports the extended DRX in RRC_INACTIVE with values above 1024 radio frames as specified in TS 38.331 [9] and TS 38.304 [21]. The UE may indicate support of this capability only if it supports extended DRX in RRC_IDLE.	UE	No	No	No

harq-FeedbackDisabled-r17 Indicates whether the UE supports disabled HARQ feedback for downlink transmission. A UE supporting this feature shall also indicate the support of *nonTerrestrialNetwork-r17*.	UE	No	No	No
harq-RTT-TimerDL-ForNTN-MulticastMBS-r17 Indicates whether the UE supports the NTN extension of the *drx-HARQ-RTT-TimerDL-PTM* and *drx-HARQ-RTT-TimerDL* for MBS Multicast DRX in RRC connected mode. A UE supporting this feature shall also indicate the support of *nonTerrestrialNetwork-r17*, *dynamicMulticastPCell-r17*, and at least one of the following features: - *ack-NACK-FeedbackForMulticast-r17* - *ack-NACK-FeedbackForSPS-Multicast-r17* - *nack-OnlyFeedbackForMulticast-r17* - *nack-OnlyFeedbackForSPS-Multicast-r17*	UE	No	No	No
intraCG-Prioritization-r17 Indicates whether the UE supports the HARQ process ID selection based on LCH priority as specified in TS 38.321 [8]. A UE supporting this feature shall also support *jointPrioritizationCG-Retx-Timer-r17*.	UE	No	No	No
jointPrioritizationCG-Retx-Timer-r17 Indicates whether the UE supports simultaneous configuration of LCH based prioritization and *cg-RetransmissionTimer-r16* as specified in TS 38.321 [8]. A UE supporting this feature shall also support *lch-priorityBasedPrioritization-r16* and *configuredGrantWithReTx-r16*.	UE	No	No	No
lastTransmissionUL-r17 Indicates whether the UE supports starting the *drx-HARQ-RTT-TimerUL* after the end of the last transmission within a bundle as specified in TS 38.321 [8].	UE	No	No	No
lch-PriorityBasedPrioritization-r16 Indicates whether the UE supports prioritization between overlapping grants and between scheduling request and overlapping grants based on LCH priority as specified in TS 38.321 [8].	UE	No	No	No
lch-ToConfiguredGrantMapping-r16 Indicates whether the UE supports restricting data transmission from a given LCH to a configured (sub-) set of configured grant configurations (see *allowedCG-List-r16* in *LogicalChannelConfig* in TS 38.331 [9]) as specified in TS 38.321 [8].	UE	No	No	No
lch-ToGrantPriorityRestriction-r16 Indicates whether the UE supports restricting data transmission from a given LCH to a configured (sub-) set of dynamic grant priority levels (see *allowedPHY-PriorityIndex-r16* in *LogicalChannelConfig* in TS 38.331 [9]) as specified in TS 38.321 [8].	UE	No	No	No
lch-ToSCellRestriction Indicates whether the UE supports restricting data transmission from a given LCH to a configured (sub-) set of serving cells (see *allowedServingCells* in *LogicalChannelConfig*). A UE supporting *pdcp-DuplicationMCG-OrSCG-DRB* or *pdcp-DuplicationSRB* (see *PDCP-Config*) shall also support *lch-ToSCellRestriction*.	UE	No	No	No
lcp-PriorityAdjustment-r19 Indicates whether the UE supports logical channel priority adjustment based on remaining time of buffered data, as specified in TS 38.321 [8].	UE	No	No	No
lcp-Restriction Indicates whether UE supports the selection of logical channels for each UL grant based on RRC configured restriction using RRC parameters *allowedSCS-List*, *maxPUSCH-Duration*, and *configuredGrantType1Allowed* as specified in TS 38.321 [8].	UE	No	No	No
logicalChannelSR-DelayTimer Indicates whether the UE supports the *logicalChannelSR-DelayTimer* as specified in TS 38.321 [8].	UE	No	Yes	No
longDRX-Cycle Indicates whether UE supports long DRX cycle as specified in TS 38.321 [8].	UE	Yes	Yes	No
mg-ActivationCommPRS-Meas-r17 Indicates whether UE supports preconfiguration of MGs in RRC signalling for PRS measurements and the use of DL MAC CE from the gNB, as specified in TS 38.321 [8], to activate/deactivate the preconfigured MG for PRS measurements.	UE	No	No	No
mg-ActivationRequestPRS-Meas-r17 Indicates whether UE supports preconfiguration of MGs in RRC signalling for PRS measurements and supports the use of UL MAC CE, as specified in TS 38.321 [8], to request the activation/deactivation of the preconfigured MG for PRS measurements. The UE can include this field only if the UE supports *mg-ActivationCommPRS-Meas-r17*.	UE	No	No	No

mTRP-PUSCH-PHR-Type1-Reporting-r17 Indicates whether UE supports reporting of Type 1 power headroom information only for the case where the Serving Cell is configured with multiple TRP PUSCH repetitions and the MAC entity this Serving Cell belongs to is configured with *twoPHRMode* as specified in TS 38.321[8]. This feature is mandatory if the UE supports *mTRP-PUSCH-twoPHR-Reporting-r17* for at least one frequency band.	UE	CY	No	No
multipleConfiguredGrants Indicates whether UE supports more than one configured grant configurations (including both Type 1 and Type 2) in a cell group. For each cell, the UE supports at most one configured grant per BWP and the maximum number of configured grant configurations per cell group is 2. If absent, for each configured cell group, the UE only supports one configured grant configuration on one serving cell.	UE	No	Yes	No
multipleEntryDelayStatusReport-r19 Indicates whether the UE supports the delay status report of the buffered data using reporting threshold(s), as specified in TS 38.321 [8], TS 38.331 [9], TS 38.323 [16] and TS 38.322 [36].	UE	No	No	No
multipleSR-Configurations Indicates whether the UE supports 8 SR configurations per PUCCH cell group as specified in TS 38.321 [8].	UE	No	Yes	No
non-IntegerDRX-r18 Indicates whether the UE supports non-integer DRX periodicity as specified in TS 38.331 [9] and TS 38.321 [8].	UE	No	No	No
recommendedBitRate Indicates whether the UE supports the bit rate recommendation message from the gNB to the UE as specified in TS 38.321 [8].	UE	No	No	No
recommendedBitRateMultiplier-r16 Indicates whether the UE supports the bit rate multiplier for recommended bit rate MAC CE as specified in TS 38.321 [8], clause 6.1.3.20. This field is only applicable if the UE supports *recommendedBitRate*.	UE	No	No	No
recommendedBitRateQuery Indicates whether the UE supports the bit rate recommendation query message from the UE to the gNB as specified in TS 38.321 [8]. This field is only applicable if the UE supports *recommendedBitRate*.	UE	No	No	No
secondaryDRX-Group-r16 Indicates whether UE supports secondary DRX group as specified in TS 38.321 [8].	UE	No	Yes	No
shortDRX-Cycle Indicates whether UE supports short DRX cycle as specified in TS 38.321 [8].	UE	Yes	Yes	No
simultaneousSR-PUSCH-DiffPUCCH-groups-r17 Indicates whether the UE supports simultaneous transmission of SR and PUSCH in different PUCCH groups as specified in TS 38.321 [8].	UE	No	No	No
singlePHR-P-r16 Indicates whether UE supports the P bit in single PHR MAC CE as specified in TS 38.321 [8].	UE	No	No	No
skipUplinkTxDynamic Indicates whether the UE supports skipping of UL transmission for an uplink grant indicated on PDCCH if no data is available for transmission as specified in TS 38.321 [8].	UE	No	Yes	No
spCell-BFR-CBRA-r16 Indicates whether the UE supports sending BFR MAC CE for SpCell BFR as specified in TS 38.321 [8].	UE	No	No	No
srs-ResourceId-Ext-r16 Indicates whether the UE supports the extended 6-bit (Positioning) SRS resource ID in SP Positioning SRS Activation/Deactivation MAC CE, as specified in TS 38.321 [8].	UE	No	No	No
sr-TriggeredBy-TA-Report-r17 Indicates whether the UE supports triggering of SR when a TA report is triggered and there are no available UL-SCH resources. A UE supporting this feature shall also indicate the support of *nonTerrestrialNetwork-r17*.	UE	No	No	No
sr-TriggeredByTA-ReportATG-r18 Indicates whether the UE supports triggering of SR when a TA report is triggered and there are no available UL-SCH resources. A UE supporting this feature shall also indicate the support of *uplinkTA-ReportingATG-r18*.	UE	No	No	FR1 only

survivalTime-r17 Indicates whether the UE supports services with survival time requirement using configured grant resource and PDCP duplication, as specified in TS 38.321 [8]. A UE supporting this feature shall support *pdcp-DuplicationMCG-orSCG-DRB* or *pdcp-DuplicationSplitDRB*. A UE supporting this feature shall also support of at least one of *configuredUL-GrantType1*, *configuredUL-GrantType2*, *configuredUL-GrantType1-v1650* or *configuredUL-GrantType2-v1650*.	UE	No	No	No
tdd-MPE-P-MPR-Reporting-r16 Indicates whether the UE supports P-MPR reporting for Maximum Permissible Exposure, as specified in TS 38.321 [8].	UE	No	TDD only	FR2 only
ul-LBT-FailureDetectionRecovery-r16 Indicates whether the UE supports consistent uplink LBT detection and recovery, as specified in TS 38.321 [8], for cells operating with shared spectrum channel access. This field applies to all serving cells with which the UE is configured with shared spectrum channel access.	UE	No	No	No
ul-RateControl-r19 Indicates whether the UE supports UL Rate Control MAC CE from the gNB to the UE, as specified in TS 38.321 [8].	UE	No	No	No
ul-RateQuery-r19 Indicates whether the UE supports transmission of bit rate query in UL Rate Control MAC CE to the gNB, as specified in TS 38.321 [8]. A UE supporting this feature shall also indicate support of *ul-RateControl-r19*.	UE	No	No	No
uplink-Harq-ModeB-r17 Indicates whether the UE supports HARQ Mode B and the corresponding LCP restrictions for uplink transmission. A UE supporting this feature shall also indicate the support of *nonTerrestrialNetwork-r17*.	UE	No	No	No

4.2.6.2 *MAC-ParametersPerBand*

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1 - FR2 DIFF
ptm-Retransmission-r18 Indicates whether the UE supports starting *drx-HARQ-RTT-TimerDL-PTM, drx-RetransmissionTimerDL-PTM* and (if UE supports *harq-RTT-TimerDL-ForNTN-MulticastMBS-r17*) *HARQ-RTT-TimerDL-PTM-NTN* during multicast reception in RRC_CONNECTED state as specified in TS 38.321 [8], when HARQ feedback is disabled for the UE. For TN, the UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands and all TDD-FR2 bands. For NTN, UE shall set the capability value consistently for all FDD-FR1 NTN bands and all FDD-FR2 NTN bands respectively. A UE supporting this feature shall also indicate support of *dynamicMulticastPCell-r17,* and at least one of the following features: - *ack-NACK-FeedbackForMulticast-r17* - *ack-NACK-FeedbackForSPS-Multicast-r17* - *nack-OnlyFeedbackForMulticast-r17* - *nack-OnlyFeedbackForSPS-Multicast-r17*	Band	No	N/A	N/A
ptm-RetransmissionInactive-r18 Indicates whether the UE supports receiving PTM retransmission by starting the *drx-HARQ-RTT-TimerDL-PTM* and *drx-RetransmissionTimerDL-PTM* (the *drx-HARQ-RTT-TimerDL-PTM-NTN* and *drx-RetransmissionTimerDL-PTM* in NTN) during multicast reception in RRC_INACTIVE as specified in TS 38.321 [8]. For TN, the UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands and all TDD-FR2 bands. For NTN, UE shall set the capability value consistently for all FDD-FR1 NTN bands and all FDD-FR2 NTN bands respectively. A UE supporting this feature shall also indicate support of *multicastInactive-r18*.	Band	No	N/A	N/A

4.2.7 Physical layer parameters

4.2.7.1 *BandCombinationList* parameters

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
bandEUTRA Defines supported EUTRA frequency band by EUTRA frequency band number, as specified in TS 36.101 [14].	Band	Yes	N/A	N/A
bandList Each entry of the list should include at least one bandwidth class for UL or DL.	BC	Yes	N/A	N/A
bandNR Defines supported NR frequency band by NR frequency band number, as specified in TS 38.101-1 [2] and TS 38.101-2 [3].	Band	Yes	N/A	N/A
ca-BandwidthClassDL-EUTRA Defines for DL, the class defined by the aggregated transmission bandwidth configuration and maximum number of component carriers supported by the UE, as specified in TS 36.101 [14]. When all FeatureSetEUTRA-DownlinkId:s in the corresponding FeatureSetsPerBand are zero, this field is absent.	Band	No	N/A	N/A
ca-BandwidthClassDL-NR Defines for DL, the class defined by the aggregated transmission bandwidth configuration and maximum number of component carriers supported by the UE, as specified in TS 38.101-1 [2] and TS 38.101-2 [3]. When all FeatureSetDownlinkId:s in the corresponding FeatureSetsPerBand are zero, this field is absent. For FR1, the value 'F' shall not be used as it is invalidated in TS 38.101-1 [2].	Band	No	N/A	N/A
ca-BandwidthClassDL-NR-r17 Defines for DL, additional FR2 CA bandwidth class (e.g., R, S, T, U) as specified in TS 38.101-2 [3]. When all FeatureSetDownlinkId:s in the corresponding FeatureSetsPerBand are zero, this field is absent. If this field is indicated for a band, the UE shall also set *ca-BandwidthClassDL-NR* (without suffix) to the highest bandwidth class from the same fallback group that it supports in this band combination and with the given bandwidth combination set ID in case that the bandwidth combination consists of a sub-set of carriers and the same or a sub-set of carrier bandwidths on those carriers with respect to the bandwidth combination corresponding to *ca-BandwidthClassDL-NR-r17*; otherwise, it shall omit the *ca-BandwidthClassDL-NR* (without suffix) field. NOTE: If the UE includes ca-BandwidthClassDL-NR-r17 in a BandParameter the network ignores the ca-BandwidthClassDL-NR therein, if signalled.	Band	No	N/A	FR2 only
ca-BandwidthClassUL-EUTRA Defines for UL, the class defined by the aggregated transmission bandwidth configuration and maximum number of component carriers supported by the UE, as specified in TS 36.101 [14]. When all FeatureSetEUTRA-UplinkId:s in the corresponding FeatureSetsPerBand are zero, this field is absent.	Band	No	N/A	N/A
ca-BandwidthClassUL-NR Defines for UL, the class defined by the aggregated transmission bandwidth configuration and maximum number of component carriers supported by the UE, as specified in TS 38.101-1 [2] and TS 38.101-2 [3]. When all FeatureSetUplinkId:s in the corresponding FeatureSetsPerBand are zero, this field is absent. For FR1, the value 'F' shall not be used as it is invalidated in TS 38.101-1 [2].	Band	No	N/A	N/A
ca-BandwidthClassUL-NR-r17 Defines for UL, additional FR2 CA bandwidth class (e.g., R, S, T, U) as specified in TS 38.101-2 [3]. When all FeatureSetUplinkId:s in the corresponding FeatureSetsPerBand are zero, this field is absent. If this field is indicated for a band, the UE shall also set *ca-BandwidthClassUL-NR* (without suffix) to the highest bandwidth class from the same fallback group that it supports in this band combination and with the given bandwidth combination set ID in case that the bandwidth combination consists of a sub-set of carriers and the same or a sub-set of carrier bandwidths on those carriers with respect to the bandwidth combination corresponding to *ca-BandwidthClassUL-NR-r17*; otherwise, it shall omit the *ca-BandwidthClassUL-NR* (without suffix) field. NOTE: If the UE includes *ca-BandwidthClassUL-NR-r17* in a BandParameter the network ignores the *ca-BandwidthClassUL-NR* therein, if signalled.	Band	No	N/A	FR2 only
ca-ParametersEUTRA Contains the EUTRA part of band combination parameters for a given (NG)EN-DC/NE-DC band combination.	BC	No	N/A	N/A

ca-ParametersNR Contains the NR band combination parameters for a given (NG)EN-DC/NE-DC and/or NR CA band combination.	BC	No	N/A	N/A
ca-ParametersNRDC Indicates whether the UE supports NR-DC for the band combination. It contains the NR band combination parameters applicable across MCG and SCG. If the band combination includes both FR1 and FR2 bands, a UE indicating support for NR-DC shall support synchronous NR-DC configuration where all serving cells of the MCG are in FR1 and all serving cells of the SCG are in FR2.	BC	No	N/A	N/A
directSCellActivation-r19 Indicates whether the UE supports RRC based direct SCell activation at SCell addition in NR LB-CA via switching. A UE supporting this feature shall also indicate support of *switchingPeriodForFDD-SDL-r19*.	BC	No	N/A	FR1 only
featureSetCombination Indicates the feature set that the UE supports on the NR and/or MR-DC band combination by FeatureSetCombinationId.	BC	N/A	N/A	N/A
featureSetCombinationDAPS-r16 Indicates the feature set that the UE supports for DAPS handover on the NR band combination by FeatureSetCombinationId. A UE shall include this field if intra-frequency or inter-frequency DAPS handover is supported for this band combination. For a band entry where it indicates the support for intra-frequency DAPS handover, the UE shall include at least two CCs and shall support intra-frequency DAPS handover between any CC pair within the same band entry. If the number of CCs within a band combination is more than one and if inter-frequency DAPS handover is supported, UE shall support inter-frequency DAPS handover between every CC pair in the same or different band entries in the band combination, except for the CC pair within a band entry with bandwidth class A. A feature set including *intraFreqDAPS-r16* can only be referred to by *featureSetCombinationDAPS-r16*, not by *featureSetCombination*. A feature set without *intraFreqDAPS-r16* is only applied to inter-freq DAPS handover if it is referred to by *featureSetCombinationDAPS*. Both feature sets with and without *intraFreqDAPS-r16* can be referred to by the same *featureSetCombinationDAPS-r16*.	BC	N/A	N/A	N/A
featureSetCombinationLowBandSwitching-r19 Indicates the feature set that the UE supports for LB-LB carrier aggregation via switching by *FeatureSetCombinationId*. The UE including this field shall indicate support of *switchingPeriodForFDD-SDL-r19*. This field shall only include feature sets for a single band pair (i.e., a FDD band and a SDL band) in this release of the specification.	BC	No	N/A	FR1 only
intrabandConcurrentOperationPowerClass-r16 Indicates the power class, of a particular Uu band combination and the intra-band PC5 band combination(s) on which the UE supports transmission of PC5 simultaneous with Uu uplink (as indicated by *supportedTxBandCombListPerBC-Sidelink-r16*). The leading/leftmost value corresponds to the band combination of the particular Uu band combination and the first intra-band PC5 band combination included in *BandCombinationListSidelinkEUTRA-NR* which is indicated with value 1 by *supportedTxBandCombListPerBC-Sidelink-r16*, the next value corresponds to the band combination of the particular Uu band combination and the second intra-band PC5 band combination included in *BandCombinationListSidelinkEUTRA-NR* which is indicated with value 1 by *supportedTxBandCombListPerBC-Sidelink-r16* and so on. If this power class is higher than the power class that the UE supports on the individual Uu or PC5 interface of this band combination, the latter determines maximum TX power available in each interface.	BC	No	N/A	N/A
mrdc-Parameters Contains the band combination parameters for a given (NG)EN-DC/NE-DC band combination.	BC	No	N/A	N/A
ne-DC-BC Indicates whether the UE supports NE-DC for the band combination.	BC	No	N/A	N/A
powerClass, powerClass-v1610 Indicates power class the UE supports when operating according to this band combination. If the field is absent, the UE supports the default power class. If this power class is higher than the power class that the UE supports on the individual bands of this band combination (*ue-PowerClass* in *BandNR*), the latter determines maximum TX power available in each band. The UE sets the power class parameter only in band combinations that are applicable as specified in TS 38.101-1 [2] and TS 38.101-3 [4]. This capability is not applicable to IAB-MT or NCR-MT.	BC	No	N/A	FR1 only

powerClassNRPart-r16 Indicates NR part power class the UE supports when operating according to this band combination. This field only applies for MR-DC BCs containing only single CC or intra-band CA in NR side in this release.	BC	No	N/A	FR1 only
scalingFactorTxSidelink-r16, scalingFactorRxSidelink-r16 Indicates, for a particular Uu band combination, the scaling factor for the PC5 band combination(s) on which the UE supports transmission/reception of PC5 simultaneous with Uu uplink/downlink respectively (as indicated by *supportedTxBandCombListPerBC-Sidelink-r16* / *supportedRxBandCombListPerBC-Sidelink-r16*). The leading / leftmost value corresponds to the first band combination included in *BandCombinationListSidelinkEUTRA-NR* which is indicated with value 1 by *supportedTxBandCombListPerBC-Sidelink-r16* / *supportedRxBandCombListPerBC-Sidelink-r16*, the next value corresponds to the second band combination included in *BandCombinationListSidelinkEUTRA-NR* which is indicated with value 1 by *supportedTxBandCombListPerBC-Sidelink-r16* / *supportedRxBandCombListPerBC-Sidelink-r16* and so on. For each value of *ScalingFactorSidelink-r16*, value f0p4 indicates the scaling factor 0.4, f0p75 indicates 0.75, and so on.	BC	No	N/A	N/A
scellDormancyWithinActiveTime-DCI-0-3-And-1-3-r18 Indicates whether the UE supports SCell dormancy indication sent within the active time on PCell with DCI format 0_3/1_3. One dormant BWP and one non-dormant BWP is supported per carrier. More than one non-dormant BWP per carrier is supported only if *upto4* in *bwp-SameNumerology* or *upto4* in *bwp-DiffNumerology* is also supported. One dormant BWP and one non-dormant BWP are UE specific BWPs even for UEs not supporting *upto2* in *bwp-SameNumerology* or *upto4* in *bwp-SameNumerology*. A UE supporting this feature shall also indicate support of CA and at least one *of multiCell-PDSCH-DCI-1-3-SameSCS-r18, multiCell-PDSCH-DCI-1-3-DiffSCS-r18, multiCell-PUSCH-DCI-0-3-SameSCS-r18* and *multiCell-PUSCH-DCI-0-3-DiffSCS-r18*.	BC	No	N/A	N/A
scellDormancyWithinActiveTime-DCI-0-3-And-1-3-Diff-r19 Indicates whether the UE supports SCell dormancy indication sent within the active time on PCell with DCI format 0_3/1_3 with different SCS and/or different carrier type. One dormant BWP and one non-dormant BWP are supported per carrier. More than one non-dormant BWP per carrier is supported only if *upto4* in *bwp-SameNumerology* or *upto4* in *bwp-DiffNumerology* is also supported. One dormant BWP and one non-dormant BWP are UE specific BWPs even for UEs not supporting *upto2* in *bwp-SameNumerology* or *upto4* in *bwp-SameNumerology*. A UE supporting this feature shall also indicate support of CA and at least one *of multiCell-PDSCH-DCI-1-3-DiffSCS-DiffCC-r19* and *multiCell-PUSCH-DCI-0-3-DiffSCS-DiffCC-r19*.	BC	No	N/A	N/A
simultaneousSRS-UplinkTxSwitch-r19 Indicates whether the UE supports enhanced handling of simultaneous SRS carrier switching and uplink Tx switching. This feature indicates the switching time between carriers other than the SRS carrier switching source carrier and the SRS carrier switching target carrier. Value *max* indicates the switching time is the maximum between the uplink Tx switching time (refer to *ULTxSwitchingBandPair*) and SRS carrier switching times (refer to *srs-SwitchingTimeNR*). Value *sum* indicates the switching time is the sum of the uplink Tx switching time and the SRS carrier switching time. After SRS carrier switching, the UL Tx Switching state is determined according to TS 38.214 [12] Section 6.1.6. The prioritization rules between uplink carriers are determined according to TS 38.214 [12] Section 6.2.1.3. A UE supporting this feature shall also indicate the support of *srs-CarrierSwitch.*	BC	No	N/A	N/A

srs-AntennaSwitching3T3R-r19 Indicates whether the UE supports 3T3R SRS Tx port switching with port 1003 disabled when 4 port SRS resources with port 1003 disabled are configured to the UE. The capability comprises the following parameters: - *entryNumberAffect-r19* indicates the lowest band entry number of the UL group that impacts the DL of this band entry; - *entryNumberSwitch-r19* indicates the lowest band entry of the UL group, which is defined as band entries with UL (see NOTE 1) that impact each other's UL (i.e. SRS TX port switching on any of the cells in the group will impact UL on all the cells in the group). This parameter is absent if an UL group contains only one band entry. For *entryNumberAffect-r19* and *entryNumberSwitch-r19*, value 1 means first entry, value 2 means second entry and so on. All DL and UL that switch together indicate the same entry number. The entry number is the band entry number in a band combination. A UE supporting this feature shall also indicate support of *supportedSRS-Resources*. NOTE 1: The band with UL includes a band associated with *FeatureSetUplinkId* set to 0 corresponding to the support of *SRS-SwitchingTimeNR*. NOTE 2: This feature can be signalled together with *srs-AntennaSwitching8T8R-r18*, *srs-AntennaSwitchingBeyond4RX-r17*, *supportedSRS-TxPortSwitch-v1610*, *supportedSRS-TxPortSwitch*, or *srs-AntennaSwitching3T6R-r19* to indicate SRS antenna switching downgrading capability for a UE with 4Rx, 6Rx or 8Rx. NOTE 3: '3T3R' is only applicable for the UE equipped with 4Rx, 6Rx, or 8Rx antenna ports.	BC	No	N/A	N/A
srs-AntennaSwitching3T6R-r19 Indicates whether the UE supports 3T6R SRS Tx port switching with port 1003 disabled when 4 port SRS resources with port 1003 disabled are configured to the UE. The capability comprises the following parameters: - *entryNumberAffect-r19* indicates the lowest band entry number of the UL group that impacts the DL of this band entry; - *entryNumberSwitch-r19* indicates the lowest band entry of the UL group, which is defined as band entries with UL (see NOTE 1) that impact each other's UL (i.e. SRS TX port switching on any of the cells in the group will impact UL on all the cells in the group). This parameter is absent if an UL group contains only one band entry. For *entryNumberAffect-r19* and *entryNumberSwitch-r19*, value 1 means first entry, value 2 means second entry and so on. All DL and UL that switch together indicate the same entry number. The entry number is the band entry number in a band combination. NOTE 1: The band with UL includes a band associated with *FeatureSetUplinkId* set to 0 corresponding to the support of *SRS-SwitchingTimeNR*. NOTE 2: This feature can be signalled together with *srs-AntennaSwitching8T8R-r18*, *srs-AntennaSwitchingBeyond4RX-r17*, *supportedSRS-TxPortSwitch-v1610*, *supportedSRS-TxPortSwitch* or *srs-AntennaSwitching3T3R-r19* to indicate SRS antenna switching downgrading capability.	BC	No	N/A	N/A

srs-AntennaSwitching8T8R-r18 Indicates whether the UE supports SRS 8T8R for antenna switching. The capability comprises the following parameters: - *antennaSwitch8T8R-r18* indicates the supporting type of 8T8R for antenna switching. - *downGradeConfig-r18* indicates a combination of supported xTyRs of downgrade antenna switching configurations. It includes 11-bit bitmap, where starting from the leading / leftmost bit (bit 0), each bit corresponds to {1T1R, 1T2R, 1T4R, 1T6R, 1T8R, 2T2R, 2T4R, 2T6R, 2T8R, 4T4R, 4T8R}. - *entryNumberAffect-r18* indicates the lowest band entry number of the UL group (see *entryNumberSwitch-r18*) that impacts the DL of this band entry. - *entryNumberSwitch-r18* indicates the lowest band entry of the UL group, which is defined as band entries with UL (see NOTE 1) that impact each other's UL (i.e., SRS TX port switching on any of the cells in the group will impact UL on all the cells in the group). This parameter is absent if an UL group contains only one band entry. The UE supporting this feature shall indicate support of *supportedSRS-Resources.* For *entryNumberAffect-r18* and *entryNumberSwitch-r18*, value 1 means first entry, value 2 means second entry and so on. The UE may include *entryNumberAffect-r18/ entryNumberSwitch-r18* for a band entry even if *antennaSwitch8T8R-r18 is* absent for that band entry. All DL and UL that switch together indicate the same entry number. The entry number is the band entry number in a band combination. The UE is restricted not to include fallback band combinations for the purpose of indicating different SRS antenna switching capabilities. NOTE 1: The band with UL includes a band associated with *FeatureSetUplinkId* set to 0 corresponding to the support of *SRS-SwitchingTimeNR*. NOTE 2: UE reports support of SRS with 8 Tx ports and Comb8 mapping — antenna switching via *srs-combEight-r17*.	BC	No	N/A	N/A

srs-AntennaSwitchingBeyond4RX-r17 Indicates whether the UE supports SRS Antenna switching for more than 4 Rx. The capability signalling comprises the following parameters: - *supportedSRS-TxPortSwitchBeyond4Rx-r17* indicates a combination of supported xTyRs. It includes 11-bit bitmap, where starting from the leading / leftmost bit (bit 0), each bit corresponds to {t1r1, t2r2, t1r2, t4r4, t2r4, t1r4, t2r6, t1r6, t4r8, t2r8, t1r8}. For any indicated value, x shall be equal to or smaller than the one associated with the largest y. - *entryNumberAffectBeyond4Rx-r17* indicates the lowest band entry number of the UL group (see *entryNumberSwitchBeyond4Rx-r17*) that impacts the DL of this band entry; - *entryNumberSwitchBeyond4Rx-r17* indicates the lowest band entry of the UL group, which is defined as band entries with UL (see NOTE 1) that impact each other's UL (i.e. SRS TX port switching on any of the cells in the group will impact UL on all the cells in the group). This parameter is absent if an UL group contains only one band entry. The UE indicating support of this shall indicate support of *srs-TxSwitch.* For *entryNumberAffectBeyond4Rx-r17* and *entryNumberSwitchBeyond4Rx-r17*, value 1 means first entry, value 2 means second entry and so on. The UE may include *entryNumberAffectBeyond4Rx-r17/entryNumberSwitchBeyond4Rx-r17* for a band entry even if all of the bits in the *supportedSRS-TxPortSwitchBeyond4Rx-r17* are set to 0 for that band entry. All DL and UL that switch together indicate the same entry number. The entry number is the band entry number in a band combination. The UE is restricted not to include fallback band combinations for the purpose of indicating different SRS antenna switching capabilities. NOTE 1: The band with UL includes a band associated with *FeatureSetUplinkId* set to 0 corresponding to the support of *SRS-SwitchingTimeNR*. NOTE 2: If reported for the same values of xTyR in *supportedSRS-TxPortSwitchBeyond4Rx-r17* as reported with *supportedSRS-TxPortSwitch*/*supportedSRS-TxPortSwitch-v1610*, the reported values for *entryNumberAffectBeyond4Rx-r17* and *entryNumberSwitchBeyond4Rx-r17* are not valid.	BC	No	N/A	N/A
srs-SwitchingAffectedBandsListNR-r17 Indicates which other bands in the band combination are affected by the SRS switch and the dropping rules / timelines apply to the indicated bands when SRS carrier switching on target CC and other UL on source CC are overlapped in the same symbol. UE indicating support of this feature shall indicate support of *srs-CarrierSwitch*. NOTE: The UE shall include the same number of entries, and listed in the same order as in *srs-SwitchingTimesListNR*. For each inter-band "source-target" pair (as indicated by *srs-SwitchingTimesListNR*), the UE can indicate which other bands in the band combination are affected by the SRS switch. The UE shall set the BIT STRING to 0 for intra-band band pairs.	BC	No	N/A	N/A
srs-SwitchingSimultaneousList-r19 Indicates whether the UE supports simultaneous SRS carrier switches. Two SRS carrier switches are considered to be simultaneous if the SRS transmission (including RF retuning time) in both CCs overlap in time. A UE supporting this feature shall also indicate support of *srs-CarrierSwitch*.	BC	No	N/A	N/A
SRS-SwitchingTimeNR Indicates the interruption time on DL/UL reception within a NR band pair during the RF retuning for switching between a carrier on one band and another (PUSCH-less) carrier on the other band to transmit SRS. *switchingTimeDL/ switchingTimeUL*: n0us represents 0 us, n30us represents 30us, and so on. *switchingTimeDL/ switchingTimeUL* is mandatory present if switching between the NR band pair is supported, otherwise the field is absent. It is signalled per pair of bands per band combination.	FD	No	N/A	N/A

<table>
<tr><td>SRS-SwitchingTimeEUTRA
Indicates the interruption time on DL/UL reception within a EUTRA band pair during the RF retuning for switching between a carrier on one band and another (PUSCH-less) carrier on the other band to transmit SRS. switchingTimeDL/ switchingTimeUL: n0 represents 0 OFDM symbols, n0dot5 represents 0.5 OFDM symbols, n1 represents 1 OFDM symbol and so on. switchingTimeDL/ switchingTimeUL is mandatory present if switching between the EUTRA band pair is supported, otherwise the field is absent. It is signalled per pair of bands per band combination.</td><td>FD</td><td>No</td><td>N/A</td><td>N/A</td></tr>
<tr><td>srs-TxSwitch, srs-TxSwitch-v1610
Defines whether UE supports SRS for DL CSI acquisition as defined in clause 6.2.1.2 of TS 38.214 [12]. The capability signalling comprises of the following parameters:
- supportedSRS-TxPortSwitch indicates SRS Tx port switching pattern supported by the UE, which is mandatory with capability signalling. The indicated UE antenna switching capability of 'xTyR' corresponds to a UE, capable of SRS transmission on 'x' antenna ports over total of 'y' antennas, where 'y' corresponds to all or subset of UE receive antennas, where 2T4R is two pairs of antennas. supportedSRS-TxPortSwitch-v1610, which is optional to report, indicates downgrading configuration of SRS Tx port switching pattern. If the UE indicates the support of downgrading configuration of SRS Tx port switching pattern using supportedSRS-TxPortSwitch-v1610, the UE shall report the values for this as below, based on what is reported in supportedSRS-TxPortSwitch.

supportedSRS-TxPortSwitch | supportedSRS-TxPortSwitch-v1610
t1r2 | t1r1-t1r2
t1r4 | t1r1-t1r2-t1r4
t2r4 | t1r1-t1r2-t2r2-t2r4
t2r2 | t1r1-t2r2
t4r4 | t1r1-t2r2-t4r4
t1r4-t2r4 | t1r1-t1r2-t2r2-t1r4-t2r4

- txSwitchImpactToRx indicates the lowest band entry number of the UL group (see txSwitchWithAnotherBand) that impacts the DL of this band entry;

- txSwitchWithAnotherBand indicates the lowest band entry of the UL group, which is defined as band entries with UL (see NOTE) that impact each other's UL (i.e. SRS TX port switching on any of the cells in the group will impact UL on all the cells in the group). This parameter is absent if an UL group contains only one band entry.

For txSwitchImpactToRx and txSwitchWithAnotherBand, value 1 means first entry, value 2 means second entry and so on. The UE may include txSwitchImpactToRx and txSwitchWithAnotherBand for a band entry even if supportedSRS-TxPortSwitch is set to 'notSupported' for that band entry. All DL and UL that switch together indicate the same entry number.
The entry number is the band entry number in a band combination. The UE is restricted not to include fallback band combinations for the purpose of indicating different SRS antenna switching capabilities.

NOTE: The band with UL includes a band associated with FeatureSetUplinkId set to 0 corresponding to the support of SRS-SwitchingTimeNR.</td><td>BC</td><td>FD</td><td>N/A</td><td>N/A</td></tr>
<tr><td>supportedAggBW-FR2-r17
Indicates the supported maximum aggregated intra-band bandwidth for TDD DL CCs and TDD UL CCs respectively in the FR2 CA bands of the band combination. It is also applicable to fallback band combinations of FR2 CA except for a single CC (i.e. non-CA) case. It is only applicable to FR2 CA band with FBG5 R2-R12 BW classes. UE indicating this shall report at least one featureSetPerDownlinkCC and featureSetPerUplinkCC (if applicable) with 200 MHz, and the UE is expected to support any combination of 100/200MHz carriers associated with the reported BW class (and as per TS 38.101-2 [3]) as long as the aggregated bandwidth of the configured carriers by the network does not exceed supportedAggBW-FR2-r17.</td><td>BC</td><td>No</td><td>N/A</td><td>FR2 only</td></tr>
</table>

supportedBandwidthCombinationSet Defines the supported bandwidth combination set for a band combination as defined in TS 38.101-1 [2], TS 38.101-2 [3] and TS 38.101-3 [4]. For NR SA CA, NR-DC, inter-band (NG)EN-DC without intra-band (NG)EN-DC component, inter-band NE-DC without intra-band NE-DC component and intra-band (NG)EN-DC/NE-DC with additional inter-band NR CA component, the field defines the bandwidth combinations for the NR part of the band combination. For intra-band (NG)EN-DC/NE-DC without additional inter-band NR and LTE CA component, the field indicates the supported bandwidth combination set applicable to intra-band (NG)EN-DC/NE-DC band combination. This field is not applicable to source and target cells in intra-frequency DAPS handover. Field encoded as a bit map, where bit N is set to "1" if UE supports Bandwidth Combination Set N for this band combination as defined in the TS 38.101-1 [2], TS 38.101-2 [3] and TS 38.101-3 [4]. The leading / leftmost bit (bit 0) corresponds to the Bandwidth Combination Set 0, the next bit corresponds to the Bandwidth Combination Set 1 and so on. It is mandatory if - the band combination has more than one NR carrier (at least one SCell in an NR cell group); - or is an intra-band (NG)EN-DC/NE-DC combination without additional inter-band NR and LTE CA component; - or both. The corresponding bits of Bandwidth Combination Set 4 and Bandwidth Combination Set 5 shall not both be set to "1" for the same band combination.	BC	CY	N/A	N/A
supportedBandwidthCombinationSetIntraENDC Defines the supported bandwidth combination set for a band combination that allows configuration of at least one EUTRA serving cell and at least one NR serving cell in the same band, as defined in the TS 38.101-3 [4], table 5.3B.1.2-1 and table 5.3B.1.3-1. - For intra-band (NG)EN-DC with additional inter-band CA component(s) of LTE and/or NR, the field defines the bandwidth combination set for the intra-band (NG)EN-DC component. - For intra-band NE-DC with additional inter-band CA component(s) of LTE and/or NR, the field defines the bandwidth combination set for the intra-band NE-DC component. Field encoded as a bit map, where bit N is set to "1" if UE supports Bandwidth Combination Set N for this band combination as defined in the TS 38.101-3 [4]. The leading / leftmost bit (bit 0) corresponds to the Bandwidth Combination Set 0, the next bit corresponds to the Bandwidth Combination Set 1 and so on. For the inter-band (NG)EN-DC/NE-DC band combination with only one intra-band (NG)EN-DC/NE-DC component as defined in the TS 38.101-3 [4], table 5.3B.1.2-1 and table 5.3B.1.3-1: - It is mandatory if the band combination is an intra-band (NG)EN-DC/NE-DC combination supporting both UL and DL intra-band (NG)EN-DC/NE-DC parts with additional inter-band NR/LTE CA component. - It is optional if the band combination is an intra-band (NG)EN-DC/NE-DC combination without supporting UL in both the bands of the intra-band (NG)EN-DC/NE-DC UL part. If not included, the network assumes the UE supports BCS0 as defined in TS 38.101-3 [4], table 5.3B.1.2-1 and table 5.3B.1.3-1 for the intra-band (NG)EN-DC/NE-DC. For the inter-band (NG)EN-DC band combination with multiple intra-band (NG)EN-DC components as defined in clause 5.5B in the TS 38.101-3 [4]: - This field is applicable only if the UE supports the same set of BCSs for all the intra-band (NG)EN-DC components. - It is mandatory if an intra-band (NG)EN-DC component supports both UL and DL intra-band (NG)EN-DC parts and the UE supports the same set of BCSs for all the intra-band (NG)EN-DC components. - It is optional if all the intra-band (NG)EN-DC components do not support UL in the bands of the intra-band (NG)EN-DC componenets. If this field and the *supportedIntraENDC-BandCombinationList* are not included, the network assumes the UE supports BCS0 as defined in TS 38.101-3 [4], table 5.3B.1.2-1 and table 5.3B.1.3-1 for all the intra-band (NG)EN-DC components.	BC	CY	N/A	N/A

supportedBandwidthCombinationSetIntraENDC-v1790 Indicates the supported bandwidth combination set for the corresponding intra-band (NG)EN-DC component within the inter-band (NG)EN-DC band combination with multiple intra-band (NG)EN-DC components as defined in clause 5.5B in the TS 38.101-3 [4]. Field encoded as a bit map, where bit N is set to "1" if UE supports Bandwidth Combination Set N for this band combination as defined in the TS 38.101-3 [4]. The leading / leftmost bit (bit 0) corresponds to the Bandwidth Combination Set 0, the next bit corresponds to the Bandwidth Combination Set 1 and so on. - It is mandatory if the intra-band (NG)EN-DC component supports both UL and DL intra-band (NG)EN-DC parts. - It is optional if the intra-band (NG)EN-DC component does not support UL in both the bands of the intra-band (NG)EN-DC UL part. If not included, the network assumes the UE supports BCS0 for the intra-band (NG)EN-DC component as defined in TS 38.101-3 [4], table 5.3B.1.2-1 and table 5.3B.1.3-1 for the intra-band (NG)EN-DC component.	BC	CY	N/A	N/A
supportedTxBandCombListPerBC-Sidelink-r16, supportedRxBandCombListPerBC-Sidelink-r16 Indicates, for a particular Uu band combination, the PC5 band combination(s) on which the UE supports transmission/reception of PC5 simultaneously with Uu uplink/downlink respectively. The leading / leftmost bit (bit 0) corresponds to the first band combination included in *BandCombinationListSidelinkEUTRA-NR*, the next bit corresponds to the second band combination included in *BandCombinationListSidelinkEUTRA-NR* and so on. with value 1 indicating simultaneous transmission/reception is supported.	BC	No	N/A	N/A
supportedBandCombListPerBC-SL-RelayDiscovery-r17, supportedBandCombListPerBC-SL-NonRelayDiscovery-r17 Indicates, for a particular Uu band combination, the PC5 Relay discovery and non-Relay discovery band combination(s) on which the UE supports simultaneous transmission/reception of PC5 data (Relay discovery or non-Relay discovery) and Uu uplink/downlink respectively. The leading / leftmost bit (bit 0) corresponds to the first band combination included in *supportedBandCombinationListSL-RelayDiscovery-r17/supportedBandCombinationListSL-NonRelayDiscovery-r17*, the next bit corresponds to the second band combination included in *supportedBandCombinationListSL-RelayDiscovery-r17/supportedBandCombinationListSL-NonRelayDiscovery-r17* and so on. with value 1 indicating simultaneous transmission/reception is supported.	BC	No	N/A	N/A
supportedBandCombListPerBC-SL-U2U-RelayDiscovery-r18 Indicates, for a particular Uu band combination, the PC5 U2U relay discovery band combination(s) on which the UE supports simultaneous transmission/reception of PC5 data (U2U relay discovery) and Uu uplink/downlink respectively. The leading / leftmost bit (bit 0) corresponds to the first band combination included in *supportedBandCombinationListSL-U2U-RelayDiscovery-r18*, the next bit corresponds to the second band combination included in *supportedBandCombinationListSL-U2U-RelayDiscovery-r18* and so on with value 1 indicating simultaneous transmission/reception is supported.	BC	No	N/A	N/A
switchingPeriodForFDD-SDL-r19 Indicates the band pair that the UE supports of LB-LB carrier aggregation via switching between an FDD band (Case 1) and SDL band (Case 2): Case 1: Tx/Rx on FDD carrier 1 and no Rx on SDL carrier 2 Case 2: Rx on SDL carrier 2 and no Tx/Rx on FDD carrier 1 It also indicates the length of the switching time between {Case1, Case2}: n35us represents 35 μs of switching time, n70us represents 70 μs of switching time, n140us represents 140 μs of switching time, as specified in TS 38.101-1 [2].	BC	No	N/A	FR1 only
switchingPeriodRestriction-r18 Indicates whether the same value of switching period is applicable to the fallback band combinations for a given band combination supporting UL Tx switching across up to 4 bands. When the field is included for a band combination, it represents the largest value, i.e. 210μs is supported for each band pair in all fallback band combinations. When the field is absent, it represents the same switching period reported for each band pair in this band combination is supported for the same band pair in all the fallback band combinations.	BC	FD	N/A	FR1 only

ULTxSwitchingBandPair-r16, ULTxSwitchingBandPair-v1700, ULTxSwitchingBandPair-v1900 Indicates UE supports dynamic UL 1Tx-2Tx switching in case of inter-band CA, SUL, and (NG)EN-DC, UL 2Tx-2Tx switching and 3Tx UL switching in case of inter-band CA and SUL as defined in TS 38.214 [12], TS 38.101-1 [2] and TS 38.101-3 [4]. The capability signalling comprises of the following parameters: - *bandIndexUL1-r16* and *bandIndexUL2-r16* indicate the band pair on which UE supports dynamic UL Tx switching. *bandindexUL1*/*bandindexUL2* xx refers to the xxth band entry in the band combination. UE shall indicate support for 2-layer UL MIMO capabilities on one of the indicated two bands in each FeatureSet entry supporting UL 1Tx-2Tx switching and indicate support for 2-layer UL MIMO capabilities on both bands in each FeatureSet entry supporting UL 2T-2Tx switching and/or 3Tx UL switching, and only the band where UE supports 2-layer UL MIMO capability can work as carrier2 as defined in TS 38.101-1 [2] and TS 38.101-3 [4]. - *uplinkTxSwitchingPeriod-r16* indicates the length of UL Tx switching period of 1Tx-2Tx switching per pair of UL bands per band combination when dynamic UL Tx switching is configured, as specified in TS 38.101-1 [2] and TS 38.101-3 [4]. UE shall not report the value n210us for EN-DC band combinations. n35us represents 35 µs, n140us represents 140µs, and so on, as specified in TS 38.101-1 [2] and TS 38.101-3 [4]. - *uplinkTxSwitchingPeriod2T2T-r17* indicates the length of UL Tx switching period of 2Tx-2Tx switching per pair of UL bands per band combination when dynamic UL Tx switching is configured, as specified in TS 38.101-1 [2] and TS 38.101-3 [4]. n35us represents 35 µs, n140us represents 140µs, and so on, as specified in TS 38.101-1 [2] and TS 38.101-3 [4]. - *uplink3TxSwitchingPeriodUpTo2TPerBandDualUL-v1900* indicates the length of UL Tx switching period for dynamic Tx switching between 2 UL bands for 3Tx UE with up to 2Tx per band, as specified in TS 38.101-1 [2]. n35us represents 35 µs, n140us represents 140µs, and so on, as specified in TS 38.101-1 [2]. - *uplinkTxSwitching-DL-Interruption-r16* indicates that DL interruption on the band will occur during UL Tx switching, as specified in TS 38.133 [5] and in TS 36.133 [27]. UE is not allowed to set this field for the band combination of SUL band+TDD band, for which no DL interruption is allowed. Field encoded as a bit map, where bit N is set to "1" if DL interruption on band N will occur during uplink Tx switching as specified in TS 38.133 [5] and in TS 36.133 [27]. The leading / leftmost bit (bit 0) corresponds to the first band of this band combination, the next bit corresponds to the second band of this band combination and so on. The capability is not applicable to the following band combinations, in which DL reception interruption is not allowed: - TDD+TDD CA with the same UL-DL pattern - TDD+TDD EN-DC with the same UL-DL pattern - *uplinkTxSwitching-DL-Interruption-DualUL-v1900* indicates that for the band where DL interruption is needed due to dynamic Tx switching between 2 UL bands for 3Tx UE with up to 2Tx per band, as specified in TS 38.133 [5]. UE is not allowed to set this field for the band combination of SUL band+TDD band, for which no DL interruption is allowed. Field encoded as a bit map, where bit N is set to "1" if DL interruption on band N will occur during uplink Tx switching as specified in TS 38.133 [5]. The leading / leftmost bit (bit 0) corresponds to the first band of this band combination, the next bit corresponds to the second band of this band combination and so on. The capability is not applicable to the following band combinations, in which DL reception interruption is not allowed: - TDD+TDD CA with the same UL-DL pattern	BC	FD	N/A	FR1 only
uplinkTxSwitching-OptionSupport-r16 Indicates which option is supported for dynamic UL 1Tx-2Tx switching for inter-band UL CA and (NG)EN-DC. *switchedUL* represents option 1 as specified in TS 38.214 [12], *dualUL* represents option 2 as specified in TS 38.214 [12], *both* represents both option 1 and option2 as specified in TS 38.214 [12]. UE shall not report the value *both* for (NG)EN-DC case. The field is mandatory for inter-band UL CA and (NG)EN-DC case where UE supports dynamic UL 1Tx-2Tx switching. If this field is absent, the band pair reported in *supportedBandPairListNR-r16* is not valid for dynamic UL 1Tx-2Tx switching for inter-band UL CA.	BC	CY	N/A	FR1 only

uplinkTxSwitching-OptionSupport2T2T-r17 Indicates which option is supported for dynamic UL 2Tx-2Tx switching for inter-band UL CA. *switchedUL* represents option 1 as specified in TS 38.214 [12], *dualUL* represents option 2 as specified in TS 38.214 [12], *both* represents both option 1 and option2 as specified in TS 38.214 [12]. The field is mandatory for inter-band UL CA cases where UE supports dynamic UL 2Tx-2Tx switching. The UE indicating support of this feature shall indicate support of at least one common switching option between *uplinkTxSwitching-OptionSupport2T2T-r17* and *uplinkTxSwitching-OptionSupport-r16*.	BC	CY	N/A	FR1 only
uplinkTxSwitching-PowerBoosting-r16 Indicates the support of 3dB boosting on the maximum output power for UE transmission under the operation state in which 2-port transmission can be supported on carrier2 in case of inter-band UL CA case where UE supports dynamic UL Tx switching. A UE shall only indicate this capability in case the UE supports power class 3 for inter-band UL CA for the band combination as defined in TS 38.101-1 [2].	BC	No	N/A	FR1 only
UplinkTxSwitchingAdditionalPeriodDualUL-r18 Indicates the UL Tx switching period for switching between a band pair and another band pair or another band, as specified in TS 38.101-1 [2], when Rel-18 UL Tx switching is configured by *uplinkTxSwitchingMoreBands-r18*. - *bandPairIndex1-r18*/*bandPairIndex2-r18* xx refers to the xxth band pair entry in the band pair list indicated by *ULTxSwitchingBandPair-r18*. The two band pairs consist of mutually exclusive bands. - *bandIndex-r18* xx refers to the xxth band entry in this band combination, which indicates a different band from those indicated by *bandPairIndex1-r18*. - *switchingAdditionalPeriodDualUL-r18* indicates the length of switching period for switching between one band pair indicated by *bandPairIndex1-r18* and another band pair indicated by *bandPairIndex2-r18* or another band indicated by *bandIndex-r18*. n35us represents 35 µs, n140us represents 140µs, and so on, as specified in TS 38.101-1 [2]. A UE supporting this feature shall also indicate the support of dualUL switching option for the band pair(s) indicated in *bandPairIndex1-r18/bandPairIndex2-r18*.	BC	No	N/A	FR1 only

ULTxSwitchingBandPair-r18, ULTxSwitchingBandPair-v1840
Indicates UE supports Rel-18 dynamic UL Tx switching across up to 4 bands in case of inter-band CA, SUL as defined in TS 38.214 [12] and TS 38.101-1 [2]. The capability signalling comprises the following parameters:
- *bandIndexUL1-r18* and *bandIndexUL2-r18* indicate the band pair on which UE supports dynamic UL Tx switching. *bandIndexUL1*/*bandIndexUL2* xx refers to the xxth UL band entry in the band combination. UE shall indicate support of 2-layer UL MIMO in *FeatureSet* on both bands for 2Tx-2Tx switching, or indicate support of 2-layer UL MIMO on one band and 1-layer MIMO on the other band for 1Tx-2Tx switching, or indicate support of 1-layer UL MIMO on both bands for 1Tx-1Tx switching.
- *uplinkTxSwitchingOptionForBandPair-r18* indicates whether switchedUL or dualUL or both switching options is supported for a given band pair as specified in TS 38.214 [12].
- *uplinkTxSwitchingPeriodForBandPair-r18* indicates the supported switching period.
  - *switchingPeriodFor2T-r18* indicates the length of 2Tx-2Tx switching period. n35us represents 35 µs, n140us represents 140µs, and so on, as specified in TS 38.101-1 [2].
  - *switchingPeriodFor1T-r18* indicates the length of 1Tx-2Tx switching and/or 1Tx-1Tx switching period, as specified in TS 38.101-1 [2]. n35us represents 35 µs, n140us represents 140µs, and so on, as specified in TS 38.101-1 [2].
- *uplinkTxSwitching-DL-Interruption-r18* indicates that DL interruption on the band will occur during UL Tx switching, as specified in TS 38.133 [5]. UE is not allowed to set this field for the band combination of SUL band+TDD band, for which no DL interruption is allowed.
Field encoded as a bit map, where bit N is set to "1" if DL interruption on band N will occur during uplink Tx switching as specified in TS 38.133 [5]. The leading / leftmost bit (bit 0) corresponds to the first band of this band combination, the next bit corresponds to the second band of this band combination and so on. The capability is not applicable to the following band combinations, in which DL reception interruption is not allowed:
  - TDD+TDD CA with the same UL-DL pattern
- *SwitchingPeriodUnaffectedBandDualUL-r18* indicates for a given band pair {band X and band Y}, whether/how the switching period is to be applied on band Z (as well as band X and Y), when a UL Tx switching is triggered from band pair {band X and band Z} to band pair {band Y and band Z}, as defined in TS 38.101-1 [2]. If absent for band Z, the UE is not required to transmit on any UL bands during the switching period reported for the band pair of band X and band Y, as defined in TS 38.101-1 [2].
  - *bandIndexUnaffected-r18* xx indicates the band index of band Z and refers to the xxth UL band entry in the band combination.
  - *maintainedUL-Trans-r18* indicates that the UE is capable of uplink transmission on band Z and is not required to transmit on band X and Y during the switching period reported for the band pair of band X and band Y, as specified in TS 38.101-1 [2].
  - *periodOnULBands-r18* indicates the switching period to be applied on any UL bands as specified in TS 38.101-1 [2]. n35us represents 35 µs, n140us represents 140µs, and so on.
- *configured1T1T-OnTwoBands-r18* indicates the support of 2-band configuration of 1T-1T UL Tx switching using Rel-18 UL Tx switching configurations. This capability is applicable for a band pair where the UE reports no UL-MIMO on both bands and indicates support of switchedUL in *uplinkTxSwitchingOptionForBandPair-r18*.
	BC	FD	N/A	FR1 only

UplinkTxSwitchingBandParameters-v1700, UplinkTxSwitchingBandParameters-v1900 Contains the UL Tx switching specific band parameters for a given band combination. The capability signalling comprises of the following parameters: - *bandIndex-r17* indicates a band on which UE supports dynamic UL Tx switching with another band in the band combination. *bandIndex* xx refers to the xxth band entry in the band combination. - *bandIndex-r19* indicates a band on which 3Tx UE supports dynamic UL Tx switching with another band with up to 2Tx per band in the band combination. *bandIndex* xx refers to the xxth band entry in the band combination. - *uplinkTxSwitching2T2T-PUSCH-TransCoherence-r17* indicates support of the uplink codebook subset for the carrier(s) on a band capable of two antenna connectors on which UE supports dynamic UL 2Tx-2Tx switching with another band in the band combination. UE indicating support of full coherent codebook subset shall also support non-coherent codebook subset. If this field is absent, - When 2Tx-2Tx switching between two bands is configured by *uplinkTxSwitching-2T-Mode-r17*, the per BC UE capability reported in *uplinkTxSwitching-PUSCH-TransCoherence-r16* is applied, and if this field and *uplinkTxSwitching-PUSCH-TransCoherence-r16* are both absent, the UE capability reported in *pusch-TransCoherence* is applied when uplink Tx switching is triggered between last transmitted SRS and scheduled PUSCH transmission, as specified in TS 38.101-1 [2]. - When Rel-18 dynamic UL Tx switching is configured by *uplinkTxSwitchingMoreBands-r18*, the UE capability reported in *pusch-TransCoherence* is applied when uplink Tx switching is triggered between last transmitted SRS and scheduled PUSCH transmission, as specified in TS 38.101-1 [2]. - *uplinkTxSwitching3Tx-PUSCH-TransCoherence-DualUL-v1900* indicates support of the uplink codebook subset for the carrier(s) on a band capable of two antenna connectors on which 3Tx UE supports dynamic UL switching with another band with up to 2Tx per band in the band combination. UE indicating support of full coherent codebook subset shall also support non-coherent codebook subset. If this field is absent, the per BC UE capability reported in *uplinkTxSwitching-PUSCH-TransCoherence-r16* is applied, and if this field and *uplinkTxSwitching-PUSCH-TransCoherence-r16* are both absent, the UE capability reported in *pusch-TransCoherence* is applied when uplink Tx switching is triggered between last transmitted SRS and scheduled PUSCH transmission, as specified in TS 38.101-1 [2]. NOTE: If *UplinkTxSwitchingBandParameters* (with suffix) is absent for one or more bands of a band combination and Rel-18 dynamic UL Tx switching is not configured by *uplinkTxSwitchingMoreBands-r18*, the per BC UE capability reported in *uplinkTxSwitching-PUSCH-TransCoherence-r16* is applied for corresponding band(s), and if *uplinkTxSwitching-PUSCH-TransCoherence-r16* is also absent, the UE capability reported in *pusch-TransCoherence* is applied for corresponding band(s) when uplink Tx switching is triggered between last transmitted SRS and scheduled PUSCH transmission, as specified in TS 38.101-1 [2]. If *UplinkTxSwitchingBandParameters* (with suffix) is absent for one or more bands of a band combination and Rel-18 dynamic UL Tx switching is configured by *uplinkTxSwitchingMoreBands-r18*, the UE capability reported in *pusch-TransCoherence* is applied for corresponding band(s) when uplink Tx switching is triggered between last transmitted SRS and scheduled PUSCH transmission, as specified in TS 38.101-1 [2].	BC	No	N/A	FR1 only
uplinkTxSwitchingMinimumSeparationTime-r18 Indicates the minimum separation time for two uplink switching on more than 2 bands within any two consecutive reference slots as specified in TS 38.214 [12]. The field is mandatory when UE supports dynamic UL Tx switching across more than two bands.	BC	CY	N/A	FR1 only

uplinkTxSwitching-PUSCH-TransCoherence-r16 Indicates support of the uplink codebook subset when uplink 1Tx-2Tx switching is triggered between last transmitted SRS and scheduled PUSCH transmission, as specified in TS 38.101-1 [2]. UE indicating support of full coherent codebook subset shall also support non-coherent codebook subset. If the field is absent, the supported uplink codebook subset indicated by *pusch-TransCoherence* applies when the uplink switching is triggered between last transmitted SRS and scheduled transmission.	BC	No	N/A	FR1 only

4.2.7.2 *BandNR parameters*

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
ack-NACK-FeedbackForMulticastWithDCI-Enabler-r17 Indicates whether the UE supports DCI-based enabling/disabling ACK/NACK based HARQ-ACK feedback configured per G-RNTI by RRC signalling via DCI format 4_2. A UE supporting this feature shall also indicate support of *ack-NACK-FeedbackForMulticast-r17* and *dynamicMulticastDCI-Format4-2-r17*.	Band	No	N/A	N/A
ack-NACK-FeedbackForSPS-MulticastWithDCI-Enabler-r17 Indicates whether the UE supports DCI-based enabling/disabling ACK/NACK based HARQ-ACK feedback configured per G-CS-RNTI for multicast by RRC signalling via DCI format 4_2. A UE supporting this feature shall also indicate support of *ack-NACK-FeedbackForSPS-Multicast-r17* and *sps-MulticastDCI-Format4-2-r17*.	Band	No	N/A	N/A
activeConfiguredGrant-r16 Indicates whether the UE supports up to 12 configured/active configured grant configurations in a BWP of a serving cell. This field includes the following parameters: - *maxNumberConfigsPerBWP-r16* indicates the maximum number of configured/active configured grant configurations in a BWP of a serving cell. - *maxNumberConfigsAllCC-r16* indicates the maximum number of configured/active configured grant configurations across all serving cells in a MAC entity, and across MCG and SCG in case of NR-DC. The UE can include this feature only if the UE indicates support of either *configuredUL-GrantType1 or configuredUL-GrantType1-v1650* and/or *configuredUL-GrantType2 or configuredUL-GrantType2-v1650*. NOTE: - For all the reported bands in FR1, a same X1 value is reported for *maxNumberConfigsAllCC-r16*. For all the reported bands in FR2, a same X2 value is reported for *maxNumberConfigsAllCC-r16*. - The total number of configured/active configured grant configurations across all serving cells in FR1 is no greater than X1. - The total number of configured/active configured grant configurations across all serving cells in FR2 is no greater than X2. - If the CA have some serving cell(s) in FR1 and some serving cell(s) in FR2, the total number of configured/active configured grant configurations across all serving cells is no greater than max(X1, X2).	Band	No	N/A	N/A
additionalActiveTCI-StatePDCCH Indicates whether the UE supports one additional active TCI-State for control in addition to the supported number of active TCI-States for PDSCH. The UE can include this field only if *maxNumberActiveTCI-PerBWP* in *tci-StatePDSCH* is set to *n1*. Otherwise, the UE does not include this field.	Band	No	N/A	N/A

aiml-BM-Case1-r19 Indicates whether the UE supports beam prediction with reporting of predicted beam index for BM-Case1 for inference with UE-side model. The UE supports SSB and CSI-RS as RS type for Set A and Set B. This field includes the following parameters: - *maxNumberOfInferenceReportPerBWP-r19* indicates the maximum number of inference report(s) configured for BM-Case1 per BWP; - *maxNumberOfInferenceReportAcrossAllCC-r19* indicates the maximum number of inference report(s) configured for BM-Case1 across all CCs; - *maxNumberOfResourceSetB-r19* indicates the maximum number of resources for Set B; - *maxNumberOfResourceSetA-r19* indicates the maximum number of resources for Set A; - *resourceTypeSetB-CSI-RS-r19* indicates CSI-RS resource types for Set B; - *inferenceReportType-r19* indicates the supported inference report types; - *subUseCases-r19* indicates the supported BM-Case 1 sub-use case(s); - *maxNumberOfPredictedBeamPerReportingInstance-r19* indicates the maximum number of predicted beams in each reporting instance; - *numberOfOccupiedCPU-r19* indicates the number of occupied CPU; - *numberOfOccupiedCPUx-r19* indicates the number of occupied CPU,2/CPU,3; - *relaxationTimelineD-r19* indicates the value of d for the relaxation of Z_3 timeline; - *relaxationTimelineD1-r19* indicates the value of d' for the relaxation of Z'_3 timeline; - *occupiedResourcePool-r19* indicates the occupied resource pool between CPU,2 and CPU,3. A UE supporting this feature shall also indicate support of *csi-ReportFramework*. NOTE 1: The value of *numberOfOccupiedCPU-r19* and *numberOfOCcupiedCPUx-r19* are not allowed to be zero simultaneously. NOTE 2: The UE should not report non-zero value for *numberOfOccupiedCPUx-r19* if *aiml-CSI-Report-r19* is not supported.	Band	No	N/A	N/A
aiml-BM-Case1-KnownRxBeam-r19 Indicates whether the RX beam corresponding to UE predicted TX beam in Set A is known at the UE when TX beam is not QCL Type D to a known TCI or it is not QCL type D to a Tx beam in Set B for BM-Case1. A UE supporting this feature shall also indicate support of *aiml-BM-Case1-r19*.	Band	No	TDD only	FR2-1 only
aiml-BM-Case1-PredictedRSRP-r19 Indicates whether the UE supports beam prediction with reporting of predicted beam index and predicted RSRP for BM-Case1 for inference. The UE also indicates the supported maximum number of predicted beams with RSRP in each reporting instance. A UE supporting this feature shall also indicate support of *aiml-BM-Case1-r19*.	Band	No	N/A	N/A

aiml-BM-Case2-r19, aiml-BM-Case2-v1920 Indicates whether the UE supports beam prediction with reporting of predicted beam index for BM-Case2 for inference with UE-side model. The UE supports SSB and CSI-RS as RS type for Set A and Set B. This field includes the following parameters: - *maxNumberOfInferenceReportPerBWP-r19* indicates the maximum number of inference report(s) configured for BM-Case2 per BWP; - *maxNumberOfInferenceReportAcrossAllCC-r19* indicates the maximum number of inference report(s) configured for BM-Case2 across all CCs; - *maxNumberOfResourceSetB-r19* indicates the maximum number of resources for Set B; - *maxNumberOfResourceSetA-r19* indicates the maximum number of resources for Set A; - *minNumberOfKBM-SetB-r19* indicates the minimum number of received transmission occasions KBM for Set B; - *resourceTypeSetB-CSI-RS-r19* indicates CSI-RS resource types for Set B; - *inferenceReportType-r19* indicates the supported inference report types; - *maxNumberOfPredictedBeamPerPerTimeInstance-r19* indicates the maximum number of predicted beams in each predicted time instance; - *maxNumberOfPredictedTimeInstance-r19* indicates the maximum number of predicted time instances; - *maxTotalNumberOfPredictedBeamPerReport-r19* indicates the maximum total number of reported predicted beams for predicted time instances in one report; - *timeGap-r19* indicates the supported value(s) of time gap between predicted time instances and between reference time to the first future time instance. It is encoded as a 5-bit bitmap {10ms, 20ms, 40ms, 80ms, 160ms}, where the leading / leftmost bit (bit 0) corresponds to 10ms. The next bit (bit 1) corresponds to 20ms, and so on. The rightmost bit (bit 5) corresponds to 160ms; - *numberOfOccupiedCPU-r19* indicates the number of occupied CPU; - *numberOfOccupiedCPUx-r19* indicates the number of occupied CPU,2/CPU,3; - *relaxationTimelineD-r19* indicates the value of d for the relaxation of Z_3 timeline; - *relaxationTimelineD1-r19* indicates the value of d' for the relaxation of Z'_3 timeline; - *occupiedResourcePool-r19* indicates the occupied resource pool between CPU,2 and CPU,3; A UE supporting this feature shall also indicate support of *csi-ReportFramework*. NOTE 1: The value of *numberOfOccupiedCPU-r19* and *numberOfOccupiedCPUx-r19* are not allowed to be zero simultaneously. NOTE 2: The UE should not report non-zero value for *numberOfOccupiedCPUx-r19* if *aiml-CSI-Report-r19* is not supported.	Band	No	N/A	N/A
aiml-BM-Case2-KnownRxBeam-r19 Indicates whether the RX beam corresponding to UE predicted TX beam in Set A is known when TX beam is not QCL Type D to a known TCI or it is not QCL type D to a Tx beam in Set B for BM-Case2. A UE supporting this feature shall also indicate support of *aiml-BM-Case2-r19*.	Band	No	TDD only	FR2-1 only
aiml-BM-Case2-PredictedRSRP-r19 Indicates whether the UE supports beam prediction with reporting of predicted beams and predicted RSRP for BM-Case2 for inference. This field includes the following parameters: - *maxNumPredictedBeamPerInstance-r19* indicates the maximum number of predicted beams in each predicted time instance; - *maxNumPredictedTime-r19* indicates the maximum number of predicted time instances; - *maxTotalNumPredictedBeamInOneReport-r19* indicates the maximum total number of reported predicted beams for predicted time instances in one report. A UE supporting this feature shall also indicate support of *aiml-BM-Case2-r19*.	Band	No	N/A	N/A

aiml-BM-Monitoring-r19 Indicates whether the UE supports performance monitoring with RS-PAI of AI/ML model for beam prediction via SSB or CSI-RS as RS type for monitoring. This field includes the following parameters: - *maxNumTotalResource-r19* indicates the maximum total number of the configured SSB resources and/or CSI-RS resources for monitoring RS resource set; - *maxNumReportPerBWP-Periodic-r19* indicates the maximum number of monitoring report(s) configured per BWP for periodic reporting; - *maxNumReportPerBWP-Aperiodic-r19* indicates the maximum number of monitoring report(s) configured per BWP for aperiodic reporting; - *maxNumReportPerBWP-SP-r19* indicates the maximum number of monitoring report(s) configured per BWP for semi-persistent periodic reporting; - *maxNumReportAcrossAllCC-r19* indicates the maximum number of monitoring report(s) configured across all CCs; - *maxNumOccasion-r19* indicates the maximum number of monitoring occasions for RS-PAI calculation; - *monitoringResourceType-r19* indicates the supported monitoring resource types; - *monitoringReportType-r19* indicates the supported monitoring report types. A UE supporting this feature shall also indicate support of *aiml-BM-Case1-r19* or *aiml-BM-Case2-r19*.	Band	No	N/A	N/A
aiml-BM-UE-DataCollection-r19 Indicates whether the UE supports SS/PBCH block and 1-port CSI-RS based RSRP measurements for measurement RS resource sets (Set B and Set A) for UE-side beam prediction data collection. The UE supports SSB and CSI-RS as RS type for Set A and Set B. The UE also supports providing UE preferred configuration for UE-side beam prediction data configuration. This field includes the following parameters: - *subCase-r19* indicates the supported sub-use cases. Value '*equal*' indicate the sub-use case 'Set B equal to Set A', value '*subset*' indicates the sub-use case 'Set B is subset of Set A', value '*notSubset*' indicates the sub-use case 'Set B is not subset of Set A'; - *maxNumResourceSetB-r19* indicates the maximum number of resources for Set B; - *maxNumResourceSetA-r19* indicates the maximum number of resources for Set A. A UE supporting this feature shall also indicate support of *csi-ReportFramework*.	Band	No	N/A	N/A

aiml-CSI-Prediction-r19
Indicates whether the UE supports CSI prediction for UE-sided inference when *vectorLengthDD-r18*=1. The UE also indicates the support of reporting predicted PMI with *vectorLengthDD-r18*=1, support of eType-II regular codebook refinement for predicted PMI with PMI subband R=1, support of parameter combinations with L=2,4, support of rank=1,2, support of the size of DD-basis *vectorLengthDD-r18*=1, support of X=1 CQI based on the first/earliest slot of the CSI reporting window and the first/earliest predicted PMI (TDCQI='1-1'). This field includes the following parameters:
- *supportedCSI-RS-ResourceList-r19* indicates the list of supported CSI-RS resources in a band by referring to *codebookVariantsList*. The following parameters are included for the supported CSI-RS resource:
  - *maxNumberTxPortsPerResource* indicates the maximum number of Tx ports in a resource of a band. The minimum of *maxNumberTxPortsPerResource* is '*p4*';
  - *maxNumberResourcesPerBand* indicates the maximum number of resources across all CCs in a band. The minimum of *maxNumberResourcesPerBand* is '*2*';
  - *totalNumberTxPortsPerBand* indicates the total number of Tx ports across all CCs in a band. The minimum value of *totalNumberTxPortsPerBand* is '*4*';
- *scalingFactor-r19* indicates the scaling factor for active resource counting K_p;
- *relaxationTimelineT-r19* indicates the supported value of Ti for the relaxation of Z and Z' timeline;
- *numberOfOccupiedCPU-r19* indicates the number of occupied CPU;
- *numberOfOccupiedCPUx-r19* indicates the number of occupied CPU,2/CPU,3;
- *occupiedResourcePool-r19* indicates the occupied resource pool between CPU,2 and CPU,3;
- *inferenceReportType-r19* indicates the supported inference report type.
A UE supporting this feature shall also indicate support of *csi-ReportFramework*.
 	
NOTE: UE should not report non-zero value for *numberOfOccupiedCPUx-r19* if *aiml-CSI-Report-r19* is not supported.
	Band	No	N/A	N/A

aiml-CSI-PredictionDoppler-r19 The UE optionally includes *maxNumberOfAperiodic-CSI-RS-Resource-r19* to indicate the maximum number of aperiodic CSI-RS resources that can be configured in the same CSI report setting for eType-II doppler measurement for UE side inference of CSI prediction. The UE optionally includes *eType2DopplerR2-r19* to indicate whether the UE supports R=2 for eType-II doppler codebook for UE side inference of CSI prediction. This field includes the list of supported CSI-RS resources in a band by referring to *codebookVariantsList*. The following parameters are included for the supported CSI-RS resource: - *maxNumberTxPortsPerResource* indicates the maximum number of Tx ports in a resource of a band for inference. The minimum of *maxNumberTxPortsPerResource* is '*p4*'; - *totalNumberTxPortsPerBand* indicates the total number of Tx ports across all CCs in a band for inference. The minimum value of *totalNumberTxPortsPerBand* is '*4*'; The UE optionally includes *eType2DopplerX1-r19* to indicate whether the UE supports X=1 based on first and last slot of W_{CSI}, for eType-II doppler codebook for UE side inference of CSI prediction (i.e., TDCQI = '1-2'). The UE optionally includes *eType2DopplerX2-r19* to indicate whether the UE supports X=2 CQI based on 2 slots for eType-II doppler codebook for UE side inference of CSI prediction (i.e., TDCQI = '2'). The UE optionally includes *eType2DopplerL-N4D1-r19* to indicate whether the UE supports l = (n – nCSI,ref) for CSI reference slot for eType-II doppler codebook for UE side inference of CSI prediction when *vectorLengthDD-r18* = 1 and *unitDurationDD-r18* > 1, or when *vectorLengthDD-r18* > 1. The UE optionally includes *eType2DopplerL6-r19* to indicate whether the UE supports L=6 for eType-II doppler codebook for UE side inference of CSI prediction. The UE optionally includes *eType2DopplerR3R4-r19* to indicate whether the UE supports rank equals 3 and 4 for eType-II doppler codebook for UE side inference of CSI prediction. The UE optionally includes *codebookComboParameterMixedTypePrediction-r19* to indicate the list of supported CSI-RS resources across all bands in a band by referring to *codebookVariantsList* for the mixed codebook types. For mixed codebook types, UE reports the support of active CSI-RS resources and ports for up to 2 mixed codebook combinations in any slot. The following parameters are included in *codebookVariantsList* for each codebook type: - *maxNumberTxPortsPerResource* indicates the maximum number of Tx ports in a resource across all bands within a band; - *maxNumberResourcesPerBand* indicates the maximum number of resources across all CCs within a band, simultaneously; - *totalNumberTxPortsPerBand* indicates the total number of Tx ports across all CCs within a band, simultaneously. NOTE 1: If a UE indicates one or more codebook combinations in *codebookComboParameterMixedTypePrediction-r19*, the usage of active CSI-RS resources and ports for multiple codebooks in any slot is allowed only within those combinations. NOTE 2: For coexisting of mixed codebooks in any slot, the supported values for these three parameters are determined in conjunction with *codebookComboParametersAddition-r16*, *codebookComboParameterMixedType-r17*, *codebookComboParameterMixedTypePerdiction-r19* of *aiml-CSI-PredictionDoppler-r19*, and per-codebook capability *type1*, *type2* of *codebookParameters*, *etype2R1-r16* of *codebookParametersAddition-r16*, and *fetype2basic-r17*, *fetype2R1-r17*, *fetype2R2-r17* of *codebookParametersfetype2-r17.* A UE supporting this feature shall also indicate support of *aiml-CSI-Prediction-r19*.	Band	No	N/A	N/A

aiml-CSI-PredictionMonitoring-r19
Indicates whether the UE supports performance monitoring of CSI prediction model, including two performance metric SGCS, one wideband frequency granularity SGCS per layer and one configured time instance for *vectorLengthDD-r18*>1. This field includes the following parameters:
- *supportedCSI-RS-ResourceList-r19* indicates the list of supported CSI-RS resources in a band by referring to *codebookVariantsList*. The following parameters are included for the supported CSI-RS resource:
  - *maxNumberTxPortsPerResource* indicates the maximum number of Tx ports in a resource of a band. The minimum of *maxNumberTxPortsPerResource* is '*p4*';
  - *maxNumberResourcesPerBand* indicates the maximum number of resources across all CCs in a band;
  - *totalNumberTxPortsPerBand* indicates the total number of Tx ports across all CCs in a band. The minimum value of *totalNumberTxPortsPerBand* is '*4*';
- *numOccupiedCPU-r19* indicates the number of occupied CPU.
 	
NOTE: The summation of the value reported by *numOccupiedCPU-r19* of *aiml-CSI-PredictionMonitoring-r19* and the one reported by the *numberOfOccupiedCPU-r19* of *aiml-CSI-Prediction-r19* (or *numOccupiedCPU-r19* of *aiml-CSI-PredictionN4-r19*) should not be more than the N_CPU UE reported.
 	
A UE supporting this feature shall also indicate support of *aiml-CSI-Prediction-r19*.
	Band	No	N/A	N/A

aiml-CSI-PredictionN4-r19
Indicates whether the UE supports CSI prediction for UE-sided inference when *vectorLengthDD-r18*>1. The UE also supports reporting predicted PMI with *vectorLengthDD-r18* >1, value of *unitDurationDD-r18*=m for the DD unit size when A-CSI-RS is configured for CMR and the size of DD-basis, *vectorLengthDD-r18*>1. This field includes the following parameters:
- *supportedCSI-RS-ReportSettingAcrossCC-r19* indicates the list of supported combinations across all CCs in a band simultaneously by referring to *supportedCSI-RS-ReportSetting-r18*. The following parameters are included in *supportedCSI-RS-ReportSetting-r18*:
  - *maxN4-r18* indicates the max number of *vectorLengthDD-r18* across all CCs in a band, simultaneously;
  - *maxNumberTxPortsPerResource-r18* indicates the maximum number of Tx ports in a report of a band across all CCs in a band, simultaneously. The minimum of *maxNumberTxPortsPerAggregatedResource-r18* is '*p4*';
  - *maxNumberResourcesPerBand-r18* indicates the maximum number of sets of aggregated resources or groups of aggregated resource across all CCs in a band, simultaneously. The minimum of *maxNumberResourcesPerBand-r18* is '*2*';
  - *totalNumberTxPortsPerBand-r18* indicates the total number of Tx ports across all CCs in a band, simultaneously. The minimum of *totalNumberTxPortsPerBand-r18* is *'4'*.
- *supportedCSI-RS-ReportSettingOneReport-r19* indicates the list of supported combinations for one CSI report setting by referring to *supportedCSI-RS-ReportSetting-r18*. The following parameters are included in *supportedCSI-RS-ReportSetting-r18*:
  - *maxN4-r18* indicates the max number of *vectorLengthDD-r18* across all CCs in a band combination, simultaneously;
  - *maxNumberTxPortsPerResource-r18* indicates the maximum number of Tx ports in one CSI report setting. The minimum of *maxNumberTxPortsPerAggregatedResource-r18* is '*p4*';
  - *maxNumberResourcesPerBand-r18* indicates the maximum number of sets of aggregated resources or groups of aggregated resource for one CSI report setting. The value of *maxNumberResourcesPerBand-r18* is '*4*', '*8*' and '*12*';
  - *totalNumberTxPortsPerBand-r18* indicates the total number of Tx ports for one CSI report setting. The minimum of *totalNumberTxPortsPerBand-r18* is *'4'*.
- *numOccupiedCPU-r19* indicates the number of occupied CPU;
- *numOccupiedCPUx-r19* indicates the number of occupied CPU,2 or CPU,3;
- *occupiedPool-r19* indicates the occupied resource pool between CPU,2 and CPU,3. The value '*p1*' represents the first CPU pool (i.e., CPU,2), the value '*p2*' represents the second CPU pool (i.e., CPU,3).
 	
NOTE: UE should not report non-zero value for *numOccupiedCPUx-r19* if *aiml-CSI-Report-r19* is not supported.
 	
A UE supporting this feature shall also indicate support of *aiml-CSI-Prediction-r19*.
	Band	No	N/A	N/A

aiml-CSI-PredictionUE-DataCollection-r19 Indicates whether the UE supports UE-side data collection for CSI prediction. The UE also supports providing UE preferred configuration for UE-side CSI prediction data configuration. A UE supporting this feature shall also indicate support of *csi-ReportFramework*.	Band	No	N/A	N/A
aiml-CSI-PredictionUnitDurationDD-r19 Indicates whether the UE supports value of *unitDurationDD-r18*=1 for the DD unit duration when A-CSI-RS is configured for CMR *vectorLengthDD-r18* >1 for UE side inference of CSI prediction. A UE supporting this feature shall also indicate support of *aiml-CSI-Prediction-r19*.	Band	No	N/A	N/A
aiml-CSI-Report-r19 Indicates whether the UE supports CSI report framework for UE-side inference. The UE indicates the list of *CPU-PoolInfo-r19* which includes the following parameters: - *maxNumCPU-PerCC-r19* indicates the maximum number of CPU in each CPU pool of UE-sided inference for CSI report(s) for simultaneously in a CC; - *maxNumCPU-AllCC-r19* indicates the maximum number of CPU in each CPU pool of UE-sided inference for CSI report(s) simultaneously across all CCs. A UE supporting this feature shall also indicate support of *csi-ReportFramework*.	Band	No	N/A	N/A

antennaArrayType-r18 Indicates whether the UE supports the RF and RRM requirements with antenna array as specified in TS 38.101-1 [2] clause 6.1J, 7.1J and TS 38.133 [5]. If the field is absent, the RF and RRM requirements with omni-directional antenna applies as specified in TS 38.101-1 [2] clause 6.1J, 7.1J and TS 38.133 [5]. The UE indicating support of this feature shall also indicate support of *airToGroundNetwork-r18*. This field is only applicable for bands as specified for ATG in clause 5.2J of TS 38.101-1 [2]. A UE supporting this feature and CA shall also support *neighSCellMeasSkipping* (see TS 38.331 [9]).	Band	CY	N/A	FR1 only
aperiodicBeamReport Indicates whether the UE supports aperiodic 'CRI/RSRP' or 'SSBRI/RSRP' reporting on PUSCH. The UE provides the capability for the band number for which the report is provided (where the measurement is performed).	Band	Yes	N/A	N/A
aperiodicCSI-RS-AdditionalBandwidth-r17 Indicates the UE supported TRS bandwidths for fast SCell activation, in addition to 52 RBs, for a 10MHz UE channel bandwidth. This field only applies for the BWPs configured with 52 RBs size and 15kHz SCS, in FDD bands and indicates the values: Value *addBW-Set1* indicates 28, 32, 36, 40, 44, 48 RBs. Value *addBW-Set2* indicates 32, 36, 40, 44, 48 RBs. The UE can include this feature only if the UE indicates support of *aperiodicCSI-RS-FastScellActivation-r17*.	Band	No	FDD only	FR1 only
aperiodicCSI-RS-FastScellActivation-r17 Indicates whether the UE supports aperiodic CSI-RS for tracking for fast SCell activation, i.e., 1) Aperiodic CSI-RS for tracking for fast SCell activation is triggered by enhanced SCell activation/deactivation MAC CE; 2) Aperiodic CSI-RS for tracking for fast SCell activation is triggered within the BWP indicated by *firstActiveDownlinkBWP-Id* for the SCell. This field includes the following parameters: - *maxNumberAperiodicCSI-RS-PerCC-r17* indicates the maximum number of aperiodic CSI-RS resource set configurations for tracking for fast SCell activation that can be configured to UE per CC in a reported band. Value n8 corresponds to 8, n16 corresponds to 16, and so on. - *maxNumberAperiodicCSI-RS-AcrossCCs-r17* indicates the maximum number of aperiodic CSI-RS resource set configurations for tracking for fast SCell activation that can be configured to UE across CCs in a reported band. Value n8 corresponds to 8, n16 corresponds to 16, and so on. NOTE: - *maxNumberAperiodicCSI-RS-PerCC-r17* and *maxNumberAperiodicCSI-RS-AcrossCCs-r17* values refer to the number of RS configurations for fast SCell activation that can be indicated by the MAC CE. - The NZP-CSI-RS configured as RS for tracking for fast SCell activation are not considered when counting the maximum NZP-CSI-RS configurations of CSI-RS and CSI-IM reception for CSI feedback.	Band	No	N/A	N/A
aperiodicTRS Indicates whether the UE supports DCI triggering aperiodic TRS associated with periodic TRS.	Band	No	N/A	Yes
asymmetricBandwidthCombinationSet Defines the supported asymmetric channel bandwidth combination for the band as defined in the TS 38.101-1 [2] / TS 38.101-5 [34]. Field encoded as a bit map, where bit N is set to "1" if UE support asymmetric channel bandwidth combination set N for this band as defined in the TS 38.101-1 [2] / TS 38.101-5 [34]. The leading / leftmost bit (bit 0) corresponds to the asymmetric channel bandwidth combination set 1, the next bit corresponds to the asymmetric channel bandwidth combination set 2 and so on. UE shall support asymmetric channel bandwidth combination set 0 if defined for the band in the TS 38.101-1 [2]. If the field is absent, the UE supports asymmetric channel bandwidth combination set 0 if defined for the band in the TS 38.101-1 [2].	Band	No	N/A	N/A
bandNR Defines supported NR frequency band by NR frequency band number, as specified in TS 38.101-1 [2], TS 38.101-2 [3], and TS 38.101-5 [34].	Band	Yes	N/A	N/A

beamCorrespondenceCSI-RS-based-r16 Indicates whether the UE support for beam correspondence based on CSI-RS has the ability to select its uplink beam based on measurement of CSI-RS. If a UE supports beam correspondence based on CSI-RS, then the network can expect the UE to also fulfil Rel-15 beam correspondence requirements. If UE supports neither *beamCorrespondenceSSB-based-r16* nor *beamCorrespondenceCSI-RS-based-r16*, gNB can expect the UE to fulfill beam correspondence based on Rel-15 beam correspondence requirements.	Band	No	TDD only	FR2 only
beamCorrespondenceSSB-based-r16 Indicates whether the UE support for beam correspondence based on SSB has the ability to select its uplink beam based on measurement of SSB. If a UE supports beam correspondence based on SSB, then the network can expect the UE to also fulfil Rel-15 beam correspondence requirements. If UE supports neither *beamCorrespondenceSSB-based-r16* nor *beamCorrespondenceCSI-RS-based-r16*, gNB can expect the UE to fulfil beam correspondence based on Rel-15 beam correspondence requirements.	Band	No	TDD only	FR2 only
beamCorrespondenceWithoutUL-BeamSweeping Indicates how UE supports FR2 beam correspondence as specified in TS 38.101-2 [3], clause 6.6. The UE that fulfils the beam correspondence requirement without the uplink beam sweeping (as specified in TS 38.101-2 [3], clause 6.6) shall set the field to *supported*. The UE that fulfils the beam correspondence requirement with the uplink beam sweeping (as specified in TS 38.101-2 [3], clause 6.6) shall not report this field.	Band	Yes	N/A	FR2 only
beamManagementSSB-CSI-RS Defines support of SS/PBCH and CSI-RS based RSRP measurements. The capability comprises signalling of - *maxNumberSSB-CSI-RS-ResourceOneTx* indicates maximum total number of configured one port NZP CSI-RS resources and SS/PBCH blocks that are supported by the UE to measure L1-RSRP as specified in TS 38.215 [13] within a slot and across all serving cells (see NOTE). On FR2, it is mandatory to report >=8; On FR1, it is mandatory with capability signalling to report >=8. - *maxNumberCSI-RS-Resource* indicates maximum total number of configured NZP-CSI-RS resources that are supported by the UE to measure L1-RSRP as specified in TS 38.215 [13] across all serving cells (see NOTE). It is mandated to report at least n8 for FR1. - *maxNumberCSI-RS-ResourceTwoTx* indicates maximum total number of two ports NZP CSI-RS resources that are supported by the UE to measure L1-RSRP as specified in TS 38.215 [13] within a slot and across all serving cells (see NOTE). - *supportedCSI-RS-Density* indicates density of one RE per PRB for one port NZP CSI-RS resource for RSRP reporting, if supported. On FR2, it is mandatory to report either "three" or "oneAndThree"; On FR1, it is mandatory with capability signalling to report either "three" or "oneAndThree". - *maxNumberAperiodicCSI-RS-Resource* indicates maximum number of configured aperiodic CSI-RS resources across all serving cells (see NOTE). For FR1 and FR2, the UE is mandated to report at least n4. NOTE: If the UE sets a value other than *n0* in an FR1 band, it shall set that same value in all FR1 bands. If the UE sets a value other than *n0* in an FR2 band, it shall set that same value in all FR2 bands. The UE supports a total number of resources equal to the maximum of the FR1 and FR2 value, but no more than the FR1 value across all FR1 serving cells and no more than the FR2 value across all FR2 serving cells.	Band	Yes	N/A	FD
beamReportTiming, beamReportTiming-v1710 Indicates the number of OFDM symbols between the end of the last symbol of SSB/CSI-RS and the start of the first symbol of the transmission channel containing beam report. The UE provides the capability for the band number for which the report is provided (where the measurement is performed). The UE includes this field for each supported sub-carrier spacing.	Band	Yes	N/A	N/A

beamSweepingFactorReduction-r18 Indicates whether the UE supports beam sweeping factor reduction for FR2 unknown SCell activation. The capability comprises signalling of - *reduceForCellDetection* indicates reducing beam sweeping factor for cell detection if UE has full set (N=8) of beam sweeping during AGC settling part during FR2-1 unknown SCell activation procedure. - *reduceForSSB-L1-RSRP-Meas* indicates reducing beam sweeping factor for SSB based L1-RSRP measurement if UE has full set (N=8) of beam sweeping during AGC settling part during FR2-1 unknown SCell activation procedure. UE is required to meet the shortened SCell activation delay requirement in TS 38.133 [5] if the feature is supported.	Band	No	TDD only	FR2-1 only
beamSwitchTiming, beamSwitchTiming-v1710 Indicates the minimum number of OFDM symbols between the DCI triggering of aperiodic CSI-RS and aperiodic CSI-RS transmission. The number of OFDM symbols is measured from the end of the last symbol containing the indication to the start of the first symbol of CSI-RS. The UE includes this field for each supported sub-carrier spacing. NOTE: *beamSwitchTiming* of value (*sym224* or *sym336* for 60kHz and 120kHz SCS, *sym896* or *sym1344* for 480kHz SCS and *sym1792* or *sym2688* for 960kHz SCS) will be used to determine UE expectation/behaviour for aperiodic CSI-RS for tracking and latency requirements for L1-RSRP reporting as described in clause 5.1.6.1.1 of TS 38.214 [12], while UE behaviour/assumption regarding before or after beam switch timing is unspecified for measuring AP CSI-RS for CSI acquisition (without *trs-Info* and without repetition) and for beam management (with repetition 'off').	Band	No	N/A	FR2 only
beamSwitchTiming-r16, beamSwitchTiming-r17 Indicates the minimum number of required OFDM symbols (sym224, sym336 for 60kHz and 120kHz SCS, *sym896* or *sym1344* for 480kHz SCS and *sym1792* or *sym2688* for 960kHz SCS) between the DCI triggering aperiodic CSI-RS and the corresponding aperiodic CSI-RS transmission in a CSI-RS resource set configured with repetition 'ON' if *enableBeamSwitchTiming-r16* is configured. For CSI-RS configured with repetition "*off*", the UE applies beam switch time of sym48 if *beamSwitchTiming-r16* is reported and *enableBeamSwitchTiming-r16* is configured. For CSI-RS configured without repetition and without *trs-info*, the UE applies beam switch time of sym48 if *beamSwitchTiming-r16* is reported and *enableBeamSwitchTiming-r16* is configured.	Band	No	N/A	FR2 only
bfd-Relaxation-r17 Indicates whether the UE supports BFD relaxation criteria and requirement as specified in TS 38.133 [5]. UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands, all TDD-FR2-1 bands and all TDD-FR2-2 bands respectively. UE indicating support of this feature shall also indicate support of *maxNumberCSI-RS-BFD, maxNumberSSB-BFD* and *maxNumberCSI-RS-SSB-CBD.*	Band	No	N/A	N/A
bwp-DiffNumerology Indicates whether the UE supports BWP adaptation up to 4 BWPs with the different numerologies, via DCI and timer. Except for SUL, the UE only supports the same numerology for the active UL and DL BWP. For the UE that is capable of this feature but is not indicating *supportOfRedCap-r17* nor *supportOfERedCap-r18*, the bandwidth of a UE-specific RRC configured DL BWP includes the bandwidth of the CORESET#0 (if CORESET#0 is present) and SSB for PCell and PSCell (if configured). For the UE which is a (e)RedCap UE capable of this feature, the bandwidth of a UE-specific RRC configured DL BWP may not include the bandwidth of the CORESET#0 (if configured) and SSB for PCell. For SCell(s), the bandwidth of the UE-specific RRC configured DL BWP includes SSB, if there is SSB on SCell(s).	Band	No	N/A	N/A

bwp-SameNumerology Indicates whether UE supports BWP adaptation (up to 2/4 BWPs) with the same numerology, via DCI and timer. Except for SUL, the UE only supports the same numerology for the active UL and DL BWP. For the UE that is capable of this feature but is not indicating *supportOfRedCap-r17* nor *supportOfERedCap-r18*, the bandwidth of a UE-specific RRC configured DL BWP includes the bandwidth of the CORESET#0 (if CORESET#0 is present) and SSB for PCell and PSCell (if configured). For the UE which is a (e)RedCap UE capable of this feature, the bandwidth of a UE-specific RRC configured DL BWP may not include the bandwidth of the CORESET#0 (if configured) and SSB for PCell. For SCell(s), the bandwidth of the UE-specific RRC configured DL BWP includes SSB, if there is SSB on SCell(s).	Band	No	N/A	N/A
bwp-WithoutRestriction Indicates support of BWP operation without bandwidth restriction. The Bandwidth restriction in terms of DL BWP for PCell and PSCell means that the bandwidth of a UE-specific RRC configured DL BWP may not include the bandwidth of CORESET #0 (if configured) and SSB. For SCell(s), it means that the bandwidth of DL BWP may not include SSB.	Band	No	N/A	N/A
cancelOverlappingPUSCH-r16 Indicates whether UE supports the cancellation of the (repetition of the) PUSCHs transmission on all other intra-band serving cell(s). The cancellation of the (repetition of the) PUSCH transmission on a the set of intra-band serving cell(s) includes all symbols from the earliest symbol that is overlapping with the first cancelled symbol of the PUSCH on the serving cell for which the DCI format 2_4 is applicable to. If the UE supports this feature, the UE needs to report *pa-PhaseDiscontinuityImpacts* and *ul-CancellationSelfCarrier-r16*.	Band	No	N/A	N/A
cg-PUSCH-UTO-UCI-Ind-r18 Indicates whether the UE supports multiplexing of the unused transmission occasions UCI (UTO-UCI) on a CG-PUSCH. The UE indicating support of this feature shall also indicate support of at least one of *configuredUL-GrantType1, configuredUL-GrantType1-v1650, configuredUL-GrantType2, configuredUL-GrantType2-v1650*.	Band	No	N/A	N/A
cg-SDT-r17 Indicates whether the UE supports transmission of data and/or signalling over allowed radio bearers in RRC_INACTIVE state via configured grant type 1 (i.e. CG-SDT), as specified in TS 38.331 [9]. Except for NTN bands, UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands and all TDD-FR2 bands respectively. For NTN, UE shall set the capability value consistently for all FDD-FR1 NTN bands and all FDD-FR2 NTN bands respectively. UE supports multiple CG-SDT configurations when a UE indicates the support of this feature and *activeConfiguredGrant-r16*; otherwise UE only supports one CG-SDT configuration.	Band	No	N/A	N/A
cg-SDT-PeriodicityExt-r18 Indicates whether the UE supports to extend the range of CG-SDT periodicities for MO-SDT and/or MT-SDT, as specified in TS 38.331 [9]. A UE supporting this feature shall also indicate the support of *ra-InsteadCG-SDT-r18*. A UE supporting this feature shall also indicate the support of *cg-SDT-r17* or *mt-CG-SDT-r18.*	Band	No	N/A	N/A
channelBW-DL-IAB-r16 Indicates whether the IAB-MT supports channel bandwidth of 100 MHz for a given SCS in FR1 for DL or whether the IAB-MT supports channel bandwidth of 200 MHz for a given SCS in FR2 for DL.	Band	No	N/A	N/A
channelBW-DL-NCR-r18 Indicates whether the NCR-MT supports channel bandwidth of 100 MHz for a given SCS in FR1 for DL or whether the NCR-MT supports channel bandwidth of 200 MHz for a given SCS in FR2 for DL.	Band	No	N/A	N/A
channelBW-UL-IAB-r16 Indicates whether the IAB-MT supports channel bandwidth of 100 MHz for a given SCS in FR1 for UL or whether the IAB-MT supports channel bandwidth of 200 MHz for a given SCS in FR2 for UL.	Band	No	N/A	N/A
channelBW-UL-NCR-r18 Indicates whether the NCR-MT supports channel bandwidth of 100 MHz for a given SCS in FR1 for UL or whether the NCR-MT supports channel bandwidth of 200 MHz for a given SCS in FR2 for UL.	Band	No	N/A	N/A

channelBWs-DL Indicates for each subcarrier spacing the UE supported channel bandwidths. Absence of the *channelBWs-DL* (without suffix) for a band or absence of specific scs-XXkHz entry for a supported subcarrier spacing means that the UE supports the channel bandwidths among [5, 10, 15, 20, 25, 30, 40, 50, 60, 80, 100] and [50, 100, 200] that were defined in clause 5.3.5 of TS 38.101-1 version 15.7.0 [2] and TS 38.101-2 version 15.7.0 [3] for the given band or the specific SCS entry. For IAB-MT, to determine whether the IAB-MT supports a channel bandwidth of 100 MHz, the network checks c*hannelBW-DL-IAB-r16*. For NCR-MT, to determine whether the NCR-MT supports a channel bandwidth of 100 MHz, the network checks c*hannelBW-DL-NCR-r18*. For FR1, the bits in *channelBWs-DL* (without suffix) starting from the leading / leftmost bit indicate 5, 10, 15, 20, 25, 30, 40, 50, 60 and 80MHz. For FR2, the bits in *channelBWs-DL* (without suffix) starting from the leading / leftmost bit indicate 50, 100 and 200MHz. The third / rightmost bit (for 200MHz) shall be set to 1, except for NTN bands. For IAB-MT and NCR-MT, the third / rightmost bit (for 200MHz) is ignored. To determine whether the IAB-MT supports a channel bandwidth of 200 MHz, the network checks *channelBW-DL-IAB-r16*. To determine whether the NCR-MT supports a channel bandwidth of 200 MHz, the network checks c*hannelBW-DL-NCR-r18*. For FR1, the leading/leftmost bit in *channelBWs-DL-v1590* indicates 70MHz, the second leftmost bit indicates 45MHz, the third leftmost bit indicates 35MHz, the fourth leftmost bit indicates 100MHz, the fifth leftmost bit indicates 7MHz, and all the remaining bits in *channelBWs-DL-v1590* shall be set to 0. The fourth leftmost bit (for 100MHz) is not applicable for bands n41, n48, n77, n78, n79 and n90 as defined in TS 38.101-1 [2]. For each band, (e)RedCap UEs shall indicate supporting the maximum of those channel bandwidths that are less than or equal to 20 MHz for FR1 and less than or equal to 100 Mhz for FR2, taking restrictions in TS 38.101-1 [2] and TS 38.101-2 [3] into consideration. For each band, NTN capable UEs shall indicate the supported channel bandwidths for FR1 and FR2, taking restrictions in TS 38.101-5 [34] into consideration. This feature is applicable only for FR1, FR2-1, FR1-NTN and FR2-NTN band, otherwise it is absent. NOTE: To determine whether the UE supports a specific SCS for a given band, the network validates the *supportedSubCarrierSpacingDL* and the *scs-60kHz*. To determine whether the UE supports a channel bandwidth of 90 MHz for the band combination with other bandwidth combination set than BCS5, the network may ignore this capability and validate instead the *channelBW-90mhz*, the *supportedBandwidthCombinationSet*, the *supportedBandwidthCombinationSetIntraENDC*, and *supportedBandwidthCombinationSetIntraENDC-v1790*. To determine whether the UE supports a channel bandwidth of 90 MHz for the band combination with BCS5, the network may ignore this capability and validate instead the *channelBW-90mhz*, the *supportedBandwidthCombinationSet*, the *supportedBandwidthCombinationSetIntraENDC*, *supportedAggBW-FR1-r17*, and *supportedBandwidthCombinationSetIntraENDC-v1790*. To determine whether the UE supports a channel bandwidth of 400 MHz, the network may ignore this capability and validate the *supportedBandwidthCombinationSet*, the *supportedBandwidthCombinationSetIntraENDC*, the *supportedBandwidthDL*, and *supportedBandwidthCombinationSetIntraENDC-v1790*. To determine whether the UE supports a channel bandwidth of 3MHz, the network may ignore this capability and validate instead the *support3MHz-ChannelBW-Symmetric-r18,* the *supportedBandwidthCombinationSet*, the *asymmetricBandwidthCombinationSet* (for a band supporting asymmetric channel bandwidth as defined in clause 5.3.6 of TS 38.101-1 [2] for TN or in clause 5.3.6 of TS 38.101-5 [34] for NTN), the *supportedBandwidthDL-v1840* and the *supportedMinBandwidthDL-v1840.* For serving cell(s) with other channel bandwidths: - If *supportedAggBW-FR1-r17* is reported, the network validates the *channelBWs-DL*, the *supportedBandwidthCombinationSet*, the *supportedBandwidthCombinationSetIntraENDC*, the *asymmetricBandwidthCombinationSet* (for a band supporting	Band	Yes	N/A	N/A

asymmetric channel bandwidth as defined in clause 5.3.6 of TS 38.101-1 [2]), *supportedBandwidthDL-v1780/supportedBandwidthDL-v1900*, *supportedMinBandwidthDL-r17/supportedMinBandwidthDL-v1900*, *supportedAggBW-FR1-r17*, and *supportedBandwidthCombinationSetIntraENDC-v1790.* - Otherwise, the network validates the *channelBWs-DL*, the *supportedBandwidthCombinationSet*, the *supportedBandwidthCombinationSetIntraENDC*, the *asymmetricBandwidthCombinationSet* (for a band supporting asymmetric channel bandwidth as defined in clause 5.3.6 of TS 38.101-1 [2]), *supportedBandwidthDL/supportedBandwidthDL-v1710/supportedBandwidthDL-v1900, supportedMinBandwidthDL-r17/supportedMinBandwidthDL-v1900*, *supportedAggBW-FR2-r17*, and *supportedBandwidthCombinationSetIntraENDC-v1790.*				
channelBWs-DL-SCS-120kHz-FR2-2-r17 Indicates the UE supported channel bandwidths in DL for the SCS 120kHz. The bits in *channelBWs-DL-SCS-120kHz-FR2-2* starting from the leading / leftmost bit indicate 100 and 400MHz. 100 and 400 MHz are mandatory channel bandwidths if the UE supports 120 kHz SCS (i.e. the bit for 100 and 400MHz shall always be set to 1). UE supporting this feature shall also indicate support of *dl-FR2-2-SCS-120kHz-r17*. NOTE: To determine whether the UE supports a SCS 120kHz for a given band, the network validates the *supportedSubCarrierSpacingDL*. To determine the supported carrier bandwidths, the network validates the *channelBWs-DL-SCS-120kHz-FR2-2-r17*, the *supportedBandwidthCombinationSet* and the *supportedBandwidthDL-v1710*.	Band	CY	N/A	N/A
channelBWs-DL-SCS-480kHz-FR2-2-r17 Indicates the UE supported channel bandwidths in DL for the SCS 480kHz. The bits in *channelBWs-DL-SCS-480kHz-FR2-2* starting from the leading / leftmost bit indicate 400, 800 and 1600MHz. 400 MHz is a mandatory channel bandwidth if the UE supports 480 kHz SCS (i.e. the bit for 400MHz shall always be set to 1). UE supporting this feature shall also indicate support of *dl-FR2-2-SCS-480kHz-r17*. NOTE: To determine whether the UE supports a SCS 480kHz for a given band, the network validates the *supportedSubCarrierSpacingDL*. To determine the supported carrier bandwidths, the network validates the *channelBWs-DL-SCS-480kHz-FR2-2-r17*, the *supportedBandwidthCombinationSet* and *supportedBandwidthDL-v1710*.	Band	CY	N/A	N/A
channelBWs-DL-SCS-960kHz-FR2-2-r17 Indicates the UE supported channel bandwidths in DL for the SCS 960kHz. The bits in *channelBWs-DL-SCS-960kHz-FR2-2* starting from the leading / leftmost bit indicate 400, 800,1600 and 2000MHz. 400 MHz is a mandatory channel bandwidth if the UE supports 960 kHz SCS (i.e. the bit for 400MHz shall always be set to 1). UE supporting this feature shall also indicate support of *dl-FR2-2-SCS-960kHz-r17*. NOTE: To determine whether the UE supports a SCS 960kHz for a given band, the network validates the *supportedSubCarrierSpacingDL*. To determine the supported carrier bandwidths, the network validates the *channelBWs-DL-SCS-960kHz-FR2-2-r17*, the *supportedBandwidthCombinationSet* and *supportedBandwidthDL-v1710*.	Band	CY	N/A	N/A

channelBWs-UL Indicates for each subcarrier spacing the UE supported channel bandwidths. Absence of the *channelBWs-UL* (without suffix) for a band or absence of specific scs-XXkHz entry for a supported subcarrier spacing means that the UE supports the channel bandwidths among [5, 10, 15, 20, 25, 30, 40, 50, 60, 80, 100] and [50, 100, 200] that were defined in clause 5.3.5 of TS 38.101-1 version 15.7.0 [2] and TS 38.101-2 version 15.7.0 [3] for the given band or the specific SCS entry. For IAB-MT, to determine whether the IAB-MT supports a channel bandwidth of 100 MHz, the network checks *channelBW-UL-IAB-r16*. For NCR-MT, to determine whether the NCR-MT supports a channel bandwidth of 100 MHz, the network checks *channelBW-UL-NCR-r18*. For FR1, the bits in *channelBWs-UL* (without suffix) starting from the leading / leftmost bit indicate 5, 10, 15, 20, 25, 30, 40, 50, 60 and 80MHz. For FR2, the bits in *channelBWs-UL* (without suffix) starting from the leading / leftmost bit indicate 50, 100 and 200MHz. The third / rightmost bit (for 200MHz) shall be set to 1, except for NTN bands. For IAB-MT and NCR-MT, the third / rightmost bit (for 200MHz) is ignored. To determine whether the IAB-MT supports a channel bandwidth of 200 MHz, the network checks *channelBW-UL-IAB-r16*. To determine whether the NCR-MT supports a channel bandwidth of 200 MHz, the network checks *channelBW-UL-NCR-r18*. For FR1, the leading/leftmost bit in *channelBWs-UL-v1590* indicates 70 MHz, the second leftmost bit indicates 45MHz, the third leftmost bit indicates 35MHz, the fourth leftmost bit indicates 100MHz, the fifth leftmost bit indicates 7MHz, and all the remaining bits in *channelBWs-UL-v1590* shall be set to 0. The fourth leftmost bit (for 100MHz) is not applicable for bands n41, n48, n77, n78, n79 and n90 as defined in TS 38.101-1 [2]. For each band, (e)RedCap UEs shall indicate supporting the maximum of those channel bandwidths that are less than or equal to 20 MHz for FR1 and less than or equal to 100 Mhz for FR2, taking restrictions in TS 38.101-1 [2] and TS 38.101-2 [3] into consideration. For each band, NTN capable UEs shall indicate the supported channel bandwidths for FR1 and FR2, taking restrictions in TS 38.101-5 [34] into consideration. This feature is applicable only for FR1, FR2-1, FR1-NTN and FR2-NTN band, otherwise it is absent. NOTE 1: To determine whether the UE supports a specific SCS for a given band, the network validates the *supportedSubCarrierSpacingUL* and the *scs-60kHz*. To determine whether the UE supports a channel bandwidth of 90 MHz for the band combination with other bandwidth combination set than BCS5, the network may ignore this capability and validate instead the *channelBW-90mhz*, the *supportedBandwidthCombinationSet*, the *supportedBandwidthCombinationSetIntraENDC,* and *supportedBandwidthCombinationSetIntraENDC-v1790*. To determine whether the UE supports a channel bandwidth of 90 MHz for the band combination with BCS5, the network may ignore this capability and validate instead the *channelBW-90mhz*, the *supportedBandwidthCombinationSet*, the *supportedBandwidthCombinationSetIntraENDC*, *supportedAggBW-FR1-r17,* and *supportedBandwidthCombinationSetIntraENDC-v1790*. To determine whether the UE supports a channel bandwidth of 400 MHz, the network may ignore this capability and validate the *supportedBandwidthCombinationSet*, the *supportedBandwidthCombinationSetIntraENDC*, the *supportedBandwidthUL,* and *supportedBandwidthCombinationSetIntraENDC-v1790*. To determine whether the UE supports a channel bandwidth of 3MHz, the network may ignore this capability and validate instead the *support3MHz-ChannelBW-Symmetric-r18, support3MHz-ChannelBW-Asymmetric-r18,* the *supportedBandwidthCombinationSet,* the *asymmetricBandwidthCombinationSet* (for a band supporting asymmetric channel bandwidth as defined in clause 5.3.6 of TS 38.101-1 [2]), the *supportedBandwidthUL-v1840* and the *supportedMinBandwidthUL-v1840*. For serving cell(s) with other channel bandwidths: - If *supportedAggBW-FR1-r17* is reported, the network validates the *channelBWs-UL*, the *supportedBandwidthCombinationSet*, the *supportedBandwidthCombinationSetIntraENDC*, the	Band	Yes	N/A	N/A

asymmetricBandwidthCombinationSet (for a band supporting asymmetric channel bandwidth as defined in clause 5.3.6 of TS 38.101-1 [2] for TN or in clause 5.3.6 of TS 38.101-5 [34] for NTN), *supportedBandwidthUL-v1780/supportedBandwidthUL-v1900*, *supportedMinBandwidthUL-r17/supportedMinBandwidthUL-v1900*, *supportedAggBW-FR1-r17,* and *supportedBandwidthCombinationSetIntraENDC-v1790.* - Otherwise, the network validates the *channelBWs-UL*, the *supportedBandwidthCombinationSet*, the *supportedBandwidthCombinationSetIntraENDC*, the *asymmetricBandwidthCombinationSet* (for a band supporting asymmetric channel bandwidth as defined in clause 5.3.6 of TS 38.101-1 [2]), *supportedBandwidthUL/supportedBandwidthUL-v1710/supportedBandwidthUL-v1900, supportedMinBandwidthUL-r17/supportedMinBandwidthUL-v1900*, *supportedAggBW-FR2-r17,* and *supportedBandwidthCombinationSetIntraENDC-v1790.* NOTE 2: For SRS carrier switching to a PUSCH-less cell, to determine whether the UE supports a channel bandwidth 90MHz/400MHz for SRS configuration, the network validates the supported DL bandwidth, e.g. if the 90MHz is supported by the downlink, the network can configure SRS with 90MHz on the PUSCH-less carrier. SRS carrier switching on PUSCH-less SCells is not supported when channel bandwidth configured for DL is not supported in UL according to *channelBWs-UL*.				
channelBWs-UL-SCS-120kHz-FR2-2-r17 Indicates the UE supported channel bandwidths in UL for the SCS 120kHz. The bits in *channelBWs-UL-SCS-120kHz-FR2-2* starting from the leading / leftmost bit indicate 100 and 400MHz. 100 and 400 MHz are mandatory channel bandwidths if the UE supports 120 kHz SCS (i.e. the bit for 100 and 400MHz shall always be set to 1). UE supporting this feature shall also indicate support of *ul-FR2-2-SCS-120kHz-r17*. NOTE: To determine whether the UE supports a SCS 120kHz for a given band, the network validates the *supportedSubCarrierSpacingUL*. To determine the supported carrier bandwidths, the network validates the *channelBWs-UL-SCS-120kHz-FR2-2-r17*, the *supportedBandwidthCombinationSet* and the *supportedBandwidthUL-v1710*.	Band	CY	N/A	N/A
channelBWs-UL-SCS-480kHz-FR2-2-r17 Indicates the UE supported channel bandwidths in UL for the SCS 480kHz. The bits in *channelBWs-UL-SCS-480kHz-FR2-2* starting from the leading / leftmost bit indicate 400, 800 and 1600MHz. 400 MHz is a mandatory channel bandwidth if the UE supports 480 kHz SCS (i.e. the bit for 400MHz shall always be set to 1). UE supporting this feature shall also indicate support of *ul-FR2-2-SCS-480kHz-r17*. NOTE: To determine whether the UE supports a SCS 480kHz for a given band, the network validates the *supportedSubCarrierSpacingUL*. To determine the supported carrier bandwidths, the network validates the *channelBWs-UL-SCS-480kHz-FR2-2-r17*, the *supportedBandwidthCombinationSet* and *supportedBandwidthUL-v1710*.	Band	CY	N/A	N/A
channelBWs-UL-SCS-960kHz-FR2-2-r17 Indicates the UE supported channel bandwidths in UL for the SCS 960kHz. The bits in *channelBWs-UL-SCS-960kHz-FR2-2* starting from the leading / leftmost bit indicate 400, 800, 1600 and 2000MHz. 400 MHz is a mandatory channel bandwidth if the UE supports 960 kHz SCS (i.e. the bit for 400MHz shall always be set to 1). UE supporting this feature shall also indicate support of *ul-FR2-2-SCS-960kHz-r17*. NOTE: To determine whether the UE supports a SCS 960kHz for a given band, the network validates the *supportedSubCarrierSpacingUL*. To determine the supported carrier bandwidths, the network validates the *channelBWs-UL-SCS-960kHz-FR2-2-r17*, the *supportedBandwidthCombinationSet* and *supportedBandwidthUL-v1710*.	Band	CY	N/A	N/A

cjt-QCL-PDSCH-SchemeC-r19 Indicates whether the UE supports the PDSCH DMRS port(s) that are QCLed with the DL-RS associated with the first TCI state with respect to QCL-TypeA and QCLed with the DL-RS in the second TCI state with respect to QCL-TypeA except for {Doppler shift}. A UE supporting this feature shall also indicate support of *tci-JointTCI-UpdateSingleActiveTCI-PerCC-r18*.	Band	No	N/A	N/A
cjt-QCL-PDSCH-SchemeD-r19 Indicates whether the UE supports the PDSCH DMRS port(s) that are QCLed with the DL-RS associated with the first TCI state with respect to QCL-TypeA and QCLed with the DL-RS in the second TCI state with respect to QCL-TypeA except for {average delay}. A UE supporting this feature shall also indicate support of *tci-JointTCI-UpdateSingleActiveTCI-PerCC-r18*.	Band	No	N/A	N/A
cjt-QCL-PDSCH-SchemeE-r19 Indicates whether the UE supports the PDSCH DMRS port(s) that are QCLed with the DL-RS associated with the first TCI state with respect to QCL-TypeA and QCLed with the DL-RS in the second TCI state with respect to QCL-TypeA except for {Doppler shift, average delay}. A UE supporting this feature shall also indicate support of *tci-JointTCI-UpdateSingleActiveTCI-PerCC-r18*.	Band	No	N/A	N/A
cjtc-DdFO-Report-r19 Indicates whether the UE supports coherent joint transmission calibration delay offset and frequency offset report. This capability signaling comprises the following parameters: - *minRangeDdInCyclicPrefix-r19* indicates the configured minimum quantization range for coherent joint transmission calibration delay offset reporting. The cyclic prefix of '*full*' is lower than '*half*'; - *maxResolutionDd-r19* indicates the configured maximum resolution (number of steps) for the quantization alphabet for coherent joint transmission calibration delay offset reporting. The larger reported value is the lower capability; - *minRangeFO-r19* indicates the configured minimum quantization range for coherent joint transmission calibration frequency offset reporting, where value *ppmDot1* indicates 0.1 parts per million of the carrier frequency, value *ppmDot2* indicates 0.2 parts per million of the carrier frequency. The '*ppmDot2*' is of lower capability than '*ppmDot1*'; - *maxResolutionFO-r19* indicates the configured maximum resolution (number of steps) for the quantization alphabet for coherent joint transmission calibration frequency offset reporting. The larger reported value is the lower capability; - *scalingFactor-r19* indicates the supported value of scaling factor X for OCPU calculation. The larger reported value is the lower capability. A UE supporting this feature shall also indicate support of *csi-ReportFramework*, *cjtc-DdReport-r19* and *cjtc-FO-Report-r19*. NOTE: OCPU = 2X*NTRP.	Band	No	N/A	N/A
cjtc-DdFO-ReportProcessing-r19 Indicates whether the UE supports coherent joint transmission calibration delay and frequency offset report processing. This capability signaling comprises the following parameters: - *maxNumberTRS-Resource-r19* indicates the maximum number of configured TRS resource sets for joint delay and frequency offset report; - *maxNumberTRS-ResourceAcrossCC-r19* indicates the maximum number of configured TRS resource sets for joint delay and frequency offset report across all CCs in a band; - *maxNumberCSI-RS-ResourcePerCC-r19* indicates the maximum number of simultaneously active CSI-RS resources for joint delay and frequency offset report per CC; - *maxNumberCSI-RS-ResourceAcrossCC-r19* indicates the number of simultaneously active CSI-RS resources for joint delay and frequency offset report across all CCs in a band; - *valueX-r19* indicates the value X for CPU occupation, where $O_{CPU}=2X*N_{TRP}$. A UE supporting this feature shall also indicate support of *cjtc-DdFO-Report-r19*.	Band	No	N/A	N/A

cjtc-DdReport-r19 Indicates whether the UE supports coherent joint transmission calibration delay offset report. This capability signaling comprises the following parameters: - *minRangeDdInCyclicPrefix-r19* indicates the configured minimum quantization range for coherent joint transmission calibration delay offset reporting. The cyclic prefix of '*full*' is lower than '*half*''; - *maxResolutionDd-r19* indicates the configured maximum resolution (number of steps) for the quantization alphabet for coherent joint transmission calibration delay offset reporting. The larger reported value is the lower capability; - *scalingFactor-r19* indicates the supported value of scaling factor X for OCPU calculation. The larger reported value is the lower capability. A UE supporting this feature shall also indicate support of *csi-ReportFramework*. NOTE: OCPU = X*NTRP.	Band	No	N/A	N/A
cjtc-DdReportProcessing-r19 Indicates whether the UE supports coherent joint transmission calibration delay offset report processing. This capability signaling comprises the following parameters: - *maxNumberTRS-Resource-r19* indicates the maximum number of configured TRS resource sets for delay offset report; - *maxNumberTRS-ResourceAcrossCC-r19* indicates the maximum number of configured TRS resource sets for delay offset report across all CCs in a band; - *maxNumberCSI-RS-ResourcePerCC-r19* indicates the maximum number of simultaneously active CSI-RS resources for delay offset report per CC; - *maxNumberCSI-RS-ResourceAcrossCC-r19* indicates the number of simultaneously active CSI-RS resources for delay offset report across all CCs in a band; - *valueX-r19* indicates the value X for CPU occupation, where $O_{CPU}=X*N_{TRP}$. A UE supporting this feature shall also indicate support of *cjtc-DdReport-r19*.	Band	No	N/A	N/A
cjtc-FO-Report-r19 Indicates whether the UE supports coherent joint transmission calibration frequency offset report. This capability signaling comprises the following parameters: - *minRangeFO-r19* indicates the configured minimum quantization range for coherent joint transmission calibration frequency offset reporting, where value *ppmDot1* indicates 0.1 parts per million of the carrier frequency, value *ppmDot2* indicates 0.2 parts per million of the carrier frequency. The '*ppmDot2*' is of lower capability than '*ppmDot1*'; - *maxResolutionFO-r19* indicates the configured maximum resolution (number of steps) for the quantization alphabet for coherent joint transmission calibration frequency offset reporting. The larger reported value is the lower capability; - *scalingFactor-r19* indicates the supported value of scaling factor X for OCPU calculation. The larger reported value is the lower capability. A UE supporting this feature shall also indicate support of *csi-ReportFramework*. NOTE: OCPU = X*NTRP.	Band	No	N/A	N/A
cjtc-FO-ReportProcessing-r19 Indicates whether the UE supports coherent joint transmission calibration frequency offset report processing. This capability signaling comprises the following parameters: - *maxNumberTRS-Resource-r19* indicates the maximum number of configured TRS resource sets for frequency offset report; - *maxNumberTRS-ResourceAcrossCC-r19* indicates the maximum number of configured TRS resource sets for frequency offset report across all CCs in a band; - *maxNumberCSI-RS-ResourcePerCC-r19* indicates the maximum number of simultaneously active CSI-RS resources for frequency offset report per CC; - *maxNumberCSI-RS-ResourceAcrossCC-r19* indicates the number of simultaneously active CSI-RS resources for frequency offset report across all CCs in a band; - *valueX-r19* indicates the value X for CPU occupation, where $O_{CPU}=X*N_{TRP}$. A UE supporting this feature shall also indicate support of *cjtc-FO-Report-r19*.	Band	No	N/A	N/A

cjtc-PO-ReportSubband-r19 Indicates whether the UE supports coherent joint transmission calibration subband phase offset report. This capability signalling comprises the following parameters: - *maxResolution-r19* indicates the configured maximum resolution (number of steps) for the quantization alphabet for coherent joint transmission calibration subband phase offset reporting. - *minSubbandSize-r19* indicates the configured minimum subband size in resource blocks for the coherent joint transmission calibration subband phase offset report. - *scalingFactor-r19* indicates the supported value of scaling factor X for OCPU calculation. - *maxSlotDuration-r19* indicates the supported maximum slot duration for N_{TRP} P/SP CSI-RS occasions being confined in. A UE supporting this feature shall also indicate support of *csi-ReportFramework*. NOTE: OCPU = X*NTRP.	Band	No	N/A	N/A
cjtc-PO-ReportWideband-r19 Indicates whether the UE supports coherent joint transmission calibration wideband phase offset report. This capability signalling comprises the following parameters: - *maxResolution-r19* indicates the configured maximum resolution (number of steps) for the quantization alphabet for coherent joint transmission calibration wideband phase offset reporting. - *scalingFactor-r19* indicates the supported value of scaling factor X for OCPU calculation. - *maxSlotDuration-r19* indicates the supported maximum slot duration for N_{TRP} P/SP CSI-RS occasions being confined in. A UE supporting this feature shall also indicate support of *csi-ReportFramework*. NOTE: OCPU = X*NTRP.	Band	No	N/A	N/A
cjtc-PO-ReportWidebandProcessing-r19 Indicates whether the UE supports coherent joint transmission calibration wideband phase offset report processing. This capability signalling comprises the following parameters: - *maxNumberCSI-RS-Configured-r19* indicates the maximum number of configured CSI-RS resources for phase offset report; - *maxNumberCSI-RS-ConfiguredAcrossCC-r19* indicates the maximum number of configured CSI-RS resources for phase offset report across all CCs in a band; - *maxNumberCSI-RS-ResourcePerCC-r19* indicates the maximum number of simultaneously active CSI-RS resources for phase offset report per CC; - *maxNumberCSI-RS-ResourceAcrossCC-r19* indicates the number of simultaneously active CSI-RS resources for phase offset report across all CCs in a band; - *valueX-r19* indicates the value X for CPU occupation, where $O_{CPU}=X*N_{TRP}$. A UE supporting this feature shall also indicate support of *cjtc-PO-ReportWideband-r19*.	Band	No	N/A	N/A

codebookComboParameterMixedType-r17 Indicates the support of active CSI-RS resources and ports for mixed codebook types in any slot. The UE reports support active CSI-RS resources and ports for up to 4 mixed codebook combinations in any slot. The following are the possible mixed codebook combinations {Codebook1, Codebook2, Codebook3}: - *type1SP-feType2PS-null-r17 indicates* {Type 1 Single Panel, FeType II PS M=1, NULL} - *type1SP-feType2PS-M2R1-null-r17* indicates {Type 1 Single Panel, FeType II PS M=2 R=1, NULL} - *type1SP-feType2PS-M2R2-null-r17* indicates {Type 1 Single Panel, FeType II PS M=2 R=2, NULL} - *type1SP-Type2-feType2-PS-M1-r17* indicates {Type 1 Single Panel, Type II, FeType II PS M=1} - *type1SP-Type2-feType2-PS-M2R1-r17* indicates {Type 1 Single Panel, Type II, FeType II PS M=2 R=1} - *type1SP-eType2R1-feType2-PS-M1-r17* indicates {Type 1 Single Panel, eType II R=1, FeType II PS M=1} - *type1SP-eType2R1-feType2-PS-M2R1-r17* indicates {Type 1 Single Panel, eType II R=1, FeType II PS M=2 R=1} - *type1MP-feType2PS-null-r17* indicates {Type 1 Multi Panel, FeType II PS M=1, NULL} - *type1MP-feType2PS-M2R1-null-r17* indicates {Type 1 Multi Panel, FeType II PS M=2 R=1, NULL} - *type1MP-feType2PS-M2R2-null-r17* indicates {Type 1 Multi Panel, FeType II PS M=2 R=2, NULL} - *type1MP-Type2-feType2-PS-M1-r17* indicates {Type 1 Multi Panel, Type II, FeType II PS M=1} - *type1MP-Type2-feType2-PS-M2R1-r17* indicates {Type 1 Multi Panel, Type II, FeType II PS M=2 R=1} - *type1MP-eType2R1-feType2-PS-M1-r17* indicates {Type 1 Multi Panel, eType II R=1, FeType II PS M=1} - *type1MP-eType2R1-feType2-PS-M2R1-r17* indicates {Type 1 Multi Panel, eType II R=1, FeType II PS M=2 R=1} For each mixed codebook supported by the UE, *supportedCSI-RS-ResourceListAdd-r16* indicates the list of supported CSI-RS resources in a band by referring to *codebookVariantsList*. The following parameters are included for the supported CSI-RS resource: - *maxNumberTxPortsPerResource* indicates the maximum number of Tx ports in a resource of a band. The minimum of *maxNumberTxPortsPerResource* is '*p4*'; - *maxNumberResourcesPerBand* indicates the maximum number of resources across all CCs in a band; - *totalNumberTxPortsPerBand* indicates the total number of Tx ports across all CCs in a band. The minimum value of *totalNumberTxPortsPerBand* is 4. The UE supporting this feature shall indicate the support of individual codebook types in the reported mixed codebook combination among *fetype2basic-r17, etype2R1-r16, codebookComboParametersAddition-r16, supportedCSI-RS-ResourceList, fetype2R1-r17, fetype2R2-r17.*	Band	No	N/A	N/A

codebookComboParameterMultiTRP-r17 Indicates the support of active CSI-RS resources and ports in the presence of multi-TRP CSI. Indicates the support of active CSI-RS resources and ports for mixed codebook types in any slot. The UE reports supported active CSI-RS resources and ports for up to 4 mixed codebook combinations. The following are the possible mixed codebook combinations {Codebook1, Codebook2, Codebook3}: - *nCJT-null-null* indicates {NCJT, NULL, NULL} - *nCJT1SP-null-null* indicates {NCJT+Type 1 SP for sTRP, NULL, NULL} - *nCJT-Type2-null-r16* indicates {NCJT*, Type 2, Null*} - *nCJT-Type2PS-null-r16* indicates {NCJT*, Type 2 with port selection, Null*} - *nCJT-eType2R1-null-r16* indicates {NCJT*, eType 2 with R=1, Null*} - *nCJT-eType2R2-null-r16* indicates {NCJT*, eType 2 with R=2, Null*} - *nCJT-eType2R1PS-null-r16* indicates {NCJT*, eType 2 with R=1 and port selection, Null*} - *nCJT-eType2R2PS-null-r16* indicates {NCJT*, eType 2 with R=2 and port selection, Null*} - *nCJT-Type2-Type2PS-r16* indicates {NCJT*, Type 2, Type 2 with port selection*} - *nCJT1SP-Type2-null-r16* indicates {NCJT+Type 1 SP for sTRP, Type 2, Null} - *nCJT1SP-Type2PS-null-r16* indicates {NCJT+Type 1 SP for sTRP, Type 2 with port selection, Null} - *nCJT1SP-eType2R1-null-r16* indicates {NCJT+Type 1 SP for sTRP, eType 2 with R=1, Null} - *nCJT1SP-eType2R2-null-r16* indicates {NCJT+Type 1 SP for sTRP, eType 2 with R=2, Null} - *nCJT1SP-eType2R1PS-null-r16* indicates {NCJT+Type 1 SP for sTRP, eType 2 with R=1 and port selection, Null} - *nCJT1SP-eType2R2PS-null-r16* indicates {NCJT+Type 1 SP for sTRP, eType 2 with R=2 and port selection, Null} - *nCJT1SP-Type2-Type2PS-r16* indicates {NCJT+Type 1 SP for sTRP, Type 2, Type 2 with port selection} - *nCJT-feType2PS-null-r17 indicates* {NCJT, FeType II PS M=1, NULL} - *nCJT-feType2PS-M2R1-null-r17* indicates {NCJT, FeType II PS M=2 R=1, NULL} - *nCJT-feType2PS-M2R2-null-r17* indicates {NCJT, FeType II PS M=2 R=2, NULL} - *nCJT-Type2-feType2-PS-M1-r17* indicates {NCJT, Type II, FeType II PS M=1} - *nCJT-Type2-feType2-PS-M2R1-r17* indicates {NCJT, Type II, FeType II PS M=2 R=1} - *nCJT-eType2R1-feType2-PS-M1-r17* indicates {NCJT, eType II R=1, FeType II PS M=1} - *nCJT-eType2R1-feType2-PS-M2R1-r17* indicates {NCJT, eType II R=1, FeType II PS M=2 R=1} - *nCJT1SP-feType2PS-null-r17 indicates* {NCJT+Type 1 SP for sTRP, FeType II PS M=1, NULL} - *nCJT1SP-feType2PS-M2R1-null-r17* indicates {NCJT+Type 1 SP for sTRP, FeType II PS M=2 R=1, NULL} - *nCJT1SP-feType2PS-M2R2-null-r17* indicates {NCJT+Type 1 SP for sTRP, FeType II PS M=2 R=2, NULL} - *nCJT1SP-Type2-feType2-PS-M1-r17* indicates {NCJT+Type 1 SP for sTRP, Type II, FeType II PS M=1} - *nCJT1SP-Type2-feType2-PS-M2R1-r17* indicates {NCJT+Type 1 SP for sTRP, Type II, FeType II PS M=2 R=1} - *nCJT1SP-eType2R1-feType2-PS-M1-r17* indicates {NCJT+Type 1 SP for sTRP, eType II R=1, FeType II PS M=1} - *nCJT1SP-eType2R1-feType2-PS-M2R1-r17* indicates {NCJT+Type 1 SP for sTRP, eType II R=1, FeType II PS M=2 R=1} For each mixed codebook supported by the UE, *supportedCSI-RS-ResourceListAdd-r16* indicates the list of supported CSI-RS resources in a band by referring to *codebookVariantsList*. The following parameters are included in *codebookVariantsList*: - *maxNumberTxPortsPerResource* indicates the maximum number of Tx ports in a resource of a band combination.	Band	No	N/A	N/A

- *maxNumberResourcesPerBand* indicates the maximum number of resources across all CCs in a band combination. - *totalNumberTxPortsPerBand* indicates the total number of Tx ports across all CCs in a band combination. NOTE 1: A CMR pair configured for NCJT will be counted as two activated resources, a CMR configured for sTRP will be counted as one activated resource for a triplet. NOTE 2: This capability is relevant only when UE is configured with NCJT CSI in at least one CSI report setting in at least one CC in the band and/or band combination. The UE indicating support of this feature shall also indicate the support of *mTRP-CSI-EnhancementPerBand-r17*.				
codebookComboParametersAddition-r16 Indicates the UE supports the mixed codebook combinations and the corresponding parameters supported by the UE. For mixed codebook types, UE reports support active CSI-RS resources and ports for up to 4 mixed codebook combinations in any slot. The following is the possible mixed codebook combinations: - {Type 1 Single Panel, Type 2, Null} - {Type 1 Single Panel, Type 2 with port selection, Null} - {Type 1 Single Panel, eType 2 with R=1, Null} - {Type 1 Single Panel, eType 2 with R=2, Null} - {Type 1 Single Panel, eType 2 with R=1 and port selection, Null} - {Type 1 Single Panel, eType 2 with R=2 and port selection, Null} - {Type 1 Single Panel, Type 2, Type 2 with port selection} - {Type 1 Multi Panel, Type 2, Null} - {Type 1 Multi Panel, Type 2 with port selection, Null} - {Type 1 Multi Panel, eType 2 with R=1, Null} - {Type 1 Multi Panel, eType 2 with R=2, Null} - {Type 1 Multi Panel, eType 2 with R=1 with port selection, Null} - {Type 1 Multi Panel, eType 2 with R=2 with port selection, Null} - {Type 1 Multi Panel, Type 2, Type 2 with port selection} Parameters for each mixed codebook supported by the UE: - *supportedCSI-RS-ResourceListAdd-r16* indicates the list of supported CSI-RS resources in a band by referring to *codebookVariantsList*. The following parameters are included in *codebookVariantsList*: For *supportedCSI-RS-ResourceListAdd-r16* related to the additional codebooks: - The minimum of *maxNumberTxPortsPerResource* is '*p4*'; - The minimum value of *totalNumberTxPortsPerBand* is 4. If a UE reports one or more mixed codebook combinations, then usage of active CSI-RS resources and ports for multiple codebooks in any slot is allowed only within those combinations. For coexisting of mixed codebooks in any slot, gNB needs to consider the mixed codebook combination capability as well as per codebook capability of each codebook type in the mixed codebook combination. A UE that indicates support of a codebook type in the mixed codebook combination shall indicate support of the individual codebook type in the per band capability.	Band	No	N/A	N/A

CodebookComboParametersCJT-r18 Indicates that the UE supports active CSI-RS resources and ports for mixed codebook types including Type-II-CJT in any slot. The UE reports supported active CSI-RS resources and ports for the following are the possible mixed codebook combinations {Codebook1, Codebook2, Codebook3}: - cjt-Type1SP-eType2R1-null indicates {Type I SP, eType-II-CJT R=1, NULL} - cjt-Type1SP-eType2R2-null indicates {Type I SP, eType-II-CJT R=2, NULL} - cjt-Type1SP-feType2R1M1-null indicates {Type I SP, FeType-II-CJT PS R=1 M=1, NULL} - cjt-Type1SP-feType2R1M2-null indicates {Type I SP, FeType-II-CJT PS R=1 M=2, NULL} - cjt-Type1SP-feType2R2M2-null indicates {Type I SP, FeType-II-CJT PS R=2 M=2, NULL} - cjt-Type1MP-eType2R1-null indicates {Type I MP, eType-II-CJT R=1, NULL} - cjt-Type1MP-eType2R2-null indicates {Type I MP, eType-II-CJT R=2, NULL} - cjt-Type1MP-feType2R1M1-null indicates {Type I MP, FeType-II-CJT PS R=1 M=1, NULL} - cjt-Type1MP-feType2R1M2-null indicates {Type I MP, FeType-II-CJT PS R=1 M=2, NULL} - cjt-Type1MP-feType2R2M2-null indicates {Type I MP, FeType-II-CJT PS R=2 M=2, NULL} For each mixed codebook supported by the UE, *supportedCSI-RS-ResourceListAdd-r16* indicates the list of supported CSI-RS resources in a band by referring to *codebookVariantsList*. The following parameters are included in *codebookVariantsList*: - *maxNumberTxPortsPerResource* indicates the maximum number of Tx ports in a resource of a band combination. The minimum of *maxNumberTxPortsPerResource* is '*p4*'; - *maxNumberResourcesPerBand* indicates the maximum number of resources across all CCs in a band combination; - *totalNumberTxPortsPerBand* indicates the total number of Tx ports across all CCs in a band combination. The minimum value of *totalNumberTxPortsPerBand* is 4. A UE supporting this feature shall also indicate support of individual codebook types in the reported mixed codebook combination among *eType2CJT-r18*, *feType2CJT-r18*, Type I single panel codebook and Type I multi-panel codebook.	Band	No	N/A	N/A

codebookParameters
Indicates the codebooks and the corresponding parameters supported by the UE.
 	
Parameters for type I single panel codebook (type1 singlePanel) supported by the UE, which are mandatory to report:
- *supportedCSI-RS-ResourceList*;
  - a UE shall support a *maxNumberTxPortsPerResource* minimum value of 4 for codebook type I single panel in FR1 in the case of a single active CSI-resource across all bands in a band combination, regardless of what it reports in *supportedCSI-RS-ResourceList* with *maxNumberTxPortsPerResource*;
  - a UE shall support a *maxNumberTxPortsPerResource* minimum value of 8 when configured with wideband CSI report for codebook type I single panel in FR1 in the case of a single active CSI-resource across all bands in a band combination, regardless of what it reports in *supportedCSI-RS-ResourceList* with *maxNumberTxPortsPerResource*;
  - a UE shall support a *maxNumberTxPortsPerResource* minimum value of 2 for codebook type I single panel in FR2 in the case of a single active CSI-resource across all bands in a band combination, regardless of what it reports in *supportedCSI-RS-ResourceList* with *maxNumberTxPortsPerResource*.
- *modes* indicates supported codebook modes (mode 1, both mode 1 and mode 2);
- *maxNumberCSI-RS-PerResourceSet* indicates the maximum number of CSI-RS resource in a resource set.
 	
Parameters for type I multi-panel codebook (type1 multiPanel) supported by the UE, which are optional:
- *supportedCSI-RS-ResourceList*;
- *modes* indicates supported codebook modes (mode 1, mode 2, or both mode 1 and mode 2);
- *maxNumberCSI-RS-PerResourceSet* indicates the maximum number of CSI-RS resource in a resource set;
- *nrofPanels* indicates supported number of panels.
 	
Parameters for type II codebook (type2) supported by the UE, which are optional:
- *supportedCSI-RS-ResourceList*;
- *parameterLx* indicates the parameter "Lx" in codebook generation where x is an index of Tx ports indicated by *maxNumberTxPortsPerResource*;
- *amplitudeScalingType* indicates the amplitude scaling type supported by the UE (wideband or both wideband and sub-band);
- *amplitudeSubsetRestriction* indicates whether amplitude subset restriction is supported for the UE.
 	
Parameters for type II codebook with port selection (type2-PortSelection) supported by the UE, which are optional:
- *supportedCSI-RS-ResourceList*;
- *parameterLx* indicates the parameter "Lx" in codebook generation where x is an index of Tx ports indicated by *maxNumberTxPortsPerResource*;
- *amplitudeScalingType* indicates the amplitude scaling type supported by the UE (wideband or both wideband and sub-band).
 	
supportedCSI-RS-ResourceList includes list of the following parameters:
- *maxNumberTxPortsPerResource* indicates the maximum number of Tx ports in a resource;
- *maxNumberResourcesPerBand* indicates the maximum number of resources across all CCs within a band simultaneously;
- *totalNumberTxPortsPerBand* indicates the total number of Tx ports across all CCs within a band simultaneously.
For each codebook type, the UE may report another list of supported CSI-RS resources via *supportedCSI-RS-ResourceListAlt* in *codebookParametersPerBand*.
For type I single panel codebook (type1 singlePanel) supportedCSI-RS-ResourceListAlt,
- a UE shall report at least one triplet in supportedCSI-RS-ResourceListAlt with maxNumberTxPortsPerResource greater than or equal to 8 for FR1;
	Band	FD	N/A	N/A

- a UE shall report at least one triplet in supportedCSI-RS-ResourceListAlt with maxNumberTxPortsPerResource greater than or equal to 2 for FR2.				

codebookParametersAddition-r16
Indicates the UE support of additional codebooks and the corresponding parameters supported by the UE.
 	
Codebook etype 2 R=1 support parameter combination 1 to 6 and rank 1 to 2. Parameters for etype 2 R=1 (*etype2R1-r16*) supported by the UE, which are optional:
- *supportedCSI-RS-ResourceListAdd-r16* indicates the list of supported CSI-RS resources in a band by referring to *codebookVariantsList*. The following parameters are included in *codebookVariantsList*:
  - *maxNumberTxPortsPerResource* indicates the maximum number of Tx ports in a resource of a band;
  - *maxNumberResourcesPerBand* indicates the maximum number of resources across all CCs in a band, simultaneously;
  - *totalNumberTxPortsPerBand* indicates the total number of Tx ports across all CCs in a band, simultaneously.
- *paramComb7-8-r16* indicates the support of parameter combinations 7-8 for etype 2 R=1
- *rank3-4-r16* indicates the support of rank 3,4.
- *amplitudeSubsetRestriction-r16* indicates the support of amplitude subset restriction.
 	
Parameters for etype 2 R=2 (*etype2R2-r16*) supported by the UE, which are optional:
- *supportedCSI-RS-ResourceListAdd-r16*;
UE supporting *etype2R2-r16*supports also indicates support of *etype2R1-r16*.
 	
Codebook etype 2 R=1 with port selection supports 6 parameter combinations and rank 1,2. Parameters for etype 2 R=1 with port selection (*etype2R1-PortSelection-r16*) supported by the UE, which are optional:
- supportedCSI-RS-ResourceListAdd-r16;
- rank3-4-r16 indicates the support of rank 3,4
 	
Parameters for etype 2 R=2 with port selection (*etype2R2-PortSelection-r16*) supported by the UE, which are optional:
- *supportedCSI-RS-ResourceListAdd-r16*;
UE supporting etype2R2-PortSelection-r16 also indicates support of etype2R1-PortSelection-r16.
 	
For *supportedCSI-RS-ResourceListAdd-r16* related to the additional codebooks:
- The minimum of *maxNumberTxPortsPerResource* is '*p4*';
- The minimum value of *totalNumberTxPortsPerBand* is 4.
	Band	No	N/A	N/A

codebookParametersetype2CJT-r18
Indicates the UE support of additional codebooks and the corresponding parameters supported by the UE of Enhanced Type II Codebook (eType-II) with refinement for multi-TRP CJT.
 	
The basic features of eType-II codebook with refinement for multi-TRP CJT are included in *eType2CJT-r18*. This capability signalling comprises the following parameters:
- *supportedCSI-RS-ResourceList-r18* indicates the list of supported CSI-RS resources across all CCs in a band by referring to *codebookVariantsList*. The following parameters are included in *codebookVariantsList*:
  - *maxNumberTxPortsPerResource* indicates the maximum number of Tx ports in one NZP CSI-RS resource associated with multi-TRP CJT;
  - *maxNumberResourcesPerBand* indicates the maximum total number of NZP CSI-RS resource associated with multi-TRP CJT;
  - *totalNumberTxPortsPerBand* indicates the total number of Tx ports of NZP CSI-RS resources associated with multi-TRP CJT.
- *scalingfactor-r18* indicates the scaling factor X for CPU occupation counting for CJT etype-II codebook;
- *maxNumberNZP-CSI-RS-MultiTRP-CJT-r18* indicates the maximum number of NZP CSI-RS resources in one NZP CSI-RS resource set associated with multi-TRP CJT.
 	
The UE indicating *eType2CJT-r18* shall support N=N_TRP only, N_L=1 only, support mode 2 for eType-II codebook refinement for multi-TRP CJT, support PMI subband R=1, support parameter combinations with L=2,4, support rank 1,2, and support frequency basis selection mode 2, i.e., common frequency basis selection among different TRPs.
The UE indicating support of *eType2CJT-r18* shall also indicate support of *csi-ReportFramework* and *simultaneousCSI-ReportsAllCC.*
 	
NOTE 1: When NTRP=1 TRP is configured, OCPU =1. When NTRP>1 TRPS are configured, OCPU = ceil(X * NTRP).
NOTE 2: A-CSI is supported, and whether UE supports SP-CSI on PUSCH is dependent on *sp-CSI-ReportPUSCH*.
 	
The UE optionally includes *eType2CJT-FD-IO-r18* to indicate whether the UE supports mode 1 for CJT eType-II codebook with FD basis selection integer frequency offset. This capability signalling comprises the list of supported NZP CSI-RS resources across all CCs in a band by referring to *codebookVariantsList*. The UE indicating *eType2CJT-FD-IO-r18* shall also support frequency basis selection mode 1, i.e., common frequency basis selection among different TRPs with FD basis selection integer frequency offset.
 	
The UE optionally indicates *eType2CJT-FD-FO-r18* to indicate whether the UE supports frequency basis selection mode 1 with FD basis selection fractional frequency offset for eType-II based CJT codebook. The UE indicating *eType2CJT-FD-FO-r18* shall also indicate support of *eType2CJT-FD-IO-r18.*
 	
The UE optionally indicates *eType2CJT-R2-r18* to indicate whether the UE supports eType-II codebook refinement for multi-TRP CJT with PMI subbands R=2. This capability signalling comprises the list of supported NZP CSI-RS resources with R=2 across all CCs in a band by referring to *codebookVariantsList* across all CCs.
 	
The UE optionally indicates *eType2CJT-PV-Beta-r18* to indicate whether the UE supports eType-II codebook refinement for multi-TRP CJT with parameter combination pv={1/2,1/2,1/2,1/2} and beta=1/2.
 	
The UE optionally indicates *eType2CJT-2NN1N2-r18* to indicate whether the UE supports 2NN1N2 >32 for eType-II CJT codebook. The UE indicates the maximum number of ports across all TRPs for one CJT CSI measurement.
 	
The UE optionally indicates *eType2CJT-Rank3Rank4-r18* to indicate whether the UE supports eType-II codebook refinement for multi-TRP CJT with rank 3,4.
 	
The UE optionally indicates *eType2CJT-L6-r18* to indicate whether the UE supports eType-II codebook refinement for multi-TRP CJT with parameter combination with L=6. The UE supports this capability only for N_TRP=1.
	Band	No	N/A	N/A

The UE optionally indicates *eType2CJT-NN-r18* to indicate whether the UE supports selection of N <= N_TRP CSI-RS resource by UE for multi-TRP CJT based on eType-II codebook. The UE optionally indicates *eType2CJT-NL-SD-r18* to indicate whether the UE supports N_L>1 combinations of number of SD basis across CSI-RS resources for CJT eType-II codebook. The UE indicates the maximum number of lists for spatial basis selection, i.e., N_L, for multi-TRP CJT based on eType-II codebook. The UE optionally indicates *eType2CJT-Unequal-r18* to indicate whether the UE supports unequal number of spatial basis selection configuration across CSI-RS resources for multi-TRP CJT including eType-II codebook refinement. For *codebookVariantsList* related to the eType-II: - The minimum of *maxNumberTxPortsPerResource* is '*p4*'; - The minimum of *maxNumberResourcesPerBand* is 2; - The minimum value of *totalNumberTxPortsPerBand* is 4.				

codebookParametersetype2DopplerCSI-r18
Indicates the UE support of additional codebooks and the corresponding parameters supported by the UE of Enhanced Type II Codebook (eType-II) based on doppler CSI as specified in TS 38.214 [12].
 	
The basic features of eType-II doppler codebook are included in *eType2Doppler-r18*. This capability signalling comprises the following parameters:
- *supportedCSI-RS-ResourceList-r18* indicates the list of supported CSI-RS resources across all CCs in a band by referring to *codebookVariantsList*. The following parameters are included in *codebookVariantsList*:
  - *maxNumberTxPortsPerResource* indicates the maximum number of Tx ports in a resource of a band;
  - *maxNumberResourcesPerBand* indicates the maximum number of resources across all CCs in a band, simultaneously;
  - *totalNumberTxPortsPerBand* indicates the total number of Tx ports across all CCs in a band, simultaneously.
- *valueY-P-SP-CSI-RS-r18* indicates value of Y for CPU occupation (OCPU = Y* *vectorLengthDD-r18*), when P/SP-CSI-RS is configured for CMR;
- *valueY-A-CSI-RS-r18* indicates value of Y for CPU occupation (OCPU = Y*K), when A-CSI-RS is configured for CMR;
- *scalingfactor-r18* indicates scaling factor for active resource counting Kp.
 	
The UE indicating *eType2Doppler-r18* shall support X=1 CQI based on the first/earliest slot of the CSI reporting window and the first/earliest predicted PMI (TDCQI='1-1'), support eType-II regular codebook refinement for predicted PMI with PMI subband R=1, support parameter combinations with L=2,4, support rank = 1,2, and support the size of DD-basis, *vectorLengthDD-r18* =1.
The UE indicating support of *eType2Doppler-r18* shall also indicate support of *csi-ReportFramework* and *simultaneousCSI-ReportsAllCC.*
 	
NOTE 1: When *vectorLengthDD-r18* =1, OCPU =4.
NOTE 2: OCPU ≥ 4 when P/SP-CSI-RS is configured for CMR.
NOTE 3: When K=12, OCPU =8.
NOTE 4: A UE that supports CSI enhancement for Rel-16 based type-II doppler must support this feature.
The UE optionally includes *eType2DopplerN4-r18* to indicate whether the UE supports doppler measurement with *vectorLengthDD-r18* >1 for eType-II doppler codebook. This capability signalling comprises the following parameters:
- *supportedCSI-RS-ReportSettingList1-r18* indicates the list of supported combinations across all CCs in a band simultaneously by referring to *SupportedCSI-RS-ReportSetting-r18.* The following parameters are included in *SupportedCSI-RS-ReportSetting-r18*:
  - *maxN4-r18* indicates the max number of *vectorLengthDD-r18*;
  - *maxNumberTxPortsPerResource-r18* indicates the maximum number of Tx ports in a resource of a band;
  - *maxNumberResourcesPerBand-r18* indicates the maximum number of resources across all CCs in a band, simultaneously;
  - *totalNumberTxPortsPerBand-r18* indicates the total number of Tx ports across all CCs in a band, simultaneously.
- *supportedCSI-RS-ReportSettingList2-r18* indicates the list of supported combinations for one CSI report setting by referring to *SupportedCSI-RS-ReportSetting-r18.* The following parameters are included in *SupportedCSI-RS-ReportSetting-r18:*
  - *maxN4-r18* indicates the max number of *vectorLengthDD-r18;*
  - *maxNumberTxPortsPerResource-r18* indicates the maximum number of Tx ports in a resource of a band;
  - *maxNumberResourcesPerBand-r18* indicates the maximum number of resources across all CCs in a band, simultaneously;
  - *totalNumberTxPortsPerBand-r18* indicates the total number of Tx ports across all CCs in a band, simultaneously.
 	
The UE indicating support of *eType2DopplerN4-r18* shall also indicate support for the size of DD-basis, *vectorLengthDD-r18* >1, and value of *unitDurationDD-r18*=m for the DD unit size when A-CSI-RS is configured for CMR.
 	
The UE optionally includes *ddUnitSize-A-CSI-RS-CMR-r18* to indicate whether the UE supports value of *unitDurationDD-r18*=1 for the DD unit duration when A-CSI-RS is configured for CMR.
	Band	No	N/A	N/A

A UE supporting this feature shall also indicate support of *eType2DopplerN4-r18*. The UE optionally includes *maxNumberAperiodicCSI-RS-Resource-r18* to indicate the maximum number of aperiodic CSI-RS resources that can be configured in the same CSI report setting for eType-II doppler measurement. The UE optionally includes *eType2DopplerR2-r18* to indicate whether the UE supports R=2 for eType-II doppler codebook. This capability signalling comprises the list of supported CSI-RS resources across all CCs in a band by referring to *codebookVariantsList*. The UE optionally includes *eType2DopplerX1-r18* to indicate whether the UE supports X=1 based on first and last slot of W_{CSI}, for eType-II doppler codebook. The UE optionally includes *eType2DopplerX2-r18* to indicate whether the UE supports X=2 CQI based on 2 slots for eType-II doppler codebook. The UE optionally includes *eType2DopplerL-N4D1-r18* to indicate whether the UE supports l = (n – nCSI,ref) for CSI reference slot for eType-II doppler codebook. The UE optionally includes *eType2DopplerL6-r18* to indicate whether the UE supports L=6 for eType-II doppler codebook. The UE optionally includes *eType2DopplerR3R4-r18* to indicate whether the UE supports rank equals 3 and 4 for eType-II doppler codebook. For *codebookVariantsList-r16* related to the eType-II: - The minimum of *maxNumberTxPortsPerResource* is '*p4*'; - The minimum of *maxNumberResourcesPerBand* is 2, except for *eType2DopplerR2-r18*; - The minimum value of *totalNumberTxPortsPerBand* is 4.				

codebookParameterseType2DopplerExt-r19
Indicates whether the UE supports extended eType-II Doppler codebook.
 	
The basic features of extended eType-II Doppler codebook for 64 Tx ports by aggregating multiple NZP CSI-RS resource groups within 1 slot are included in *eType2Doppler-64PortExt-r19*. This capability signalling comprises the following parameters:
- *supportedCSI-RS-ResourceExtList-r19* indicates the list of supported CSI-RS resources across all CCs in a band by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources across all CCs in a band, simultaneously.
  - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across all CCs in a band, simultaneously.
- *processingCapability-r19* indicates the supported processing capability. Value *cap1* indicates the processing capability reuses timeline of enhanced Type II Codebook (eType-II) based on doppler CSI and OCPU = Y**vectorLengthDD-r18**ceil(P/32)) when P/SP-CSI-RS is configured for CMR, OCPU = Y*K_{DOPP}*ceil(P/32)) when A-CSI-RS is configured for CMR. Value *cap2* indicates the processing capability scales the timeline of enhanced Type II Codebook (eType-II) based on doppler CSI by ceil(P/32) where P is the total number of ports across all the K aggregated CSI-RS resources and OCPU = Y**vectorLengthDD-r18*, when P/SP-CSI-RS is configured for CMR, OCPU = Y*K_{DOPP}, when A-CSI-RS is configured for CMR. '*cap1*' is a higher capability than '*cap2*';
- *valueY-P-SP-CSI-RS-r19* indicates value of Y for CPU occupation when P/SP-CSI-RS is configured for CMR.
- *valueY-A-CSI-RS-r19* indicates value of Y for CPU occupation when A-CSI-RS is configured for CMR.
- *scalingfactor-r19* indicates scaling factor for active resource counting Kp.
- *maxNumberResource-r19* indicates the maximum number of CSI-RS resource in a resource group for aperiodic CSI-RS resource set or in a resource set for periodic CSI-RS resource set.
- *supportedCSI-RS-ResourceListPerCC-r19* indicates the list of supported CSI-RS resources per CC simultaneously in a band by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources per CC in a band, simultaneously.
  - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across per CC in a band, simultaneously.
 	
The UE indicating *eType2Doppler-64PortExt-r19* shall also support X=1 CQI based on the first/earliest slot of the CSI reporting window and the first/earliest predicted PMI (TDCQI='1-1'), support PMI subband R=1, support parameter combinations with L=2,4, support rank = 1,2, and support the size of DD-basis, *vectorLengthDD-r18* =1.
A UE supporting this feature shall also indicate support of *eType2Doppler-r18*.
 	
The UE optionally includes *eType2Doppler-48PortExt-r19* to indicate whether the UE supports extended eType-II Doppler codebook for 48 Tx ports by aggregating multiple NZP CSI-RS resource groups within 1 slot. This capability signalling comprises the following parameters:
- *supportedCSI-RS-ResourceExtList-r19* indicates the list of supported CSI-RS resources across all CCs in a band by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources across all CCs in a band, simultaneously.
  - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across all CCs in a band, simultaneously.
	Band	No	N/A	N/A

- *processingCapability-r19* indicates the supported processing capability. Value *cap1* indicates the processing capability reuses timeline of enhanced Type II Codebook (eType-II) based on doppler CSI and OCPU = Y**vectorLengthDD-r18**ceil(P/32)) when P/SP-CSI-RS is configured for CMR, OCPU = Y*K_{DOPP}*ceil(P/32)) when A-CSI-RS is configured for CMR. Value *cap2* indicates the processing capability scales the timeline of enhanced Type II Codebook (eType-II) based on doppler CSI by ceil(P/32) where P is the total number of ports across all the K aggregated CSI-RS resources and OCPU = Y**vectorLengthDD-r18*, when P/SP-CSI-RS is configured for CMR, OCPU = Y*K_{DOPP}, when A-CSI-RS is configured for CMR. '*cap1*' is a higher capability than '*cap2*';
- *valueY-P-SP-CSI-RS-r19* indicates value of Y for CPU occupation when P/SP-CSI-RS is configured for CMR.
- *valueY-A-CSI-RS-r19* indicates value of Y for CPU occupation when A-CSI-RS is configured for CMR.
- *scalingfactor-r19* indicates scaling factor for active resource counting Kp.
- *maxNumberResource-r19* indicates the maximum number of CSI-RS resource in a resource group for aperiodic CSI-RS resource set or in a resource set for periodic CSI-RS resource set.
- *supportedCSI-RS-ResourceListPerCC-r19* indicates the list of supported CSI-RS resources per CC simultaneously in a band by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources per CC in a band, simultaneously.
  - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across per CC in a band, simultaneously.
 	
The UE optionally includes *eType2Doppler-128PortExt-r19* to indicate whether the UE supports extended eType-II Doppler codebook for 128 Tx ports by aggregating multiple NZP CSI-RS resource groups within 1 slot and 4 CSI-RS resources in a resource group for aperiodic CSI-RS resource set or in a resource set for periodic CSI-RS resource set. This capability signalling comprises the following parameters:
- *supportedCSI-RS-ResourceExtList-r19* indicates the list of supported CSI-RS resources across all CCs in a band by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources across all CCs in a band, simultaneously.
  - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across all CCs in a band, simultaneously.
 	
- *processingCapability-r19* indicates the supported processing capability. Value *cap1* indicates the processing capability reuses timeline of enhanced Type II Codebook (eType-II) based on doppler CSI and OCPU = Y**vectorLengthDD-r18**ceil(P/32)) when P/SP-CSI-RS is configured for CMR, OCPU = Y*K_{DOPP}*ceil(P/32)) when A-CSI-RS is configured for CMR. Value *cap2* indicates the processing capability scales the timeline of enhanced Type II Codebook (eType-II) based on doppler CSI by ceil(P/32) where P is the total number of ports across all the K aggregated CSI-RS resources and OCPU = Y**vectorLengthDD-r18*, when P/SP-CSI-RS is configured for CMR, OCPU = Y*K_{DOPP}, when A-CSI-RS is configured for CMR. '*cap1*' is a higher capability than '*cap2*';
- *valueY-P-SP-CSI-RS-r19* indicates value of Y for CPU occupation when P/SP-CSI-RS is configured for CMR.
- *valueY-A-CSI-RS-r19* indicates value of Y for CPU occupation when A-CSI-RS is configured for CMR.
- *scalingfactor-r19* indicates scaling factor for active resource counting Kp.
- *supportedCSI-RS-ResourceListPerCC-r19* indicates the list of supported CSI-RS resources per CC simultaneously in a band by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources per CC in a band, simultaneously.				

- *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across per CC in a band, simultaneously.

NOTE 1: The maximum OCPU is 8.
NOTE 2: K_{DOPP} is the number of CSI-RS resource groups configured for channel measurement, and each CSI-RS resource groups contain K CSI-RS resources for aggregating up to 128 ports.

The UE optionally includes *eType2DopplerN4Ext-r19* to indicate whether the UE supports doppler measurement with *vectorLengthDD-r18* >1 for extended eType-II doppler codebook for up to 128 ports. This capability signalling comprises the following parameters:

- *supportedCSI-RS-ReportSettingList1-r19* indicates the list of supported combinations across all CCs in a band simultaneously by referring to *supportedCSI-RS-ReportSettingExt-r19*. The following parameters are included in *supportedCSI-RS-ReportSettingExt-r19*:
  - *maxN4-r19* indicates the max number of *vectorLengthDD-r18* across all CCs in a band, simultaneously.
  - *maxNumberTxPortsPerAggregatedResource-r19* indicates the maximum number of Tx ports in a report of a band across all CCs in a band, simultaneously.
  - *maxNumberAggregatedResources-r19* indicates the maximum number of sets of aggregated resources or groups of aggregated resource across all CCs in a band, simultaneously.
  - *totalNumberTxPorts-r19* indicates the total number of Tx ports across all CCs in a band, simultaneously.
- *supportedCSI-RS-ReportSettingList2-r19* indicates the list of supported combinations for one CSI report setting by referring to *supportedCSI-RS-ReportSettingExt-r19.* The following parameters are included in *supportedCSI-RS-ReportSettingExt-r19*:
  - *maxN4-r19* indicates the max number of *vectorLengthDD-r18* for one CSI report setting.
  - *maxNumberTxPortsPerAggregatedResource-r19* indicates the maximum number of Tx ports in a report of a band for one CSI report setting.
  - *maxNumberAggregatedResources-r19* indicates the maximum number of sets of aggregated resources or groups of aggregated resource for one CSI report setting.
  - *totalNumberTxPorts-r19* indicates the total number of Tx ports for one CSI report setting.

For *supportedCSI-RS-ReportSettingList2-r19* related to *eType2DopplerN4Ext-r19*:

- The values of *maxNumberAggregatedResources-r19* are restricted to '*4*', '*8*', and '*12*'.
- The maximum of *totalNumberTxPorts-r19* is '*256*'.

The UE indicating support of *eType2DopplerN4Ext-r19* shall also support value of *unitDurationDD-r18*=m for the DD unit size when A-CSI-RS is configured for CMR.

The UE optionally includes *ddUnitSize-A-CSI-RS-CMR-Ext-r19* to indicate the support of value of *unitDurationDD-r18*=1 for the DD unit duration when A-CSI-RS is configured for CMR for extended eType-II Doppler codebook for up to 128 ports.

The UE optionally includes *maxNumberAperiodicCSI-RS-ResourceExt-r19* to indicate the supported maximum number of aperiodic CSI-RS resources groups that can be configured in the same CSI report setting for extended eType-II Doppler codebook for up to 128 ports.

The UE optionally includes *eType2DopplerR2Ext-r19* to indicate whether the UE supports PMI subband R=2 for eType-II Doppler codebook enhancement for up to 128 ports. This capability signalling comprises the list of supported combinations across all CCs in a band simultaneously by referring to *supportedCSI-RS-ReportSettingExt-r19*. The following parameters are included in *supportedCSI-RS-ReportSettingExt-r19*:

- *maxN4-r19* indicates the max number of *vectorLengthDD-r18* across all CCs in a band, simultaneously.

- *maxNumberTxPortsPerAggregatedResource-r19* indicates the maximum number of Tx ports in a report of a band across all CCs in a band, simultaneously. - *maxNumberAggregatedResources-r19* indicates the maximum number of resources or groups of aggregated resource across all CCs in a band, simultaneously. - *totalNumberTxPorts-r19* indicates the total number of Tx ports across all CCs in a band, simultaneously. The UE optionally includes *eType2DopplerX1Ext-r19* to indicate whether the UE supports X=1 based on first and last slot of WCSI for extended eType-II Doppler codebook for up to 128 ports. The UE optionally includes *eType2DopplerX2Ext-r19* to indicate whether the UE supports X=2 CQI based on 2 slots for extended eType-II Doppler codebook for up to 128 ports and TDCQI='2'. The UE optionally includes *eType2DopplerL-N4D1Ext-r19* to indicate whether the UE supports l = (n – nCSI,ref) for CSI reference slot for extended eType-II Doppler codebook for up to 128 ports when *vectorLengthDD-r18* = 1 and *unitDurationDD-r18* > 1, or when *vectorLengthDD-r18* > 1. The UE optionally includes *eType2DopplerL6Ext-r19* to indicate whether the UE supports L=6 for extended eType-II Doppler codebook for up to 128 ports. The UE optionally includes *eType2DopplerR3R4Ext-r19* to indicate whether the UE supports rank equals 3 and 4 for CSI reference slot for extended eType-II Doppler codebook for up to 128 ports. The UE optionally includes *eType2DopplerProcessingTimelineExt-r19* to indicate whether the UE supports aperiodic CSI report timing relaxation for extended eType-II Doppler codebook for up to 128 ports. The capability signalling comprises of the following parameters: - *valueW-r19* indicates aperiodic CSI report timing relaxation, w, for doppler codebook based on extended eType-II doppler codebook for up to 128 ports. UE reports *valueW-r18*, independently for each SCS in unit of symbols. *value1* indicates $14*(K_P–1)*d$ symbols, *value2* indicates $14*K_P*d$ symbols, where K_P is according to *scalingfactor-r19* of *eType2Doppler-64PortExt-r19* and d =4 (minimum periodicity of periodic CSI-RS). - *timeRelaxation-r18* indicates aperiodic CSI report timing relaxation, type, for extended eType-II Doppler codebook for up to 128 ports. '*cap1*' is a higher capability than '*cap2*'.. For *vectorLengthDD-r18* = 1 1) For AP CSI-RS: $(Z,Z') = (Z_2 + 14*(K_{DOPP}–1)*m, Z'_2)$; 2) For P/SP CSI-RS: $(Z,Z') = (Z_2 + w, Z'_2)$. For *vectorLengthDD-r18* > 1 and *cap1* in *timeRelaxation-r19*: 1) For AP CSI-RS: $(Z,Z') = (Z_2 + 14*(K_{DOPP}–1)*m, Z'_2)$; 2) For P/SP CSI-RS: $(Z,Z') = (Z_2 + w, Z'_2)$. For *vectorLengthDD-r18* > 1 and *cap2* in *timeRelaxation-r19:* 1) For AP CSI-RS: $(Z,Z') = (Z_2 + 14*(K_{DOPP}–1)*m + Z'_2, 2Z'_2)$; 2) For P/SP CSI-RS: $(Z,Z') = (Z_2 + w + Z'_2, 2Z'_2)$. Z_2/Z'_2 are defined in Table 5.4-2 in TS 38.214 [12]. K_{DOPP} is the number of CSI-RS resource groups configured for channel measurement, and each CSI-RS resource groups contain K CSI-RS resources for aggregating up to 128 ports. m = {1,2}, is the offset between two adjacent AP CSI-RS resources for the CMR in slots. *eType2DopplerProcessingTimelineExt-r19* is not applicable to FR 2-2. The UE optionally includes *eType2MaxPeriodicityCMR-r19* to indicate the supported maximum periodicity of CMR when configured as periodic CSI-RS for extended eType-II Doppler codebook for up to 128 ports.				

codebookParameterseType2Ext-r19
Indicates whether the UE supports extended eType-II codebook.
 	
The basic features of extended eType-II codebook for 64 Tx ports by aggregating multiple NZP CSI-RS resources within 1 slot are included in *eType2-64PortExt-r19*. This capability signalling comprises the following parameters:
- *supportedCSI-RS-ResourceExtList-r19* indicates the list of supported CSI-RS resources across all CCs in a band by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources across all CCs in a band, simultaneously.
  - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across all CCs in a band, simultaneously.
- *processingCapability-r19* indicates the supported processing capability. Value *cap1* indicates the processing capability reuses Z/Z' values and OCPU = ceil(P/32). Value *cap2* indicates the processing capability scales the timeline Z/Z' by ceil(P/32) where P is the total number of ports across all the K aggregated CSI-RS resources and OCPU = 1. '*cap1*' is a higher capability than '*cap2*'.
- *maxNumberResource-r19* indicates the maximum number of CSI-RS resource in a resource set.
- *supportedCSI-RS-ResourceListPerCC-r19* indicates the list of supported CSI-RS resources per CC simultaneously in a band by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources per CC in a band, simultaneously.
  - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across per CC in a band, simultaneously.
 	
The UE indicating *eType2-64PortExt-r19* shall also support parameter combination 1-6, support rank 1-2 and support R=1.
A UE supporting this feature shall also indicate support of *etype2R1-r16*.
 	
The UE optionally includes *eType2-48PortExt-r19* to indicate whether the UE supports extended eType-II codebook for 48 Tx ports by aggregating multiple NZP CSI-RS resources within 1 slot. This capability signalling comprises the following parameters:
- *supportedCSI-RS-ResourceExtList-r19* indicates the list of supported CSI-RS resources across all CCs in a band by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources across all CCs in a band, simultaneously.
  - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across all CCs in a band, simultaneously.
- *processingCapability-r19* indicates the supported processing capability. Value *cap1* indicates the processing capability reuses Z/Z' values and OCPU = ceil(P/32). Value *cap2* indicates the processing capability scales the timeline Z/Z' by ceil(P/32) where P is the total number of ports across all the K aggregated CSI-RS resources and OCPU = 1. '*cap1*' is a higher capability than '*cap2*'.
- *maxNumberResource-r19* indicates the maximum number of CSI-RS resource in a resource set.
- *supportedCSI-RS-ResourceListPerCC-r19* indicates the list of supported CSI-RS resources per CC simultaneously in a band by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources per CC in a band, simultaneously.
	Band	No	N/A	N/A

- *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across per CC in a band, simultaneously. The UE optionally includes *eType2-128PortExt-r19* to indicate whether the UE supports extended eType-II codebook for 128 Tx ports by aggregating multiple NZP CSI-RS resources within 1 slot and 4 CSI-RS resources in a resource set. This capability signalling comprises the following parameters: - *supportedCSI-RS-ResourceExtList-r19* indicates the list of supported CSI-RS resources across all CCs in a band by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*: - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources across all CCs in a band, simultaneously. - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across all CCs in a band, simultaneously. - *processingCapability-r19* indicates the supported processing capability. Value *cap1* indicates the processing capability reuses Z/Z' values and OCPU = ceil(P/32). Value *cap2* indicates the processing capability scales the timeline Z/Z' by ceil(P/32) where P is the total number of ports across all the K aggregated CSI-RS resources and OCPU = 1. '*cap1*' is a higher capability than '*cap2*'. - *supportedCSI-RS-ResourceListPerCC-r19* indicates the list of supported CSI-RS resources per CC simultaneously in a band by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*: - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources per CC in a band, simultaneously. - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across per CC in a band, simultaneously. The UE optionally includes *eType2R2Ext-r19* to indicate whether the UE supports PMI sub-bands with R=2 for extended eType-II codebook for up to 128 ports. This capability indicates the list of supported CSI-RS resources across all CCs in a band by referring to *codebookVariantsListAggregate-r19*. The following parameters are included in *codebookVariantsListAggregate-r19*: - *maxNumberTxPortsPerAggregatedResource-r19* indicates the maximum number of Tx ports in a resource of across all CCs a band. - *maxNumberAggregatedResources-r19* indicates the maximum number of resources across all CCs in a band, simultaneously. - *totalNumberTxPorts-r19* indicates the total number of Tx ports across all CCs in a band, simultaneously. The UE optionally includes *eType2ExtPC7-8-r19* to indicate whether the UE supports parameter combinations 7-8 for extended eType-II codebook for up to 128 ports. The UE optionally includes *eType2R3R4Ext-r19* to indicate whether the UE supports rank 3,4 for extended eType-II codebook for up to 128 ports. This capability indicates the list of supported CSI-RS resources across all CCs in a band by referring to *codebookVariantsListAggregate-r19*. The following parameters are included in *codebookVariantsListAggregate-r19*: - *maxNumberTxPortsPerAggregatedResource-r19* indicates the maximum number of Tx ports in a resource of across all CCs a band. - *maxNumberAggregatedResources-r19* indicates the maximum number of resources across all CCs in a band, simultaneously. - *totalNumberTxPorts-r19* indicates the total number of Tx ports across all CCs in a band, simultaneously. For *codebookVariantsListAggregate-r19* related to *eType2R2Ext-r19* and *eType2R3R4Ext-r19*: - The minimum value of *totalNumberTxPorts-r19* is '*64*'. For *codebookVariantsListAggregate-r19* related to *eType2R3R4Ext-r19*: - The maximum value of *maxNumberAggregatedResources-r19* is '*64*'.				

codebookParametersfetype2-r17 Indicates the UE support of additional codebooks and the corresponding parameters supported by the UE of Further Enhanced Port-Selection Type II Codebook (FeType-II) as specified in TS 38.214 [12] clause 5.2.2.2.7. The UE indicating this feature shall include *fetype2basic-r17* to indicate basic features of FeType-II. This capability signalling comprises the following parameters: - indicates the list of supported CSI-RS resources across all CCs in a band by referring to *codebookVariantsList*. The following parameters are included in *codebookVariantsList*: - *maxNumberTxPortsPerResource* indicates the maximum number of Tx ports in a resource of a band - *maxNumberResourcesPerBand* indicates the maximum number of resources across all CCs in a band, simultaneously - *totalNumberTxPortsPerBand* indicates the total number of Tx ports across all CCs in a band, simultaneously The UE indicating *fetype2basic-r17* shall support parameter combinations with M=1 and support rank 1 and 2. UE indicating this feature shall also include *csi-ReportFramework*. The UE optionally includes *fetype2R1-r17* to indicate whether the UE supports M=2 and R=1 for FeType-II. This capability signalling comprises the following parameters: - indicates the list of supported CSI-RS resources across all CCs in a band by referring to *codebookVariantsList*. The UE indicating support of *fetype2R1-r17* shall also indicate support of *fetype2basic-r17* and parameter combinations with M=2. The UE optionally includes *fetype2R2-r17* to indicate whether the UE supports R=2 for FeType-II. This capability signalling comprises the following parameters: - indicates the list of supported CSI-RS resources across all CCs in a band by referring to *codebookVariantsList*. UE indicating support of *fetype2R2-r17* shall also indicate support of *fetype2R1-r17*. The UE optionally includes *fetype2Rank3Rank4-r17* to indicate whether the UE supports rank = 3 and rank = 4 for FeType-II. UE indicating support of *fetype2Rank3Rank4-r17* shall indicate support of *fetype2basic-r17*. For *codebookVariantsList* related to the FeType-II: - The minimum of *maxNumberTxPortsPerResource* is '*p4*'; - The minimum value of *totalNumberTxPortsPerBand* is 4.	Band	No	N/A	N/A

codebookParametersfetype2CJT-r18
Indicates the UE support of additional codebooks and the corresponding parameters supported by the UE of Further Enhanced Type II Codebook (feType-II) with refinement for multi-TRP CJT.
 	
The basic features of feType-II codebook with refinement for multi-TRP CJT are included in *feType2CJT-r18*. This capability signalling comprises the following parameters:
- *supportedCSI-RS-ResourceList-r18* indicates the list of supported CSI-RS resources across all CCs in a band by referring to *codebookVariantsList*. The following parameters are included in *codebookVariantsList*:
  - *maxNumberTxPortsPerResource* indicates the maximum number of Tx ports in one NZP CSI-RS resource associated with multi-TRP CJT;
  - *maxNumberResourcesPerBand* indicates the maximum total number of NZP CSI-RS resource associated with multi-TRP CJT;
  - *totalNumberTxPortsPerBand* indicates the total number of Tx ports of NZP CSI-RS resources associated with multi-TRP CJT.
- *scalingfactor-r18* indicates the scaling factor X for CPU occupation counting for CJT fetype-II codebook.
- *maxNumberNZP-CSI-RS-MultiTRP-CJT-r18* indicates the maximum number of NZP CSI-RS resources in one NZP CSI-RS resource set associated with multi-TRP CJT.
 	
The UE indicating *feType2CJT-r18* shall support N=N_TRP only, N_L=1 only, support mode 2 for FeType-II port selection codebook refinement for multi-TRP CJT, support PMI subband R=1, support parameter combinations with M=1, support rank 1,2, and support frequency basis selection mode 2, i.e., common frequency basis selection among different TRPs.
The UE indicating support of *feType2CJT-r18* shall also indicate support of *csi-ReportFramework* and *simultaneousCSI-ReportsAllCC.*
 	
NOTE 1: When NTRP=1 TRP is configured, OCPU =1. When NTRP>1 TRPS are configured, OCPU = ceil(X * NTRP).
NOTE 2: A-CSI is supported, and whether UE supports SP-CSI on PUSCH is dependent on *sp-CSI-ReportPUSCH*.
NOTE 3: A UE that supports CSI enhancement for Rel 17 based type-II CJT must support this feature.
 	
The UE optionally includes *feType2CJT-FD-IO-r18* to indicate whether the UE supports FeType-II port selection codebook refinement for multi-TRP CJT with PMI subband R=1. This capability signalling comprises the list of supported NZP CSI-RS resources across all CCs in a band by referring to *codebookVariantsList*. The UE indicating *feType2CJT-FD-IO-r18* shall also support frequency basis selection mode 1, i.e., common frequency basis selection among different TRPs with FD basis selection integer frequency offset.
 	
The UE optionally indicates *feType2CJT-FD-FO-r18* to indicate whether the UE supports frequency basis selection mode 1 with FD basis selection fractional frequency offset for FeType-II port selection based CJT codebook. The UE indicating *feType2CJT-FD-FO-r18* shall also indicate support of *feType2CJT-FD-IO-r18.*
 	
The UE optionally indicates *eType2CJT-M2R1-r18* to indicate whether the UE supports FeType-II port selection codebook refinement for multi-TRP CJT with M=2 and PMI subband R=1. This capability signalling comprises the list of supported NZP CSI-RS resources with R=2 across all CCs in a band by referring to *codebookVariantsList*. The UE indicating *feType2CJT-M2R1-r18* shall also indicate support of *feType2CJT-r18* or *feType2CJT-FD-IO-r18*.
 	
The UE optionally indicates *feType2CJT-R2-r18* to indicate whether the UE supports FeType-II port selection codebook refinement for multi-TRP CJT with PMI subband R=2. This capability signalling comprises the list of supported NZP CSI-RS resources with R=2 across all CCs in a band by referring to *codebookVariantsList*. The UE indicating *feType2CJT-R2-r18* shall also indicate support of *feType2CJT-r18* or *feType2CJT-FD-IO-r18*.
	Band	No	N/A	N/A

The UE optionally indicates *feType2CJT-2NN1N2-r18* to indicate whether the UE supports 2NN1N2 >32 for FeType-II CJT codebook. The UE indicates the maximum number of ports across all TRPs for one CJT CSI measurement. The UE optionally indicates *feType2CJT-Rank3Rank4-r18* to indicate whether the UE supports FeType-II port selection codebook refinement for multi-TRP CJT with rank 3,4. The UE optionally indicates *feType2CJT-NN-r18* to indicate whether the UE supports selection of N <= N_TRP CSI-RS resource by UE for multi-TRP CJT based on FeType-II port selection codebook. The UE optionally indicates *feType2CJT-NL-r18* to indicate whether the UE supports N_L>1 combinations of number of ports across CSI-RS resources for CJT Fetype-II codebook. The UE indicates the maximum number of lists for ports selection, i.e., NL, for multi-TRP CJT based on FeType-II port selection codebook. The UE optionally indicates *feType2CJT-Unequal-r18* to indicate whether the UE supports unequal number of port selection configuration across CSI-RS resources for multi-TRP CJT including FeType-II port selection codebook refinement. For *codebookVariantsList* related to the FeType-II: - The minimum of *maxNumberTxPortsPerResource* is '*p4*'; - The minimum of *maxNumberResourcesPerBand* is 2; - The minimum value of *totalNumberTxPortsPerBand* is 4.				

codebookParametersfetype2DopplerCSI-r18
Indicates the UE support of additional codebooks and the corresponding parameters supported by the UE of Further Enhanced Type II Codebook (FeType-II) based on doppler CSI as specified in TS 38.214 [12].
 	
The basic features of FeType-II doppler codebook are included in *feType2Doppler-r18*. This capability signalling comprises the following parameters:
- *supportedCSI-RS-ResourceList-r18* indicates the list of supported CSI-RS resources across all CCs in a band by referring to *codebookVariantsList*. The following parameters are included in *codebookVariantsList*:
  - *maxNumberTxPortsPerResource* indicates the maximum number of Tx ports in a resource of a band;
  - *maxNumberResourcesPerBand* indicates the maximum number of resources across all CCs in a band, simultaneously;
  - *totalNumberTxPortsPerBand* indicates the total number of Tx ports across all CCs in a band, simultaneously.
- *valueY-A-CSI-RS-r18* indicates value of Y for CPU occupation (OCPU = Y*K), when A-CSI-RS is configured for CMR.
- *scalingfactor-r18* indicates scaling factor for active resource counting Kp.
 	
The UE indicating *feType2Doppler-r18* shall support X=1 CQI based on the first/earliest slot of the CSI reporting window and the first/earliest predicted PMI, support FeType-II regular codebook refinement for predicted PMI with PMI subband R=1, support parameter combinations with M=1, support rank = 1,2, and support *vectorLengthDD-r18* =1. A UE indicating this feature shall also indicate the support of *csi-ReportFramework*.
The UE indicating support of *feType2Doppler-r18* shall also indicate support of *eType2Doppler-r18,* and *csi-ReportFramework.*
 	
NOTE 1: OCPU = 4 when P/SP-CSI-RS is configured for CMR.
NOTE 2: When K=12, OCPU =8.
 	
The UE optionally includes *maxNumberAperiodicCSI-RS-Resource-r18* to indicate the maximum number of aperiodic CSI-RS resources that can be configured in the same CSI report setting for FeType-II doppler measurement.
 	
The UE optionally includes *feType2DopplerM2R1-r18* to indicate whether the UE supports M=2 and R=1 for FeType-II doppler codebook. This capability signalling comprises the list of supported CSI-RS resources across all CCs in a band by referring to *codebookVariantsList*.
 	
The UE optionally includes *feType2DopplerR2-r18* to indicate whether the UE supports R=2 for FeType-II doppler codebook. This capability signalling comprises the list of supported CSI-RS resources across all CCs in a band by referring to *codebookVariantsList*.
 	
The UE optionally includes *feType2DopplerL-N4D1-r18* to indicate whether the UE supports l = (n – nCSI,ref) for CSI reference slot for FeType-II doppler codebook.
 	
The UE optionally includes *feType2DopplerR3R4-r18* to indicate whether the UE supports rank equals 3 and 4 for FeType-II doppler codebook.
 	
For *codebookVariantsList-r16* related to the feType-II:
- The minimum of *maxNumberTxPortsPerResource* is '*p4*';
- The minimum of *maxNumberResourcesPerBand* is 2, except for *eType2DopplerR2-r18*;
- The minimum value of *totalNumberTxPortsPerBand* is 4.
	Band	No	N/A	N/A

codebookParametersfeType2Ext-r19
Indicates whether the UE supports extended feType-II codebook.
 	
The basic feature of extended feType-II codebook for 64 Tx ports by aggregating multiple NZP CSI-RS resources within 1 slot are included in *feType2-64PortExt-r19*. This capability signalling comprises the following parameters:
- *supportedCSI-RS-ResourceExtList-r19* indicates the list of supported CSI-RS resources across all CCs in a band by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources across all CCs in a band, simultaneously.
 	
  - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across all CCs in a band, simultaneously.
 	
- *processingCapability-r19* indicates the supported processing capability. Value *cap1* indicates the processing capability reuses Z/Z' values and OCPU = ceil(P/32). Value *cap2* indicates the processing capability scales the timeline Z/Z' by ceil(P/32) where P is the total number of ports across all the K aggregated CSI-RS resources and OCPU = 1. '*cap1*' is a higher capability than '*cap2*'.
- *maxNumberResource-r19* indicates the maximum number of CSI-RS resource in a resource set.
- *supportedCSI-RS-ResourceListPerCC-r19* indicates the list of supported CSI-RS resources per CC simultaneously in a band by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources per CC in a band, simultaneously.
 	
  - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across per CC in a band, simultaneously.
 	
The UE indicating *feType2-64PortExt-r19* shall also support parameter combination with M=1, support rank 1-2 and support R=1.
A UE supporting this feature shall also indicate support of *fetype2basic-r17*.
 	
The UE optionally includes *feType2-48PortExt-r19* to indicate whether the UE supports extended feType-II codebook for 48 Tx ports by aggregating multiple NZP CSI-RS resources within 1 slot. This capability signalling comprises the following parameters:
- *supportedCSI-RS-ResourceExtList-r19* indicates the list of supported CSI-RS resources across all CCs in a band by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources across all CCs in a band, simultaneously.
 	
  - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across all CCs in a band, simultaneously.
 	
- *processingCapability-r19* indicates the supported processing capability. Value *cap1* indicates the processing capability reuses Z/Z' values and OCPU = ceil(P/32). Value *cap2* indicates the processing capability scales the timeline Z/Z' by ceil(P/32) where P is the total number of ports across all the K aggregated CSI-RS resources and OCPU = 1. '*cap1*' is a higher capability than '*cap2*'.
- *maxNumberResource-r19* indicates the maximum number of CSI-RS resource in a resource set.
- *supportedCSI-RS-ResourceListPerCC-r19* indicates the list of supported CSI-RS resources per CC simultaneously in a band by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources per CC in a band, simultaneously.
	Band	No	N/A	N/A

- *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across per CC in a band, simultaneously. The UE optionally includes *feType2-M2R1Ext-r19* to indicate whether the UE supports parameter combinations with M=2 and R=1 for extended FeType-II port selection codebook for up to 64 ports. This capability indicates the list of supported CSI-RS resources across all CCs in a band by referring to *codebookVariantsListAggregate-r19*. The following parameters are included in *codebookVariantsListAggregate-r19*: - *maxNumberTxPortsPerAggregatedResource-r19* indicates the maximum number of Tx ports in a resource of across all CCs a band. - *maxNumberAggregatedResources-r19* indicates the maximum number of resources across all CCs in a band, simultaneously. - *totalNumberTxPorts-r19* indicates the total number of Tx ports across all CCs in a band, simultaneously. The UE optionally includes *feType2-M2R2Ext-r19* to indicate whether the UE supports parameter combinations with M=2 and R=2 for extended FeType-II port selection codebook for up to 64 ports. This capability indicates the list of supported CSI-RS resources across all CCs in a band by referring to *codebookVariantsListAggregate-r19*. The following parameters are included in *codebookVariantsListAggregate-r19*: - *maxNumberTxPortsPerAggregatedResource-r19* indicates the maximum number of Tx ports in a resource of across all CCs a band. - *maxNumberAggregatedResources-r19* indicates the maximum number of resources across all CCs in a band, simultaneously. - *totalNumberTxPorts-r19* indicates the total number of Tx ports across all CCs in a band, simultaneously. The UE optionally includes *feType2-R3R4Ext-r19* to indicate whether the UE supports rank 3, 4 for extended FeType-II port selection codebook for up to 64ports. For *codebookVariantsListAggregate-r19* related to the *feType2-M2R1Ext-r19* and *feType2-M2R2Ext-r19*: - The maximum of *maxNumberTxPortsPerAggregatedResource-r19* is '*p64*'; - The minimum value of *totalNumberTxPorts-r19* is '*64*'.				

codebookParametersHARQ-ACK-PUSCH-r18 Indicates whether the UE supports Multiplexing HARQ-ACK codebook in a PUSCH for PDSCH scheduled after UL grant. This capability signalling comprises the following parameters: - *multiplexingType1-r18* indicates whether the UE supports multiplexing Type-1 HARQ-ACK codebook on a repetition of a PUSCH transmission other than a first repetition, where ACK/NACK is generated for the HARQ-ACK codebook including HARQ-ACK information associated with PDSCH reception(s) scheduled after the UL grant scheduling the PUSCH transmission. A UE supporting this feature shall also indicate support of *semiStaticHARQ-ACK-Codebook.* - *multiplexingType2-r18* indicates whether the UE supports multiplexing Type-2 HARQ-ACK codebook on a repetition of a PUSCH transmission other than a first repetition, where ACK/NACK is generated for the HARQ-ACK codebook including HARQ-ACK information associated with PDSCH reception(s) scheduled after the UL grant scheduling the PUSCH transmission. A UE supporting this feature shall also indicate support of *dynamicHARQ-ACK-Codebook*. - *multiplexingType3-r18* indicates whether the UE supports multiplexing Type-3 HARQ-ACK codebook on a repetition of a PUSCH transmission other than a first repetition, where ACK/NACK is generated for the HARQ-ACK codebook including HARQ-ACK information associated with PDSCH reception(s) scheduled after the UL grant scheduling the PUSCH transmission. A UE supporting this feature shall also indicate support of *oneShotHARQ-feedback-r16*. A UE shall also indicate support of one of *pusch-RepetitionMultiSlots* and pusch-*RepetitionTypeB-r16*. UE does not expect to determine a different codebook size in a PUCCH slot from the codebook size determined based on HARQ-ACK information associated with PDSCH reception(s) scheduled before a UL grant that schedules a PUSCH in a slot overlapping with the PUCCH slot unless the UE indicates support of *diffCB-Size-PDSCH-r18*. UE does not expect to determine a different PUCCH time domain resource in a slot from the PUCCH time domain resource determined based on HARQ-ACK information associated with PDSCH reception(s) scheduled before a UL grant that schedules a PUSCH in that slot unless the UE indicates support of *pucch-DiffResource-PDSCH-r18*. The UE optionally includes *pucch-DiffResource-PDSCH-r18* to indicate whether the UE supports determining a different PUCCH resource in a slot from the PUCCH resource indicated by the last DCI format before a UL grant in the slot, to include HARQ-ACK information associated with PDSCH reception(s) scheduled after the UL grant scheduling a PUSCH transmission with repetitions and the HARQ-ACK information are multiplexed on a repetition of the PUSCH transmission other than a first repetition in the same slot. A UE supporting *pucch-DiffResource-PDSCH-r18* shall also indicate support of one of *multiplexingType1-r18*, *multiplexingType2-r18* and *multiplexingType3-r18*. The UE optionally includes *diffCB-Size-PDSCH-r18* to indicate whether the UE supports determining different codebook size in a PUCCH slot from the size determined based on HARQ-ACK information associated with PDSCH reception(s) scheduled before a UL grant, to include HARQ-ACK information associated with PDSCH reception(s) scheduled after the UL grant scheduling a PUSCH transmission with repetitions and the HARQ-ACK information are multiplexed on a repetition of the PUSCH transmission other than a first repetition in the same slot. A UE supporting *diffCB-Size-PDSCH-r18* shall also indicate support of one of *multiplexingType1-r18*, *multiplexingType2-r18* and *multiplexingType3-r18*.	Band	No	N/A	N/A

codebookParametersHybridBF-eType2-r19
Indicates whether the UE supports hybrid BF (CRI-based) with eType-II codebook.
This capability signalling comprises the following parameters:
- *maxNumberCRI-Report-r19* indicates the maximal supported number of CRI report M;
- *supportedCSI-RS-ResourceHybridList-r19* indicates the list of supported CSI-RS resources across all CCs in a band by referring to *codebookVariantsListHybrid-r19*. The following parameters are included in *codebookVariantsListHybrid-r19*:
  - *maxNumberTxPortsPerResource-r19* indicates the maximum number of Tx ports in one resource across all CCs in a band, simultaneously;
  - *maxNumberResources-r19* indicates the maximum number of resources across all CCs in a band, simultaneously;
  - *totalNumberTxPorts-r19* indicates the total number of Tx ports across all CCs in a band, simultaneously.
- *maxValueKs-r19* indicates the maximum value of K_s.
A UE supporting this feature shall also indicate the support of *etype2R1-r16*.
	Band	No	N/A	N/A

codebookParametersHybridBF-Type1SP-r19
Indicates whether the UE supports hybrid BF (CRI-based) with Rel-15 Type-I SP codebook.
This capability signalling comprises the following parameters:
- *maxNumberCRI-Report-r19* indicates the maximal supported number of CRI report M;
- *supportedCSI-RS-ResourceHybridList-r19* indicates the list of supported CSI-RS resources across all CCs in a band by referring to *codebookVariantsListHybrid-r19*. The following parameters are included in *codebookVariantsListHybrid-r19*:
  - *maxNumberTxPortsPerResource-r19* indicates the maximum number of Tx ports in one resource across all CCs in a band, simultaneously;
  - *maxNumberResources-r19* indicates the maximum number of resources across all CCs in a band, simultaneously;
  - *totalNumberTxPorts-r19* indicates the total number of Tx ports across all CCs in a band, simultaneously.
- *maxValueKs-r19* indicates the maximum value of K_s.
A UE supporting this feature shall also indicate the support of Type-I single panel codebook.
	Band	No	N/A	N/A

codebookParametersType1MP-r19
Indicates whether the UE supports enhanced Type-I MP codebook within 1 slot. The basic features of enhanced Type-I MP codebook for 64 ports within 1 slot are included in *enhType1MP64Ports-r19*. This capability signalling comprises the following parameters:
- *supportedCSI-RS-ResourceExtList-r19* indicates the list of supported CSI-RS resources across all CCs in a band by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources across all CCs in a band, simultaneously.
  - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across all CCs in a band, simultaneously.
- *maxPanel-r19* indicates the supported maximum number of panels.
- *maxNumberResource-r19* indicates the maximum number of CSI-RS resource in a resource set.
- *processingCapability-r19* indicates the supported processing capability. Value *cap1* indicates the processing capability reuses Z/Z' values and OCPU = ceil(P/32). Value *cap2* indicates the processing capability scales the timeline Z/Z' by ceil(P/32) where P is the total number of ports across all the K aggregated CSI-RS resources and OCPU = 1. '*cap1*' is a higher capability than '*cap2*'.
- *supportedCSI-RS-ResourceListPerCC-r19* indicates the list of supported CSI-RS resources per CC simultaneously in a band by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources per CC in a band, simultaneously.
  - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across per CC in a band, simultaneously.
 	
A UE supporting this feature shall also indicate support of *csi-ReportFramework*.
 	
The UE optionally includes *enhType1MP48Ports-r19* to indicate whether the UE supports enhanced Type-I MP codebook for 48 ports within 1 slot. This capability signalling comprises the following parameters:
- *supportedCSI-RS-ResourceExtList-r19* indicates the list of supported CSI-RS resources across all CCs in a band by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources across all CCs in a band, simultaneously.
  - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across all CCs in a band, simultaneously.
- *maxPanel-r19* indicates the supported maximum number of panels.
- *maxNumberResource-r19* indicates the maximum number of CSI-RS resource in a resource set.
- *processingCapability-r19* indicates the supported processing capability. Value *cap1* indicates the processing capability reuses Z/Z' values and OCPU = ceil(P/32). Value *cap2* indicates the processing capability scales the timeline Z/Z' by ceil(P/32) where P is the total number of ports across all the K aggregated CSI-RS resources and OCPU = 1. '*cap1*' is a higher capability than '*cap2*'.
- *supportedCSI-RS-ResourceListPerCC-r19* indicates the list of supported CSI-RS resources per CC simultaneously in a band by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources per CC in a band, simultaneously.
  - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across per CC in a band, simultaneously.
	Band	No	N/A	N/A

The UE optionally includes *enhType1MP128Ports-r19* to indicate whether the UE supports enhanced Type-I MP codebook for 128 ports within 1 slot and 4 CSI-RS resources in a resource set. This capability signalling comprises the following parameters:
- *supportedCSI-RS-ResourceExtList-r19* indicates the list of supported CSI-RS resources across all CCs in a band by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources across all CCs in a band, simultaneously.
  - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across all CCs in a band, simultaneously.
- *maxRank-r19* indicates the supported maximum rank.
- *processingCapability-r19* indicates the supported processing capability. Value *cap1* indicates the processing capability reuses Z/Z' values and OCPU = ceil(P/32). Value *cap2* indicates the processing capability scales the timeline Z/Z' by ceil(P/32) where P is the total number of ports across all the K aggregated CSI-RS resources and OCPU = 1. '*cap1*' is a higher capability than '*cap2*'.
- *supportedCSI-RS-ResourceListPerCC-r19* indicates the list of supported CSI-RS resources per CC simultaneously in a band by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources per CC in a band, simultaneously.
  - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across per CC in a band, simultaneously.				

codebookParametersType1SP-SchemeA-r19
Indicates whether the UE supports enhanced Type-I SP codebook for Scheme-A by aggregating multiple NZP CSI-RS resources within one slot.
The basic feature of enhanced Type-I SP codebook for 64 ports Scheme-A are included in *enhType1SP64PortsSchemeA-r19*. This capability signalling comprises the following parameters:
- *supportedCSI-RS-ResourceExtList-r19* indicates the list of supported CSI-RS resources across all CCs in a band by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources across all CCs in a band, simultaneously.
  - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across all CCs in a band, simultaneously.
- *maxRank-r19* indicates the supported maximum rank.
- *maxNumberResource-r19* indicates the maximum number of CSI-RS resource in a resource set.
- *processingCapability-r19* indicates the supported processing capability. Value *cap1* indicates the processing capability reuses Z/Z' values and OCPU = ceil(P/32). Value *cap2* indicates the processing capability scales the timeline Z/Z' by ceil(P/32) where P is the total number of ports across all the K aggregated CSI-RS resources and OCPU = 1. '*cap1*' is a higher capability than '*cap2*'.
- *supportedCSI-RS-ResourceListPerCC-r19* indicates the list of supported CSI-RS resources per CC simultaneously in a band by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources per CC in a band, simultaneously.
  - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across per CC in a band, simultaneously.
 	
A UE supporting this feature shall also indicate support of *csi-ReportFramework*.
 	
The UE optionally includes *enhType1SP48PortsSchemeA-r19* to indicate whether the UE supports enhanced Type-I SP codebook for Scheme-A with 48 Tx ports by aggregating multiple NZP CSI-RS resources within one slot. This capability signalling comprises the following parameters:
- *supportedCSI-RS-ResourceExtList-r19* indicates the list of supported CSI-RS resources across all CCs in a band by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources across all CCs in a band, simultaneously.
  - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across all CCs in a band, simultaneously.
- *maxRank-r19* indicates the supported maximum rank.
- *maxNumberResource-r19* indicates the maximum number of CSI-RS resource in a resource set.
- *processingCapability-r19* indicates the supported processing capability. Value *cap1* indicates the processing capability reuses Z/Z' values and OCPU = ceil(P/32). Value *cap2* indicates the processing capability scales the timeline Z/Z' by ceil(P/32) where P is the total number of ports across all the K aggregated CSI-RS resources and OCPU = 1. '*cap1*' is a higher capability than '*cap2*'.
- *supportedCSI-RS-ResourceListPerCC-r19* indicates the list of supported CSI-RS resources per CC simultaneously in a band by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources per CC in a band, simultaneously.
	Band	No	N/A	N/A

- *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across per CC in a band, simultaneously. The UE optionally includes *enhType1SP128PortsSchemeA-r19* to indicate whether the UE supports enhanced Type-I SP codebook for Scheme-A with 128 Tx ports by aggregating multiple NZP CSI-RS resources within one slot and 4 CSI-RS resources in a resource set. This capability signalling comprises the following parameters: - *supportedCSI-RS-ResourceExtList-r19* indicates the list of supported CSI-RS resources across all CCs in a band by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*: - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources across all CCs in a band, simultaneously. - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across all CCs in a band, simultaneously. - *maxRank-r19* indicates the supported maximum rank. - *processingCapability-r19* indicates the supported processing capability. Value *cap1* indicates the processing capability reuses Z/Z' values and OCPU = ceil(P/32). Value *cap2* indicates the processing capability scales the timeline Z/Z' by ceil(P/32) where P is the total number of ports across all the K aggregated CSI-RS resources and OCPU = 1. '*cap1*' is a higher capability than '*cap2*'. - *supportedCSI-RS-ResourceListPerCC-r19* indicates the list of supported CSI-RS resources per CC simultaneously in a band by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*: - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources per CC in a band, simultaneously. - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across per CC in a band, simultaneously.				

codebookParametersType1SP-SchemeB-r19
Indicates whether the UE supports enhanced Type-I SP codebook for Scheme-B by aggregating multiple NZP CSI-RS resources within one slot.
The basic features of enhanced Type-I SP codebook for 64 ports Scheme-B are included in *enhType1SP64PortsSchemeB-r19*. This capability signalling comprises the following parameters:
- *supportedCSI-RS-ResourceExtList-r19* indicates the list of supported CSI-RS resources across all CCs in a band by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources across all CCs in a band, simultaneously.
  - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across all CCs in a band, simultaneously.
- *maxRank-r19* indicates the supported maximum rank.
- *maxNumberResource-r19* indicates the maximum number of CSI-RS resource in a resource set.
- *processingCapability-r19* indicates the supported processing capability. Value *cap1* indicates the processing capability reuses Z/Z' values and OCPU = ceil(P/32). Value *cap2* indicates the processing capability scales the timeline Z/Z' by ceil(P/32) where P is the total number of ports across all the K aggregated CSI-RS resources and OCPU = 1. '*cap1*' is a higher capability than '*cap2*'.
- *supportedCSI-RS-ResourceListPerCC-r19* indicates the list of supported CSI-RS resources per CC simultaneously in a band by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources per CC in a band, simultaneously.
  - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across per CC in a band, simultaneously.
 	
A UE supporting this feature shall also indicate support of *csi-ReportFramework*.
 	
The UE optionally includes *enhType1SP48PortsSchemeB-r19* to indicate whether the UE supports enhanced Type-I SP codebook for Scheme-B with 48 Tx ports by aggregating multiple NZP CSI-RS resources within one slot. This capability signalling comprises the following parameters:
- *supportedCSI-RS-ResourceExtList-r19* indicates the list of supported CSI-RS resources across all CCs in a band by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources across all CCs in a band, simultaneously.
  - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across all CCs in a band, simultaneously.
- *maxRank-r19* indicates the supported maximum rank.
- *maxNumberResource-r19* indicates the maximum number of CSI-RS resource in a resource set.
- *processingCapability-r19* indicates the supported processing capability. Value *cap1* indicates the processing capability reuses Z/Z' values and OCPU = ceil(P/32). Value *cap2* indicates the processing capability scales the timeline Z/Z' by ceil(P/32) where P is the total number of ports across all the K aggregated CSI-RS resources and OCPU = 1. '*cap1*' is a higher capability than '*cap2*'.
- *supportedCSI-RS-ResourceListPerCC-r19* indicates the list of supported CSI-RS resources per CC simultaneously in a band by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources per CC in a band, simultaneously.
- *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across per CC in a band, simultaneously.
	Band	No	N/A	N/A

The UE optionally includes *enhType1SP128PortsSchemeB-r19* to indicate whether the UE supports enhanced Type-I SP codebook for Scheme-B with 128 Tx ports by aggregating multiple NZP CSI-RS resources within one slot and 4 CSI-RS resources in a resource set. This capability signalling comprises the following parameters:
- *supportedCSI-RS-ResourceExtList-r19* indicates the list of supported CSI-RS resources across all CCs in a band by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources across all CCs in a band, simultaneously.
  - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across all CCs in a band, simultaneously.
- *maxRank-r19* indicates the supported maximum rank.
- *processingCapability-r19* indicates the supported processing capability. Value *cap1* indicates the processing capability reuses Z/Z' values and OCPU = ceil(P/32). Value *cap2* indicates the processing capability scales the timeline Z/Z' by ceil(P/32) where P is the total number of ports across all the K aggregated CSI-RS resources and OCPU = 1. '*cap1*' is a higher capability than '*cap2*'.
- *supportedCSI-RS-ResourceListPerCC-r19* indicates the list of supported CSI-RS resources per CC simultaneously in a band by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources per CC in a band, simultaneously.
  - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across per CC in a band, simultaneously.				

commonTCI-MultiDCI-r18 Indicates whether the UE supports common multi-CC TCI state ID update and activation for multi-DCI based multi-TRP. The UE also indicates the maximum number of CC list(s). A UE supporting this feature shall also indicate support of *tci-JointTCI-UpdateSingleActiveTCI-PerCC-PerCORESET-r18*.	Band	No	N/A	N/A
commonTCI-SingleDCI-r18 Indicates whether the UE supports common multi-CC TCI state ID update and activation for single-DCI based multi-TRP. The UE also indicates the maximum number of CC list(s). A UE supporting this feature shall also indicate support of *tci-JointTCI-UpdateSingleActiveTCI-PerCC-r18*.	Band	No	N/A	N/A
condHandover-r16 Indicates whether the UE supports conditional handover including execution condition, candidate cell configuration and maximum 8 candidate cells. Except for NTN bands, UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands, all TDD-FR2-1 bands and all TDD-FR2-2 bands respectively. For NTN, UE shall set the capability value consistently for all FDD-FR1 NTN bands and all FDD-FR2 NTN bands respectively.	Band	No	N/A	N/A
condHandoverFailure-r16 Indicates whether the UE supports conditional handover during re-establishment procedure when the selected cell is configured as candidate cell for condition handover. Except for NTN bands, UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands, all TDD-FR2-1 bands and all TDD-FR2-2 bands respectively. For NTN, UE shall set the capability value consistently for all FDD-FR1 NTN bands and all FDD-FR2 NTN bands respectively. The inter-band conditional handover during re-establishment procedure is supported only if the UE sets the capability value for the PCell band of the selected cell.	Band	No	N/A	N/A

condHandoverTwoTriggerEvents-r16 Indicates whether the UE supports 2 trigger events for same execution condition. This feature is mandatory supported if the UE supports *condHandover-r16*. Except for NTN bands, UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands, all TDD-FR2-1 bands and all TDD-FR2-2 bands respectively. For NTN, UE shall set the capability value consistently for all FDD-FR1 NTN bands and all FDD-FR2 NTN bands respectively. The 2 trigger events for the same execution condition are supported only if the UE sets the capability value for the band of the PCell and frequency to be measured.	Band	CY	N/A	N/A
condHandoverWithCandSCG-change-r18 Indicates whether the UE supports conditional handover with candidate SCG, where conditional NR PSCell change is supported for FDD-FR1 bands, TDD-FR1 bands, TDD-FR2-1 bands and TDD-FR2-2 bands. The UE indicating support of this feature shall also indicate the support of *condHandover-r16* and support of at least one NR-DC band combination. UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands, all TDD-FR2-1 bands and all TDD-FR2-2 bands respectively.	Band	No	N/A	N/A
condPSCellChange-r16 Indicates whether the UE supports conditional PSCell change including execution condition, candidate cell configuration and maximum 8 candidate cells. UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands, all TDD-FR2-1 bands and all TDD-FR2-2 bands respectively.	Band	No	N/A	N/A
condPSCellChangeTwoTriggerEvents-r16 Indicates whether the UE supports 2 trigger events for same execution condition. This feature is mandatory supported if the UE supports *condPSCellChange-r16*. UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands, all TDD-FR2-1 bands and all TDD-FR2-2 bands respectively. The 2 trigger events for the same execution condition are supported only if the UE sets the capability value for the band of the PSCell and frequency to be measured.	Band	CY	N/A	N/A
configuredUL-GrantType1-v1650 Indicates whether the UE supports Type 1 PUSCH transmissions with configured grant as specified in TS 38.214 [12] with UL-TWG-repK value of one. This applies only to non-shared spectrum channel access. For shared spectrum channel access, *configuredUL-GrantType1-r16* applies. Except for NTN bands, UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands, all TDD-FR2-1 bands and all TDD-FR2-2 bands respectively. For NTN, UE shall set the capability value consistently for all FDD-FR1 NTN bands and all FDD-FR2 NTN bands respectively. The UE only includes *configuredUL-GrantType1-v1650* if *configuredUL-GrantType1* is absent.	Band	No	N/A	N/A
configuredUL-GrantType2-v1650 Indicates whether the UE supports Type 2 PUSCH transmissions with configured grant as specified in TS 38.214 [12] with UL-TWG-repK value of one. This applies only to non-shared spectrum channel access. For shared spectrum channel access, *configuredUL-GrantType2-r16* applies. Except for NTN bands, UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands, all TDD-FR2-1 bands and all TDD-FR2-2 bands respectively. For NTN, UE shall set the capability value consistently for all FDD-FR1 NTN bands and all FDD-FR2 NTN bands respectively. The UE only includes *configuredUL-GrantType2*-v1650 if *configuredUL-GrantType2* is absent.	Band	No	N/A	N/A
cqi-4-BitsSubbandNTN-SharedSpectrumChAccess-r17 Indicates whether the UE supports CQI reporting with 4 bits per subband for NTN and shared spectrum channel access.	Band	No	N/A	N/A
crossCarrierScheduling-SameSCS Indicates whether the UE supports cross carrier scheduling for the same numerology with carrier indicator field (CIF) in carrier aggregation where numerologies for the scheduling cell and scheduled cell are same.	Band	No	N/A	N/A

csi-ReportFramework Indicates whether the UE supports CSI report framework. This capability signalling comprises the following parameters: - *maxNumberPeriodicCSI-PerBWP-ForCSI-Report* indicates the maximum number of periodic CSI report setting per BWP for CSI report; - *maxNumberPeriodicCSI-PerBWP-ForBeamReport* indicates the maximum number of periodic CSI report setting per BWP for beam report. - *maxNumberAperiodicCSI-PerBWP-ForCSI-Report* indicates the maximum number of aperiodic CSI report setting per BWP for CSI report; - *maxNumberAperiodicCSI-PerBWP-ForBeamReport* indicates the maximum number of aperiodic CSI report setting per BWP for beam report; - *maxNumberAperiodicCSI-triggeringStatePerCC* indicates the maximum number of aperiodic CSI triggering states in *CSI-AperiodicTriggerStateList* per CC; - *maxNumberSemiPersistentCSI-PerBWP-ForCSI-Report* indicates the maximum number of semi-persistent CSI report setting per BWP for CSI report; - *maxNumberSemiPersistentCSI-PerBWP-ForBeamReport* indicates the maximum number of semi-persistent CSI report setting per BWP for beam report; - *simultaneousCSI-ReportsPerCC* indicates the number of CSI report(s) for which the UE can measure and process reference signals simultaneously in a CC of the band for which this capability is provided. The CSI report comprises periodic, semi-persistent and aperiodic CSI and any latency classes and codebook types. The CSI report in simultaneousCSI-ReportsPerCC includes the beam report and CSI report. The UE is mandated to report *csi-ReportFramework*.	Band	Yes	N/A	N/A
csi-ReportFrameworkExt-r16 Indicates whether the UE supports the extension of the maximum number of configured aperiodic CSI report settings for all codebook types. The capability signalling comprises the following: *maxNumberAperiodicCSI-PerBWP-ForCSI-ReportExt-r16* indicates the extended maximum number of aperiodic CSI report setting per BWP for CSI report. If present, the value of *maxNumberAperiodicCSI-PerBWP-ForCSI-Report-r16* shall replace the corresponding value in *csi-ReportFramework*.	Band	No	N/A	N/A
csi-RS-ForTracking Indicates support of CSI-RS for tracking (i.e. TRS). This capability signalling comprises the following parameters: - *maxBurstLength* indicates the TRS burst length. Value 1 indicates 1 slot and value 2 indicates both of 1 slot and 2 slots. In this release UE is mandated to report value 2; - *maxSimultaneousResourceSetsPerCC* indicates the maximum number of TRS resource sets per CC which the UE can track simultaneously; - *maxConfiguredResourceSetsPerCC* indicates the maximum number of TRS resource sets configured to UE per CC. It is mandated to report at least 8 for FR1 and 16 for FR2; - *maxConfiguredResourceSetsAllCC* indicates the maximum number of TRS resource sets configured to UE across CCs. If the UE includes the field in an FR1 band, it shall set the same value in all FR1 bands. If the UE includes the field in an FR2 band, it shall set the same value in all FR2 bands. The UE supports a total number of resources equal to the maximum of the FR1 and FR2 value, but no more than the FR1 value across all FR1 serving cells and no more than the FR2 value across all FR2 serving cells. The UE is mandated to report at least 16 for FR1 and 32 for FR2. The UE is mandated to report *csi-RS-ForTracking*.	Band	Yes	N/A	N/A

csi-RS-IM-ReceptionForFeedback Indicates support of CSI-RS and CSI-IM reception for CSI feedback. This capability signalling comprises the following parameters: - *maxConfigNumberNZP-CSI-RS-PerCC* indicates the maximum number of configured NZP-CSI-RS resources per CC; - *maxConfigNumberPortsAcrossNZP-CSI-RS-PerCC* indicates the maximum number of ports across all configured NZP-CSI-RS resources per CC; - *maxConfigNumberCSI-IM-PerCC* indicates the maximum number of configured CSI-IM resources per CC; - *maxNumberSimultaneousNZP-CSI-RS-PerCC* indicates the maximum number of simultaneous CSI-RS-resources per CC; - *totalNumberPortsSimultaneousNZP-CSI-RS-PerCC* indicates the total number of CSI-RS ports in simultaneous CSI-RS resources per CC. The UE is mandated to report csi-RS-IM-ReceptionForFeedback.	Band	Yes	N/A	N/A
csi-RS-ProcFrameworkForSRS Indicates support of CSI-RS processing framework for SRS. This capability signalling comprises the following parameters: - *maxNumberPeriodicSRS-AssocCSI-RS-PerBWP* indicates the maximum number of periodic SRS resources associated with CSI-RS per BWP; - *maxNumberAperiodicSRS-AssocCSI-RS-PerBWP* indicates the maximum number of aperiodic SRS resources associated with CSI-RS per BWP; - *maxNumberSP-SRS-AssocCSI-RS-PerBWP* indicates the maximum number of semi-persistent SRS resources associated with CSI-RS per BWP; - *simultaneousSRS-AssocCSI-RS-PerCC* indicates the number of SRS resources that the UE can process simultaneously in a CC, including periodic, aperiodic and semi-persistent SRS.	Band	No	N/A	N/A
cyclicShiftHoppingWithinSubset-r18 Indicates whether the UE supports configuration of subset of cyclic shifts for cyclic shift hopping. A UE supporting this feature shall also indicate the support of *srs-cyclicShiftHopping-r18*.	Band	No	N/A	N/A
defaultQCL-PerCORESETPoolIndex-r16 Indicates whether the UE supports default QCL assumption per CORESET pool index using multi-DCI based multi-TRP. The UE that indicates support of this feature shall support *multiDCI-MultiTRP-r16* and *simultaneousReceptionDiffTypeD-r16.*	Band	No	N/A	FR2 only
defaultQCL-TwoTCI-r16 Indicates whether the UE supports default QCL assumption with two TCI states using single-DCI based multi-TRP. The UE can include this field only if *simultaneousReceptionDiffTypeD-r16* is present. Otherwise, the UE does not include this field.	Band	No	N/A	FR2 only
dmrs-BundlingNonBackToBackTX-r17 Indicates whether the UE supports DM-RS bundling for non-back-to-back transmission for consecutive slots for PUSCH and PUCCH only for corresponding supported back-to-back transmission as reported in *dmrs-BundlingPUSCH-RepTypeA-r17*, *dmrs-BundlingPUSCH-RepTypeB-r17*, *dmrs-BundlingPUSCH-multiSlot-r17* or *dmrs-BundlingPUCCH-Rep-r17*. The UE is considered to support the feature in a band of a band combination if the UE indicates support of the feature for the corresponding band and for the band combination. UE indicating support of this feature shall also indicate support of at least one of dmrs-BundlingPUSCH-RepTypeA-r17, dmrs-BundlingPUSCH-RepTypeB-r17, dmrs-BundlingPUSCH-multiSlot-r17 or dmrs-BundlingPUCCH-Rep-r17.	Band	No	N/A	N/A

dmrs-BundlingPUCCH-Rep-r17 Indicates whether the UE supports DM-RS bundling for PUCCH repetitions for PUCCH formats 1/3/4 over consecutive symbols. The UE is considered to support the feature in a band of a band combination if the UE indicates support of the feature for the corresponding band and for the band combination. UE indicating support of this feature shall also indicate support of *maxDurationDMRS-Bundling-r17* and *pucch-Repetition-F1-3-4*.	Band	No	N/A	N/A
dmrs-BundlingPUSCH-multiSlot-r17 Indicates whether the UE supports DM-RS bundling for TB processing over multi-slot PUSCH over consecutive symbols. The UE is considered to support the feature in a band of a band combination if the UE indicates support of the feature for the corresponding band and for the band combination. UE indicating support of this feature shall also indicate support of *maxDurationDMRS-Bundling-r17* and *tb-ProcessingMultiSlotPUSCH-r17*.	Band	No	N/A	N/A
dmrs-BundlingPUSCH-RepTypeA-r17 Indicates whether the UE supports DM-RS bundling for PUSCH repetition type A over consecutive symbols. The UE is considered to support the feature in a band of a band combination if the UE indicates support of the feature for the corresponding band and for the band combination. UE indicating support of this feature shall also indicate support of *maxDurationDMRS-Bundling-r17* and at least one of *type1-PUSCH-RepetitionMultiSlots*, *type2-PUSCH-RepetitionMultiSlots* or *pusch-RepetitionMultiSlots*.	Band	No	N/A	N/A
dmrs-BundlingPUSCH-RepTypeB-r17 Indicates whether the UE supports DM-RS bundling for PUSCH repetition type B over consecutive symbols. The UE is considered to support the feature in a band of a band combination if the UE indicates support of the feature for the corresponding band and for the band combination. UE indicating support of this feature shall also indicate support of *maxDurationDMRS-Bundling-r17* and *pusch-RepetitionTypeB-r16*.	Band	No	N/A	N/A
dmrs-BundlingRestart-r17 Indicates whether the UE supports restarting DM-RS bundling after the events triggered by DCI or MAC CE that violate power consistency and phase continuity. The UE is considered to support the feature in a band of a band combination if the UE indicates support of the feature for the corresponding band and for the band combination. UE indicating support of this feature shall also indicate support of *maxDurationDMRS-Bundling-r17.* NOTE: Events which are triggered by DCI or MAC CE, but do not require UE capability to resume maintaining power consistency and/or phase continuity as specified in clause 6.1.7 of TS 38.214 [12] are excluded from this feature.	Band	No	N/A	N/A
dmrs-PortEntrySingleDCI-SDM-r18 Indicates whether the UE supports UL DMRS port entry {0, 2, 3} for single DCI based SDM scheme for Rel-15 DMRS port and/or Rel-18 DMRS port. A UE indicates supporting of this feature shall also indicate support of *pusch-CB-SingleDCI-STx2P-SDM-r18* or *pusch-NonCB-SingleDCI-STx2P-SDM-r18*.	Band	No	N/A	FR2 only
dynamicMulticastDCI-Format4-2-r17 Indicates whether the UE supports DCI format 4_2 with CRC scrambled with G-RNTI for multicast in RRC_CONNECTED. A UE supporting this feature shall also indicate support of *dynamicMulticastPCell-r17*.	Band	No	N/A	N/A
dynamicSlotRepetitionMulticastNTN-SharedSpectrumChAccess-r17 Indicates the maximum number of supported dynamic slot-level repetitions for group-common PDSCH for multicast in RRC_CONNECTED for NTN and shared spectrum channel access. Value n8 corresponds to 8, and value n16 corresponds to 16. A UE supporting this feature shall also indicate support of *dynamicMulticastPCell-r17*.	Band	No	N/A	N/A

dynamicSlotRepetitionMulticastTN-NonSharedSpectrumChAccess-r17 Indicates the maximum number of supported dynamic slot-level repetitions for group-common PDSCH for multicast in RRC_CONNECTED for TN and non-shared spectrum channel access. Value n8 corresponds to 8, and value n16 corresponds to 16. UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands, all TDD-FR2 bands respectively. A UE supporting this feature shall also indicate support of *dynamicMulticastPCell-r17*.	Band	No	N/A	N/A
dynamicWaveformSwitch-r18 Indicates whether the UE supports dynamic waveform switching for DCI format 0_1/0_2 when configured with only 1 UL carrier in the band. If UE supporting this feature also supports *dci-Format1-2And0-2-r16*, the UE supports this feature with DCI format 0_2.	Band	No	N/A	N/A
dynamicWaveformSwitchIntraCA-r18 Indicates the maximum number of configured UL carriers for intra-band UL CA, which is supported by the UE when dynamic waveform switching for DCI format 0_1/0_2 feature is enabled on any of configured UL carriers in the band. A UE supporting this feature shall also indicate support of *dynamicWaveformSwitch-r18*.	Band	No	N/A	N/A
dynamicWaveformSwitchPHR-r18 Indicates whether the UE supports reporting of power headroom information for an assumed PUSCH using target waveform different from waveform of actual PUSCH. A UE supporting this feature shall also indicate support of *dynamicWaveformSwitch-r18*. NOTE: A UE can be configured to use either the single entry PHR with assumed PUSCH MAC CE or the multiple entry PHR with assumed PUSCH MAC CE for a cell group if the UE indicates support for this feature in any one cell of the cell group.	Band	No	N/A	N/A
earlyCSI-AcquisitionWithCSI-IM-r19 Indicates whether the UE supports CSI-RS and CSI-IM measurement and CSI reporting after reception of handover command based on periodic CSI-RS(s) and CSI-IM of cell indicated in *earlyCSI-Acquisition-r19* of *ReconfigurationWithSync*. This capability comprises the following parameters with maximum values that are defined within the resource set: - *maxNumOfCSI-RS-Resource-r19* indicates the maximum number of CSI-RS resources for CMR associated with CSI report configuration for target cell; - *maxNumOfCSI-RS-Ports-r19* indicates the maximum number of ports of CSI-RS resource(s) associated with a CSI report configuration for CSI reporting for target cell; - *maxNumOfNZP-CSI-RS-Ports-r19* indicates the maximum number of ports in one NZP CSI-RS resource; - *maxRank-r19* indicates the max rank for CSI reporting for target cell; - *maxNumOfCSI-IM-Resource-r19* indicates the maximum number of CSI-IM resources for interference measurement associated with CSI report configuration for target cell.	Band	No	N/A	N/A
earlyCSI-AcquisitionWithoutCSI-IM-r19 Indicates whether the UE supports CSI-RS measurement and CSI reporting without CSI-IM resource configuration after reception of handover command based on periodic CSI-RS(s) only. A UE supporting this feature shall also indicate support of *earlyCSI-AcquisitionWithCSI-IM-r19*.	Band	No	N/A	N/A

enableTx-RxDuringMeasGap-r19 Indicates whether the UE supports reception/transmission during measurement gaps/scheduling restrictions is enabled based on explicit indication by DCI format 0_1 and DCI format 1_1. The capability signalling of this feature includes the following: - *additionalDCI-r19* indicates additional supported DCI formats for enabling reception/transmission in gap/restriction. The first (leftmost) bit corresponds to DCI format 0_2 and DCI format 1_2, the second bit corresponds to DCI format 0_3, the third bit (rightmost) corresponds to DCI format 1_3; - *indicationField-r19* indicates UE behaviour for indication field value of "0". Value '*option1*' means that, for explicit indication by DCI, bit value equal to "*0*" means UE ignores the indication of this field in the DCI. Value '*option2*' means that, for explicit indication by DCI, bit value equal to "0" means UE behaviour for the corresponding gap/restriction occasion is as of Rel-18 behaviour; - *minimumTimeOffset-r19* indicates the minimum time offset from the end of PDCCH carrying the gap/restriction cancellation to the start of cancelled gap/restriction. Value '*ms5*' indicates 5ms, value '*ms3*' indicates 3ms. If a UE indicates support for the reception of the indication with DCI format 0_3 and/or 1_3, the UE supports reception of the indication on a band with that DCI format if the UE also indicates support for that DCI format on that band. A UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands, all TDD-FR2-1 bands and all TDD-FR2-2 bands respectively.	Band	No	No	N/A
enhancedChannelRaster-r18 Indicates whether the UE other than (e)RedCap UE supports the requirements for UE channel bandwidths located on the enhanced channel raster of a band as specified in TS 38.101-1 [2] and TS 38.101-5 [34]. Indicates whether the (e)RedCap UE supports the requirements for UE channel bandwidths located on the enhanced channel raster of a band as specified in TS 38.101-1 [2], clause 5.4I. It is mandatory with capability signalling for UEs other than (e)RedCap UE for certain bands (as defined in TS 38.101-1 [2] and TS 38.101-5 [34]) from Rel-18. It is mandatory with capability signalling for all (e)RedCap UEs for all bands supported by the UE. Otherwise, it is optional.	Band	CY	N/A	FR1 only
enhancedSkipUplinkTxConfigured-v1660 Indicates whether the UE supports skipping UL transmission for a configured uplink grant only if no data is available for transmission and no UCI is multiplexed on the corresponding PUSCH of the uplink grant as specified in TS 38.321 [8]. Except for NTN bands, UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands, all TDD-FR2-1 bands and all TDD-FR2-2 bands respectively. For NTN, UE shall set the capability value consistently for all FDD-FR1 NTN bands and all FDD-FR2 NTN bands respectively. The UE only includes *enhancedSkipUplinkTxConfigured-v1660* if *enhancedSkipUplinkTxConfigured-r16* is absent.	Band	No	N/A	N/A
enhancedSkipUplinkTxDynamic-v1660 Indicates whether the UE supports skipping UL transmission for an uplink grant addressed to a C-RNTI only if no data is available for transmission and no UCI is multiplexed on the corresponding PUSCH of the uplink grant as specified in TS 38.321 [8]. Except for NTN bands, UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands, all TDD-FR2-1 bands and all TDD-FR2-2 bands respectively. For NTN, UE shall set the capability value consistently for all FDD-FR1 NTN bands and all FDD-FR2 NTN bands respectively. The UE only includes *enhancedSkipUplinkTxDynamic-v1660* if *enhancedSkipUplinkTxDynamic-r16* is absent.	Band	No	N/A	N/A

enhancedType3-HARQ-CodebookFeedback-r17 Indicates whether the UE supports enhanced type 3 HARQ-ACK codebook feedback based on triggering information in DCI 1_1 and DCI 1_2 (for a UE supporting DCI format 1_2 as indicated in *dci-Format1-2And0-2-r16*) and also supports transmission of enhanced type 3 HARQ-ACK codebook using the first or second PUCCH configuration based on PHY priority indication in the triggering DCI (for a UE supporting two HARQ-ACK codebooks / PUCCH config as indicated in twoHARQ-ACK-Codebook-type1-r16). The capability signalling comprises the following parameters: - *enhancedType3-HARQ-Codebooks-r17* indicates the maximum number of supported enhanced type 3 HARQ-ACK codebooks; - *maxNumberPUCCH-Transmissions-r17* indicates the maximum number of actual PUCCH transmissions for type 3 or enhanced type 3 HARQ-ACK codebook feedback within a slot. UE only supports feedback of a dynamically selected enhanced type 3 HARQ-ACK codebook based on triggering information in DCI 1_1 and DCI 1_2 (for a UE supporting DCI format 1_2 as indicated in *dci-Format1-2And0-2-r16*) if the UE supports more than one enhanced type 3 HARQ-ACK codebook to be configured (as indicated in *enhancedType3-HARQ-Codebooks-r17*). The UE indicates support of this capability shall also indicate support of *oneShotHARQ-feedback-r16*.	Band	No	N/A	N/A
enhancedUL-TransientPeriod-r16 Indicates whether the UE supports enhanced UL performance for the transient period as specified in clause 6.3.3 of TS 38.101-1 [2] and in clause 6.3.3 of TS 38.101-5 [34]. If not reported, the UE supports transient period of 10us.	Band	No	N/A	FR1 only
event2ConditionIndication-r19 Indicates whether the UE supports 1-bit condition met indication in RSRP report format for each report of CRI/SSBRI for Event-2 and Event-7. A UE supporting this feature shall also indicate support of *uei-TriggerEventDetermination-r19*.	Band	No	N/A	N/A
eventA4BasedCondHandover-r17 Indicates whether the UE supports Event A4 based conditional handover in NTN bands, i.e., *CondEvent A4* as specified in TS 38.331 [9]. A UE supporting this feature shall also indicate the support of *condHandover-r16* for NTN bands and the support of *nonTerrestrialNetwork-r17*. UE shall set the capability value consistently for all FDD-FR1 NTN bands and all FDD-FR2 NTN bands respectively. The inter-band Event A4 based conditional handover is supported only if the UE sets the capability value for the source PCell and the target PCell bands.	Band	No	N/A	N/A
eventA4BasedCondHandoverATG-r18 Indicates whether the UE supports Event A4 based conditional handover in ATG bands, i.e., *CondEvent A4* as specified in TS 38.331 [9]. A UE supporting this feature shall also indicate the support of *condHandover-r16* for bands as specified for ATG in clause 5.2J of TS 38.101-1 [2] and the support of *airToGroundNetwork-r18*. UE shall set the capability value consistently for all FDD bands and all TDD bands respectively as specified for ATG in clause 5.2J of TS 38.101-1 [2]. The inter-band Event A4 based conditional handover is supported only if the UE sets the capability value for the source PCell and the target PCell bands.	Band	No	N/A	FR1 only
eventA4BasedCondHandoverNES-r18 Indicates whether the UE supports Event A4 based conditional handover for NES, i.e., CondEvent A4 as specified in TS 38.331 [9]. A UE supporting this feature shall also indicate the support of *nesBasedCondHandoverWithDCI-r18*. UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands, all TDD-FR2-1 bands and all TDD-FR2-2 bands respectively. The inter-band Event A4 based conditional handover for NES is supported only if the UE sets the capability value for the source PCell and the target PCell bands.	Band	No	N/A	N/A
extendedCP Indicates whether the UE supports 60 kHz subcarrier spacing with extended CP length for reception of PDCCH, and PDSCH, and transmission of PUCCH, PUSCH, and SRS.	Band	No	N/A	N/A
extendedStartBitDCI-2-3-r19 Indicates whether the UE supports values greater than or equal to 32 of starting bit of DCI format 2_3. A UE supporting this feature shall also indicate support of *tpc-SRS-RNTI*. NOTE: The maximum supported value is 45 for operations in FR1 shared spectrum or FR2-2 and 43 otherwise.	Band	No	N/A	N/A

fastBeamSweepingMultiRx-r18 Indicates whether the UE supports beam sweeping factor reduction for SSB-based layer-1 measurement for activated serving cell when the UE is in multi-Rx operation. NOTE: It is only supported for power class 3.	Band	No	TDD only	FR2-1 only
fastRx-BSF-MeasDelayReduction-r19 Indicates whether the UE supports fast Rx beam sweeping factor reduction for L3 measurement for FR2-1. NOTE: It is only supported for power class 3.	Band	No	TDD only	FR2-1 only
fastSCellActivationEarlyMeas-r19 Indicates whether the UE supports fast SCell activation based on early measurement reports as specified in TS 38.133 [5] clause 8.3.2A. A UE supporting this feature shall also indicate support of *idleInactiveNR-MeasBeamReport-r16* and at least one of *measValidationReportEMR-r18*, *measValidationReportReselectionMeasurements-r18* or *idleInactiveNR-MeasReport-r16*. A UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands, all TDD-FR2-1 bands and all TDD-FR2-2 bands respectively.	Band	No	N/A	N/A
groupBeamReporting Indicates whether UE supports RSRP reporting for the group of two reference signals.	Band	No	N/A	N/A
groupBeamReporting-STx2P-r18 Indicates whether the UE supports grouped-based beam reporting for STx2P. This capability signalling comprises the following parameters: - *groupL1-RSRP-Reporting-r18* indicates the supported group based L1-RSRP reporting for STx2P based transmission. - *maxNumberBeamGroups-r18* indicates the maximum number N of beam groups (M=2 beams per beam group) in a single L1-RSRP reporting instance based on measurement on two CMR resource sets. - *maxNumberResWithinSlotAcrossCC-r18* indicates the maximum number of SSB and CSI-RS resources for measurement in both CMR sets within a slot across all CCs in a band. - *maxNumberResAcrossCC-r18* indicates the maximum number of configured SSB and CSI-RS resources for measurement in both CMR sets across all CCs in a band. A UE supporting this feature shall also indicate support of *mTRP-GroupBasedL1-RSRP-r17*. NOTE: *maxNumberResWithinSlotAcrossCC-r18* and *maxNumberResAcrossCC-r18* are also counted in *maxTotalResourcesForOneFreqRange-r16*, *maxTotalResourcesForAcrossFreqRanges-r16*, and *mTRP-GroupBasedL1-RSRP-r17*.	Band	No	N/A	FR2 only
groupScalingFactor-r19 Indicates whether the UE supports group-specific 3-bit scaling factors for up to 128 ports. Value '*rank1*' indicates the support of rank-1, value '*rank1and2*' indicates the support of rank-1 and rank-2. '*rank1*' is the lower capability. A UE supporting this feature shall also indicate the support of one or more of *enhType1SP64PortsSchemeA-r19* and *enhType1SP64PortsSchemeB-r19*. NOTE: 3-bit scaling applies only to the Type-I SP codebook.	Band	No	N/A	N/A
groupSINR-reporting-r16 Indicates whether UE supports group based L1-SINR reporting. UE indicates support of this feature shall indicate support of *ssb-csirs-SINR-measurement-r16.*	Band	No	N/A	N/A
handoverUTRA-FDD-r16 Indicates whether the UE supports NR to UTRA-FDD CELL_DCH CS handover for the PCell on the band. It is mandatory to support both UTRA-FDD measurement and event B triggered reporting, and periodic UTRA-FDD measurement and reporting if the UE supports HO to UTRA-FDD. If this field is included, then UE shall support IMS voice over NR. UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands, all TDD-FR2-1 bands and all TDD-FR2-2 bands respectively.	Band	No	N/A	N/A

increasedNumOfReportedRS-r19 Indicates whether the UE supports reporting format for L1-RSRP measurements not including CRI/SSBRI other than one for the largest measured L1-RSRP in a reporting instance, if the number of reported L1-RSRPs is equal to the size of the measurement resource set. The UE also supports reporting format for L1-RSRPs and corresponding beam information of the top M beam(s) with largest M measured value(s) of L1-RSRP(s) of a measurement resource set, where M is configured by gNB, if the number of reported L1-RSRPs is smaller than the size of the measurement resource set. The UE reports the maximum number of M reported RSs, where M>4. A UE supporting this feature shall also indicate support of *beamManagementSSB-CSI-RS* or *maxNumberNonGroupBeamReporting*.	Band	No	N/A	N/A
interCellCrossTRP-PDCCH-OrderCFRA-r18 Indicates whether the UE supports cross-TRP PDCCH order based on CFRA for inter-cell multi-DCI based mTRP. A UE supporting this feature shall also indicate support of *multiDCI-InterCellMultiTRP-TwoTA-r18*.	Band	No	N/A	N/A
interSlotFreqHopInterSlotBundlingPUSCH-r17 Indicates whether the UE supports enhanced inter-slot frequency hopping with inter-slot bundling for PUSCH. UE indicating support of this feature shall also indicate support of at least one of *dmrs-BundlingPUSCH-RepTypeA-r17*, *dmrs-BundlingPUSCH-RepTypeB-r17* or *dmrs-BundlingPUSCH-multiSlot-r17*.	Band	No	N/A	N/A
interSlotFreqHopPUCCH-r17 Indicates whether the UE supports enhanced inter-slot frequency hopping for PUCCH repetitions with DMRS bundling. UE indicating support of this feature shall also indicate support of *dmrs-BundlingPUCCH-Rep-r17*.	Band	No	N/A	N/A
intraCellCrossTRP-PDCCH-OrderCFRA-r18 Indicates whether the UE supports cross-TRP PDCCH order based on CFRA for intra-cell multi-DCI based mTRP. A UE supporting this feature shall also indicate support of *multiDCI-IntraCellMultiTRP-TwoTA-r18*.	Band	No	N/A	N/A
intraSlot-PDSCH-MulticastInactive-r18 Indicates whether the UE supports TDM between one unicast PDSCH (e.g., small data transmission PDSCH) and one group-common PDSCH for multicast in a slot. This capability indicates, for any two consecutive slots n and n+1, if there are more than 1 multicast/unicast PDSCH in either slot, whether to require the minimum time separation (4 OFDM symbols for 30kHz and 7 OFDM symbols for 60kHz) between starting time of any two multicast/unicast PDSCHs within the duration of these slots. A UE indicating support of this feature shall also indicate support of *multicastInactive-r18* and any of *ra-SDT-r17*, *ra-SDT-NTN-r17*, *cg-SDT-r17*, *mt-SDT-r18, mt-SDT-NTN-r18* or *mt-CG-SDT-r18*.	Band	No	N/A	N/A
jointConfigDMRSPortDynamicSwitching-r18 Indicates whether the UE supports joint configuration of DMRS ports and dynamic switching between DFT-S-OFDM and CP-OFDM for PUSCH. A UE supporting this feature shall also indicate the support of *dmrs-TypeA-r18* or *pusch-TypeB-DMRS-r18*, and *dynamicWaveformSwitch-r18*.	Band	No	N/A	N/A
jointReleaseConfiguredGrantType2-r16 Indicates whether the UE supports joint release in a DCI for two or more configured grant Type 2 configurations for a given BWP of a serving cell. The UE can include this feature only if the UE indicates support of *activeConfiguredGrant-r16*.	Band	No	N/A	N/A

jointReleaseDCI-r18 Indicates whether the UE supports joint release in a DCI for two or more configured grant Type 2 configurations, including multi-PUSCH CG configuration(s), for a given BWP of a serving cell. A UE supporting this feature shall also indicate support of one of *multiPUSCH-CG-r18* and *multiPUSCH-ActiveConfiguredGrant-r18*. NOTE: For the case of joint release in a DCI for two or more configured grant Type 2 configurations, including multi-PUSCH CG configuration(s), for a given BWP of a serving cell, the reporting of this feature applies, i.e., ignore irrespective of *jointReleaseConfiguredGrantType2-r16.* If UE supports *jointReleaseConfiguredGrantType2-r16* but does not support this feature, the UE does not expect to be indicated for joint release including multi-PUSCH CG configuration(s).	Band	No	N/A	N/A
jointReleaseSPS-r16 Indicates whether the UE supports joint release in a DCI for two or more SPS configurations for a given BWP of a serving cell. The UE can include this feature only if the UE indicates support of *sps-r16*.	Band	No	N/A	N/A
k1-RangeExtension-r17 Indicates whether the UE supports extended K1 value range of (0..31) for unpaired spectrum. This field is only applicable for bands in Table 5.2.2-1 and Table 5.2.3-1 in TS 38.101-5 [34] and HAPS operation bands in clause 5.2 of TS 38.104 [35].	Band	No	N/A	N/A
l1-CLI-RSSI-MeasAndAperiodicReporting-r19 Indicates whether the UE supports L1 CLI-RSSI periodic and aperiodic measurement and aperiodic reporting on PUSCH. The UE also supports CLI-RSSI measurement resource configured in one UL sub-band only, in one DL sub-band only, or across two DL sub-bands only. This capability signalling comprises the following parameters: - *maxNumberOfConfiguredMeasResourceAcrossCC-r19* indicates the maximum number of configured L1 CLI-RSSI measurement resources (sum of aperiodic and periodic, and semi-persistent if supported) across all CCs; - *maxNumberOfAperiodicReportSettingPerBWP-r19* indicates the maximum number of aperiodic CSI report setting per BWP for L1-CLI-RSSI report; - *maxNumberOfConfiguredMeasResourcePerCC-r19* indicates the maximum number of configured L1 CLI-RSSI measurement resources (sum of aperiodic/semi-persistent/periodic) per CC; - *maxNumberOfSimultaneousMeasResourcePerCC-r19* indicates the maximum number of simultaneous L1 CLI-RSSI measurement resources with resource type #1/#2 (sum of aperiodic/semi-persistent/periodic) per CC. The UE optionally includes *periodicReporting-r19* to indicate whether the UE supports periodic L1 CLI-RSSI reporting on PUCCH. The UE optionally includes *semiPersistentMeasResource-r19* to indicate whether the UE supports semi-persistent L1 CLI-RSSI measurement resource.	Band	No	TDD only	N/A

l1-SRS-RSRP-MeasAndAperiodicReporting-r19 Indicates whether the UE supports periodic and aperiodic SRS-RSRP measurement resource and aperiodic L1 SRS-RSRP reporting on PUSCH. This capability signalling comprises the following parameters: - *maxNumberOfConfiguredMeasResourceAcrossCC-r19* indicates the maximum number of configured L1 SRS-RSRP measurement resources across all CCs; - *maxNumberOfConfiguredMeasResourcePerCC-r19* indicates the maximum number of configured L1 SRS-RSRP measurement resources (sum of aperiodic/semi-persistent/periodic) per CC; - *maxNumberOfSimultaneousMeasResourcePerCC-r19* indicates the maximum number of simultaneous L1 SRS-RSRP measurement resources (sum of aperiodic/semi-persistent/periodic) per CC; - *maxNumberOfAperiodicReportSettingPerBWP-r19* indicates the maximum number of aperiodic CSI report setting per BWP for L1-SRS-RSRP report; - *maxNumberOfMeasResourceAcrossCCWithinSlot-r19* indicates the maximum number of SRS-RSRP measurement resources across all CCs within a slot; - *maxNumberOfAperiodicMeasResourceAcrossCCs-r19* indicates the maximum number of aperiodic SRS-RSRP measurement resources across all CCs. The UE optionally includes *fdm-Reception-r19* to indicate whether the UE supports FDM-ed reception of DL signals/channels and L1 SRS-RSRP measurement resource. The UE optionally includes *semiPersistentMeasResource-r19* to indicate whether the UE supports semi-persistent L1 SRS-RSRP measurement resource and aperiodic reporting.	Band	No	TDD only	N/A
linked-CJTC-Dd-eType2CJT-Joint-r19 Indicates whether the UE supports joint triggering for linked CJTC delay offset reporting and eType-II CJT CSI. A UE supporting this feature shall also indicate support of *cjtc-DdReport-r19* and *eType2CJT-r18*.	Band	No	N/A	N/A
linked-CJTC-Dd-eType2CJT-Separate-r19 Indicates whether the UE supports separate triggering for linked CJTC delay offset reporting and eType-II CJT CSI. A UE supporting this feature shall also indicate support of *cjtc-DdReport-r19* and *eType2CJT-r18*.	Band	No	N/A	N/A
linked-CJTC-Dd-eType2CJT-SeparatePerState-r19 Indicates whether the UE supports 1 bit indicator per trigger state for separate triggering of linked delay offset reporting and Type II CJT reporting. A UE supporting this feature shall also indicate support of *linked-CJTC-Dd-eType2CJT-Separate-r19*.	Band	No	N/A	N/A
locationBasedCondHandover-r17 Indicates whether the UE supports location based conditional handover, i.e., *CondEvent D1* as specified in TS 38.331 [9]. A UE supporting this feature shall also indicate the support of *condHandover-r16* for NTN bands and the support of *nonTerrestrialNetwork-r17*. UE shall set the capability value consistently for all FDD-FR1 NTN bands and all FDD-FR2 NTN bands respectively. The inter-band location based conditional handover is supported only if the UE sets the capability value for the source PCell and the target PCell bands.	Band	No	N/A	N/A
locationBasedCondHandoverATG-r18 Indicates whether the UE supports location based conditional handover, i.e., *CondEvent D1* as specified in TS 38.331 [9]. A UE supporting this feature shall also indicate the support of *condHandover-r16* for bands as specified for ATG in clause 5.2J of TS 38.101-1 [2] and the support of *airToGroundNetwork-r18*. UE shall set the capability value consistently for all FDD bands and all TDD bands respectively as specified for ATG in clause 5.2J of TS 38.101-1 [2]. The inter-band location based conditional handover is supported only if the UE sets the capability value for the source PCell and the target PCell bands.	Band	No	N/A	FR1 only

locationBasedCondHandoverEMC-r18 Indicates whether the UE supports location based conditional handover for an NTN Earth-moving cell, i.e. *condEventD2* as specified in TS 38.331 [9]. A UE supporting this feature shall also indicate the support of *condHandover-r16* for NTN bands and the support of *nonTerrestrialNetwork-r17*. UE shall set the capability value consistently for all FDD-FR1 NTN bands and all FDD-FR2 NTN bands respectively. The inter-band location based conditional handover is supported only if the UE sets the capability value for the source PCell and the target PCell bands.	Band	No	N/A	N/A
lowerMSD-r18, lowerMSD-ENDC-r18 Indicates whether the UE supports lower maximum sensitivity degradation when the band is the victim band with sensitivity degradation as specified in TS 38.101-1 clause 7.3A.7 [2] and TS 38.101-3 clause 7.3B.2.3.7 [4]. The victim band and associated aggressor band(s) are within at least one of inter-band CA or EN-DC band combinations supported by the UE. The lower maximum sensitivity degradation for the UE is applicable to all supported band combinations that include the victim and associated aggressor band(s). The lower MSD requirements apply to the victim and aggressor band(s) jointly, i.e. if *lowerMSD-r18* (or *lowerMSD-ENDC-r18*) is indicated with two aggressor bands, it does not apply to band pairs consisting of the victim band and only one of the aggressor bands. This feature includes following parameters: - *aggressorband1-r18* indicates the aggressor band which causes sensitivity degradation to the victim band. It is an NR band for inter-band CA band combination and LTE band for EN-DC band combination. - *aggressorband2-r18* indicates the additional aggressor band only when the sensitivity degradation to the victim band is caused by IMD of another two bands, i.e. *aggressorband1-r18* and *aggressorband2-r18* together (i.e. if *aggressorband2-r18* is the victim band, it does not have to be indicated). - *msd-Type-r18* indicates the MSD type, including harmonic, harmonic mixing, cross band isolation, IMD2, IMD3, IMD4, IMD5 and 'all'. Value 'all' indicates the MSD capability class is applicable for all MSD types defined in this release, which are applicable to the associated victim band/aggressor band(s). - *msd-PowerClass-r18* indicates the applicable power class applied for the aggressor band(s) of the CA configuration for the lower MSD capability class reported in *msd-Class-r18*. - *msd-Class-r18* indicates the lower MSD capability class as specified in 7.3A.7 in TS 38.101-1 [2] and in 7.3B.2.3.7 in TS 38.101-3 [4]. The victim band and aggressor band(s) only consist of the bands requested by the network in *frequencyBandListFilter*.	Band	No	N/A	FR1 only
lowPAPR-DMRS-PDSCH-r16 Indicates whether the UE supports low PAPR DMRS for PDSCH.	Band	No	N/A	N/A
lowPAPR-DMRS-PUCCH-r16 Indicates whether the UE supports low PAPR DMRS for PUCCH format 3 and format 4 with transform precoding and with pi/2 BPSK modulation. UE indicates support of this feature shall indicate support of *pucch-F3-4-HalfPi-BPSK* and any combination of support of *pucch-F3-WithFH*, *pucch-F4-WithFH* and *pucch-F1-3-4WithoutFH*. It is mandatory with capability signalling.	Band	Yes	N/A	N/A
lowPAPR-DMRS-PUSCHwithoutPrecoding-r16 Indicates whether the UE supports low PAPR DMRS for PUSCH without transform precoding.	Band	No	N/A	N/A
lowPAPR-DMRS-PUSCHwithPrecoding-r16 Indicates whether the UE supports low PAPR DMRS for PUSCH with transform precoding and with pi/2 BPSK modulation. It is mandatory with capability signalling. UE indicates support of this feature shall indicate support of *pusch-HalfPi-BPSK*.	Band	Yes	N/A	N/A
ltm-BeamIndicationJointTCI-CSI-RS-r19 Indicates whether the UE supports CSI-RS for BM as Type-D QCL source RS and TRS as Type-A QCL source RS in the indicated joint LTM TCI states. A UE supporting this feature shall also indicate support of *ltm-BeamIndicationJointTCI-r18*. In each FR, the UE shall set this capability consistently for all bands for which it indicates support of *ltm-MCG-IntraFreq-r18,* and for all bands for which it indicates support of *ltm-SCG-IntraFreq-r18*.	Band	No	N/A	N/A

ltm-BeamIndicationJointTCI-r18 Indicates whether the UE supports unified TCI with joint DL/UL LTM TCI-state indication for LTM procedure, indicating and activating a single joint LTM TCI state in a cell switch command. In each FR, the UE shall set this capability consistently for all bands for which it indicates support of *ltm-MCG-IntraFreq-r18,* and for all bands for which it indicates support of *ltm-SCG-IntraFreq-r18*. This capability comprises the following parameters: - *maxNumberJointTCI-PerCell-r18* indicates the maximum number of configured joint LTM TCI state(s) per candidate cell - *qcl-Resource-r18* indicates of the supported QCL source RS in the LTM TCI-state- configuration. - *maxNumberJointTCI-AcrossCells-r18* indicates index *N* of the maximum number of configured joint LTM TCI state(s) across candidate cells. The maximum number of configured joint LTM TCI state(s) across candidate cells is *N**8, where *N*={1..128}. - *maxNumberCells-r18* indicates the maximum number of candidate cells with joint LTM TCI state(s). A UE supporting this feature shall also indicate support of *unifiedJointTCI-r17* and at least one of *ltm-MCG-IntraFreq-r18* or *ltm-SCG-IntraFreq-r18*. For cross-band operation, this capability refers to the source band.	Band	No	N/A	N/A
ltm-BeamIndicationSeparateTCI-CSI-RS-r19 Indicates whether the UE supports CSI-RS for BM as Type-D QCL source RS and TRS as Type-A QCL source RS in the indicated separate DL/UL LTM TCI states. A UE supporting this feature shall also indicate support of *ltm-BeamIndicationSeparateTCI-r18*. In each FR, the UE shall set this capability consistently for all bands for which it indicates support of *ltm-MCG-IntraFreq-r18,* and for all bands for which it indicates support of *ltm-SCG-IntraFreq-r18*.	Band	No	N/A	N/A
ltm-BeamIndicationSeparateTCI-r18 Indicates whether the UE supports unified TCI with separate DL/UL TCI-state indication for LTM procedure and indicating/activating a pair of UL/DL TCI-state in a cell switch command. In each FR, the UE shall set this capability consistently for all bands for which it indicates support of *ltm-MCG-IntraFreq-r18,* and for all bands for which it indicates support of *ltm-SCG-IntraFreq-r18*. This capability comprises the following parameters: - *maxNumberDL-TCI-PerCell-r18* indicates the maximum number of configured DL TCI state(s) per candidate cell. - *maxNumberUL-TCI-PerCell-r18* indicates the maximum number of configured UL TCI state(s) per candidate cell. - *qcl-Resource-r18* indicates the supported QCL source RS in the LTM TCI-state configuration. - *maxNumberDL-TCI-AcrossCells-r18* indicates value *N* of the maximum number of configured separate DL LTM TCI state(s) across candidate cells. The maximum number of configured DL LTM TCI state(s) across candidate cells is *N**8, where *N*={1..128}. - *maxNumberUL-TCI-AcrossCells-r18* indicates value *N* of the maximum number of configured separate UL LTM TCI state(s) across candidate cells. The maximum number of configured UL LTM TCI state(s) across candidate cells is *N**8, where *N*={1..64}. - *maxNumberCells-r18* indicates the maximum number of candidate cells with separate DL/UL LTM TCI states A UE supporting this feature shall also indicate support of *unifiedSeparateTCI-r17* and at least one of *ltm-MCG-IntraFreq-r18* or *ltm-SCG-IntraFreq-r18*. For cross-band operation, this capability refers to the source band.	Band	No	N/A	N/A

ltm-CSI-RS-CSI-IM-Periodic-r19 Indicates whether the UE supports CSI-RS and CSI-IM measurement and CSI reporting after reception of LTM CSC MAC CE based on periodic CSI-RS(s) and CSI-IM of cell indicated in CSC MAC CE. This capability comprises the following parameters: - *maxNumOfCSI-RS-Resource-r19* indicates the maximum number of CSI-RS resources for CMR associated with CSI report configuration for a candidate cell; - *maxNumOfCSI-RS-Ports-r19* indicates the maximum number of ports of CSI-RS resource(s) associated with a CSI report configuration for CSI reporting for a candidate cell; - *maxNumOfNZP-CSI-RS-Ports-r19* indicates the maximum number of ports in one NZP CSI-RS resource; - *maxRank-r19* indicates the max rank for CSI reporting for a candidate cell; - *maxNumOfCSI-IM-Resource-r19* indicates the maximum number of CSI-IM resources for interference measurement associated with CSI report configuration for a candidate cell. A UE supporting this feature shall also indicate support of *ltm-MCG-IntraFreq-r18* or *ltm-SCG-IntraFreq-r18*.	Band	No	N/A	N/A
ltm-CSI-RS-CSI-IM-SP-r19 Indicates whether the UE supports CSI-RS and CSI-IM measurement and CSI reporting after reception of LTM CSC MAC CE based on semi-persistent CSI-RS(s) and CSI-IM of cell indicated in CSC MAC CE. This capability comprises the following parameters: - *maxNumOfCSI-RS-Resource-r19* indicates the maximum number of CSI-RS resources for CMR associated with CSI report configuration for a candidate cell; - *maxNumOfCSI-RS-Ports-r19* indicates the maximum number of ports of CSI-RS resource(s) associated with a CSI report configuration for CSI reporting for a candidate cell; - *maxNumOfNZP-CSI-RS-Ports-r19* indicates the maximum number of ports in one NZP CSI-RS resource; - *maxRank-r19* indicates the max rank for CSI reporting for a candidate cell; - *maxNumOfCSI-IM-Resource-r19* indicates the maximum number of CSI-IM resources for interference measurement associated with CSI report configuration for a candidate cell. A UE supporting this feature shall also indicate support of *ltm-CSI-RS-CSI-IM-Periodic-r19*.	Band	No	N/A	N/A
ltm-FastProcessingConfig-r18 Indicates whether the UE supports fast processing of LTM candidate cell RRC configuration. This capability signalling comprises the following parameters: - *maxNumberStoredConfigCells-r18* indicates the maximum number of serving cell(s) and candidate cell(s), including serving SpCell(s), serving SCell(s) in MCG and SCG, SpCell in LTM candidate configurations and Scell(s) in LTM candidate configurations for MCG and SCG, that UE can store the configurations. - *maxNumberConfigs-r18* represents the maximum number of LTM candidate configuration for which the UE can perform early ASN.1 decoding and validity check, as described in TS 38.133 [5]. UE shall set the capability values for *maxNumberStoredConfigCells-r18* and *maxNumberConfigs-r18* consistently for all bands. These capability values represent the maximum number across all the supported bands. NOTE: The conditions for fast processing of an LTM candidate cell RRC configuration is defined in clause 6.3 in TS 38.133 [5].	Band	No	N/A	N/A
ltm-MAC-CE-JointTCI-CSI-RS-r19 Indicates whether the UE supports CSI-RS for beam management as Type-D QCL source RS and TRS as Type-A QCL source RS for MAC-CE activated joint LTM TCI states. In each FR, the UE shall set this capability consistently for all bands for which it indicates support of *ltm-MCG-IntraFreq-r18,* and for all bands for which it indicates support of *ltm-SCG-IntraFreq-r18*. A UE supporting this feature shall also indicate support of *ltm-BeamIndicationJointTCI-CSI-RS-r19* and *ltm-MAC-CE-JointTCI-r18*.	Band	No	N/A	N/A

ltm-MAC-CE-JointTCI-r18 Indicates whether the UE supports MAC-CE activated joint LTM TCI states based on SSB. In each FR, the UE shall set this capability consistently for all bands for which it indicates support of *ltm-MCG-IntraFreq-r18,* and for all bands for which it indicates support of *ltm-SCG-IntraFreq-r18*. This capability comprises the following parameters: - *qcl-Resource-r18* indicates the supported QCL source RS for MAC-CE activated joint LTM TCI states configuration. - *maxNumberJointTCI-PerCell-r18* indicates the maximum number of MAC-CE activated joint LTM TCI states per candidate cell. - *maxNumberJointTCI-AcrossCells-r18* indicates the maximum number of MAC-CE activated joint TCI states in the band, including activated joint LTM TCI states of all candidate cells in the band for which joint LTM TCI states are configured and activated serving cell joint TCI states of all serving cells in the band that are configured with joint TCI states. A UE supporting this feature shall also indicate support of *ltm-BeamIndicationJointTCI-r18*. NOTE: The maximum number of MAC-CE activated joint TCI states across all servings cells is limited by of *unifiedJointTCI-r17.* For cross-band operation, this capability refers to the source band.	Band	No	N/A	N/A
ltm-MAC-CE-SeparateTCI-CSI-RS-r19 Indicates whether the UE supports CSI-RS for beam management as Type-D QCL source RS and TRS as Type-A QCL source RS for MAC-CE activated separate DL/UL LTM TCI states. In each FR, the UE shall set this capability consistently for all bands for which it indicates support of *ltm-MCG-IntraFreq-r18,* and for all bands for which it indicates support of *ltm-SCG-IntraFreq-r18*. A UE supporting this feature shall also indicate support of *ltm-BeamIndicationSeparateTCI-CSI-RS-r19* and *ltm-MAC-CE-SeparateTCI-r18*.	Band	No	N/A	N/A
ltm-MAC-CE-SeparateTCI-r18 Indicates whether the UE supports MAC-CE activated DL/UL LTM TCI states based on SSB. In each FR, the UE shall set this capability consistently for all bands for which it indicates support of *ltm-MCG-IntraFreq-r18,* and for all bands for which it indicates support of *ltm-SCG-IntraFreq-r18*. This capability comprises the following parameters: - *qcl-Resource-r18* indicates the supported QCL source RS for MAC-CE activated DL/UL LTM TCI states configuration. - *maxNumberDL-TCI-PerCell-r18* indicates the maximum number of MAC-CE activated DL TCI states per candidate cell. - *maxNumberUL-TCI-PerCell-r18* indicates the maximum number of MAC-CE activated UL TCI states per candidate cell. - *maxNumberDL-TCI-AcrossCells-r18* indicates the maximum number of MAC-CE activated DL TCI states in the band, including activated LTM DL TCI states of all candidate cells in the band for which LTM DL TCI states are configured and activated DL TCI states of all serving cells in the band that are configured with DL TCI states. - *maxNumberUL-TCI-AcrossCells-r18* indicates the maximum number of MAC-CE activated UL TCI states in the band, including activated LTM UL TCI states of all candidate cells in the band for which LTM UL TCI states are configured and activated UL TCI states of all serving cells in the band that are configured with UL TCI states. A UE supporting this feature shall also indicate support of *ltm-BeamIndicationSeparateTCI-r18*. The maximum number of MAC-CE activated DL/UL TCI states across all servings cells is limited by *unifiedSeparateTCI-r17.* For cross-band operation, this capability refers to the source band.	Band	No	N/A	N/A
ltm-MCG-IntraFreq-r18 Indicates whether the UE supports intra-frequency LTM for MCG with RACH as defined in TS 38.331 [9] and TS 38.321 [8] without NR-DC configured. UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands, all TDD-FR2-1 bands and all TDD-FR2-2 bands respectively. UE supporting this feature shall also indicate support for *ltm-BeamIndicationJointTCI-r18* or *ltm-BeamIndicationSeparateTCI-r18*.	Band	No	N/A	N/A

ltm-SCG-IntraFreq-r18 Indicates whether the UE supports intra-frequency LTM for SCG with RACH as defined in TS 38.331 [9] and TS 38.321 [8]. UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands, all TDD-FR2-1 bands and all TDD-FR2-2 bands respectively. UE supporting this feature shall also indicate support for *ltm-BeamIndicationJointTCI-r18* or *ltm-BeamIndicationSeparateTCI-r18*.	Band	No	N/A	N/A
ltm-WithoutCSI-IM-r19 Indicates whether the UE supports CSI-RS measurement and CSI reporting for candidate cells without CSI-IM resource configuration. A UE supporting this feature shall also indicate support of *ltm-CSI-RS-CSI-IM-Periodic-r19* or *ltm-CSI-RS-CSI-IM-SP-r19*.	Band	No	N/A	N/A
maxDurationDMRS-Bundling-r17 Indicates whether the UE supports the maximum duration during which UE is able to maintain power consistency and phase continuity to support DM-RS bundling for PUSCH/PUCCH. NOTE: DM-RS bundling is only applicable for UL transmissions with pi/2 BPSK, BPSK, and QPSK modulation orders for the corresponding physical channels.	Band	No	N/A	N/A
maxDynamicSlotRepetitionForSPS-Multicast-r17 Indicates maximum number of dynamic slot-level repetitions for SPS group-common PDSCH for multicast. For TN, the UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands and all TDD-FR2 bands, associated with supported shared and non-shared spectrum respectively. For NTN, UE shall set the capability value consistently for all FDD-FR1 NTN bands and all FDD-FR2 NTN bands respectively. A UE that indicates support of this feature shall indicate support of *sps-Multicast-r17*.	Band	No	N/A	N/A
max-HARQ-ProcessNumber-r17 Indicates the maximal supported HARQ process numbers for UL and for DL respectively. For each value of *max-HARQ-ProcessNumber-r17*, value *u16d32* indicates the maximal supported HARQ process number is 16 for UL and 32 for DL, value *u32d16* indicates the maximal supported HARQ process number is 32 for UL and 16 for DL, value *u32d32* indicates the maximal supported HARQ process number is 32 for UL and 32 for DL. This field is only applicable for bands in Table 5.2.2-1 in TS 38.101-5 [34] and HAPS operation bands in clause 5.2 of TS 38.104 [35].	Band	No	N/A	N/A
maxMIMO-LayersForMulti-DCI-mTRP-r16 Indicates the interpretation of *maxNumberMIMO-LayersPDSCH* for multi-DCI based mTRP. If this field is included, *maxNumberMIMO-LayersPDSCH* is interpreted as the maximum number of layers per PDSCH for multi-DCI multi-TRP operation. If this field is not included, *maxNumberMIMO-LayersPDSCH* is interpreted as the maximum number of layers across two PDSCHs if having at least one RE overlapped, for multi-DCI multi-TRP operation. The UE that indicates support of this feature shall support *overlapPDSCHsFullyFreqTime-r16*. NOTE 1: For data rate calculation in clause 4.1.2, if this feature is indicated, each multi-DCI based multi-TRP CC is counted two times toward J.	Band	No	N/A	N/A
maxModulationOrderForMulticast-r17 Defines the maximal modulation order for multicast PDSCH in RRC_CONNECTED. If not reported, UE supports the same modulation order as unicast. - For FR1, up to 1024QAM is supported. - For FR2, up to 256QAM is supported. A UE supporting this feature shall also indicate support of *dynamicMulticastPCell-r17*. NOTE: A UE shall support the corresponding mandatory maximum modulation for unicast.	Band	No	N/A	N/A

maxNumberActivatedTCI-States-r16 Indicates maximum number of activated TCI states. This capability signalling includes the following: - *maxNumberPerCORESET-Pool-r16* indicates maximal number of activated TCI states per *CORESETPoolIndex* per BWP per CC including data and control - *maxTotalNumberAcrossCORESET-Pool-r16* indicates maximal total number of activated TCI states across *CORESETPoolIndex* per BWP per CC including data and control The UE that indicates support of this feature shall support *multiDCI-MultiTRP-r16*.	Band	No	N/A	N/A
maxNumberCSI-RS-BFD Indicates maximal number of CSI-RS resources across all CCs, and across MCG and SCG in case of NR-DC, for UE to monitor PDCCH quality. In this release, the maximum value that can be signalled is 16. If the UE includes the field in an FR1 band, it shall set the same value in all FR1 bands. If the UE includes the field in an FR2 band, it shall set the same value in all FR2 bands. The UE supports a total number of resources equal to the maximum of the FR1 and FR2 value, but no more than the FR1 value across all FR1 serving cells and no more than the FR2 value across all FR2 serving cells. It is mandatory with capability signalling for FR2 and optional for FR1.	Band	CY	N/A	N/A
maxNumberCSI-RS-SSB-CBD Defines maximal number of different CSI-RS [and/or SSB] resources across all CCs, and across MCG and SCG in case of NR-DC, for new beam identifications. In this release, the maximum value that can be signalled is 128. If the UE includes the field in an FR1 band, it shall set the same value in all FR1 bands. If the UE includes the field in an FR2 band, it shall set the same value in all FR2 bands. The UE supports a total number of resources equal to the maximum of the FR1 and FR2 value, but no more than the FR1 value across all FR1 serving cells and no more than the FR2 value across all FR2 serving cells. It is mandatory with capability signalling for FR2 and optional for FR1. The UE is mandated to report at least 32 for FR2.	Band	CY	N/A	N/A
maxNumberG-CS-RNTI-r17 Defines maximum number of G-CS-RNTIs for SPS multicast. For TN, the UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands and all TDD-FR2 bands, associated with supported shared and non-shared spectrum respectively. For NTN, UE shall set the capability value consistently for all FDD-FR1 NTN bands and all FDD-FR2 NTN bands respectively. A UE supporting this feature shall also indicate support of *sps-Multicast-r17*.	Band	No	N/A	N/A
maxNumberG-RNTI-r17 Defines maximum number of G-RNTIs for multicast in RRC_CONNECTED. For TN, the UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands and all TDD-FR2 bands, associated with supported shared and non-shared spectrum respectively. For NTN, UE shall set the capability value consistently for all FDD-FR1 NTN bands and all FDD-FR2 NTN bands respectively. A UE supporting this feature shall also indicate support of *dynamicMulticastPCell-r17*. For the UE indicating support of *multicastInactive-r18*, this capability is also applicable to multicast reception in RRC_INACTIVE, as specified in TS 38.331 [9].	Band	No	N/A	N/A
maxNumber-NGSO-SatellitesPerCarrier-r17 Indicates the number of target NGSO satellites the UE can monitor per carrier. For serving carrier, the number of target NGSO satellites also includes the serving satellite. If this field is not included, the number of target satellites UE can monitor per carrier is 2. The value shall be larger than or equal to the reported value on *maxNumber-NGSO-SatellitesWithinOneSMTC-r17*.	Band	No	FDD only	FR1 only
maxNumber-NGSO-SatellitesWithinOneSMTC-r17 Indicates the number of different NGSO satellites for target cells that the UE supports of simultaneous measurements within a SMTC with value n1 corresponds to 1, value n2 corresponds to 2 and so on.	Band	No	FDD only	FR1 only
maxNumberNonGroupBeamReporting Defines support of non-group based RSRP reporting using N_max RSRP values reported.	Band	Yes	N/A	N/A

maxNumberPUSCH-TypeA-Repetition-r17 Indicates whether the UE supports the increased maximum number of PUSCH Type A repetitions to 32. A UE that indicates support of this feature shall support *type1-PUSCH-RepetitionMultiSlots, type2-PUSCH-RepetitionMultiSlots, pusch-RepetitionTypeA-r16* or *pusch-RepetitionTypeA-v16c0.* NOTE: For DG PUSCH, the number of repetitions is indicated in a TDRA list. A row index of the TDRA list is indicated by a DCI. For Type 1 CG PUSCH, the number of repetitions is indicated by *repK-v1710*. For Type 2 CG PUSCH, the number of repetitions is indicated in a TDRA list or by *repK-v1710*.	Band	No	N/A	N/A
maxNumberRxBeam, maxNumberRxBeam-v1720 Defines whether UE supports receive beamforming switching using NZP CSI-RS resource. UE shall indicate a single value for the preferred number of NZP CSI-RS resource repetitions per CSI-RS resource set. Support of Rx beam switching is mandatory for FR2.	Band	CY	N/A	N/A
maxNumberRxTxBeamSwitchDL, maxNumberRxTxBeamSwitchDL-v1710 Defines the number of Tx and Rx beam changes UE can perform on this band within a slot. UE shall report one value per each subcarrier spacing supported by the UE. In this release, the number of Tx and Rx beam changes for scs-15kHz and scs-30kHz are not included.	Band	No	N/A	FR2 only
maxNumberSCellBFR-r16 Defines the maximum number of SCells configured for SCell beam failure recovery simultaneously. The UE indicating support of this also indicates the capabilities of *maxNumberCSI-RS-BFD, maxNumberSSB-BFD* and *maxNumberCSI-RS-SSB-CBD.*	Band	No	N/A	N/A
maxNumberSSB-BFD Defines maximal number of different SSBs across all CCs, and across MCG and SCG in case of NR-DC, for UE to monitor PDCCH quality. In this release, the maximum value that can be signalled is 16. If the UE includes the field in an FR1 band, it shall set the same value in all FR1 bands. If the UE includes the field in an FR2 band, it shall set the same value in all FR2 bands. The UE supports a total number of resources equal to the maximum of the FR1 and FR2 value, but no more than the FR1 value across all FR1 serving cells and no more than the FR2 value across all FR2 serving cells. It is mandatory with capability signalling for FR2 and optional for FR1.	Band	CY	N/A	N/A
maxOutputPowerATG-r18 Indicates the maximum output power rating at maximum modulation order and full RB allocation as specified in clause 6.2J of TS 38.101-1 [2]. Value 1 indicates 23dBm, value 2 indicates 24dBm and so on. If present, the *ue-PowerClass* is not included, and default UE power class is not applicable. The UE indicating support of this feature shall also indicate support of *airToGroundNetwork-r18*. This field is only applicable for bands as specified for ATG in clause 5.2J of TS 38.101-1 [2].	Band	CY	N/A	FR1 only
maxPeriodicityCMR-r18 Indicates the maximum periodicity of periodic CSI-RS (in slots) UE can handle for Type-II-Doppler CSI report. The UE supporting this feature shall also indicate support of at least one of *eType2Doppler-r18* and *feType2Doppler-r18*. NOTE: A UE that supports at least one of *eType2Doppler-r18* and *feType2Doppler-r18* must signal this feature.	Band	CY	N/A	N/A
maxUplinkDutyCycle-PC2-FR1 Indicates the maximum percentage of symbols during a certain evaluation period that can be scheduled for uplink transmission to ensure compliance with applicable electromagnetic energy absorption requirements provided by regulatory bodies. This field is applicable for FR1 power class 2 UE and also applicable for FR1 power class 1.5 UE as specified in clause 6.2.1 of TS 38.101-1 [2]. If the field and *maxUplinkDutyCycle-PC1dot5-MPE-FR1-r16* are both absent, 50% shall be applied as the upper limit of the UL duty cycle for power class 2. Value n60 corresponds to 60%, value n70 corresponds to 70% and so on. This capability is not applicable to IAB-MT.	Band	No	N/A	FR1 only

maxUplinkDutyCycle-FR2 Indicates the maximum percentage of symbols during 1s that can be scheduled for uplink transmission at the UE maximum transmission power, so as to ensure compliance with applicable electromagnetic power density exposure requirements provided by regulatory bodies. This field is applicable for all power classes UE in FR2 as specified in TS 38.101-2 [3]. Value n15 corresponds to 15%, value n20 corresponds to 20% and so on. If the field is absent or the percentage of uplink symbols transmitted within any 1s evaluation period is larger than *maxUplinkDutyCycle-FR2*, the UE behaviour is specified in TS 38.101-2 [3]. This capability is not applicable to IAB-MT.	Band	No	N/A	FR2 only
maxUplinkDutyCycle-PC1dot5-MPE-FR1-r16 Indicates the maximum percentage of symbols during a certain evaluation period that can be scheduled for uplink transmission to ensure compliance with applicable electromagnetic energy absorption requirements provided by regulatory bodies. This field is only applicable for FR1 power class 1.5 UE as specified in clause 6.2.1 of TS 38.101-1 [2]. If the field and *maxUplinkDutyCycle-PC2-FR1* are both absent, 25% shall be applied as the upper limit of the UL duty cycle for power class 1.5.	Band	No	N/A	FR1 only
measEnhCAInterFreqFR2-r18 Indicates whether the UE supports the RRM requirement for intra-band CA operation in connected mode to support FR2 high speed up to 350 km/h, as specified in TS 38.133 [5] and the RRM requirement for enhanced inter-frequency measurements in connected mode to support FR2 high speed up to 350 km/h, as specified in TS 38.133 [5]. A UE supporting this feature shall also indicate support of PC6 in *ue-PowerClass-v1700*.	Band	No	N/A	FR2 only
measValidationReportEMR-r18 Indicates whether the UE supports measurement validation and report based on EMR measurement during connection setup/resume for fast CA/DC setup. UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands, all TDD-FR2-1 bands and all TDD-FR2-2 bands respectively. A UE supporting this feature shall also indicate support of *idleInactiveNR-MeasReport-r16* or *idleInactiveEUTRA-MeasReport-r16*.	Band	No	N/A	N/A
measValidationReportReselectionMeasurements-r18 Indicates whether the UE supports measurement validation based on reselection measurements during IDLE/INACTIVE state and reporting for fast CA/DC setup. UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands, all TDD-FR2-1 bands and all TDD-FR2-2 bands respectively.	Band	No	N/A	N/A
mixCodeBookSpatialAdaptation-r18 Indicates whether the UE supports active CSI-RS resources and ports for mixed codebook types in any slot. The following codebook combination is a possible mixed codebook combination {Type 1 Single Panel, Type 1 Multi Panel, Null } for UE supporting CSI feedback based on CSI report sub-configuration(s), each containing one port subset configuration. A UE supporting this feature shall also indicate support of *spatialAdaptation-CSI-Feedback-r18*, or *spatialAdaptation-CSI-FeedbackPUSCH-r18*, or *spatialAdaptation-CSI-FeedbackPUCCH-r18*, or *spatialAdaptation-CSI-FeedbackAperiodic-r18*. The UE supporting this feature shall indicate the support of *codebookComboParametersAddition-r16* and the support of multi-panel operation.	Band	No	N/A	N/A
mn-InitiatedCondPSCellChangeNRDC-r17 Indicates whether the UE supports MN initiated conditional PSCell change in NR-DC, which is configured by NR *conditionalReconfiguration* using MN configured measurement as triggering condition. The UE supporting this feature shall also support 2 trigger events for same execution condition in MN initiated conditional PSCell change in NR-DC. UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands and all TDD-FR2 bands respectively.	Band	No	N/A	N/A
modifiedMPR-Behaviour Indicates whether UE supports modified MPR behaviour defined in TS 38.101-1 [2], TS 38.101-2 [3], and TS 38.101-5 [34].	Band	No	N/A	N/A

mpe-Mitigation-r17 Indicates the support of enhanced PHR reporting which includes pairs of (P-MPR, SSBRI/CRI). This feature also includes following parameters: - *maxNumP-MPR-RI-pairs-r17* indicates the maximum number of reported P-MPR and SSBRI/CRI pairs; - *maxNumConfRS-r17* indicates the maximum number of candidate RS(s) configured in a RRC pool for MPE mitigation. NOTE: *maxNumConfRS-r17* is also counted in *maxTotalResourcesForOneFreqRange-r16*/ *maxTotalResourcesForAcrossFreqRanges-r16.*	Band	No	N/A	FR2 only
mpr-PowerBoost-FR2-r16 Indicates whether UE supports uplink transmission power boost by suspension of in-band emission (IBE) requirements as specified in TS 38.101-2 [3].	Band	No	TDD only	FR2 only
mpr-SingleCC-MultipleValue-r19 Indicates whether the UE supports MPR reduction for single UL carrier with 1/X*UE CBW and 1/X*N_{RB} extension for dual-sided symmetric and single-sided case, where 1/X is a set of ratios of {1/2, 1/4}. The supported cases of {ratio value on low side, ratio value on high side} include {1/2, 0}, {0, 1/2}, {1/2, 1/2}, {1/4, 0}, {0,1/4}, and {1/4, 1/4}. This capability is applicable for single UL CC case. NOTE: N_{RB} is the number of RBs defined per channel bandwidth, as specified in TS 38.101-1 [2], Table 5.3.2-1 for FR1.	Band	No	N/A	FR1 only
mpr-SingleCC-SingleValue-r19 Indicates whether the UE supports MPR reduction for single UL carrier with 1/2*UE CBW and 1/2*N_{RB} extension for dual-sided symmetric and single-sided case. The supported cases of {ratio value on low side, ratio value on high side} include {1/2, 0}, {0, 1/2} and {1/2, 1/2}. This capability is applicable for single UL CC case. NOTE: N_{RB} is the number of RBs defined per channel bandwidth, as specified in TS 38.101-1 [2], Table 5.3.2-1 for FR1.	Band	No	N/A	FR1 only
mr-AlwaysReported-eType2-r19 Indicates whether the UE supports MR={1} for hybrid BF (CRI-based) with eType-II codebook with R=1. If UE does not support this feature, UE supports MR=0 with eType-II codebook with R=1. A UE supporting this feature shall also indicate the support of *codebookParametersHybridBF-eType2-r19*.	Band	No	N/A	N/A
mr-AlwaysReportedType1SP-r19 Indicates whether the UE supports MR={1,2} for hybrid BF (CRI-based) with Type-I SP codebook. If UE does not support this feature, UE supports MR=0 with Type-I SP codebook. A UE supporting this feature shall also indicate the support of *codebookParametersHybridBF-Type1SP-r19*.	Band	No	N/A	N/A
mt-CG-SDT-r18 Indicates whether the UE supports initiating MT-SDT procedure over configured grant type 1, as specified in TS 38.331 [9]. Except for NTN bands, UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands and all TDD-FR2 bands respectively. For NTN, UE shall set the capability value consistently for all FDD-FR1 NTN bands and all FDD-FR2 NTN bands respectively. Except for NTN, a UE supporting this feature shall also support *mt-SDT-r18*. For NTN, a UE supporting this feature shall also support *mt-SDT-NTN-r18*.	Band	No	N/A	N/A
mTRP-BFD-RS-MAC-CE-r17 Indicates the support of MAC-CE based update of explicit BFD-RS for mTRP BFR with maximum number of configured candidate BFD-RS per BWP for MAC-CE based update. The UE indicating support of this feature shall also indicate the support of *mTRP-BFR-twoBFD-RS-Set-r17*.	Band	No	N/A	N/A
mTRP-BFR-association-PUCCH-SR-r17 Indicates whether the UE supports association between a BFD-RS resource set on SpCell and a PUCCH SR resource. The UE indicating support of this feature shall support *mTRP-BFR-PUCCH-SR-perCG-r17.* UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands, all TDD-FR2-1 bands and all TDD-FR2-2 bands respectively.	Band	No	N/A	N/A

mTRP-BFR-PUCCH-SR-perCG-r17 Indicates the maximum number of supported PUCCH-SR resources for MTRP BFR per cell group. A UE that supports *mTRP-BFR-twoBFD-RS-Set-r17* shall indicate support of this feature with at least 1 PUCCH-SR resources for MTRP BFR per cell group. UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands, all TDD-FR2-1 bands and all TDD-FR2-2 bands respectively.	Band	No	N/A	N/A
mTRP-BFR-twoBFD-RS-Set-r17 Indicates whether the UE supports mTRP BFR based on two BFD-RS sets. The capability signalling comprises the following parameters: - *maxBFD-RS-resourcesPerSetPerBWP-r17* indicates the maximum number of supported measured BFD-RS resources per set per BWP. - *maxBFR-r17* indicates the maximum number of CCs per band configured with BFR (including spCell/SCell/MTRP BFR). - *maxBFD-RS-resourcesAcrossSetsPerBWP-r17* indicates the supported maximum number of measured BFD-RS resources across two BFD-RS sets per BWP. *maxBFD-RS-resourcesAcrossSetsPerBWP-r17* is also counted in *maxTotalResourcesForOneFreqRange-r16* and *maxTotalResourcesForAcrossFreqRanges-r16*.	Band	No	N/A	N/A
mTRP-CSI-additionalCSI-r17 Indicates the maximum value of *numberOfSingleTRP-CSI-Mode1*. The UE indicating support of this feature shall also indicate 'mode1' or 'both' in *cSI-Report-mode-r17* of *mTRP-CSI-EnhancementPerBand-r17*.	Band	No	N/A	N/A
mTRP-CSI-CMR-r17 Indicates the support of a NZP CSI-RS resource referred by both a CMR pair configured for Rel-17 Multi-TRP CSI enhancement and a single CMR configured for Single-TRP measurement in a CSI reporting setting. The UE indicating support of this feature shall also indicate the support of *mTRP-CSI-EnhancementPerBand-r17*.	Band	No	N/A	FR2 only

mTRP-CSI-EnhancementPerBand-r17
Indicates support of CSI enhancements for multi-TRP including support of NZP CSI-RS resource pairs used as CMR (channel measurement resource) pairs for NCJT measurement hypothesis with N=1.
This feature also includes following parameters:
- *maxNumNZP-CSI-RS-r17* indicates the maximum number of NZP CSI-RS resources in one CSI-RS resource set: Ks,max
- *cSI-Report-mode-r17* indicates the CSI report mode selection. Mode1 indicates mode 1 with X=0, mode2 indicates mode 2, both indicate the support of both mode 1 with X=0 and mode 2.
- A list of supported combinations, up to 16, across all CCs simultaneously, where each combination includes:
  - *maxNumTx-Ports-r17* indicates the maximum number of Tx ports in one NZP CSI-RS resource associated with an NCJT measurement hypothesis
  - *maxTotalNumCMR-r17* indicates the maximum total number of CMRs for NCJT measurement
  - *maxTotalNumTx-PortsNZP-CSI-RS-r17* indicates the maximum total number of Tx ports of NZP CSI-RS resources associated with NCJT measurement hypotheses
- *codebookModeNCJT-r17* indicates the supported codebook modes for NCJT CSI.
	Band	No	N/A	N/A

mTRP-CSI-N-Max2-r17 Indicates the support of maximum number of CMR pairs Nmax=2 configured in *NZP-CSI-RS-ResourceSet* for a given CSI report setting. The UE indicating support of this feature shall also indicate the support of *mTRP-CSI-EnhancementPerBand-r17*.	Band	No	N/A	N/A
mTRP-CSI-numCPU-r17 Indicates the number of CSI processing units (CPUs) occupied by a pair of CMRs for NCJT CSI hypotheses. Maximum number of CPUs is reported in *csi-ReportFramework*. The UE indicating support of this feature shall also indicate the support of *mTRP-CSI-EnhancementPerBand-r17*.	Band	No	N/A	N/A

mTRP-GroupBasedL1-RSRP-r17 Indicates the support of group based L1-RSRP reporting enhancements. This feature also includes following parameters: - *maxNumBeamGroups-r17* indicates the maximum number N of beam groups (M=2 beams per beam group) in a single L1-RSRP reporting instance based on measurement on two CMR resource sets. - *maxNumRS-WithinSlot-r17* indicates the maximum number of SSB and CSI-RS resources for measurement in both CMR sets within a slot across all CCs. - *maxNumRS-AcrossSlot-r17* indicates the maximum number of configured SSB and CSI-RS resources for measurement in both CMR sets across all CCs. *maxNumRS-WithinSlot-r17* and *maxNumRS-AcrossSlot-r17* are also counted in *maxTotalResourcesForOneFreqRange-r16* and *maxTotalResourcesForAcrossFreqRanges-r16*.	Band	No	N/A	N/A
mTRP-inter-Cell-r17 Indicates the support of RRC configuration of additional PCI different from serving cell associated with the TCI state and/or QCL-info. This feature also includes following parameters: - *maxNumAdditionalPCI-Case1-r17* indicates the maximum number of configured additional PCIs per CC is X1 (Case 1) when each configuration of SSB time domain positions and periodicity of the additional PCIs is the same as SSB time domain positions and periodicity of the serving cell PCI. - *maxNumAdditionalPCI-Case2-r17* indicates the maximum number of configured additional PCIs per CC is X2 (Case 2) when the configurations of SSB time domain positions and periodicity of the additional PCIs is not according to Case 1. The UE indicating support of this feature shall also indicate the support of *multiDCI-MultiTRP-r16.*	Band	No	N/A	N/A
mTRP-PDCCH-anySpan-3Symbols-r17 Indicates support of PDCCH repetition for PDCCH monitoring on any span of up to 3 consecutive OFDM symbols of a slot. It is applicable to 15kHz SCS only. The UE indicating support of this feature shall also indicate support of *pdcchMonitoringSingleOccasion* and *mTRP-PDCCH-Repetition-r17*.	Band	No	N/A	FR1 only
mTRP-PDCCH-individual-r17 Indicates the support of monitoring of individual candidates when one of the linked PDCCH candidates uses the same set of CCEs as an individual (unlinked) PDCCH candidate, and they both are associated with the same DCI size, scrambling, and CORESET. The UE indicating support of this feature shall also indicate support of *mTRP-PDCCH-Repetition-r17*.	Band	No	N/A	N/A
mTRP-PDCCH-TwoQCL-TypeD-r17 Indicates the support of determining two QCL-TypeD for time-domain overlapping CORESETs in the same CC or for intra-band CA when UE is configured with PDCCH repetition. The UE indicating support of this feature shall also indicate support of *mTRP-PDCCH-Repetition-r17*.	Band	No	N/A	FR2 only
mTRP-PUCCH-CyclicMapping-r17 Indicates whether the UE supports cyclic mapping for beam mapping/power control parameter set mapping for PUCCH repetitions scheme 1 and/or 3 when the number of repetitions is larger than 2. The UE that indicates support of this feature shall also indicate support of *mTRP-PUCCH-InterSlot-r17.*	Band	No	N/A	N/A
mTRP-PUCCH-InterSlot-r17 Indicates whether the UE supports the following features: - support of PUCCH repetition scheme 1 (inter-slot repetition) with sequential mapping for repetitions larger than 2 and with cyclic mapping for 2 repetitions. - support of up to two PUCCH power control parameter sets/spatial relation information per PUCCH resource. The power control parameter sets only apply to FR1 and spatial relation information only applies to FR2. - supported PUCCH formats for PUCCH repetition scheme 1.	Band	No	N/A	N/A

mTRP-PUCCH-MAC-CE-r17 Indicates the support of updating two Spatial Relation Info's and two sets of power control parameters for a group of PUCCH resources in a CC by MAC-CE. The UE indicates support of this feature shall also indicate support of *mTRP-PUCCH-InterSlot-r17.*	Band	No	N/A	N/A
mTRP-PUCCH-maxNum-PC-FR1-r17 Indicates the maximum number of power control parameter sets configured for multi-TRP PUCCH repetition in FR1. The UE indicating support of this feature shall also indicate the support of *mTRP-PUCCH-InterSlot-r17.*	Band	No	N/A	FR1 only
mTRP-PUCCH-SecondTPC-r17 Indicates whether the UE supports second TPC field for per TRP closed-loop power control for PUCCH with DCI formats 1_1 / 1_2. The UE that indicates support of this feature shall also indicate support of *mTRP-PUCCH-InterSlot-r17.*	Band	No	N/A	N/A
mTRP-PUSCH-A-CSI-r17 Indicates the support of A-CSI report on two PUSCH repetitions. The UE indicating support of this feature shall also indicate the support of *mTRP-PUSCH-TypeA-CB-r17* or *mTRP-PUSCH-RepetitionTypeA-r17.*	Band	No	N/A	N/A
mTRP-PUSCH-CG-r17 Indicates the support of CG PUSCH transmission towards M-TRPs using a single CG configuration. The UE uses same beam mapping principals as dynamic grant PUSCH repetition scheme. The UE indicating support of this feature shall also indicate the support of *mTRP-PUSCH-TypeA-CB-r17* or *mTRP-PUSCH-RepetitionTypeA-r17*.	Band	No	N/A	N/A
mTRP-PUSCH-CSI-RS-r17 Indicates the support of CSI-RS processing framework for SRS with two associated CSI-RS resources. This feature also includes following parameters: - *maxNumPeriodicSRS-r17* indicates the maximum number of periodic SRS resources associated with first and second CSI-RS per BWP. - *maxNumAperiodicSRS-r17* indicates the maximum number of aperiodic SRS resources associated with first and second CSI-RS per BWP. - *maxNumSP-SRS-r17* indicates the maximum number of semi-persistent SRS resources associated with first and second CSI-RS per BWP. - *numSRS-ResourcePerCC-r17*: UE can process Y SRS resources associated with first and second CSI-RS resources simultaneously in a CC. Includes Periodic/Semi-Persistent/Aperiodic SRS. - *numSRS-ResourceNonCodebook-r17*: UE can process up to X CSI-RS resources associated with SRS for non-codebook based transmission simultaneously. The UE indicating support of this feature shall also indicate the support of *mTRP-PUSCH-twoCSI-RS-r17.*	Band	No	N/A	N/A
mTRP-PUSCH-cyclicMapping-r17 Indicates the support of cyclic mapping when the number of repetitions is larger than 2 with repetition type. The UE indicating support of this feature shall also indicate the support of *mTRP-PUSCH-TypeA-CB-r17* or *mTRP-PUSCH-RepetitionTypeA-r17*.	Band	No	N/A	N/A
mTRP-PUSCH-secondTPC-r17 Indicates the support of second TPC field for per TRP closed-loop power control for PUSCH with DCI formats 0_1 and 0_2. The UE indicating support of this feature shall also indicate the support of *mTRP-PUSCH-TypeA-CB-r17* or *mTRP-PUSCH-RepetitionTypeA-r17.*	Band	No	N/A	N/A

mTRP-PUSCH-SP-CSI-r17 Indicates the support of SP-CSI report on two PUSCH repetitions. The UE indicating support of this feature shall also indicate the support of *mTRP-PUSCH-TypeA-CB-r17* or *mTRP-PUSCH-RepetitionTypeA-r17.*	Band	No	N/A	N/A
mTRP-PUSCH-twoCSI-RS-r17 Indicates whether the UE supports up to two NZP CSI-RS resources associated with the two SRS resource sets for non-codebook-based mTRP PUSCH. The UE that indicates support of this feature shall also indicate support of *srs-AssocCSI-RS*, *csi-RS-IM-ReceptionForFeedbackPerBandComb* and *mTRP-PUSCH-RepetitionTypeA-r17*.	Band	No	N/A	N/A
mTRP-PUSCH-twoPHR-Reporting-r17 Indicates the support of PHR reporting related to M-TRP PUSCH repetition (calculate two PHRs (at least corresponding to the CC that applies m-TRP PUSCH repetitions), each associated with a first PUSCH occasion corresponding to each SRS resource set, and report two PHRs). The UE indicating support of this feature shall also indicate the support of *mTRP-PUSCH-TypeA-CB-r17* or *mTRP-PUSCH-RepetitionTypeA-r17.*	Band	No	N/A	N/A
multicastInactive-r18 Indicates whether the UE supports multicast reception in RRC_INACTIVE as specified in TS 38.331 [9], comprised of the following functional components: - Supports group-common PDCCH/PDSCH for multicast with CRC scrambled by Multicast MCCH-RNTI; - Supports group-common PDCCH/PDSCH for multicast with CRC scrambled by G-RNTI; - Supports DCI format 4_0 with CRC scrambled with Multicast MCCH-RNTI for multicast MCCH; - Supports DCI format 4_1 with CRC scrambled with G-RNTI for multicast MTCH; - Supports multicast MCCH change notification indication via DCI; - Supports CFR configuration for multicast; - Supports CORESET and common search space configuration for multicast; - Supports one G-RNTI for multicast reception; - Supports RRC configured slot-level repetition up to 8 for multicast MTCH; - Supports inter-slot TDM between group-common PDSCH for multicast MCCH and group-common PDSCH for multicast MTCH, or among group-common PDSCH for multicast MCCH, group-common PDSCH for multicast MTCH and other PDSCHs in different slots; - Supports up to 64QAM for FR1/FR2; - Supports 12-bit length of PDCP sequence number; - Supports ROHC profiles 0x0000, 0x0001 and 0x0002; - Supports 4 ROHC header compression context sessions; - Supports UM MRB with 12-bit length of RLC sequence number; - Supports UM MRB with 6-bit length of RLC sequence number; - Supports long DRX cycle for MBS multicast reception as specified in TS 38.321 [8]. • A UE supporting this feature shall also indicate support of *dynamicMulticastPCell-r17*. A UE supporting this feature and supporting Mission Critical Services as described in clause 5.16.6 in TS 23.501 [37] shall also indicate the support of *thresholdBasedMulticastResume-r18*.	Band	No	N/A	N/A
multiPDSCH-SingleDCI-FR2-1-SCS-120kHz-r17 Indicates whether the UE supports multi-PDSCH scheduling by single DCI for the operation with 120kHz SCS in FR2-1/FR2-NTN and HARQ enhancements for both type 1 and type 2 HARQ codebook.	Band	No	N/A	N/A

multipleRateMatchingEUTRA-CRS-r16 Indicates whether the UE supports multiple E-UTRA CRS rate matching patterns, which is supported only for FR1. The capability signalling comprises the following parameters: - *maxNumberPatterns-r16* indicates the maximum number of LTE-CRS rate matching patterns in total within a NR carrier using 15 kHz SCS. The UE can report the value larger than 2 only if UE reports the value of *maxNumberNon-OverlapPatterns-r16* is larger than 1. - *maxNumberNon-OverlapPatterns-r16* indicates the maximum number of LTE-CRS non-overlapping rate matching patterns within a NR carrier using 15 kHz SCS. The UE can include this feature only if the UE indicates support of *rateMatchingLTE-CRS*.	Band	No	N/A	FR1 only
multipleTCI Indicates whether UE supports more than one TCI state configurations per CORESET. UE is only required to track one active TCI state per CORESET. UE is required to support minimum between 64 and number of configured TCI states indicated by *tci-StatePDSCH*. This field shall be set to *supported*.	Band	Yes	N/A	N/A
multiPUCCH-HARQ-ACK-ForMulticastUnicast-r17 Indicates whether the UE supports two non-overlapping slot-based PUCCHs for ACK/NACK based HARQ-ACK feedback for multicast or for unicast and multicast with different priorities in a slot. For TN, the UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands and all TDD-FR2 bands, associated with supported shared and non-shared spectrum respectively. For NTN, UE shall set the capability value consistently for all FDD-FR1 NTN bands and all FDD-FR2 NTN bands respectively. A UE supporting this feature shall also indicate support of *priorityIndicatorInDCI-Multicast-r17* and *twoHARQ-ACK-CodebookForUnicastAndMulticast-r17*.	Band	No	N/A	N/A

multiPUSCH-ActiveConfiguredGrant-r18 Indicates whether the UE supports multiple active multi-PUSCHs configured grant configurations for a BWP of a serving cell. This feature also includes following parameters: - *maxNumberConfigsPerBWP* indicates the supported maximum number of configured/active configured grant configurations in a BWP of a serving cell. - *maxNumberConfigsAllCC-FR1* indicates the supported maximum number of configured/active configured grant configurations across all serving cells, and across MCG and SCG in case of NR-DC in FR1. - *maxNumberConfigsAllCC-FR2* indicates the supported maximum number of configured/active configured grant configurations across all serving cells, and across MCG and SCG in case of NR-DC in FR2. A UE supporting this feature shall also indicate support of *multiPUSCH-CG-r18*. When UE supports both *activeConfiguredGrant-r16* and *multiPUSCH-ActiveConfiguredGrant-r18*, the total number which can be configured for CG with single-PUSCH TO in one CG period and CG with multi-PUSCH TO in one CG period should not exceed the value reported by *activeConfiguredGrant-r16*. For all the reported bands in FR1, a same value is reported for *maxNumberConfigsAllCC*. For all the reported bands in FR2, a same value is reported for *maxNumberConfigsAllCC*. The total number of configured/active configured grant configurations across all serving cells in FR1 is no greater than *maxNumberConfigsAllCC* in FR1. The total number of configured/active configured grant configurations across all serving cells in FR2 is no greater than *maxNumberConfigsAllCC* in FR2. If there are some serving cell(s) in FR1 and some serving cell(s) in FR2, the total number of configured/active configured grant configurations across all serving cells is no greater than max(*maxNumberConfigsAllCC-FR1*, *maxNumberConfigsAllCC-FR2*). NOTE: Separate release of different multi-PUSCHs configuration grant Type 2 configuration, i.e., one DCI release one multi-PUSCHs configured grant Type 2 configuration is supported with this feature.	Band	No	N/A	N/A
multiPUSCH-CG-r18 Indicates whether the UE supports multi-PUSCHs for configured grant by indicating whether the UE supports the determination of time-domain resource allocation for CG-PUSCHs associated to a multi-PUSCHs CG and also the maximum supported number of consecutive slots configured for CG-PUSCH TOs in one CG period. This feature also includes following parameters: - *n16* indicates the maximum supported number of consecutive slots configured for CG-PUSCH TOs in one CG period is 16. - *n32* indicates the maximum supported number of consecutive slots configured for CG-PUSCH TOs in one CG period is 32. A UE supporting this feature shall also indicate support of at least one of *configuredUL-GrantType1, configuredUL-GrantType1-v1650, configuredUL-GrantType2,* and *configuredUL-GrantType2-v1650.*	Band	No	N/A	N/A
multiPUSCH-SingleDCI-FR2-1-SCS-120kHz-r17 Indicates whether the UE supports multi-PUSCH scheduling by single DCI for the operation with 120kHz SCS in FR2-1/FR2-NTN with non-contiguous allocation.	Band	No	N/A	N/A
multiPUSCH-SingleDCI-NonConsSlots-r18 Indicates support of Multi-PUSCH scheduling by single DCI format 0_1 for the operation with non-contiguous allocation. A UE supporting this feature shall also indicate support of *multiPUSCH-UL-grant-r16.*	Band	No	N/A	FR1 only

mux-HARQ-ACK-DiffPriorities-r17 Indicates whether the UE supports HARQ-ACK with different priorities multiplexing on a PUCCH/PUSCH, comprised of the following functional components: - Supports multiplexing a high-priority HARQ-ACK and a low-priority HARQ-ACK into a PUCCH. Supports separate coding for the two HARQ-ACKs; - Supports multiplexing a low-priority HARQ-ACK, a high-priority HARQ-ACK and a high-priority SR into a PUCCH; - Supports multiplexing a low-priority HARQ-ACK in a high-priority PUSCH (conveying UL-SCH only). Supports separate beta_offset values for this priority combination; - Supports multiplexing a high-priority HARQ-ACK in a low-priority PUSCH (conveying UL-SCH only). Supports separate beta_offset values for this priority combination; - Supports multiplexing a low-priority HARQ-ACK, a high-priority PUSCH, a high-priority HARQ-ACK and/or CSI; - Supports multiplexing a high-priority HARQ-ACK, a low-priority PUSCH, a low-priority HARQ-ACK and/or CSI. The UE indicating support of this feature shall also indicate the support of *twoHARQ-ACK-Codebook-type1-r16.*	Band	No	N/A	N/A
nack-OnlyFeedbackForMulticastWithDCI-Enabler-r17 Indicates whether the UE supports DCI-based enabling/disabling NACK-only based HARQ-ACK feedback configured per G-RNTI by RRC signalling via DCI format 4_2. A UE supporting this feature shall also indicate support of *nack-OnlyFeedbackForMulticast-r17* and *dynamicMulticastDCI-Format4-2-r17*.	Band	No	N/A	N/A
nack-OnlyFeedbackForSPS-MulticastWithDCI-Enabler-r17 Indicates whether the UE supports DCI-based enabling/disabling NACK-only based HARQ-ACK feedback configured per G-CS-RNTI by RRC signalling via DCI format 4_2. A UE that indicates support of this feature shall indicate support of *nack-OnlyFeedbackForSPS-Multicast-r17* and *sps-MulticastDCI-Format4-2-r17*.	Band	No	N/A	N/A
ncd-SSB-BWP-Wor-r18 Indicates whether the UE supports RLM/BM/BFD and gapless L3 intra-frequency measurements based on NCD-SSB within active BWP. For the UE that is capable of this feature, the bandwidth of UE-specific RRC configured BWP need not include bandwidth of the CORESET#0 (if CORESET#0 is present) and CD-SSB for PCell; the bandwidth of UE-specific RRC configured BWP need not include bandwidth of the CORESET#0 (if CORESET#0 is present) and SSB indicated by *absoluteFrequencySSB* (either CD-SSB or NCD-SSB) for PSCell (if configured). NCD-SSB within the active DL BWP can be used as the QCL source for other reference signal. UE performs L3 intra-frequency measurements without gaps based on NCD-SSB, where the NCD-SSB is within the active DL BWP. NOTE: This feature applies only to PCell and PSCell (if configured). It is not applicable to RedCap or eRedCap UEs.	Band	No	N/A	N/A
nesBasedCondHandoverWithDCI-r18 Indicates whether the UE supports DCI-based enabling/disabling NES-specific CHO execution condition, i.e. NES-specific CHO execution condition based on source cell NES mode indicated via DCI format 2_9 as specified in TS 38.331 [9]. A UE supporting this feature shall also indicate the support of *condHandover-r16*. UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands, all TDD-FR2-1 bands and all TDD-FR2-2 bands respectively.	Band	No	N/A	N/A
nes-CellDTX-DRX-r18 Indicates whether the UE supports cell DTX and/or DRX operation by RRC configuration. The supported number of cell DTX/DRX patterns per cell group is 2, regardless of each pattern is for cell DTX only, cell DRX only, or both. A UE setting this field to the value '*cellDTXonly*' or '*both*' shall also indicate support of *longDRX-Cycle*.	Band	No	N/A	N/A
nes-CellDTX-DRX-DCI2-9-r18 Indicates whether the UE supports cell DTX/DRX configuration activation and deactivation via DCI 2_9. A UE supporting this feature shall also indicate support of *nes-CellDTX-DRX-r18*.	Band	No	N/A	N/A

nes-SD-Type1-SP-r19 Indicates whether the UE supports NES SD Type1 for Rel-19 Type-I single-panel codebook. The capability signalling comprises the following parameters: - *timeline-r19* indicates NES SD Type1 timeline from two timeline capabilities, for Type-I single-panel codebook. Value '*cap1*' indicates reuse Z/Z' values (i.e., Z_2 and Z'_2). Value '*cap2*' indicates scaling timeline Z/Z' (i.e., Z_2 and Z'_2) by $\lceil \mathbf{max}\left(\sum_{\mathbf{i=1}}^{\mathbf{M}} \mathbf{P_i}, \mathbf{P}\right)/\mathbf{32} \rceil$ where M is the number of sub-configurations that refer to the any of the K aggregated CSI-RS resources. '*cap1*' is a higher capability than '*cap2*'; - *numOfPortCSI-Report-r19* indicates a combination of supported number of ports for CSI report sub-configuration. The *numOfPortCSI-Report-r19* is encoded as a bitmap, where starting from the leading / leftmost bit (bit 0), each bit corresponds to {2, 4, 8, 12, 16, 24, 32, 48, 64, 128}. A UE supporting this feature shall also indicate support of *codebookParametersType1SP-SchemeA-r19*, *codebookParametersType1SP-SchemeB-r19*, and *spatialAdaptation-CSI-Feedback-r18*, *spatialAdaptation-CSI-FeedbackPUSCH-r18*, *spatialAdaptation-CSI-FeedbackAperiodic-r18*, or *spatialAdaptation-CSI-FeedbackPUCCH-r18*.	Band	No	N/A	N/A
nonCodebook-CSI-RS-SRS-3TxPUSCH-r19 Indicates the list of supported CSI-RS resources supporting association between CSI-RS and SRS for non-codebook based 3Tx PUSCH by referring to *codebookVariantsList-r16*. The following parameters are included in *codebookVariantsList-r16*: - *maxNumberTxPortsPerResource* indicates the maximum number of Tx ports in a resource. - *maxNumberResourcesPerBand* indicates the maximum number of resources. - *totalNumberTxPortsPerBand* indicates the total number of Tx ports. A UE supporting this feature shall indicate support of *nonCodebook-3TxPUSCH-SingleTRP-r19*.	Band	No	N/A	N/A
nonGroupSINR-reporting-r16 Indicates N_max L1-SINR values reported when UE supports non-group based L1-SINR reporting. UE indicates support of this feature shall indicate support of *ssb-csirs-SINR-measurement-r16.*	Band	No	N/A	N/A
nr-PDCCH-OverlapLTE-CRS-RE-r18 Indicates whether the UE supports reception of NR PDCCH candidates that overlap with LTE CRS REs within an NR carrier using 15 kHz SCS. The UE is provided with LTE CRS RM pattern by configuration of one CRS rate matching pattern via *lte-CRS-ToMatchAround*. NR PDCCH that overlaps with LTE CRS REs is in Type-1 CSS with dedicated RRC configuration, Type-3 CSS, and/or USS that are monitored within the first 3 OFDM symbols of a slot. The capability signaling comprises the following parameters: - *overlapInRE-r18* indicates reception of an NR PDCCH candidate in REs that overlap with LTE CRS: Value *oneSymbolNoOverlap* indicates when at least one symbol of the NR PDCCH candidate and the DMRS for demodulation of the NR PDCCH candidate is not overlapped with LTE CRS, value *someOrAllSymOverlap* indicates when some or all of symbols of NR PDCCH candidate overlap with LTE CRS; - *overlapInSymbol-r18* indicates reception of NR PDCCH candidates that overlap with LTE CRS REs on the X-th symbols of an NR slot: Value *symbol2* indicates only 2nd symbol, value *symbol1And2* indicates 1st and 2nd symbols. A UE supporting this feature shall also indicate support of *rateMatchingLTE-CRS*. NOTE: This feature is supported by UE performing channel estimation with a regular Rel-15 DMRS pattern in frequency dimension, i.e., no change to UE assumption on PDCCH DMRS RE positions/pattern in a symbol that are used for the purpose of channel estimation.	Band	No	N/A	FR1 only

nr-PDCCH-OverlapLTE-CRS-RE-MultiPatterns-r18 Indicates whether the UE supports reception of NR PDCCH candidates in REs that overlap with LTE CRS when UE is provided with LTE CRS RM patterns by configuration of one or multiple non-overlapping CRS rate matching patterns via *lte-CRS-PatternList1-r16* if the UE supports *multipleRateMatchingEUTRA-CRS-r16* or *lte-CRS-PatternList3-r18* if the UE supports *twoRateMatchingEUTRA-CRS-patterns-3-4-r18.* A UE supporting this feature shall also indicate support of *nr-PDCCH-OverlapLTE-CRS-RE-r18* and at least one of *multipleRateMatchingEUTRA-CRS-r16* and *twoRateMatchingEUTRA-CRS-patterns-3-4-r18*. NOTE: The feature is supported by UE performing channel estimation with a regular Rel-15 DMRS pattern in frequency dimension, i.e., no change to UE assumption on PDCCH DMRS RE positions/pattern in a symbol that are used for the purpose of channel estimation.	Band	No	N/A	FR1 only
nr-PDCCH-OverlapLTE-CRS-RE-Span-3-4-r18 Indicates whether the UE supports NR PDCCH that overlaps with LTE CRS REs is in Type-1 CSS with dedicated RRC configuration, Type-3 CSS, and/or USS that are monitored within a single span of 3 consecutive OFDM symbols that is within the first 4 OFDM symbols in a slot. A UE supporting this feature shall also indicate support of *nr-PDCCH-OverlapLTE-CRS-RE-r18* and *pdcch-MonitoringSingleSpanFirst4Sym-r16*.	Band	No	N/A	FR1 only
nr-UE-TxTEG-ID-MaxSupport-r17 Indicates the maximum number of UE TxTEG for SRS resource for positioning, which is supported and reported by UE for UL TDOA. The UE can include this field only if the UE supports *srs-AllPosResources-r16*.	Band	No	N/A	N/A
ntn-Collision-RedCap-r19 Indicates whether the UE supports handling collision Case 3 and collision Case 4 for half-duplex FDD operation for (e)RedCap UE, where Case 3 is semi-statically configured DL reception colliding with semi-statically configured UL transmission in RRC_CONNECTED and RRC_INACTIVE states, and Case 4 is dynamically scheduled DL reception colliding with dynamic scheduled UL transmission in RRC_CONNETED state. NOTE: This UE feature is applicable only for bands in Tables 5.2.2-1 in TS 38.101-5 [34]. A UE supporting this feature shall also indicate support of *uplinkPreCompensation-r17* and *halfDuplexFDD-TypeA-RedCap-r17*.	Band	No	FDD only	FR1 Only
ntn-DMRS-BundlingNGSO-r18 Indicates whether the UE supports DM-RS bundling for PUSCH over consecutive slots in NGSO scenarios and pre-compensation to keep phase rotation due to timing drift within the phase difference limit. The UE indicates the maximum duration during which UE is able to maintain power consistency and phase continuity to support NTN DM-RS bundling for PUSCH over consecutive slots. A UE supporting this feature shall indicate support of *uplinkPreCompensation-r17* and at least one of *dmrs-BundlingPUSCH-RepTypeA-r17*, *dmrs-BundlingPUSCH-RepTypeB-r17* or *dmrs-BundlingPUSCH-multiSlot-r17*. NOTE 1: This UE feature group is applicable only for bands in Tables 5.2.2-1 in TS 38.101-5 [34] and HAPS operation bands in Clause 5.2 of TS 38.104 [35]. NOTE 2: A UE that does not report support of this feature and reports support of *maxDurationDMRS-Bundling-r17* for an NTN band can perform DMRS bundling only in GSO scenario in the NTN band. NOTE 3: DM-RS bundling is only applicable for UL transmissions with pi/2 BPSK, BPSK, and QPSK modulation orders. NOTE 4: For bands in Table 5.2.2-1 in TS 38.101-5 [34], reported value in *maxDurationDMRS-Bundling-r17* is applied only for GSO scenario.	Band	No	N/A	N/A
ntn-PowerBoosting-ERedCap-r19 Indicates whether NTN (e)RedCap UE supports power boosting when FR1 single band with single uplink CC configured in the band, as defined in 6.2 of TS 38.101-5 [34].	Band	No	N/A	FR1 Only

od-SSB-AdditionalProcessingTime-r19 Indicates whether the UE supports an additional processing time of 2ms in addition to T_{min} (as specified in TS 38.214 [12]) for reception of on-demand SSB bursts from the time when UE receives OD-SSB activation or parameter update MAC CE command. If the field is absent, the UE shall support a default value of additional processing time of 5ms. A UE supporting this feature shall also indicate support of at least one of *od-SSB-NoAlwaysOn-MAC-CE-r19*, *od-SSB-AlwaysOn-MAC-CE-r19*, and *od-SSB-AlwaysOn-MAC-CE-Diff-r19*.	Band	No	N/A	N/A
od-SSB-AlwaysOn-MAC-CE-r19 Indicates whether the UE supports MAC CE based signalling to indicate activation, adaptation, and deactivation of on-demand SSB transmission on the SCell in Case #2, i.e., always-on SSB is periodically transmitted on the cell, for same center frequency between always-on SSB and on-demand SSB. The capability signalling comprises the following parameters: - *timeRelation* indicates the supported time domain relation between on-demand SSB and always-on SSB. Value '*timec1*' indicates that, during on-demand SSB transmission, UE supports the union of always-on SSB transmission and on-demand SSB transmission has a periodic time domain pattern, i.e., the interval between SSB bursts is evenly distributed and supported in *periodicityServingCell*. Value '*timec1nc2*' indicates that, during on-demand SSB transmission, UE supports both the union of always-on SSB transmission and on-demand SSB transmission has a periodic time domain pattern and a non-periodic time domain pattern. - *deactivationScheme-r19* indicates the supported on-demand SSB deactivation mechanisms. Value '*explicit'* indicates UE supports explicit indication of deactivation for on-demand SSB via MAC-CE for on-demand SSB transmission indication. Value '*both'* indicates UE supports both explicit indication of deactivation for on-demand SSB via MAC-CE for on-demand SSB transmission indication and implicit deactivation via *od-ssb-nrofBurst* of on-demand SSB bursts to be transmitted after on-demand SSB is indicated.	Band	No	N/A	N/A
od-SSB-AlwaysOn-MAC-CE-Diff-r19 Indicates whether the UE supports MAC CE based signalling to indicate activation, adaptation, and deactivation of on-demand SSB transmission on the SCell in Case #2, i.e., always-on SSB is periodically transmitted on the cell, for different center frequencies between always-on SSB and on-demand SSB. Value '*explicit*' indicates UE supports explicit indication of deactivation for on-demand SSB via MAC-CE for on-demand SSB transmission indication. Value '*both*' indicates UE supports both explicit indication of deactivation for on-demand SSB via MAC-CE for on-demand SSB transmission indication and implicit deactivation via *od-ssb-nrofBurst* of on-demand SSB bursts to be transmitted after on-demand SSB is indicated. A UE supporting this feature shall also indicate support of *od-SSB-AlwaysOn-MAC-CE-r19*.	Band	No	N/A	N/A
od-SSB-AlwaysOn-RRC-r19 Indicates whether the UE supports RRC based signalling to indicate activation and deactivation of on-demand SSB transmission on the SCell in Case #2, i.e., always-on SSB is periodically transmitted on the cell, for same center frequency between always-on SSB and on-demand SSB. Value '*timec1*' indicates that, during on-demand SSB transmission, UE supports the union of always-on SSB transmission and on-demand SSB transmission has a periodic time domain pattern, i.e., the interval between SSB bursts is evenly distributed and supported in *periodicityServingCell*. Value '*timec1nc2*' indicates that, during on-demand SSB transmission, UE supports both the union of always-on SSB transmission and on-demand SSB transmission has a periodic time domain pattern and a non-periodic time domain pattern.	Band	No	N/A	N/A
od-SSB-AlwaysOn-RRC-Diff-r19 Indicates whether the UE supports RRC based signalling to indicate activation and deactivation of on-demand SSB transmission on the SCell in Case #2, i.e., always-on SSB is periodically transmitted on the cell, for different center frequencies between always-on SSB and on-demand SSB. A UE supporting this feature shall also indicate support of *od-SSB-AlwaysOn-RRC-r19*.	Band	No	N/A	N/A

od-SSB-AlwaysOn-RRC-MAC-CE-r19 Indicates whether the UE supports RRC based signalling to indicate activation and MAC CE based signalling to indicate adaptation and deactivation of on-demand SSB transmission on the SCell in Case #2, i.e., always-on SSB is periodically transmitted on the cell, for same center frequency. A UE supporting this feature shall also indicate support of *od-SSB-AlwaysOn-RRC-r19* and *od-SSB-AlwaysOn-MAC-CE-r19*.	Band	No	N/A	N/A
od-SSB-AlwaysOn-RRC-MAC-CE-Diff-r19 Indicates whether the UE supports RRC based signalling to indicate activation and MAC CE based signalling to indicate adaptation and deactivation of on-demand SSB transmission on the SCell in Case #2, i.e., always-on SSB is periodically transmitted on the cell, for different center frequencies between always-on SSB and on-demand SSB. A UE supporting this feature shall also indicate support of *od-SSB-AlwaysOn-RRC-Diff-r19* and *od-SSB-AlwaysOn-MAC-CE-Diff-r19*.	Band	No	N/A	N/A
od-SSB-NoAlwaysOn-MAC-CE-r19 Indicates whether the UE supports MAC CE based signalling to indicate activation, adaptation, and deactivation of on-demand SSB transmission on the SCell in Case #1, i.e., no always-on SSB on the cell. Value '*explicit*' indicates UE supports explicit indication of deactivation for on-demand SSB via MAC-CE for on-demand SSB transmission indication. Value '*both*' indicates UE supports both explicit indication of deactivation for on-demand SSB via MAC-CE for on-demand SSB transmission indication and implicit deactivation via *od-ssb-nrofBurst* of on-demand SSB bursts to be transmitted after on-demand SSB is indicated.	Band	No	N/A	N/A
od-SSB-NoAlwaysOn-RRC-r19 Indicates whether the UE supports RRC based signalling to indicate activation and deactivation of on-demand SSB transmission on the SCell in Case #1, i.e., no always-on SSB on the cell.	Band	No	N/A	N/A
od-SSB-NoAlwaysOn-RRC-MAC-CE-r19 Indicates whether the UE supports RRC based signalling to indicate activation and MAC CE based signalling to indicate adaptation and deactivation of on-demand SSB transmission on the SCell in Case #1, i.e., no always-on SSB on the cell. A UE supporting this feature shall also indicate support of *od-SSB-NoAlwaysOn-RRC-r19* and *od-SSB-NoAlwaysOn-MAC-CE-r19*.	Band	No	N/A	N/A
olpc-SRS-Pos-r16 Indicates whether the UE supports OLPC for SRS for positioning. The capability signalling comprises the following parameters. - *olpc-SRS-PosBasedOnPRS-Serving-r16* indicates whether the UE supports OLPC for SRS for positioning based on PRS from the serving cell in the same band. The UE can include this field only if the UE supports *NR-DL-PRS-ProcessingCapability-r16* defined in TS 37.355 [22], and *srs-PosResources-r16*. Otherwise, the UE does not include this field; - *olpc-SRS-PosBasedOnSSB-Neigh-r16* indicates whether the UE supports OLPC for SRS for positioning based on SSB from the neighbouring cell in the same band. The UE can include this field only if the UE supports *srs-PosResources-r16*. Otherwise, the UE does not include this field; - *olpc-SRS-PosBasedOnPRS-Neigh-r16* indicates whether the UE supports OLPC for SRS for positioning based on PRS from the neighbouring cell in the same band. The UE can include this field only if the UE supports *olpc-SRS-PosBasedOnPRS-Serving-r16*. Otherwise, the UE does not include this field; NOTE: A PRS from a PRS-only TP is treated as PRS from a non-serving cell. - *maxNumberPathLossEstimatePerServing-r16* indicates the maximum number of pathloss estimates that the UE can simultaneously maintain for all the SRS resource sets for positioning per serving cell in addition to the up to four pathloss estimates that the UE maintains per serving cell for the PUSCH/PUCCH/SRS transmissios. The UE shall include this field if the UE supports any of *olpc-SRS-PosBasedOnPRS-Serving-r16, olpc-SRS-PosBasedOnSSB-Neigh-r16* and *olpc-SRS-PosBasedOnPRS-Neigh-r16.* Otherwise, the UE does not include this field.	Band	No	N/A	N/A

olpc-SRS-PosRRC-Inactive-r17 Indicates whether the UE supports OLPC for SRS for positioning in RRC_INACTIVE. The capability signalling comprises the following parameters. - *olpc-SRS-PosBasedOnPRS-Serving-r16* indicates whether the UE supports OLPC for SRS for positioning based on PRS from the serving cell in the same band. The UE can include this field only if the UE supports *NR-DL-PRS-ProcessingCapability-r16* defined in TS 37.355 [22], and *srs-PosResourcesRRC-Inactive-r17*. Otherwise, the UE does not include this field; - *olpc-SRS-PosBasedOnSSB-Neigh-r16* indicates whether the UE supports OLPC for SRS for positioning based on SSB from the neighbouring cell in the same band. The UE can include this field only if the UE supports *srs-PosResourcesRRC-Inactive-r17*. Otherwise, the UE does not include this field; - *olpc-SRS-PosBasedOnPRS-Neigh-r16* indicates whether the UE supports OLPC for SRS for positioning based on PRS from the neighbouring cell in the same band. The UE can include this field only if the UE supports *olpc-SRS-PosBasedOnPRS-Serving-r16*. Otherwise, the UE does not include this field; NOTE: A PRS from a PRS-only TP is treated as PRS from a non-serving cell. - *maxNumberPathLossEstimatePerServing-r16* indicates the maximum number of pathloss estimates that the UE can simultaneously maintain for all the SRS resource sets for positioning per serving cell in addition to the up to four pathloss estimates that the UE maintains per serving cell for the PUSCH/PUCCH/SRS transmissions. The UE shall include this field if the UE supports any of *olpc-SRS-PosBasedOnPRS-Serving-r16, olpc-SRS-PosBasedOnSSB-Neigh-r16* and *olpc-SRS-PosBasedOnPRS-Neigh-r16.* Otherwise, the UE does not include this field.	Band	No	N/A	N/A
oneShotHARQ-feedbackPhy-Priority-r17 Indicates whether the UE supports transmission of type 3 HARQ-ACK codebook using the first or second PUCCH configuration based on PHY priority indication in the triggering DCI. A UE supporting this feature shall also indicate support of *oneShotHARQ-feedback-r16* and *twoHARQ-ACK-Codebook-type1-r16*.	Band	No	N/A	N/A
oneShotHARQ-feedbackTriggeredByDCI-1-2-r17 Indicates whether the UE supports one-shot HARQ ACK feedback triggered by DCI format 1_2, comprised of the following functional components: - Supports feedback of type 3 HARQ-ACK codebook, triggered by a DCI 1_2 scheduling a PDSCH; - Supports feedback of type 3 HARQ-ACK codebook, triggered by a DCI 1_2 without scheduling a PDSCH using a reserved FDRA value. A UE supporting this feature shall also indicate support of *oneShotHARQ-feedback-r16* and *dci-Format1-2And0-2-r16*.	Band	No	N/A	N/A
oneSlotPeriodicTRS-r16 Indicates whether the UE supports one-slot periodic TRS configuration only when no two consecutive slots are indicated as downlink slots by *tdd-UL-DL-ConfigurationCommon* or *tdd-UL-DL-ConfigDedicated*. If the UE supports this feature, the UE needs to report *csi-RS-ForTracking*.	Band	No	TDD only	FR1 only
outOfOrderOperationDL-r16 Indicates whether the UE supports out of order operation for DL. The UE that indicates support of this feature shall support *multiDCI-MultiTRP-r16*. The capability signalling comprises the following parameters: - *supportPDCCH-ToPDSCH-r16* indicates support out-of-order operation for PDCCH to PDSCH; - *supportPDSCH-ToHARQ-ACK-r16* indicates support out-of-order operation for PDSCH to HARQ-ACK.	Band	No	N/A	N/A
outOfOrderOperationUL-r16 Indicates whether the UE supports out of order operation for UL. The UE that indicates support of this feature shall support *multiDCI-MultiTRP-r16.* Note: Same closed loop index for power control across PUSCHs associated with different *CORESETPoolIndex* values is not supported by a UE indicating the support of this feature when TPC accumulation is enabled.	Band	No	N/A	N/A

overlapPDSCHsFullyFreqTime-r16 Indicates the maximal number of PDSCH scrambling sequences per serving cell when the UE supports PDSCHs with fully overlapping Resource Elements. The UE that indicates support of this feature shall support *multiDCI-MultiTRP-r16.* Note: A UE may assume that its maximum receive timing difference between the DL transmissions from two TRPs is within a Cyclic Prefix	Band	No	N/A	N/A
overlapPDSCHsInTimePartiallyFreq-r16 Indicates whether the UE supports PDSCHs with partially overlapping Resource Elements. The UE that indicates support of this feature shall support *overlapPDSCHsFullyFreqTime-r16.*	Band	No	N/A	N/A
overlapRateMatchingEUTRA-CRS-r16 Indicates whether the UE supports two LTE-CRS overlapping rate matching patterns within a part of NR carrier using 15 kHz SCS overlapping with a LTE carrier. If the UE supports this feature, the UE needs to report *multipleRateMatchingEUTRA-CRS-r16 and multiDCI-MultiTRP-r16*.	Band	No	N/A	FR1 only
overlapRateMatchingEUTRA-CRS-Patterns-3-4-Diff-CS-Pool-r18 Indicates whether the UE supports two LTE-CRS overlapping rate matching patterns configured by *lte-CRS-PatternList3-r18* and *lte-CRS-PatternList4-r18* with two different values of *coresetPoolIndex* within a part of NR carrier using 15 kHz SCS overlapping with an LTE carrier for the case when *crs-RateMatch-PerCORESETPoolIndex-16* is configured. A UE supporting this feature shall also indicate support of *twoRateMatchingEUTRA-CRS-patterns-3-4-r18* and *multiDCI-MultiTRP-r16.*	Band	No	N/A	FR1 only
overlapUL-TransReduction-r18 Indicates whether the UE supports reducing the overlapping duration of the later of the two time-domain overlapping UL transmissions when the UE is not configured with UL STx2P for multi-DCI based multi-TRP operation with two TA enhancement. A UE supporting this feature shall also indicate support of *multiDCI-IntraCellMultiTRP-TwoTA-r18* or *multiDCI-InterCellMultiTRP-TwoTA-r18*. NOTE: If UE does not support this feature, UE does not expect the two UL transmissions to overlap (i.e., scheduling restriction is applied to avoid overlap between the two UL transmissions).	Band	No	N/A	N/A
overlapUL-TransReductionEnh-r19 Indicates whether the UE supports reducing the overlapping duration of the later of the two time-domain overlapping UL transmissions when the UE is with two TA enhancement. A UE supporting this feature shall also indicate support of *twoTA-IntraCellBM-r19* or *twoTA-InterCellBM-r19*. NOTE: If UE does not support this feature, UE does not expect the two UL transmissions to overlap (i.e., scheduling restriction is applied to avoid overlap between the two UL transmissions).	Band	No	N/A	N/A
parallelMeasurementWithoutRestriction-r17 Indicates whether the UE supports measurements on cells belonging to different satellites as the serving cell in parallel with normal operation (i.e. data/control transmission and/or reception, and L1 measurements) of serving cell without scheduling restrictions. The feature is applicable only when the serving satellite is NGSO. If the serving cell belongs to GSO satellite, the scheduling restriction is not applied on the premise that a mixed type of satellites on the same frequency layer is not supported in this release. If not reported, for measurements in parallel with normal operation of serving cell scheduling restrictions shall apply.	Band	No	FDD only	FR1 only
parallelPRS-MeasRRC-Inactive-r17 Indicates whether the UE supports performing RRM measurement and PRS measurement in parallel. UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands, all TDD-FR2-1 bands and all TDD-FR2-2 bands respectively	Band	No	N/A	N/A
pathlossOffsetPHR-r19 Indicates whether the UE supports including PL offset in the calculation of Type 1 PHR based on actual PUSCH transmission and Type 1 PHR based on reference PUSCH.	Band	No	N/A	N/A
pathlossOffsetPRACH-JointTCI-r19 Indicates whether the UE supports applying path loss offset on PDCCH-order PRACH for joint DL/UL TCI state(s). A UE supporting this feature shall also indicate support of *unifiedJointTCI-r17*.	Band	No	N/A	FR1 only

pathlossOffsetPRACH-SeparateTCI-r19 Indicates whether the UE supports applying path loss offset on PDCCH-order PRACH for separate DL/UL TCI state(s). A UE supporting this feature shall also indicate support of *unifiedSeparateTCI-r17*.	Band	No	N/A	N/A
pathlossOffsetPUCCH-PUSCH-SRS-JointTCI-r19 Indicates whether the UE supports applying path loss offset for PUCCH/PUSCH/SRS power controls for joint DL/UL TCI state(s). A UE supporting this feature shall also indicate support of *unifiedJointTCI-r17*.	Band	No	N/A	FR1 only
pathlossOffsetPUCCH-PUSCH-SRS-SeparateTCI-r19 Indicates whether the UE supports applying path loss offset for PUCCH/PUSCH/SRS power controls for separate DL/UL TCI state(s). A UE supporting this feature shall also indicate support of *unifiedSeparateTCI-r17*.	Band	No	N/A	N/A
pathlossOffsetUpdate-r19 Indicates whether the UE supports MAC-CE update of the configured PL offset value(s). A UE supporting this feature shall also indicate support of one or more of *pathlossOffsetPUCCH-PUSCH-SRS-JointTCI-r19*, *pathlossOffsetPUCCH-PUSCH-SRS-SeparateTCI-r19*, *pathlossOffsetPRACH-JointTCI-r19*, and *pathlossOffsetPRACH-SeparateTCI-r19*.	Band	No	N/A	N/A
pdcch-MonitoringResumptionAfterUL-NACK-r18 Indicates whether the UE supports PDCCH monitoring resumption after UL NACK. The UE indicating support of this feature shall also indicate support of *pdcch-SkippingWithoutSSSG-r17.*	Band	No	N/A	N/A
pdcch-RepetitionType0-r19 Indicates whether the UE supports reception of PDCCH repetition for Type0 PDCCH CSS of *searchSpaceZero* configured within MIB *pdcch-ConfigSIB1* and reception of SIB1 PDSCH repetition within 20 ms duration. This feature is applicable only for bands in Tables 5.2.2-1 in TS 38.101-5 [34].	Band	No	N/A	N/A
pdcch-RepetitionType0-TN-r19 Indicates whether the UE supports reception of PDCCH repetition for Type0 PDCCH CSS of *searchSpaceZero* configured within MIB *pdcch-ConfigSIB*1 in TN.	Band	No	N/A	FR1 only
pdcch-RepetitionTypeOthers-r19 Indicates whether the UE supports reception of PDCCH repetition for Type 0A/0B/1/1A/2/2A PDCCH CSS. The UE also indicates the required number of BDs for the two PDCCH candidates in RRC_CONNECTED mode. It is mandatory to report this feature if UE supports *pdcch-RepetitionType0-r19*. This feature is applicable only for bands in Tables 5.2.2-1 in TS 38.101-5 [34].	Band	CY	N/A	N/A
pdcch-RepetitionTypeOthersTN-r19 Indicates whether the UE supports reception of PDCCH repetition for Type 0A/0B/1/1A/2/2A PDCCH CSS for TN. The UE also indicates the required number of BDs for the two PDCCH candidates in RRC_CONNECTED mode. It is mandatory to report this feature if UE supports *pdcch-RepetitionType0-TN-r19*.	Band	CY	N/A	FR1 only
pdcch-SkippingWithoutSSSG-r17 Indicates whether the UE supports up to 2-bit indication of PDCCH skipping by scheduling DCI if SSSG is not configured as specified in TS 38.213 [11], clause 10.4.	Band	No	N/A	N/A
pdcch-SkippingWithSSSG-r17 Indicates whether the UE supports 2-bit indication of SSSG switching between 2 SSSGs, PDCCH skipping by scheduling DCI, and timer based SSSG switching as specified in TS 38.213 [11], clause 10.4. UE supports search space set group switching capability-1 according to Table 10.4-1 of TS 38.213 [11]. UE indicating support of this feature shall also indicate support of *pdcch-SkippingWithoutSSSG-r17* and *sssg-Switching-1bitInd-r17*.	Band	No	N/A	N/A
pdc-maxNumberPRS-ResourceProcessedPerSlot-r18 Indicates the maximum number of single-symbol DL-PRS resources used in RTT-based Propagation delay compensation that UE can process in a slot. SCS: 15 kHz, 30 kHz, 60 kHz are applicable for FR1 bands. SCS: 60 kHz, 120 kHz are applicable for FR2 bands. A UE which supports *pdc-maxNumberPRS-ResourceProcessedPerSlot-r18* shall support single-symbol DL-PRS for PDC with the comb sizes from {2,4,6,12}. A UE supporting this feature shall also indicate support of *rtt-BasedPDC-PRS-r17*.	Band	No	N/A	N/A

pdsch-1024QAM-2MIMO-FR1-r17 Indicates whether the UE supports 1024QAM modulation scheme for PDSCH with maximum 2 MIMO layers for FR1 as defined in TS 38.211 [6], MCS and CQI feedback tables based on 1024QAM modulation order as defined in TS 38.214 [12]. UE indicating support of this feature shall also indicate support of *pdsch-256QAM-FR1* and shall not indicate support of *pdsch-1024QAM-FR1-r17*.	Band	No	N/A	FR1 only
pdsch-1024QAM-FR1-r17 Indicates whether the UE supports 1024QAM modulation scheme for PDSCH for FR1 as defined in TS 38.211 [6], MCS and CQI feedback tables based on 1024QAM modulation order as defined in TS 38.214 [12]. UE indicating support of this feature shall also indicate support of *pdsch-256QAM-FR1* and shall not indicate support of *pdsch-1024QAM-2MIMO-FR1-r17*.	Band	No	N/A	FR1 only
pdsch-256QAM-FR2 Indicates whether the UE supports 256QAM modulation scheme for PDSCH for FR2 as defined in 7.3.1.2 of TS 38.211 [6].	Band	No	N/A	FR2 only
pdsch-MappingTypeB-Alt-r16 Indicates whether the UE supports PDSCH Type B scheduling of length 9 and 10 OFDM symbols, and DMRS shift for length-10 symbols. If the UE supports this feature, the UE needs to report *pdsch-MappingTypeB*.	Band	No	N/A	FR1 only
pdsch-RepetitionMsg4-r19 Indicates whether the UE supports reception of Msg4 PDSCH repetition and repetition factors 2 and 4. This feature is applicable only for bands in Tables 5.2.2-1 in TS 38.101-5 [34].	Band	No	N/A	N/A
periodicBeamReport Indicates whether UE supports periodic 'CRI/RSRP' or 'SSBRI/RSRP' reporting using PUCCH formats 2, 3 and 4 in one slot.	Band	Yes	N/A	N/A
posJointTriggerBySingleDCI-RRC-Connected-r18 Indicates whether UE supports a Rel-17 single DCI scheduling positioning SRS resource sets across the linked carriers for SRS bandwidth aggregation in RRC_CONNECTED state. A UE indicating support of this feature shall also indicate support of *posSRS-BWA-RRC-Connected-r18*.	Band	No	N/A	N/A

posSRS-BWA-RRC-Inactive-r18 Indicates the UE capability for support of positioning SRS bandwidth aggregation in RRC_INACTIVE and the support of the same SRS power reduction across aggregated carriers. The capability signalling comprises the following parameters: - *numOfCarriersIntraBandContiguous-r18* indicates the number of supported aggregated carriers in intra band contiguous carriers, which is supported and reported by UE. - *maximumAggregatedBW-TwoCarriersFR1-r18* indicates the maximum aggregated SRS bandwidth in MHz for two aggregated carriers for FR1, which is supported and reported by UE. - *maximumAggregatedBW-TwoCarriersFR2-r18* indicates the maximum aggregated SRS bandwidth in MHz for two aggregated carriers for FR2, which is supported and reported by UE. - *maximumAggregatedBW-ThreeCarriersFR1-r18* indicates the maximum aggregated SRS bandwidth in MHz for three aggregated carriers for FR1, which is supported and reported by UE. - *maximumAggregatedBW-ThreeCarriersFR2-r18* indicates the maximum aggregated SRS bandwidth in MHz for three aggregated carriers for FR2, which is supported and reported by UE. - *maximumAggregatedResourceSet-r18* indicates the max number of aggregated SRS resource sets for positioning supported by UE for SRS bandwidth aggregation, which is supported and reported by UE. - *maximumAggregatedResourcePeriodic-r18* indicates the maximum number of aggregated periodic SRS resources for bandwidth aggregation, which is supported and reported by UE. - *maximumAggregatedResourceSemi-r18* indicates the maximum number of aggregated semi-persistent SRS resources for bandwidth aggregation, which is supported and reported by UE. - *maximumAggregatedResourcePeriodicPerSlot-r18* indicates the maximum number of aggregated periodic SRS resources for bandwidth aggregation per slot, which is supported and reported by UE. - *maximumAggregatedResourceSemiPerSlot-r18* indicates the maximum number of aggregated semi-persistent SRS resources for bandwidth aggregation per slot, which is supported and reported by UE. - *guardPeriod-r18* indicates the guard period in microseconds before and after aggregated SRS transmission. - *powerClassForTwoAggregatedCarriers-r18* indicates the power class of supported two aggregated carriers in intra band contiguous carriers. - *powerClassForThreeAggregatedCarriers-r18* indicates the power class of supported three aggregated carriers in intra band contiguous carriers. NOTE: The power class is only applicable for FR1 bands. UE indicating support of this feature shall also indicate support of *posSRS-RRC-Inactive-OutsideInitialUL-BWP-r17.* If the UE indicates support of this feature, the fields *srsPosWithoutRestrictionOnBWP-r17* and *differentCenterFreqBetweenSRSposAndInitialBWP-r17* in *posSRS-RRC-Inactive-OutsideInitialUL-BWP-r17* shall be set to *supported*.	Band	No	N/A	N/A
posSRS-PreconfigureRRC-InactiveInitialUL-BWP-r18 Indicates whether the UE supports preconfigured SRS with validity area in RRC_INACTIVE for initial UL BWP. UE indicating support of this feature shall also indicate support of *posSRS-ValidityAreaRRC-InactiveInitialUL-BWP-r18*.	Band	No	N/A	N/A
posSRS-PreconfigureRRC-InactiveOutsideInitialUL-BWP-r18 Indicates whether the UE supports preconfigured SRS with validity area in RRC_INACTIVE outside initial UL BWP. UE indicating support of this feature shall also indicate support of *posSRS-ValidityAreaRRC-InactiveOutsideInitialUL-BWP-r18*.	Band	No	N/A	N/A

posSRS-RRC-Inactive-OutsideInitialUL-BWP-r17 Indicates support of Positioning SRS transmission in RRC_INACTIVE state configured outside initial UL BWP. The capability signalling comprises the following parameters: - *maxSRSposBandwidthForEachSCS-withinCC-FR1-r17* Indicates the maximum SRS bandwidth supported for each SCS that UE supports within a single CC for FR1*;* - *maxSRSposBandwidthForEachSCS-withinCC-FR2-r17* indicates the maximum SRS bandwidth supported for each SCS that UE supports within a single CC for FR2; - *maxNumOfSRSposResourceSets-r17* indicates the max number of SRS Resource Sets for positioning supported by UE; - *maxNumOfPeriodicSRSposResources-r17* indicates the max number of periodic SRS Resources for positioning; - *maxNumOfPeriodicSRSposResourcesPerSlot-r17* indicates the max number of periodic SRS Resources for positioning per slot; - *differentNumerologyBetweenSRSposAndInitialBWP-r17* indicates the support of different numerology between the SRS and the initial UL BWP; - *srsPosWithoutRestrictionOnBWP-r17* indicates the support of SRS operation without restriction on the BW: BW of the SRS may not include BW of the CORESET#0 and SSB; - *maxNumOfPeriodicAndSemipersistentSRSposResources-r17* indicates the max number of P/SP SRS Resources for positioning; - *maxNumOfPeriodicAndSemipersistentSRSposResourcesPerSlot-r17* indicates the max number of P/SP SRS Resources for positioning per slot; - *differentCenterFreqBetweenSRSposAndInitialBWP-r17* indicates the support of a different center frequency between the SRS for positioning and the initial UL BWP; - *switchingTimeSRS-TX-OtherTX-r17* indicates the switching time between SRS TX and other TX in initial UL BWP or RX in initial DL BWP - *maxNumOfSemiPersistentSRSposResources-r17* indicates the max number of semi-persistent SRS Resources for positioning; - *maxNumOfSemiPersistentSRSposResourcesPerSlot-r17* indicates the max number of semi-persistent SRS Resources for positioning per slot. The UE can include this field only if the UE supports *srs-PosResourcesRRC-Inactive-r17*. Otherwise, the UE does not include this field; NOTE 1: The BWP with SRS for positioning is defined by the parameters *locationAndBandwidth*, SCS, CP in the same way as other BWPs. NOTE 2: If *differentCenterFreqBetweenSRSposAndInitialBWP-r17* is not signalled, the UE only supports same center frequency between the SRS for positioning and initial UL BWP. NOTE 3: If *differentNumerologyBetweenSRSposAndInitialBWP-r17* is not signalled, the UE only supports same numerology between the SRS and the initial UL BWP. NOTE 4: If *srsPosWithoutRestrictionOnBWP-r17* is not signalled, the UE supports only SRS BW that include the BW of the CORESET #0 and SSB. NOTE 5: The fields of *maxNumOfSemiPersistentSRSposResources-r17* and *maxNumOfSemiPersistentSRSposResourcesPerSlot-r17* shall be reported together if supported by UE. One of the fields between *maxSRSposBandwidthForEachSCS-withinCC-FR1-r17* and *maxSRSposBandwidthForEachSCS-withinCC-FR2-r17,* and the fields of *maxNumOfSRSposResourceSets-r17, maxNumOfPeriodicSRSposResources-r17, maxNumOfPeriodicSRSposResourcesPerSlot-r17, maxNumOfPeriodicAndSemipersistentSRSposResources-r17, maxNumOfPeriodicAndSemipersistentSRSposResourcesPerSlot-r17,*	Band	No	N/A	N/A

and *switchingTimeSRS-TX-OtherTX-r17* shall be reported together if supported by UE. NOTE 6: *srsPosWithoutRestrictionOnBWP-r17* is not applicable to FDD or SUL bands.				
posSRS-TxFH-RRC-ConnectedForNonRedCap-r19 Indicates whether UE supports positioning SRS with Tx frequency hopping in RRC_CONNECTED for non-RedCap UEs and comprises the following parameters: - *maximumSRS-BandwidthAcrossAllHopsFR1-r19* indicates the maximum positioning SRS bandwidth across all hops in MHz for FR1, which is supported and reported by UE. - *maximumSRS-BandwidthAcrossAllHopsFR2-r19* indicates the maximum positioning SRS bandwidth across all hops in MHz for FR2, which is supported and reported by UE. - *maximumTxFH-Hops-r19* indicates the maximum number of transmission hops, which is supported and reported by UE. - *rf-TxRetuneTimeFR1-r19* indicates the RF Tx retune times between consecutive hops for FR1. - *rf-TxRetuneTimeFR2-r19* indicates the RF Tx retune times between consecutive hops for FR2. - *switchTimeBetweenActiveBWP-FrequencyHop-r19* indicates the switching time between active BWP and frequency hop. - *numOfOverlappingPRB-r19* indicates the overlapping PRB(s) between adjacent hops. - *maximumSRS-ResourcePeriodic-r19* indicates the maximum number of periodic positioning SRS resources with Tx frequency hopping. - *maximumSRS-ResourceAperiodic-r19* indicates the maximum number of aperiodic positioning SRS resources with Tx frequency hopping. - *maximumSRS-ResourceSemipersistent-r19* indicates maximum number of semi-persistent positioning SRS resources with Tx frequency hopping. A UE indicating support of this feature shall also indicate the support of *SRS-AllPosResources-r16.* NOTE: No additional UE requirements shall be specified for the case of Tx hopping with non-overlapping hops compared to the case of Tx hopping with overlapping hops, e.g., a UE is not responsible for keeping phase continuity across the hops in either case of overlapping or non-overlapping hops.	Band	No	N/A	N/A

posSRS-TxFH-RRC-InactiveForNonRedCap-r19 Indicates whether the UE supports positioning SRS with Tx frequency hopping in RRC_INACTIVE for non-RedCap UEs and comprises the following parameters: - *maximumSRS-BandwidthAcrossAllHopsFR1-r19* indicates the maximum positioning SRS bandwidth across all hops in MHz for FR1, which is supported and reported by UE. - *maximumSRS-BandwidthAcrossAllHopsFR2-r19* indicates the maximum positioning SRS bandwidth across all hops in MHz for FR2, which is supported and reported by UE. - *maximumTxFH-Hops-r19* indicates the maximum number of transmission hops, which is supported and reported by UE. - *rf-TxRetuneTimeFR1-r19* indicates the RF Tx retune times between consecutive hops for FR1. - *rf-TxRetuneTimeFR2-r19* indicates the RF Tx retune times between consecutive hops for FR2. - *switchTimeBetweenActiveBWP-FrequencyHop-r19* indicates the switching time between active BWP and frequency hop. - *numOfOverlappingPRB-r19* indicates the overlapping PRB(s) between adjacent hops. - *maximumSRS-ResourcePeriodic-r19* indicates the maximum number of periodic positioning SRS resources with Tx frequency hopping. - *maximumSRS-ResourceSemipersistent-r19* indicates maximum number of semi-persistent positioning SRS resources with Tx frequency hopping. A UE indicating support of this feature shall also indicate the support of *posSRS-RRC-Inactive-OutsideInitialUL-BWP-r17*. NOTE: No additional UE requirements shall be specified for the case of Tx hopping with non-overlapping hops compared to the case of Tx hopping with overlapping hops, e.g., a UE is not responsible for keeping phase continuity across the hops in either case of overlapping or non-overlapping hops.	Band	No	N/A	N/A
posSRS-TxFH-WithTimeWindowForNonRedCap-r19 Indicates whether the UE supports UL time window and transmission of SRS for positioning with Tx Frequency hopping within the window for non-RedCap UEs. A UE indicating support of this feature shall also indicate the support of *posSRS-TxFH-RRC-ConnectedForNonRedCap-r19*.	Band	No	N/A	N/A
posSRS-ValidityAreaRRC-InactiveInitialUL-BWP-r18 Indicates whether the UE support SRS for positioning configuration in multi cells in RRC_INACTIVE for initial UL BWP. UE indicating support of this feature shall also indicate support of *posSRS-RRC-Inactive-InInitialUL-BWP-r17.*	Band	No	N/A	N/A
posSRS-ValidityAreaRRC-InactiveOutsideInitialUL-BWP-r18 Indicates whether the UE supports SRS for positioning configuration in multi cells in RRC_INACTIVE outside initial UL BWP. UE indicating support of this feature shall also indicate support of *posSRS-RRC-Inactive-OutsideInitialUL-BWP-r17* and *posSRS-ValidityAreaRRC-InactiveInitialUL-BWP-r18.*	Band	No	N/A	N/A
posUE-TA-AutoAdjustment-r18 Indicates whether the UE supports autonomous TA adjustment when cell-reselection happens. UE indicating support of this feature shall also indicate support of *posSRS-ValidityAreaRRC-InactiveInitialUL-BWP-r18.*	Band	No	N/A	N/A

powerAdaptation-CSI-Feedback-r18 Indicates whether the UE supports power domain adaptation with CSI feedback based on CSI report sub-configuration(s) for periodic CSI reporting and single-panel type 1 codebook. The UE supports CSI feedback based on CSI report sub-configuration(s), each containing one power offset for periodic CSI reporting. This capability signalling comprises the following parameters: - *maxNumberLmax-r18* indicates the max number of sub-configurations Lmax in one CSI report configuration; - *maxNumberCSI-ResourcePerCC-r18* indicates the maximum number of simultaneous NZP-CSI-RS resources per CC. - *maxNumberTotalCSI-ResourcePerCC-r18* indicates the maximum number of total CSI-RS ports in simultaneous NZP-CSI-RS resources per CC. - *totalNumberCSI-Reporting-r18* indicates total number of periodic CSI reporting settings without sub-configurations plus the total number of sub-configurations across periodic CSI report settings with sub-configurations per BWP. NOTE 1: For *maxNumberCSI-ResourcePerCC-r18* and *maxNumberTotalCSI-ResourcePerCC-r18*, NZP-CSI-RS resource and CSI-RS ports are counted for reporting settings with and without sub-configurations. NOTE 2: If a UE reports more than one capability from *spatialAdaptation-CSI-Feedback-r18, spatialAdaptation-CSI-FeedbackPUSCH-r18, spatialAdaptation-CSI-FeedbackAperiodic-r18, spatialAdaptation-CSI-FeedbackPUCCH-r18, powerAdaptation-CSI-Feedback-r18, powerAdaptation-CSI-FeedbackPUSCH-r18, powerAdaptation-CSI-FeedbackAperiodic-r18, powerAdaptation-CSI-FeedbackPUCCH-r18* and if the UE is configured with CSI report settings with sub-configurations corresponding to a subset of the above reported features, then the supported maximum of NZP-CSI-RS resources/ports across all periodic, semi-persistent, aperiodic CSI report settings with sub-configurations corresponding to all of spatial and power domain adaptations and without sub-configurations is determined by the minimum of the reported values from that subset. NOTE 3: If a UE reports both *spatialAdaptation-CSI-Feedback-r18* and *powerAdaptation-CSI-Feedback-r18*, and if the UE is configured with CSI report settings with sub-configurations corresponding to both *spatialAdaptation-CSI-Feedback-r18* and *powerAdaptation-CSI-Feedback-r18*, then the supported total number of periodic CSI reporting settings without sub-configurations plus the total number of sub-configurations across periodic CSI report settings with sub-configurations per BWP is determined by the minimum of the reported values from both *spatialAdaptation-CSI-Feedback-r18* and *powerAdaptation-CSI-Feedback-r18*. NOTE 4: If CSI report configuration in active BWP of a CC includes report setting(s) with sub-configurations, values reported in this capability for the number of simultaneous NZP-CSI-RS resources and ports per CC are used for the CC instead of values reported in *csi-RS-IM-ReceptionForFeedback*. If CSI report configuration in active BWP of any CC includes report setting(s) with sub-configurations, values reported in this capability for the number of simultaneous NZP-CSI-RS resources and ports across all CCs are used instead of values reported in *csi-RS-IM-ReceptionForFeedback*. NOTE 5: For *totalNumberCSI-Reporting-r18*, if CSI report configuration in a BWP includes report setting(s) with sub-configurations, a value reported in this capabiliy for the number of CSI reporting settings is used for the BWP instead of a value reported in *csi-ReportFramework*. A UE indicating support of this feature shall also indicate support of *csi-ReportFramework* and *powerAdaptation-CSI-FeedbackPerBC-r18.*	Band	No	N/A	N/A

powerAdaptation-CSI-FeedbackAperiodic-r18 Indicates whether the UE supports power domain adaptation with CSI feedback based on CSI report sub-configuration(s) for aperiodic CSI reporting and single-panel type 1 codebook. The UE supports CSI feedback based on CSI report sub-configuration(s), each containing one power offset for aperiodic CSI reporting. This capability signalling comprises the following parameters: - *maxNumberLmax-r18* indicates the max number of sub-configurations Lmax in one CSI report configuration; - *subReportCSI-r18* indicates N number of report of CSI sub-report(s) included in one SP-CSI report where each CSI sub-report corresponds to one sub-configuration. - *maxNumberCSI-ResourcePerCC-r18* indicates the maximum number of simultaneous NZP-CSI-RS resources per CC for SD-type 1 and/or SD-type 2. - *maxNumberTotalCSI-ResourcePerCC-r18* indicates the maximum number of total CSI-RS ports in simultaneous NZP-CSI-RS resources per CC for SD-type 1 and/or SD-type 2. - *totalNumberCSI-Reporting-r18* total number of aperiodic CSI reporting settings without sub-configurations plus the total number of sub-configurations across aperiodic CSI report settings with sub-configurations per BWP. NOTE 1: For *maxNumberCSI-ResourcePerCC-r18* and *maxNumberTotalCSI-ResourcePerCC-r18*, NZP-CSI-RS resource and CSI-RS ports are counted for reporting settings with and without sub-configurations. NOTE 2: If a UE reports more than one capability from *spatialAdaptation-CSI-Feedback-r18, spatialAdaptation-CSI-FeedbackPUSCH-r18, spatialAdaptation-CSI-FeedbackAperiodic-r18, spatialAdaptation-CSI-FeedbackPUCCH-r18, powerAdaptation-CSI-Feedback-r18, powerAdaptation-CSI-FeedbackPUSCH-r18, powerAdaptation-CSI-FeedbackAperiodic-r18, powerAdaptation-CSI-FeedbackPUCCH-r18* and if the UE is configured with CSI report settings with sub-configurations corresponding to a subset of the above reported features, then the supported maximum of NZP-CSI-RS resources/ports across all periodic, semi-persistent, aperiodic CSI report settings with sub-configurations corresponding to all of spatial and power domain adaptations and without sub-configurations is determined by the minimum of the reported values from that subset. NOTE 3: If a UE reports both *spatialAdaptation-CSI-FeedbackAperiodic-r18* and *powerAdaptation-CSI-FeedbackAperiodic-r18*, and if the UE is configured with CSI report settings with sub-configurations corresponding to both *spatialAdaptation-CSI-FeedbackAperiodic-r18* and *powerAdaptation-CSI-FeedbackAperiodic-r18*, then the supported total number of periodic CSI reporting settings without sub-configurations plus the total number of sub-configurations across periodic CSI report settings with sub-configurations per BWP is determined by the minimum of the reported values from both *spatialAdaptation-CSI-FeedbackAperiodic-r18* and *powerAdaptation-CSI-FeedbackAperiodic-r18*. NOTE 4: If CSI report configuration in active BWP of a CC includes report setting(s) with sub-configurations, values reported in this capability for the number of simultaneous NZP-CSI-RS resources and ports per CC are used for the CC instead of values reported in *csi-RS-IM-ReceptionForFeedback*. If CSI report configuration in active BWP of any CC includes report setting(s) with sub-configurations, values reported in this capability for the number of simultaneous NZP-CSI-RS resources and ports across all CCs are used instead of values reported in *csi-RS-IM-ReceptionForFeedback*. NOTE 5: For *totalNumberCSI-Reporting-r18*, if CSI report configuration in a BWP includes report setting(s) with sub-configurations, a value reported in this capability for the number of CSI reporting settings is used for the BWP instead of a value reported in *csi-ReportFramework*. A UE indicating support of this feature shall also indicate support of *csi-ReportFramework* and *powerAdaptation-CSI-FeedbackAperiodicPerBC-r18.*	Band	No	N/A	N/A

powerAdaptation-CSI-FeedbackPUCCH-r18 Indicates whether the UE supports power domain adaptation with CSI feedback based on CSI report sub-configuration(s) for semi-persistent CSI reporting on PUCCH and single-panel type 1 codebook. The UE supports CSI feedback based on CSI report sub-configuration(s), each containing one power offset for semi-persistent CSI reporting on PUCCH (or piggybacked on PUSCH). This capability signalling comprises the following parameters: - *maxNumberLmax-r18* indicates the max number of sub-configurations Lmax in one CSI report configuration; - *subReportCSI-r18* indicates N number of report of CSI sub-report(s) included in one SP-CSI report where each CSI sub-report corresponds to one sub-configuration. - *maxNumberCSI-ResourcePerCC-r18* indicates the maximum number of simultaneous NZP-CSI-RS resources per CC for SD-type 1 and/or SD-type 2. - *maxNumberTotalCSI-ResourcePerCC-r18* indicates the maximum number of total CSI-RS ports in simultaneous NZP-CSI-RS resources per CC for SD-type 1 and/or SD-type 2. - *totalNumberCSI-Reporting-r18* indicates total number of semi-persistent CSI reporting settings without sub-configurations plus the total number of sub-configurations across semi-persistent CSI report settings with sub-configurations per BWP. NOTE 1: For *maxNumberCSI-ResourcePerCC-r18* and *maxNumberTotalCSI-ResourcePerCC-r18*, NZP-CSI-RS resource and CSI-RS ports are counted for reporting settings with and without sub-configurations. NOTE 2: If a UE reports more than one capability from *spatialAdaptation-CSI-Feedback-r18, spatialAdaptation-CSI-FeedbackPUSCH-r18, spatialAdaptation-CSI-FeedbackAperiodic-r18, spatialAdaptation-CSI-FeedbackPUCCH-r18, powerAdaptation-CSI-Feedback-r18, powerAdaptation-CSI-FeedbackPUSCH-r18, powerAdaptation-CSI-FeedbackAperiodic-r18, powerAdaptation-CSI-FeedbackPUCCH-r18* and if the UE is configured with CSI report settings with sub-configurations corresponding to a subset of the above reported features, then the supported maximum of NZP-CSI-RS resources/ports across all periodic, semi-persistent, aperiodic CSI report settings with sub-configurations corresponding to all of spatial and power domain adaptations and without sub-configurations is determined by the minimum of the reported values from that subset. NOTE 3: If a UE reports more than one capability from *spatialAdaptation-CSI-FeedbackPUSCH-r18*, *spatialAdaptation-CSI-FeedbackPUCCH-r18, powerAdaptation-CSI-FeedbackPUSCH-r18* and *powerAdaptation-CSI-FeedbackPUCCH-r18* and if the UE is configured with CSI report settings with sub-configurations corresponding to a subset of the reported features, then the supported total number of semi-persistent CSI reporting settings without sub-configurations plus the total number of sub-configurations across semi-persistent CSI report settings with sub-configurations per BWP is determined by the minimum of the reported values from that subset. NOTE 4: If CSI report configuration in active BWP of a CC includes report setting(s) with sub-configurations, values reported in this capability for the number of simultaneous NZP-CSI-RS resources and ports per CC are used for the CC instead of values reported in *csi-RS-IM-ReceptionForFeedback*. If CSI report configuration in active BWP of any CC includes report setting(s) with sub-configurations, values reported in this capability for the number of simultaneous NZP-CSI-RS resources and ports across all CCs are used instead of values reported in *csi-RS-IM-ReceptionForFeedback*. NOTE 5: For *totalNumberCSI-Reporting-r18*, if CSI report configuration in a BWP includes report setting(s) with sub-configurations, a value reported in this capability for the number of CSI reporting settings is used for the BWP instead of a value reported in *csi-ReportFramework*. A UE indicating support of this feature shall also indicate support of *csi-ReportFramework*, *sp-CSI-ReportPUCCH* and *powerAdaptation-CSI-FeedbackPUCCH-PerBC-r18.*	Band	No	N/A	N/A

powerAdaptation-CSI-FeedbackPUSCH-r18 Indicates whether the UE supports power domain adaptation with CSI feedback based on CSI report sub-configuration(s) for semi-persistent CSI reporting on PUSCH and single-panel type 1 codebook. The UE supports CSI feedback based on CSI report sub-configuration(s), each containing one power offset for semi-persistent CSI reporting. This capability signalling comprises the following parameters: - *maxNumberLmax-r18* indicates the max number of sub-configurations Lmax in one CSI report configuration; - *subReportCSI-r18* indicates N number of report of CSI sub-report(s) included in one SP-CSI report where each CSI sub-report corresponds to one sub-configuration. - *maxNumberCSI-ResourcePerCC-r18* indicates the maximum number of simultaneous NZP-CSI-RS resources per CC. - *maxNumberTotalCSI-ResourcePerCC-r18* indicates the maximum number of total CSI-RS ports in simultaneous NZP-CSI-RS resources per CC. - *totalNumberCSI-Reporting-r18* indicates total number of semi-persistent CSI reporting settings without sub-configurations plus the total number of sub-configurations across semi-persistent CSI report settings with sub-configurations per BWP. NOTE 1: For *maxNumberCSI-ResourcePerCC-r18* and *maxNumberTotalCSI-ResourcePerCC-r18*, NZP-CSI-RS resource and CSI-RS ports are counted for reporting settings with and without sub-configurations. NOTE 2: If a UE reports more than one capability from *spatialAdaptation-CSI-Feedback-r18, spatialAdaptation-CSI-FeedbackPUSCH-r18, spatialAdaptation-CSI-FeedbackAperiodic-r18, spatialAdaptation-CSI-FeedbackPUCCH-r18, powerAdaptation-CSI-Feedback-r18, powerAdaptation-CSI-FeedbackPUSCH-r18, powerAdaptation-CSI-FeedbackAperiodic-r18, powerAdaptation-CSI-FeedbackPUCCH-r18* and if the UE is configured with CSI report settings with sub-configurations corresponding to a subset of the above reported features, then the supported maximum of NZP-CSI-RS resources/ports across all periodic, semi-persistent, aperiodic CSI report settings with sub-configurations corresponding to all of spatial and power domain adaptations and without sub-configurations is determined by the minimum of the reported values from that subset. NOTE 3: If a UE reports more than one capability from *spatialAdaptation-CSI-FeedbackPUSCH-r18, spatialAdaptation-CSI-FeedbackPUCCH-r18*, *powerAdaptation-CSI-FeedbackPUSCH-r18* and *powerAdaptation-CSI-FeedbackPUCCH-r18* and if the UE is configured with CSI report settings with sub-configurations corresponding to a subset of the reported features, then the supported total number of semi-persistent CSI reporting settings without sub-configurations plus the total number of sub-configurations across semi-persistent CSI report settings with sub-configurations per BWP is determined by the minimum of the reported values from that subset. NOTE 4: If CSI report configuration in active BWP of a CC includes report setting(s) with sub-configurations, values reported in this capability for the number of simultaneous NZP-CSI-RS resources and ports per CC are used for the CC instead of values reported in *csi-RS-IM-ReceptionForFeedback*. If CSI report configuration in active BWP of any CC includes report setting(s) with sub-configurations, values reported in this capability for the number of simultaneous NZP-CSI-RS resources and ports across all CCs are used instead of values reported in *csi-RS-IM-ReceptionForFeedback*. NOTE 5: For *totalNumberCSI-Reporting-r18*, if CSI report configuration in a BWP includes report setting(s) with sub-configurations, a value reported in this capability for the number of CSI reporting settings is used for the BWP instead of a value reported in *csi-ReportFramework*. A UE indicating support of this feature shall also indicate support of *csi-ReportFramework*, *sp-CSI-ReportPUSCH* and *powerAdaptation-CSI-FeedbackPUSCH-PerBC-r18.*	Band	No	N/A	N/A
powerBoosting-pi2BPSK Indicates whether UE supports power boosting for pi/2 BPSK, when applicable as defined in 6.2 of TS 38.101-1 [2] / TS 38.101-5 [34]. It is mandatory with capability signalling. This capability is not applicable to IAB-MT.	Band	CY	TDD only	FR1 only

prach-CoverageEnh-r18 Indicates whether the UE supports {2, 4, 8} for the number of multiple PRACH transmissions with same Tx spatial filter.	Band	No	N/A	N/A
prach-Repetition-r18 Indicates whether the UE supports transmitting two PRACH repetitions when a gap between the last symbol of a PRACH repetition in the first slot and the first symbol of a PRACH repetition in the second slot is less than N symbols, where N=2 for μ=0 or μ=1, N=4 for μ=2 or μ=3, N=16 for μ=5, N=32 for μ=6, and μ is the SCS configuration for the UL BWP with the PRACH. A UE supporting this feature shall also indicate support of *prach-CoverageEnh-r18.*	Band	No	N/A	N/A
priorityIndicatorInDCI-Multicast-r17 Indicates whether the UE supports DL priority indication for multicast in DCI, comprised of the following functional components: - Support of priority indicator field configured in DCI formats 4_2 with CRC scrambled with G-RNTI for multicast; - Supports two HARQ-ACK codebooks with different priorities to be simultaneously constructed different priorities for multicast and multicast at a UE. For TN, the UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands and all TDD-FR2 bands, associated with supported shared and non-shared spectrum respectively. For NTN, UE shall set the capability value consistently for all FDD-FR1 NTN bands and all FDD-FR2 NTN bands respectively. A UE supporting this feature shall also indicate support of *ack-NACK-FeedbackForMulticast-r17* and *dynamicMulticastDCI-Format4-2-r17*.	Band	No	N/A	N/A
priorityIndicatorInDCI-SPS-Multicast-r17 Indicates whether the UE supports priority indicator field configured in DCI format 4_2 for multicast HARQ-ACK feedback of SPS multicast. For TN, the UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands and all TDD-FR2 bands, associated with supported shared and non-shared spectrum respectively. For NTN, UE shall set the capability value consistently for all FDD-FR1 NTN bands and all FDD-FR2 NTN bands respectively. A UE supporting this feature shall also indicate support of *ack-NACK-FeedbackForSPS-Multicast-r17* and *sps-MulticastDCI-Format4-2-r17*.	Band	No	N/A	N/A
prs-MeasurementWithoutMG-r17 Indicates whether the UE supports using the threshold to compare the Rx time difference between the serving cell and a neighbour cell/TRP for PRS measurements, as defined in clause 9.9.1.2 of TS 38.133 [5], to determine whether the PRS from the non-serving cell satisfy the condition of PRS measurement outside MG. The UE can include this field only if the UE supports one of *prs-ProcessingWindowType1A-r17, prs-ProcessingWindowType1B-r17* and *prs-ProcessingWindowType2-r17*.	Band	No	N/A	N/A

prs-ProcessingCapabilityOutsideMGinPPW-r17
Indicates the DL-PRS Processing Capability outside MG of each of the supported PRS Processing Window (PPW) Type in the case the UE supports multiple PPW Types in a band and comprises the following parameters:
- *prsProcessingType-r17**:*** Indicates the PPW Type for which the *prs-ProcessingCapabilityOutsideMGinPPW-r17* are provided.
- *ppw-dl-PRS-BufferType-r17*: Indicates DL-PRS buffering capability. Value *'type1'* indicates sub-slot/symbol level buffering and value *'type2'* indicates slot level buffering.
- *ppw-durationOfPRS-Processing1-r17*: Indicates the duration of DL-PRS symbols N in units of ms a UE can process every T ms assuming maximum DL-PRS bandwidth provided in *ppw-maxNumOfDL-Bandwidth-r17* and comprises the following parameters:
  - *ppw-durationOfPRS-ProcessingSymbolsN-r17*: This field specifies the values for *N* with values msDot125 indicates 0.125ms, msDot25 indicates 0.25ms, and so on
  - *ppw-durationOfPRS-ProcessingSymbolsT-r17*: This field specifies the values for *T* with values ms1 indicates 1ms, ms2 indicates 2ms, and so on.
- *ppw-durationOfPRS-Processing2-r17*: Indicates the duration of DL-PRS symbols N2 in units of ms a UE can process every T2 ms assuming maximum DL-PRS bandwidth provided in *ppw-maxNumOfDL-Bandwidth-r17* and comprises the following parameters:
  - *ppw-durationOfPRS-ProcessingSymbolsN2-r17*: This field specifies the values for *N2* with values msDot125 indicates 0.125ms, msDot25 indicates 0.25ms, and so on.
  - *ppw-durationOfPRS-ProcessingSymbolsT2-r17*: This field specifies the values for *T2* with values ms4 indicates 4ms, ms5 indicates 5ms, and so on.
- *ppw-maxNumOfDL-PRS-ResProcessedPerSlot-r17*: Indicates the maximum number of DL PRS bandwidth in MHz, which is supported and reported by UE for PRS measurement outside MG within the PPW.
- *ppw-maxNumOfDL-Bandwidth-r17*: Indicates the maximum number of DL PRS bandwidth in MHz for FR1 and FR2, which is supported and reported by UE for PRS measurement outside MG within the PPW.
The UE can include this field only if the UE supports one of *prs-ProcessingWindowType1A-r17*, *prs-ProcessingWindowType1B-r17* and *prs-ProcessingWindowType2-r17*. Otherwise, the UE does not include this field.
 	
NOTE 1: A UE that supports one of *prs-ProcessingWindowType1A-r17*, *prs-ProcessingWindowType1B-r17* or *prs-ProcessingWindowType2-r17* shall always include the *prs-ProcessingCapabilityOutsideMGinPPW-r17*.
NOTE 2: The (N, T) in *ppw-durationOfPRS-Processing1-r17* is interpreted as in (N,T) in *durationOfPRS-Processing-r16* in TS 37.355 [22], and the UE is expected to receive the DL-PRS within the PPW but the processing of the received DL-PRS may be outside a PPW
NOTE 3: The (N2, T2) in *ppw-durationOfPRS-Processing2-r17* is interpreted such that the UE is capable of measuring up to N2 ms DL-PRS within a PPW and is capable of completing the DL-PRS processing within the PPW, e.g., if the time duration from the last symbol of the measured DL-PRS resource(s) inside the PPW to the end of PPW is not smaller than T2 ms.
NOTE 4: A UE which supports *prs-ProcessingCapabilityOutsideMGinPPW-r17* shall support either *ppw-durationOfPRS-Processing1-r17* or *ppw-durationOfPRS-Processing2-r17*, but not both for each supported PPW type in a band.
	Band	No	N/A	N/A

prs-ProcessingRRC-Inactive-r17 Indicates whether the UE supports PRS processing in RRC_INACTIVE.	Band	No	N/A	N/A

prs-ProcessingWindowType1A-r17 Indicates whether the UE supports PRS processing Type 1A, subject to the UE determining that DL PRS to be higher priority for PRS measurement outside MG and in a PRS processing window and the priority handling options of PRS as follows: - Option 1: Support of "st1" and "st3" defined in clause 5.1.6.5 of TS 38.214 [12]. - Option 2: Support of "st1", "st2", and "st3" defined in clause 5.1.6.5 of TS 38.214 [12]. NOTE 1: Void. - Option 3: Support of "st1" only defined in clause 5.1.6.5 of TS 38.214 [12]. The UE can include this field only if the UE supports *prs-ProcessingCapabilityBandList-r16* defined in TS 37.355 [22]. A UE supporting this feature shall also indicate support of *prs-ProcessingCapabilityOutsideMGinPPW-r17*. NOTE 2: Type 1A refers to the determination of prioritization between DL PRS and other DL signals/channels in all OFDM symbols within the PRS processing window. The DL signals/channels from all DL CCs (per UE) are affected across LTE and NR. NOTE 3: Within a PRS processing window, UE measurement is inside the active DL BWP with PRS having the same numerology as the active DL BWP. NOTE 4: Support of configuration of PRS processing window in RRC and support of using DL MAC CE to activate/deactivate the PRS processing window for PRS measurements is part of the feature. NOTE 5: When the UE determines higher priority for other DL signals/channels over the DL-PRS measurement/processing, the UE is not expected to measure/process DL-PRS.	Band	No	N/A	N/A
prs-ProcessingWindowType1B-r17 Indicates whether the UE supports PRS processing Type 1B, subject to the UE determining that DL PRS to be higher priority for PRS measurement outside MG and in a PRS processing window and the priority handling options of PRS as follows: - Option 1: Support of "st1" and "st3" defined in clause 5.1.6.5 of TS 38.214 [12]. - Option 2: Support of "st1", "st2", and "st3" defined in clause 5.1.6.5 of TS 38.214 [12]. NOTE 1: Void. - Option 3: Support of "st1" only defined in clause 5.1.6.5 of TS 38.214 [12]. The UE can include this field only if the UE supports *prs-ProcessingCapabilityBandList-r16* defined in TS 37.355 [22]. A UE supporting this feature shall also indicate support of *prs-ProcessingCapabilityOutsideMGinPPW-r17*. NOTE 2: Type 1B refers to the determination of prioritization between DL PRS and other DL signals/channels in all OFDM symbols within the PRS processing window. The DL signals/channels from a certain band are affected. NOTE 3: Within a PRS processing window, UE measurement is inside the active DL BWP with PRS having the same numerology as the active DL BWP. NOTE 4: Support of configuration of PRS processing window in RRC and support of using DL MAC CE to activate/deactivate the PRS processing window for PRS measurements is part of the feature. NOTE 5: When the UE determines higher priority for other DL signals/channels over the DL-PRS measurement/processing, the UE is not expected to measure/process DL-PRS.	Band	No	N/A	N/A

prs-ProcessingWindowType2-r17 Indicates whether the UE supports PRS processing Type 2, subject to the UE determining that DL PRS to be higher priority for PRS measurement outside MG and in a PRS processing window and the priority handling options of PRS as follows: - Option 1: Support of "st1" and "st3" defined in clause 5.1.6.5 of TS 38.214 [12]. - Option 2: Support of "st1", "st2", and "st3" defined in clause 5.1.6.5 of TS 38.214 [12]. NOTE 1: Void. - Option 3: Support of "st1" only defined in clause 5.1.6.5 of TS 38.214 [12]. The UE can include this field only if the UE supports *prs-ProcessingCapabilityBandList-r16* defined in TS 37.355 [22]. A UE supporting this feature shall also indicate support of *prs-ProcessingCapabilityOutsideMGinPPW-r17*. NOTE 2: Type 2 refers to the determination of prioritization between DL PRS and other DL signals/channels only in DL PRS symbols within the PRS processing window. NOTE 3: Within a PRS processing window, UE measurement is inside the active DL BWP with PRS having the same numerology as the active DL BWP. NOTE 4: Support of configuration of PRS processing window in RRC and support of using DL MAC CE to activate/deactivate the PRS processing window for PRS measurements is part of the feature. NOTE 5: When the UE determines higher priority for other DL signals/channels over the DL-PRS measurement/processing, the UE is not expected to measure/process DL-PRS.	Band	No	N/A	N/A
ptrs-DensityRecommendationSetDL For each supported sub-carrier spacing, indicates preferred threshold sets for determining DL PTRS density. It is mandated for FR2. For each supported sub-carrier spacing, this field comprises: - two values of *frequencyDensity*; - three values of *timeDensity*.	Band	CY	N/A	N/A
ptrs-DensityRecommendationSetUL For each supported sub-carrier spacing, indicates preferred threshold sets for determining UL PTRS density. For each supported sub-carrier spacing, this field comprises: - two values of *frequencyDensity*; - three values of *timeDensity*; - five values of *sampleDensity*.	Band	No	N/A	N/A
pucch-RepetitionDynamicIndicationSFN-r18 Indicates whether the UE supports STx2P SFN PUCCH scheme together with *pucch-Repetition-F0-1-2-3-4-DynamicIndication-r17*. A UE supporting this feature shall also indicate support of *pucch-SingleDCI-STx2P-SFN-r18* and *slotBasedDynamicPUCCH-Rep-r17*.	Band	No	N/A	FR2 only
pucch-Repetition-F0-2-r17 Indicates whether the UE supports transmission of a PUCCH format 0 and 2 over multiple slots with the repetition factor 2, 4 or 8. A UE supporting this feature shall also indicate support of *pucch-Repetition-F1-3-4*.	Band	No	N/A	N/A
pucch-SpatialRelInfoMAC-CE Indicates whether the UE supports indication of *PUCCH-spatialrelationinfo* by a MAC CE per PUCCH resource. It is mandatory for FR2 and optional for FR1.	Band	CY	N/A	N/A
pusch-256QAM Indicates whether the UE supports 256QAM modulation scheme for PUSCH as defined in 6.3.1.2 of TS 38.211 [6].	Band	No	N/A	N/A
pusch-CB-2PTRS-SingleDCI-STx2P-SDM-r18 Indicates whether the UE supports 2 PTRS ports for single-DCI based STx2P SDM scheme for PUSCH codebook. A UE supporting this feature shall also indicate support of *pusch-CB-SingleDCI-STx2P-SDM-r18*.	Band	No	N/A	FR2 only

pusch-CB-2PTRS-SingleDCI-STx2P-SFN-r18 Indicates whether the UE supports 2 PTRS ports for single-DCI based STx2P SFN scheme for PUSCH codebook. A UE supporting this feature shall also indicate support of *pusch-CB-SingleDCI-STx2P-SFN-r18*.	Band	No	N/A	FR2 only
pusch-InterSlotOCC-r19 Indicates whether the UE supports inter-slot OCC for DFT-s-OFDM PUSCH transmissions with repetition Type A, including the support of RV cycling across OCC groups, collision handling between PUCCH and PUSCH with OCC, keeping phase continuity and power consistency across one OCC group. This capability comprises: - *occLength-r19* indicates the supported OCC length; - satelliteOrbit-r19 indicates the supported satellite orbit for PUSCH with OCC. Value '*both*' indicates the support of both GSO and NGSO satellite orbits. NOTE: This UE feature is applicable only for bands in Tables 5.2.2-1 in TS 38.101-5 [34]. A UE supporting this feature shall also indicate support of *uplinkPreCompensation-r17*, at least one of *type1-PUSCH-RepetitionMultiSlots*, *type2-PUSCH-RepetitionMultiSlots*, and *pusch-RepetitionMultiSlots*.	Band	No	N/A	N/A
pusch-NonCB-2PTRS-SingleDCI-STx2P-SDM-r18 Indicates whether the UE supports 2 PTRS ports for single-DCI based STx2P SDM scheme for PUSCH noncodebook. A UE supporting this feature shall also indicate support of *pusch-NonCB-SingleDCI-STx2P-SDM-r18*.	Band	No	N/A	FR2 only
pusch-NonCB-2PTRS-SingleDCI-STx2P-SFN-r18 Indicates whether the UE supports 2 PTRS ports for single-DCI based STx2P SFN scheme for PUSCH noncodebook. A UE supporting this feature shall also indicate support of *pusch-NonCB-SingleDCI-STx2P-SFN-r18*.	Band	No	N/A	FR2 only
pusch-NonCB-SingleDCI-STx2P-SDM-CSI-RS-SRS-r18 Indicates whether the UE supports up to two NZP CSI-RS resources associated with the two SRS resource sets for non-codebook based STx2P SDM scheme for PUSCH. This capability comprises: - *maxNumberPeriodicSRS-Resource-PerBWP-r18* indicates the maximum number of periodic SRS resources associated with first and second CSI-RS per BWP; - *maxNumberAperiodicSRS-Resource-PerBWP-r18* indicates the maximum number of aperiodic SRS resources associated with first and second CSI-RS per BWP; - *maxNumberSemiPersistentSRS-ResourcePerBWP-r18* indicates the maximum number of semi-persistent SRS resources associated with first and second CSI-RS per BWP; - *valueY-SRS-ResourceAssociate-r18* indicates the number of P/SP/A SRS resources associated with first and second CSI-RS resources simultaneously in a CC that the UE can process; - *valueX-CSI-RS-ResourceAssociate-r18* indicates the maximum number of CSI-RS resources associated with SRS for non-codebook-based transmission simultaneously that the UE can process. A UE supporting this feature shall also indicate support of *srs-AssocCSI-RS* and *pusch-NonCB-SingleDCI-STx2P-SDM-r18*.	Band	No	N/A	FR2 only

pusch-NonCB-SingleDCI-STx2P-SFN-CSI-RS-SRS-r18 Indicates whether the UE supports up to two NZP CSI-RS resources associated with the two SRS resource sets for non-codebook based STx2P SFN scheme for PUSCH. This capability comprises: - *maxNumberPeriodicSRS-Resource-PerBWP-r18* indicates the maximum number of periodic SRS resources associated with first and second CSI-RS per BWP; - *maxNumberAperiodicSRS-Resource-PerBWP-r18* indicates the maximum number of aperiodic SRS resources associated with first and second CSI-RS per BWP; - *maxNumberSemiPersistentSRS-ResourcePerBWP-r18* indicates the maximum number of semi-persistent SRS resources associated with first and second CSI-RS per BWP; - *valueY-SRS-ResourceAssociate-r18* indicates the number of P/SP/A SRS resources associated with first and second CSI-RS resources simultaneously in a CC that the UE can process; - *valueX-CSI-RS-ResourceAssociate-r18* indicates the maximum number of CSI-RS resources associated with SRS for non-codebook-based transmission simultaneously that the UE can process. A UE supporting this feature shall also indicate support of *srs-AssocCSI-RS* and *pusch-NonCB-SingleDCI-STx2P-SFN-r18*.	Band	No	N/A	FR2 only
pusch-RepetitionMsg3-r17 Indicates whether the UE supports repetition of PUSCH transmission scheduled by RAR UL grant and DCI format 0_0 with CRC scrambled by TC-RNTI.	Band	No	N/A	N/A
pusch-RepetitionMultiSlots-v1650 Indicates whether the UE supports transmitting PUSCH scheduled by DCI format 0_1 when configured with *pusch-AggregationFactor* > 1, as defined in clause 6.1.2.1 of TS 38.214 [12]. This applies only to non-shared spectrum channel access. For shared spectrum channel access, *pusch-RepetitionMultiSlots-r16* applies. Except for NTN bands, UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands, all TDD-FR2-1 bands and all TDD-FR2-2 bands respectively. For NTN, UE shall set the capability value consistently for all FDD-FR1 NTN bands and all FDD-FR2 NTN bands respectively. The UE only includes *pusch-RepetitionMultiSlots-v1650* if *pusch-RepetitionMultiSlots* is absent.	Band	Yes	N/A	N/A
pusch-RepetitionTypeA-v16c0 Indicates whether the UE supports the dynamic indication of the number of repetitions for PUSCH transmission as specified in TS 38.214 [12], clause 6.1.2.1. Support of this field is reported for shared spectrum channel access and non-shared spectrum channel access, respectively. UE indicating support of this feature shall support of at least one of *type2-PUSCH-RepetitionMultiSlots* and *pusch-RepetitionMultiSlots* for shared spectrum and non-shared spectrum respectively. Except for NTN bands, UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands and all TDD-FR2 bands respectively. For NTN, UE shall set the capability value consistently for all FDD-FR1 NTN bands and all FDD-FR2 NTN bands respectively. The UE only includes *pusch-RepetitionTypeA-v16c0* if *pusch-RepetitionTypeA-r16* is absent.	Band	No	N/A	N/A
pusch-TransCoherence Defines support of the uplink codebook subset by the UE for UL precoding for PUSCH transmission as described in clause 6.1.1.1 of TS 38.214 [12]. UE indicated support of partial coherent codebook subset shall also support non-coherent codebook subset. UE indicated support of full coherent codebook subset shall also support partial and non-coherent codebook subset.	Band	No	N/A	N/A
puschTypeA-RepetitionsAvailSlot-r17 Indicates whether UE supports dynamic and configured grant PUSCH repetitions based on available slots. Transmission occasions for the repetitions for dynamic and configured grant PUSCH are determined on the basis of available slots. A UE that indicates support of this feature shall support *type1-PUSCH-RepetitionMultiSlots, type2-PUSCH-RepetitionMultiSlots* or *pusch-RepetitionMultiSlots.*	Band	No	N/A	N/A

rach-AdaptationTimeDomain-r19 Indicates whether the UE supports the adaptation of RACH in time domain based on additional RACH resources in RRC IDLE/INACTIVE/CONNECTED mode. The UE also supports configuration of additional PRACH resources via higher layer signaling, DCI-based indication of additional PRACH resources by DCI format 1_0 with P-RNTI, DCI-based indication of additional PRACH resources by DCI format 1_0 with C-RNTI for PDCCH-ordered PRACH, and semi-static PRACH mask to identify the subset of additional resources.	Band	No	N/A	N/A
rach-EarlyTA-Measurement-r18 Indicates the maximum number of candidate cells for TA acquisition based on PDCCH ordered CFRA procedure before receiving cell switch command MAC-CE. Power ramping for PRACH retransmission based on PDCCH order indication. UE also supports dropping the serving cell UL to handle the overlap between UL transmission on serving cell(s) and PRACH on candidate cell(s). A UE supporting this feature shall also indicate support of *ta-IndicationCellSwitch-r18* and at least one of *ltm-MCG-IntraFreq-r18* or *ltm-SCG-IntraFreq-r18*. For cross-band operation, the capability refers to the source band.	Band	No	N/A	N/A
rach-LessHandoverCG-r18 Indicates whether the UE supports RACH-less handover with configured grant for SpCell, as specified in TS 38.321 [8]. In this release, FR1-FR2 and FDD-TDD RACH-less handovers with configured grant are not supported. For NTN, UE shall set the capability value consistently for all FDD-FR1 NTN bands. For NTN bands, a UE supporting this feature shall also indicate the support of *nonTerrestrialNetwork-r17*. If an NTN UE indicates the support of both *timeBasedCondHandover-r17* and *rach-LessHandoverCG-r18*, the UE supports time based RACH-less CHO with configured grant.	Band	No	N/A	N/A
rach-LessHandoverDG-r18 Indicates whether the UE supports RACH-less handover with dynamic grant for SpCell, as specified in TS 38.321 [8]. In this release, FR1-FR2 and FDD-TDD RACH-less handovers with dynamic grant are not supported. For NTN, UE shall set the capability value consistently for all FDD-FR1 NTN bands. For NTN bands, a UE supporting this feature shall also indicate the support of *nonTerrestrialNetwork-r17*. If an NTN UE indicates the support of both *timeBasedCondHandover-r17* and *rach-LessHandoverDG-r18*, the UE supports time based RACH-less CHO with dynamic grant.	Band	No	N/A	N/A
rateMatchingLTE-CRS Indicates whether the UE supports receiving PDSCH with resource mapping that excludes the REs determined by the higher layer configuration LTE-carrier configuring common RS, as specified in TS 38.214 [12].	Band	Yes	N/A	N/A
releaseSPS-MulticastWithCS-RNTI-r17 Indicates whether UE supports unicast PDCCH scrambled with CS-RNTI to release SPS group-common PDSCH. For TN, the UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands and all TDD-FR2 bands, associated with supported shared and non-shared spectrum respectively. For NTN, UE shall set the capability value consistently for all FDD-FR1 NTN bands and all FDD-FR2 NTN bands respectively. A UE that indicates the support of this feature shall indicate support of *sps-Multicast-r17* and *sps-r16.*	Band	No	N/A	N/A

re-LevelRateMatchingForMulticast-r17 Indicates whether the UE supports group-common PDSCH RE-level rate matching for multicast, comprised of the following functional components: - Supports SP ZP-CSI-RS for group-common PDSCH RE-mapping patterns; - Supports P ZP-CSI-RS for group-common PDSCH RE-mapping patterns; - Supports *p-ZP-CSI-RS-ResourceSet* configured in *PDSCH-Config-Multicast* same as or different from the *p-ZP-CSI-RS-ResourceSet* configured in *PDSCH-Config*; - Supports AP ZP-CSI-RS for group-common PDSCH RE-mapping patterns. For TN, the UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands and all TDD-FR2 bands, associated with supported shared and non-shared spectrum respectively. For NTN, UE shall set the capability value consistently for all FDD-FR1 NTN bands and all FDD-FR2 NTN bands respectively. A UE supporting this feature shall also indicate support of *dynamicMulticastPCell-r17*. A UE supporting this feature in FR1 bands shall also indicate support of *pdsch-RE-MappingFR1-PerSymbol* or *pdsch-RE-MappingFR1-PerSlot*. A UE supporting this feature in FR2 bands shall also indicate support of *pdsch-RE-MappingFR2-PerSymbol* or *pdsch-RE-MappingFR2-PerSlot*. NOTE: The total number of semi-persistent ZP-CSI-RS-ResourceSet that a UE can be configured with is the same as for unicast in Rel-16.	Band	No	N/A	N/A
rlm-BM-BFD-CSI-RS-OutsideActiveBWP-r18 Indicates whether the UE supports RLM/BM/BFD measurements based on CSI-RS, when CD-SSB is outside active DL BWP. For the UE that is capable of this feature, the bandwidth of UE-specific RRC configured BWP need not include bandwidth of the CORESET#0 (if CORESET#0 is present) and CD-SSB for PCell; the bandwidth of UE-specific RRC configured BWP need not include bandwidth of the CORESET#0 (if CORESET#0 is present) and SSB indicated by *absoluteFrequencySSB* (either CD-SSB or NCD-SSB) for PSCell (if configured); and the bandwidth of the UE-specific RRC configured BWP need not include CD-SSB for SCell (if configured). The UE also supports CSI-RS within active DL BWP for RLM/BM/BFD measurements can be QCLed with CD-SSB outside active DL BWP but within the bandwidth of the corresponding carrier(s). The UE supporting this feature shall also indicate support of *csi-RS-RLM, beamManagementSSB-CSI-RS* and *maxNumberCSI-RS-BFD*, *maxNumberSSB-BFD*, *maxNumberCSI-RS-SSB-CBD*. The UEs indicating the support of this feature group shall not indicate the support of *bwp-WithoutRestriction*. NOTE: The CD-SSB is still within the bandwidth of the carrier configured by *SCS-SpecificCarrier* of *downlinkChannelBW-PerSCS-List* in *ServingCellConfig*. It is not applicable to RedCap or eRedCap UEs.	Band	No	N/A	N/A
rlm-Relaxation-r17 Indicates whether the UE supports RLM relaxation criteria and requirement as specified in TS 38.133 [5]. UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands, all TDD-FR2-1 bands and all TDD-FR2-2 bands respectively. UE indicating support of this feature shall also indicate support of *ssb-RLM* and/or *csi-RS-RLM.*	Band	No	N/A	N/A

sbfd-Aware-r19 Indicates whether the UE supports SBFD-aware UE TX/RX/measurement behaviour and procedures, including: - Support of cell-common configuration of time and frequency location of SBFD subbands; - Support of UL transmission in one UL subband and DL reception in one/two DL subband in SBFD symbols; - Support of link direction determination based on configured/scheduled transmissions/receptions and collision handling; - Support of UL transmissions or DL receptions across SBFD symbols and non-SBFD symbols in different slots, where the transmissions or receptions are restricted to SBFD symbols or non-SBFD symbols (Configuration 1); - Support of separate CSI reports for SBFD and non-SBFD symbols - Support of separate PUCCH frequency resource configuration in SBFD symbols and non-SBFD symbols; - Support of separate UL power control parameters based on unified TCI framework in SBFD symbols and non-SBFD symbols if UE supports *unifiedJointTCI-PC-association-r17*; - Support of separate PUSCH frequency hopping offset in SBFD symbols and non-SBFD symbols; - Support of separate SRS resource set configuration in SBFD symbols and non-SBFD symbols for RS resource sets with usage codebook, nonCodebook and beamManagement; - Maximum of one DL-UL switching point per SBFD slot for actual DL/UL transmission(s); - Determination of TBS of PDSCH/PUSCH in SBFD symbols. This capability signalling comprises the following parameters: - *numOfPartialPRG-r19* indicates the number of partial PRGs supported; - *timeline-r19* indicates the supported CSI timeline, active CSI-RS ports counting and active CSI-RS resource counting for a single CSI-RS resource across two DL subbands. Value '*full*' indicates the supported CSI timeline with factor-of-two relaxation, value '*partial*' indicates the supported CSI timeline with factor-of-two relaxation for active CSI-RS resource and port counting, value '*no*' indicates the supported CSI timeline with no relaxation. If the UE reporting *timeline-r19* as '*partial'* also reports *l1-CLI-RSSI-MeasAndAperiodicReporting-r19* in the same band, factor-of-two relaxation for active CSI-RS resource and port counting also applies to L1 CLI-RSSI measurement resource counting. The UE optionally includes *sbfd-Rx-r19* to indicate whether the UE supports PDSCH reception across SBFD symbols and non-SBFD symbols in different slots (Configuration 2). The UE optionally includes *sbfd-Tx-r19* to indicate whether the UE supports UL transmission across SBFD symbols and non-SBFD symbols in different slots (Configuration 2). The UE optionally includes *sbfd-OneRACH-r19* to indicate whether the UE supports SBFD random access operation based on one single RACH configuration in RRC_IDLE/INACTIVE/CONNECTED mode (RACH configuration Option 1). The UE also supports Msg 3 repetition with RACH configuration Option 1 when the UE reports *pusch-RepetitionMsg3-r17* in the same band. The UE optionally includes *sbfd-TwoRACH-r19* to indicate whether the UE supports SBFD random access operation based on two separate RACH configurations, including one legacy RACH configuration and one additional RACH configuration in RRC_IDLE/INACTIVE/CONNECTED mode (RACH configuration Option 2), and whether the UE supports valid RO across SBFD and non-SBFD symbols. The UE also supports Msg 3 repetition with RACH configuration Option 2 when the UE reports *pusch-RepetitionMsg3-r17* in the same band. The UE optionally includes *preambleRepetitionOneRACH-r19* to indicate whether the UE supports preamble repetition within additional-ROs for one single RACH configuration in RRC_IDLE/INACTIVE/CONNECTED mode, including: - Determination of the set of $N_{\text{preamble}}^{\text{rep}}$ valid additional-ROs and the time period of the set(s) of $N_{\text{preamble_}}^{\text{rep}}$ valid additional-ROs;	Band	No	TDD only	N/A

- For one single RACH configuration in RRC_IDLE/INACTIVE/CONNECTED mode, support separate configuration of *rsrp-ThresholdMsg1-RepetitionNum2/4/8* for PRACH transmission with preamble repetitions within additional-ROs and PRACH transmission with preamble repetitions within legacy-ROs. A UE supporting *preambleRepetitionOneRACH-r19* shall also indicate support of *sbfd-OneRACH-r19* and *prach-CoverageEnh-r18*. The UE optionally includes *preambleRepetitionTwoRACH-r19* to indicate whether the UE supports preamble repetition within additional-ROs for two separate RACH configurations in RRC_IDLE/INACTIVE/CONNECTED mode, including: - Determination of the set of $N_{\text{preamble}}^{\text{rep}}$ valid additional-ROs and the time period of the set(s) of $N_{\text{preamble_}}^{\text{rep}}$ valid additional-ROs; - For two separate RACH configurations in RRC_IDLE/INACTIVE/CONNECTED mode, support separate configuration of *rsrp-ThresholdMsg1-RepetitionNum2/4/8* and *msg1-RepetitionNum* for PRACH transmission with preamble repetitions within additional-ROs and PRACH transmission with preamble repetitions within legacy-ROs. A UE supporting *preambleRepetitionTwoRACH-r19* shall also indicate support of *sbfd-TwoRACH-r19*.				
searchSpaceSetGrp-switchCap2-r17 Indicates whether UE supports search space set group switching capability 2 for FR1 according to Table 10.4-1 of TS 38.213 [11] for SSSG switching. UE indicating support of this feature shall also indicate support of *sssg-Switching-1bitInd-r17*. NOTE: For UE supporting this feature and also *sssg-Switching-1BitInd-r17*, *sssg-Switching-2BitInd-r17*, and/or *pdcch-SkippingWithSSSG-r17*, search space set group switching Capability-2 is applied to *sssg-Switching-1BitInd-r17*, *sssg-Switching-2BitInd-r17*, and/or *pdcch-SkippingWithSSSG-r17*.	Band	No	N/A	FR1 only
semi-PersistentL1-SINR-Report-PUCCH-r16 Indicates whether the UE supports semi-persistent L1-SINR report on PUCCH. The UE indicating support of this feature shall include at least one of the following capabilities: - *supportReportFormat1-2OFDM-syms-r16* indicates support of report on PUCCH formats over 1 – 2 OFDM symbols once per slot (or piggybacked on a PUSCH) - *supportReportFormat4-14OFDM-syms-r16* indicates support of report on PUCCH formats over 4 – 14 OFDM symbols once per slot (or piggybacked on a PUSCH). The UE indicating support of this feature shall also indicate support of *ssb-csirs-SINR-measurement-r16.*	Band	No	N/A	N/A
semi-PersistentL1-SINR-Report-PUSCH-r16 Indicates whether the UE supports semi-persistent L1-SINR report on PUSCH. The UE indicating support of this feature shall also indicate support of *ssb-csirs-SINR-measurement-r16.*	Band	No	N/A	N/A
separateCRS-RateMatching-r16 Indicates whether the UE supports rate match around configured CRS patterns which is associated with *CORESETPoolIndex* (if configured) and are applied to the PDSCH scheduled with a DCI detected on a CORESET with the same value of *CORESETPoolIndex*. The UE that indicates support of this feature shall support *multiDCI-MultiTRP-r16* and *overlapRateMatchingEUTRA-CRS-r16.* This is only applicable for 15kHz SCS.	Band	No	N/A	FR1 only
sfn-DefaultDL-BeamSetup-r17 Indicates whether the UE supports the following features: - For FR2 only, PDSCH reception using default beam for enhanced SFN scheme when PDSCH is scheduled with offset less than threshold. - For FR1 and FR2, PDSCH reception using default beam for enhanced SFN scheme when TCI field is not present in DCI format 1_0/1_1/1_2 when PDSCH is scheduled with offset equal or larger than the threshold, if applicable. - For FR2 only, aperiodic CSI-RS reception using default beam for enhanced SFN scheme when scheduling offset is less than threshold. The UE indicating support of this feature shall also indicate *sfn-schemeA-r17* or *sfn-schemeB-r17.*	Band	No	N/A	N/A

sfn-DefaultUL-BeamSetup-r17 Indicates whether the UE supports the following features: - Support of single-TRP PUCCH transmission using default beam when enhanced SFN PDCCH transmission scheme is configured. - Support of single-TRP PUSCH transmission using default beam when enhanced SFN PDCCH transmission scheme is configured. - Support of single-TRP SRS resource transmission using default beam when enhanced SFN PDCCH transmission scheme is configured. The UE indicating support of this feature shall also indicate *sfn-schemeA-r17* or *sfn-schemeB-r17* or *sfn-SchemeA-PDCCH-only-r17*.	Band	No	N/A	FR2 only
sfn-ImplicitRS-twoTCI-r17 Indicates whether the UE supports RS(s) with two TCI states configured implicitly for beam failure detection enhancement for HST.	Band	No	N/A	N/A
sfn-QCL-TypeD-Collision-twoTCI-r17 Indicates whether the UE supports identification of two QCL-TypeD properties for multiple overlapping CORESETs when a CORESET is activated with two TCI states which overlaps with another CORESET.	Band	No	N/A	N/A
sfn-SimulTwoTCI-AcrossMultiCC-r17 Indicates whether the UE supports simultaneous activation of two TCI states for CORESETs with the same CORESET ID in all BWPs across a set of configured component carriers by single MAC-CE. The UE indicating support of this feature shall also indicate *sfn-schemeA-r17* or *sfn-schemeB-r17* or *sfn-SchemeA-PDCCH-only-r17*. The UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands, all TDD-FR2-1 bands and all TDD-FR2-2 bands respectively.	Band	No	N/A	N/A
simul-SpatialRelationUpdatePUCCHResGroup-r16 Indicates whether the UE supports PUCCH resource groups per BWP for simultaneous spatial relation update. The UE indicating support of this also indicates the capabilities of supported SRS resources and maximum supported spatial relations for the supported bands using *supportedSRS-Resources, maxNumberConfiguredSpatialRelations* and *pucch-SpatialRelInfoMAC-CE*.	Band	No	N/A	N/A
simulConfigDMRS-DCI-1-3-r18 Indicates whether the UE supports to be configured with both Rel-18 enhanced DL DMRS and DCI format 1_3. A UE supporting this feature shall also indicate support of *pdsch-TypeA-DMRS-r18* and at least one of *multiCell-PDSCH-DCI-1-3-SameSCS-r18* and *multiCell-PDSCH-DCI-1-3-DiffSCS-r18*.	Band	No	N/A	N/A
simulSRS-MIMO-TransWithinBand-r16 Indicates the number of SRS resources for positioning and SRS resource for MIMO on a symbol within a band across multiple CCs. The UE can include this field only if the UE supports *srs-PosResources-r16*. Otherwise, the UE does not include this field.	Band	No	N/A	N/A
simulSRS-TransWithinBand-r16 Indicates the number of SRS resources for positioning on a symbol within a band across multiple CCs. The UE can include this field only if the UE supports *srs-PosResources-r16*. Otherwise, the UE does not include this field.	Band	No	N/A	N/A
simultaneousCSI-SubReportsPerCC-r18 Indicates the number of CSI report(s) for which the UE can measure and process reference signals simultaneously in a CC of the band for which this capability is provided. The CSI report comprises periodic, semi-persistent and aperiodic CSI and any latency classes and codebook types, and includes the beam report, and CSI report without sub-configurations plus CSI sub-report across CSI reports. NOTE 1: UE shall report the value in this capability being equal to or larger than that in *simultaneousCSI-ReportsPerCC*. NOTE 2: UE supporting at least one of *spatialAdaptation-CSI-Feedback-r18, spatialAdaptation-CSI-FeedbackPUSCH-r18, spatialAdaptation-CSI-FeedbackAperiodic-r18, spatialAdaptation-CSI-FeedbackPUCCH-r18, powerAdaptation-CSI-Feedback-r18, powerAdaptation-CSI-FeedbackPUSCH-r18, powerAdaptation-CSI-FeedbackAperiodic-r18,* and *powerAdaptation-CSI-FeedbackPUCCH-r18* shall report this feature. A UE supporting this feature shall also indicate support of *csi-ReportFramework*.	Band	No	N/A	N/A
simultaneousReceptionDiffTypeD-r16 Indicates whether the UE supports simultaneous reception with different QCL Type D reference signal as specified in TS 38.213 [11].	Band	No	N/A	FR2 only

simultaneousReceptionTwoQCL-r18 Indicates whether the UE supports enhanced RF requirement to support FR2-1 PC6 UEs with simultaneous DL signals reception with two different QCL TypeD RSs and enhanced RRM requirement to support FR2-1 PC6 UEs with simultaneous DL signals reception associated with two different QCL TypeD RSs. This feature is applied when *highSpeedDeploymentTypeFR2-r17* is configured by network as bidirectional. A UE supporting this feature shall also indicate support of PC6 in *ue-PowerClass-v1700*.	Band	No	N/A	FR2 only
simulTX-SRS-AntSwitchingIntraBandUL-CA-r16 Indicates whether the UE support simultaneous transmission of SRS on different CCs for intra-band UL CA. The UE indicating support of this feature shall include at least one of the following capabilities: - *supportSRS-xTyR-xLessThanY-r16* indicates support transmission of SRS for xTyR (x<y) based antenna switching and SRS for CB/NCB/BM on different CCs in overlapped symbol(s) for intra-band UL CA. - *supportSRS-xTyR-xEqualToY-r16* indicates support transmission of SRS for xTyR (x=y) based antenna switching and SRS for CB/NCB/BM on different CCs in overlapped symbol(s) for intra-band UL CA. - *supportSRS-AntennaSwitching-r16* Indicates whether the UE support simultaneous transmission of SRS for antenna switching on different CCs in overlapped symbol(s) for intra-band UL CA. NOTE: For simultaneously antenna switching and antenna switching SRS in intra-band CAs with bands whose UL are switched together according to the reported *supportSRS-AntennaSwitching-r16*, the UE expects the same configuration of xTyR across the different CCs and the SRS resources overlapped in time domain from UE perspective are from the same UE antenna ports.	Band	No	N/A	N/A
sn-InitiatedCondPSCellChangeNRDC-r17 Indicates whether the UE supports SN initiated inter-SN conditional PSCell change in NR-DC, which is configured by NR *conditionalReconfiguration* using SN configured measurement as triggering condition. The UE supporting this feature shall also support 2 trigger events for same execution condition in SN initiated inter-SN conditional PSCell change in NR-DC. UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands and all TDD-FR2 bands respectively.	Band	No	N/A	N/A

spatialAdaptation-CSI-Feedback-r18 Indicates whether the UE supports spatial domain adaptation with CSI feedback based on CSI report sub-configuration(s) for periodic CSI reporting and single-panel type 1 codebook. This capability signalling comprises the following parameters: - *csiFeedbackType-r18* indicates CSI feedback based on CSI report sub-configuration(s), each containing one port subset configuration/list of CSI-RS resource IDs for periodic CSI reporting. Value *sdType1* indicates support of SD-type1, value *sdType2* indicates support of SD-type2, value *both* indicates support of both SD-type1 and SD-type2. If a UE reports *sdType1* or *both*, the UE shall also indicate support of *powerAdaptation-CSI-Feedback-r18* and *jointPowerSpatialAdaptation-r18*; NOTE 1: SD-type1 refers to all sub-configurations that contain one port subset. NOTE 2: SD-type2 refers to all sub-configurations that contain list of CSI-RS resource IDs. - *maxNumberLmax-r18* indicates the max number of sub-configurations Lmax in one CSI report configuration; - *maxNumberCSI-ResourcePerCC-r18* indicates the maximum number of simultaneous NZP-CSI-RS resources per CC for SD-type 1 and/or SD-type 2. - *maxNumberTotalCSI-ResourcePerCC-r18* indicates the maximum number of total CSI-RS ports in simultaneous NZP-CSI-RS resources per CC for SD-type 1 and/or SD-type 2. - *totalNumberCSI-Reporting-r18* indicates total number of periodic CSI reporting settings without sub-configurations plus the total number of sub-configurations across periodic CSI report settings with sub-configurations per BWP. NOTE 3: For *maxNumberCSI-ResourcePerCC-r18* and *maxNumberTotalCSI-ResourcePerCC-r18*, NZP-CSI-RS resource and CSI-RS ports are counted for reporting settings with and without sub-configurations. NOTE 4: If a UE reports more than one capability from *spatialAdaptation-CSI-Feedback-r18, spatialAdaptation-CSI-FeedbackPUSCH-r18, spatialAdaptation-CSI-FeedbackAperiodic-r18, spatialAdaptation-CSI-FeedbackPUCCH-r18, powerAdaptation-CSI-Feedback-r18, powerAdaptation-CSI-FeedbackPUSCH-r18, powerAdaptation-CSI-FeedbackAperiodic-r18, powerAdaptation-CSI-FeedbackPUCCH-r18* and if the UE is configured with CSI report settings with sub-configurations corresponding to a subset of the above reported features, then the supported maximum of NZP-CSI-RS resources/ports across all periodic, semi-persistent, aperiodic CSI report settings with sub-configurations corresponding to all of spatial and power domain adaptations and without sub-configurations is determined by the minimum of the reported values from that subset. NOTE 5: If a UE reports both *spatialAdaptation-CSI-Feedback-r18* and *powerAdaptation-CSI-Feedback-r18*, and if the UE is configured with CSI report settings with sub-configurations corresponding to both *spatialAdaptation-CSI-Feedback-r18* and *powerAdaptation-CSI-Feedback-r18*, then the supported total number of periodic CSI reporting settings without sub-configurations plus the total number of sub-configurations across periodic CSI report settings with sub-configurations per BWP is determined by the minimum of the reported values from both *spatialAdaptation-CSI-Feedback-r18* and *powerAdaptation-CSI-Feedback-r18*. NOTE 6: If a UE reports *both* for *csiFeedbackType-r18* and if the UE is configured with both CSI report setting(s) with sub-configurations corresponding to SD-type 1 and CSI report setting(s) with sub-configurations corresponding to SD-type 2, the supported total number of NZP-CSI-RS resources/ports for *maxNumberCSI-ResourcePerCC-r18* and *maxNumberTotalCSI-ResourcePerCC-r18* in *spatialAdaptation-CSI-Feedback-r18* and *maxNumberCSI-ResourceAcrossCC* and *maxNumberTotalCSI-ResourceAcrossCC-r18* in *spatialAdaptation-CSI-FeedbackPerBC-r18* is determined by the minimum of the reported values between SD-type 1 and SD-type 2.	Band	No	N/A	N/A

NOTE 7: If CSI report configuration in active BWP of a CC includes report setting(s) with sub-configurations, values reported in this capability for the number of simultaneous NZP-CSI-RS resources and ports per CC are used for the CC instead of values reported in *csi-RS-IM-ReceptionForFeedback*. If CSI report configuration in active BWP of any CC includes report setting(s) with sub-configurations, values reported in this capability for the number of simultaneous NZP-CSI-RS resources and ports across all CCs are used instead of values reported in *csi-RS-IM-ReceptionForFeedback*. NOTE 8: For *totalNumberCSI-Reporting-r18*, if CSI report configuration in a BWP includes report setting(s) with sub-configurations, a value reported in this capability for the number of CSI reporting settings is used for the BWP instead of a value reported in *csi-ReportFramework*. A UE indicating support of this feature shall also indicate support of *csi-ReportFramework* and *spatialAdaptation-CSI-FeedbackPerBC-r18*.				

spatialAdaptation-CSI-FeedbackAperiodic-r18 Indicates whether the UE supports spatial domain adaptation with CSI feedback based on CSI report sub-configuration(s) for aperiodic CSI reporting and single-panel type 1 codebook. This capability signalling comprises the following parameters: - *csiFeedbackType-r18* indicates CSI feedback based on CSI report sub-configuration(s), each containing one port subset configuration/list of CSI-RS resource IDs for periodic CSI reporting. Value *sdType1* indicates support of SD-type1, value *sdType2* indicates support of SD-type2, value *both* indicates support of both SD-type1 and SD-type2. If a UE reports *sdType1* or *both*, the UE shall also indicate support of *powerAdaptation-CSI-FeedbackAperiodic-r18* and *jointPowerSpatialAdaptation-r18*; NOTE 1: SD-type1 refers to all sub-configurations that contain one port subset. NOTE 2: SD-type2 refers to all sub-configurations that contain list of CSI-RS resource IDs. - *maxNumberLmax-r18* indicates the max number of sub-configurations Lmax in one CSI report configuration; - *subReportCSI-r18* indicates N number of report of CSI sub-report(s) included in one SP-CSI report where each CSI sub-report corresponds to one sub-configuration. - *maxNumberCSI-ResourcePerCC-r18* indicates the maximum number of simultaneous NZP-CSI-RS resources per CC for SD-type 1 and/or SD-type 2. - *maxNumberTotalCSI-ResourcePerCC-r18* indicates the maximum number of total CSI-RS ports in simultaneous NZP-CSI-RS resources per CC for SD-type 1 and/or SD-type 2. - *totalNumberCSI-Reporting-r18* indicates total number of aperiodic CSI reporting settings without sub-configurations plus the total number of sub-configurations across aperiodic CSI report settings with sub-configurations per BWP. NOTE 3: For *maxNumberCSI-ResourcePerCC-r18* and *maxNumberTotalCSI-ResourcePerCC-r18*, NZP-CSI-RS resource and CSI-RS ports are counted for reporting settings with and without sub-configurations. NOTE 4: If a UE reports more than one capability from *spatialAdaptation-CSI-Feedback-r18, spatialAdaptation-CSI-FeedbackPUSCH-r18, spatialAdaptation-CSI-FeedbackAperiodic-r18, spatialAdaptation-CSI-FeedbackPUCCH-r18, powerAdaptation-CSI-Feedback-r18, powerAdaptation-CSI-FeedbackPUSCH-r18, powerAdaptation-CSI-FeedbackAperiodic-r18, powerAdaptation-CSI-FeedbackPUCCH-r18* and if the UE is configured with CSI report settings with sub-configurations corresponding to a subset of the above reported features, then the supported maximum of NZP-CSI-RS resources/ports across all periodic, semi-persistent, aperiodic CSI report settings with sub-configurations corresponding to all of spatial and power domain adaptations and without sub-configurations is determined by the minimum of the reported values from that subset. NOTE 5: If a UE reports both *spatialAdaptation-CSI-FeedbackAperiodic-r18* and *powerAdaptation-CSI-FeedbackAperiodic-r18*, and if the UE is configured with CSI report settings with sub-configurations corresponding to both *spatialAdaptation-CSI-FeedbackAperiodic-r18* and *powerAdaptation-CSI-FeedbackAperiodic-r18*, then the supported total number of aperiodic CSI reporting settings without sub-configurations plus the total number of sub-configurations across aperiodic CSI report settings with sub-configurations per BWP is determined by the minimum of the reported values from both *spatialAdaptation-CSI-FeedbackAperiodic-r18* and *powerAdaptation-CSI-FeedbackAperiodic-r18*. NOTE 6: If a UE reports *both* for *csiFeedbackType-r18* and if the UE is configured with both CSI report setting(s) with sub-configurations corresponding to SD-type 1 and CSI report setting(s) with sub-configurations corresponding to SD-type 2, the supported total number of NZP-CSI-RS resources/ports for *maxNumberCSI-ResourcePerCC-r18* and *maxNumberTotalCSI-ResourcePerCC-r18* in *spatialAdaptation-CSI-Feedback-r18* and *maxNumberCSI-ResourceAcrossCC* and *maxNumberTotalCSI-ResourceAcrossCC-r18* in *spatialAdaptation-CSI-FeedbackPerBC-r18* is determined by the minimum of the reported values between SD-type 1 and SD-type 2.	Band	No	N/A	N/A

NOTE 7: If CSI report configuration in active BWP of a CC includes report setting(s) with sub-configurations, values reported in this capability for the number of simultaneous NZP-CSI-RS resources and ports per CC are used for the CC instead of values reported in *csi-RS-IM-ReceptionForFeedback*. If CSI report configuration in active BWP of any CC includes report setting(s) with sub-configurations, values reported in this capability for the number of simultaneous NZP-CSI-RS resources and ports across all CCs are used instead of values reported in *csi-RS-IM-ReceptionForFeedback*. NOTE 8: For *totalNumberCSI-Reporting-r18*, if CSI report configuration in a BWP includes report setting(s) with sub-configurations, a value reported in this capability for the number of CSI reporting settings is used for the BWP instead of a value reported in *csi-ReportFramework*. A UE indicating support of this feature shall also indicate support of *csi-ReportFramework* and *spatialAdaptation-CSI-FeedbackAperiodicPerBC-r18*.				

spatialAdaptation-CSI-FeedbackPUCCH-r18 Indicates whether the UE supports spatial domain adaptation with CSI feedback based on CSI report sub-configuration(s) for semi-persistent CSI reporting on PUCCH (or piggybacked on PUSCH) and single-panel type 1 codebook. This capability signalling comprises the following parameters: - *csiFeedbackType-r18* indicates the support of CSI feedback based on CSI report sub-configuration(s), each containing one port subset configuration/list of CSI-RS resource IDs for semi-persistent CSI reporting on PUCCH (or piggybacked on PUSCH). Value *sdType1* indicates support of SD-type1, value *sdType2* indicates support of SD-type2, value *both* indicates support of both SD-type1 and SD-type2. If a UE reports *sdType1* or *both*, the UE shall also indicate support of *powerAdaptation-CSI-FeedbackPUCCH-r18* and *jointPowerSpatialAdaptation-r18*; NOTE 3: SD-type1 refers to all sub-configurations that contain one port subset. NOTE 4: SD-type2 refers to all sub-configurations that contain list of CSI-RS resource IDs. - *maxNumberLmax-r18* indicates the max number of sub-configurations Lmax in one CSI report configuration; - *subReportCSI-r18* indicates N number of report of CSI sub-report(s) included in one SP-CSI report where each CSI sub-report corresponds to one sub-configuration; - *maxNumberCSI-ResourcePerCC-r18* indicates the maximum number of simultaneous NZP-CSI-RS resources per CC for SD-type 1 and/or SD-type 2; - *maxNumberTotalCSI-ResourcePerCC-r18* indicates the maximum number of total CSI-RS ports in simultaneous NZP-CSI-RS resources per CC for SD-type 1 and/or SD-type 2; - *totalNumberCSI-Reporting-r18* indicates total number of semi-persistent CSI reporting settings without sub-configurations plus the total number of sub-configurations across semi-persistent CSI report settings with sub-configurations per BWP. NOTE 5: For *maxNumberCSI-ResourcePerCC-r18* and *maxNumberTotalCSI-ResourcePerCC-r18*, NZP-CSI-RS resource and CSI-RS ports are counted for reporting settings with and without sub-configurations. NOTE 6: If a UE reports more than one capability from *spatialAdaptation-CSI-Feedback-r18, spatialAdaptation-CSI-FeedbackPUSCH-r18, spatialAdaptation-CSI-FeedbackAperiodic-r18, spatialAdaptation-CSI-FeedbackPUCCH-r18, powerAdaptation-CSI-Feedback-r18, powerAdaptation-CSI-FeedbackPUSCH-r18, powerAdaptation-CSI-FeedbackAperiodic-r18, powerAdaptation-CSI-FeedbackPUCCH-r18* and if the UE is configured with CSI report settings with sub-configurations corresponding to a subset of the above reported features, then the supported maximum of NZP-CSI-RS resources/ports across all periodic, semi-persistent, aperiodic CSI report settings with sub-configurations corresponding to all of spatial and power domain adaptations and without sub-configurations is determined by the minimum of the reported values from that subset. NOTE 7: If a UE reports more than one capability from *spatialAdaptation-CSI-FeedbackPUSCH-r18*, *spatialAdaptation-CSI-FeedbackPUCCH-r18*, *powerAdaptation-CSI-FeedbackPUSCH-r18* and *powerAdaptation-CSI-FeedbackPUCCH-r18* and if the UE is configured with CSI report settings with sub-configurations corresponding to a subset of the reported features, then the supported total number of semi-persistent CSI reporting settings without sub-configurations plus the total number of sub-configurations across semi-persistent CSI report settings with sub-configurations per BWP is determined by the minimum of the reported values from that subset. NOTE 8: If CSI report configuration in active BWP of a CC includes report setting(s) with sub-configurations, values reported in this capability for the number of simultaneous NZP-CSI-RS resources and ports per CC are used for the CC instead of values reported in *csi-RS-IM-ReceptionForFeedback*. If CSI report configuration in active BWP of any CC includes report setting(s) with sub-configurations, values reported in this capability for the number of simultaneous NZP-CSI-RS resources	Band	No	N/A	N/A

and ports across all CCs are used instead of values reported in *csi-RS-IM-ReceptionForFeedback*. NOTE 9: For *totalNumberCSI-Reporting-r18*, if CSI report configuration in a BWP includes report setting(s) with sub-configurations, a value reported in this capability for the number of CSI reporting settings is used for the BWP instead of a value reported in *csi-ReportFramework*. A UE indicating support of this feature shall also indicate support of *csi-ReportFramework, sp-CSI-ReportPUCCH* and *spatialAdaptation-CSI-FeedbackPUCCH-PerBC-r18.* NOTE 1: Void NOTE 2: Void				

spatialAdaptation-CSI-FeedbackPUSCH-r18 Indicates whether the UE supports spatial domain adaptation with CSI feedback based on CSI report sub-configuration(s) for semi-persistent CSI reporting on PUSCH and single-panel type 1 codebook. This capability signalling comprises the following parameters: - *csiFeedbackType-r18* indicates CSI feedback based on CSI report sub-configuration(s), each containing one port subset configuration/list of CSI-RS resource IDs for semi-persistent CSI reporting on PUSCH. Value *sdType1* indicates support of SD-type1, value *sdType2* indicates support of SD-type2, value *both* indicates support of both SD-type1 and SD-type2. If a UE reports *sdType1* or *both*, the UE shall also indicate support of *powerAdaptation-CSI-FeedbackPUSCH-r18* and *jointPowerSpatialAdaptation-r18*; NOTE 1: SD-type1 refers to all sub-configurations that contain one port subset. NOTE 2: SD-type2 refers to all sub-configurations that contain list of CSI-RS resource IDs. - *maxNumberLmax-r18* indicates the max number of sub-configurations Lmax in one CSI report configuration; - *subReportCSI-r18* indicates N number of report of CSI sub-report(s) included in one SP-CSI report where each CSI sub-report corresponds to one sub-configuration; - *maxNumberCSI-ResourcePerCC-r18* indicates the maximum number of simultaneous NZP-CSI-RS resources per CC; - *maxNumberTotalCSI-ResourcePerCC-r18* indicates the maximum number of total CSI-RS ports in simultaneous NZP-CSI-RS resources per CC; - *totalNumberCSI-Reporting-r18* indicates total number of semi-persistent CSI reporting settings without sub-configurations plus the total number of sub-configurations across semi-persistent CSI report settings with sub-configurations per BWP. NOTE 3: For *maxNumberCSI-ResourcePerCC-r18* and *maxNumberTotalCSI-ResourcePerCC-r18*, NZP-CSI-RS resource and CSI-RS ports are counted for reporting settings with and without sub-configurations. NOTE 4: If a UE reports more than one capability from *spatialAdaptation-CSI-Feedback-r18, spatialAdaptation-CSI-FeedbackPUSCH-r18, spatialAdaptation-CSI-FeedbackAperiodic-r18, spatialAdaptation-CSI-FeedbackPUCCH-r18, powerAdaptation-CSI-Feedback-r18, powerAdaptation-CSI-FeedbackPUSCH-r18, powerAdaptation-CSI-FeedbackAperiodic-r18, powerAdaptation-CSI-FeedbackPUCCH-r18* and if the UE is configured with CSI report settings with sub-configurations corresponding to a subset of the above reported features, then the supported maximum of NZP-CSI-RS resources/ports across all periodic, semi-persistent, aperiodic CSI report settings with sub-configurations corresponding to all of spatial and power domain adaptations and without sub-configurations is determined by the minimum of the reported values from that subset. NOTE 5: If a UE reports more than one capability from *spatialAdaptation-CSI-FeedbackPUSCH-r18*, *spatialAdaptation-CSI-FeedbackPUCCH-r18*, *powerAdaptation-CSI-FeedbackPUSCH-r18* and *powerAdaptation-CSI-FeedbackPUCCH-r18* and if the UE is configured with CSI report settings with sub-configurations corresponding to a subset of the reported capabilities, then the supported total number of semi-persistent CSI reporting settings without sub-configurations plus the total number of sub-configurations across semi-persistent CSI report settings with sub-configurations per BWP is determined by the minimum of the reported values from that subset. NOTE 6: If CSI report configuration in active BWP of a CC includes report setting(s) with sub-configurations, values reported in this capability for the number of simultaneous NZP-CSI-RS resources and ports per CC are used for the CC instead of values reported in *csi-RS-IM-ReceptionForFeedback*. If CSI report configuration in active BWP of any CC includes report setting(s) with sub-configurations, values reported in this capability for the number of simultaneous NZP-CSI-RS resources and ports across all CCs are used instead of values reported in *csi-RS-IM-ReceptionForFeedback*. NOTE 7: For *totalNumberCSI-Reporting-r18*, if CSI report configuration in a BWP includes report setting(s) with sub-configurations, a value reported in this	Band	No	N/A	N/A

capability for the number of CSI reporting settings is used for the BWP instead of a value reported in *csi-ReportFramework*. A UE indicating support of this feature shall also indicate support of *csi-ReportFramework*, *sp-CSI-ReportPUSCH* and *spatialAdaptation-CSI-FeedbackPUSCH-PerBC-r18.*				
spatialRelations, spatialRelations-v1640 Indicates whether the UE supports spatial relations. The capability signalling comprises the following parameters. - *maxNumberConfiguredSpatialRelations* indicates the maximum number of configured spatial relations per CC for PUCCH and SRS. It is not applicable to FR1 and applicable to FR2 only. The UE is mandated to report 16 or higher values. *maxNumberConfiguredSpatialRelations-v1640* indicates the maximum number of configured spatial relations per CC for PUCCH and SRS with UE supporting the configuration of maximum 64 PUCCH spatial relations per BWP per CC; - *maxNumberActiveSpatialRelations* indicates the maximum number of active spatial relations with regarding to PUCCH and SRS for PUSCH, per BWP per CC. It is not applicable to FR1 and applicable and mandatory to report one or higher value for FR2 only; - *additionalActiveSpatialRelationPUCCH* indicates support of one additional active spatial relation for PUCCH. It is mandatory with capability signalling if *maxNumberActiveSpatialRelations* is set to n1; - *maxNumberDL-RS-QCL-TypeD* indicates the maximum number of downlink RS resources used for QCL type D in the active TCI states and active spatial relation information, which is optional. The UE is mandated to report *spatialRelations* for FR2. if *maxNumberConfiguredSpatialRelations-v1640* is reported, UE shall report value *n96* in *maxNumberConfiguredSpatialRelations*.	Band	FD	N/A	FD

spatialRelationsSRS-Pos-r16 Indicates whether the UE supports spatial relations for SRS for positioning. The capability signalling comprises the following parameters. - *spatialRelation-SRS-PosBasedOnSSB-Serving-r16* indicates whether the UE supports spatial relation for SRS for positioning based on SSB from the serving cell in the same band. The UE can include this field only if the UE supports *srs-PosResources-r16*. Otherwise, the UE does not include this field; - *spatialRelation-SRS-PosBasedOnCSI-RS-Serving-r16* indicates whether the UE supports spatial relation for SRS for positioning based on CSI-RS from the serving cell in the same band. The UE can include this field only if the UE supports *spatialRelation-SRS-PosBasedOnSSB-Serving-r16*. Otherwise, the UE does not include this field; - *spatialRelation-SRS-PosBasedOnPRS-Serving-r16* indicates whether the UE supports spatial relation for SRS for positioning based on PRS from the serving cell in the same band. The UE can include this field only if the UE supports any of DL PRS Resources for DL AoD, DL PRS Resources for DL-TDOA or DL PRS Resources for Multi-RTT defined in TS 37.355 [22], or *srs-PosResources-r16*. Otherwise, the UE does not include this field; - *spatialRelation-SRS-PosBasedOnSRS-r16* indicates whether the UE supports spatial relation for SRS for positioning based on SRS in the same band. The UE can include this field only if the UE supports *srs-PosResources-r16*. Otherwise, the UE does not include this field; - *spatialRelation-SRS-PosBasedOnSSB-Neigh-r16* indicates whether the UE supports spatial relation for SRS for positioning based on SSB from the neighbouring cell in the same band. The UE can include this field only if the UE supports *spatialRelation-SRS-PosBasedOnSSB-Serving-r16*. Otherwise, the UE does not include this field; - *spatialRelation-SRS-PosBasedOnPRS-Neigh-r16* indicates whether the UE supports spatial relation for SRS for positioning based on PRS from the neighbouring cell in the same band. The UE can include this field only if the UE supports *spatialRelation-SRS-PosBasedOnPRS-Serving-r16*. Otherwise, the UE does not include this field; NOTE: A PRS from a PRS-only TP is treated as PRS from a non-serving cell.	Band	No	N/A	FR2 only

spatialRelationsSRS-PosRRC-Inactive-r17 Indicates whether the UE supports spatial relations for SRS for positioning in RRC_INACTIVE. The capability signalling comprises the following parameters: - *spatialRelation-SRS-PosBasedOnSSB-Serving-r16* indicates whether the UE supports spatial relation for SRS for positioning based on SSB from the serving cell in the same band. The UE indicating support of this feature shall also indicate support of *srs-PosResourcesRRC-Inactive-r17*; - *spatialRelation-SRS-PosBasedOnCSI-RS-Serving-r16* indicates whether the UE supports spatial relation for SRS for positioning based on CSI-RS from the serving cell in the same band. The UE indicating support of this feature shall also indicate support of *spatialRelation-SRS-PosBasedOnSSB-Serving-r16*; - *spatialRelation-SRS-PosBasedOnPRS-Serving-r16* indicates whether the UE supports spatial relation for SRS for positioning based on PRS from the serving cell in the same band. The UE indicating support of this feature shall also indicate support any of DL PRS Resources for DL AoD, DL PRS Resources for DL-TDOA or DL PRS Resources for Multi-RTT defined in TS 37.355 [22], or *srs-PosResourcesRRC-Inactive-r17*; - *spatialRelation-SRS-PosBasedOnSRS-r16* indicates whether the UE supports spatial relation for SRS for positioning based on SRS in the same band. The UE indicating support of this feature shall also indicate support of *srs-PosResourcesRRC-Inactive-r17*; - *spatialRelation-SRS-PosBasedOnSSB-Neigh-r16* indicates whether the UE supports spatial relation for SRS for positioning based on SSB from the neighbouring cell in the same band. The UE indicating support of this feature shall also indicate support of *spatialRelation-SRS-PosBasedOnSSB-Serving-r16*; - *spatialRelation-SRS-PosBasedOnPRS-Neigh-r16* indicates whether the UE supports spatial relation for SRS for positioning based on PRS from the neighbouring cell in the same band. The UE indicating support of this feature shall also indicate support of *spatialRelation-SRS-PosBasedOnPRS-Serving-r16*. NOTE: A PRS from a PRS-only TP is treated as PRS from a non-serving cell.	Band	No	N/A	FR2 only
sp-BeamReportPUCCH Indicates support of semi-persistent 'CRI/RSRP' or 'SSBRI/RSRP' reporting using PUCCH formats 2, 3 and 4 in one slot.	Band	No	N/A	N/A
sp-BeamReportPUSCH Indicates support of semi-persistent 'CRI/RSRP' or 'SSBRI/RSRP' reporting on PUSCH.	Band	No	N/A	N/A
spCell-TAG-Ind-r18 Indicates whether the UE supports indicating one of two TAG IDs configured in the SpCell via absolute TA command MAC CE. A UE supporting this feature shall also indicate support of *multiDCI-IntraCellMultiTRP-TwoTA-r18* or *multiDCI-InterCellMultiTRP-TwoTA-r18*.	Band	No	N/A	N/A
sps-MulticastDCI-Format4-2-r17 Indicates whether the UE supports transmission and retransmission scheduled by DCI format 4_2 with CRC scrambled with G-CS-RNTI for multicast SPS scheduling. A UE that indicates support of this feature shall indicate support of *sps-Multicast-r17*.	Band	No	N/A	N/A

sps-MulticastMultiConfig-r17 Indicates whether the UE supports up to 8 SPS group-common PDSCH configurations per CFR for multicast on PCell. The value indicates the maximum number of activated SPS group-common PDSCH configurations per CFR for multicast. The total number of SPS configurations for both multicast and unicast is no larger than 8 in a BWP of a serving cell. The total number of SPS configurations for both multicast and unicast in a cell group is no larger than 32. For TN, the UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands and all TDD-FR2 bands, associated with supported shared and non-shared spectrum respectively. For NTN, UE shall set the capability value consistently for all FDD-FR1 NTN bands and all FDD-FR2 NTN bands respectively. A UE that indicates support of this feature shall indicate support of *sps-Multicast-r17*.	Band	No	N/A	N/A
sps-r16 Indicates whether the UE support of up to 8 configured SPS configurations in a BWP of a serving cell and up to 32 configured SPS configurations in a cell group. This field includes the following parameters: - *maxNumberConfigsPerBWP-r16* indicates the maximum number of active SPS configurations in a BWP of a serving cell. - *maxNumberConfigsAllCC-r16* indicates the maximum number of active SPS configurations across all serving cells in a MAC entity, and across MCG and SCG in case of NR-DC. The UE can include this feature only if the UE indicates support of *downlinkSPS*. NOTE: - For all the reported bands in FR1, a same X1 value is reported for *maxNumberConfigsAllCC-r16*. For all the reported bands in FR2, a same X2 value is reported for *maxNumberConfigsAllCC-r16*. - The total number of active SPS configurations across all serving cells in FR1 is no greater than X1. - The total number of active SPS configurations across all serving cells in FR2 is no greater than X2. - If the CA have some serving cell(s) in FR1 and some serving cell(s) in FR2, the total number of active SPS configurations across all serving cells is no greater than max(X1, X2).	Band	No	N/A	N/A
sr-TriggeredSSSG-Switching-r19 Indicates whether the UE supports to start PDCCH monitoring according to search space sets with a designated group index and to stop PDCCH monitoring according to search space sets with a group index other than the designated SSSG index from the first slot that is at least P_{switch} symbols after the last symbol of a PUCCH carrying an SR, if the UE is instructed to monitor PDCCH according to search space sets with the SSSG index other than the designated SSSG index before the transmission of PUCCH carrying the SR. NOTE: P_{switch} symbols is specified in Table 10.4-1 of TS 38.213 [11]. The UE supporting this feature shall also indicate the support of *sssg-Switching-1BitInd-r17.*	Band	No	N/A	N/A
srs-AssocCSI-RS Parameters for the calculation of the precoder for SRS transmission based on channel measurements using associated NZP CSI-RS resource (srs-AssocCSI-RS) as described in clause 6.1.1.2 of TS 38.214 [12]. UE supporting this feature shall also indicate support of non-codebook based PUSCH transmission. This capability signalling includes list of the following parameters: - *maxNumberTxPortsPerResource* indicates the maximum number of Tx ports in a resource; - *maxNumberResourcesPerBand* indicates the maximum number of resources across all CCs within a band simultaneously; - *totalNumberTxPortsPerBand* indicates the total number of Tx ports across all CCs within a band simultaneously.	Band	No	N/A	N/A

srs-combEight-r17 Indicates whether the UE supports comb-8 for SRS other than for positioning.	Band	No	N/A	N/A
srs-combOffsetCombinedGroupSequence-r18 Indicates whether the UE supports SRS comb offset hopping combined with group/sequence hopping. The UE supporting this feature shall also indicate the support of *srs-combOffsetHopping-r18*.	Band	No	N/A	N/A
srs-combOffsetHopping-r18 Indicates whether the UE supports SRS comb offset hopping. The UE supporting this feature shall also indicate the support of *supportedSRS-Resources.*	Band	No	N/A	N/A
srs-combOffsetHoppingWithinSubset-r18 Indicates whether the UE supports configuration of subset of comb offsets for comb offset hopping. A UE supporting this feature shall also indicate support of *srs-combOffsetHopping-r18*.	Band	No	N/A	N/A
srs-combOffsetInTime-r18 Indicates whether the UE supports comb offset hopping granularity in time when repetition factor R>1 is configured. Value *srs* indicates the granularity is per SRS symbol, value *rsrs* indicates the granularity is per R SRS symbols, value *both* indicates both of per SRS symbol and per R SRS symbols are supported. The UE supporting this feature shall also indicate the support of *srs-combOffsetHopping-r18*.	Band	No	N/A	N/A
srs-cyclicShiftCombinedCombOffset-r18 Indicates whether the UE supports SRS cyclic shift hopping combined SRS comb offset hopping. The UE supporting this feature shall also indicate the support of *srs-combOffsetHopping-r18* and *srs-cyclicShiftHopping-r18*.	Band	No	N/A	N/A
srs-cyclicShiftCombinedGroupSequence-r18 Indicates whether the UE supports SRS cyclic shift hopping combined with group/sequence hopping. The UE supporting this feature shall also indicate the support of *srs-cyclicShiftHopping-r18*.	Band	No	N/A	N/A
srs-cyclicShiftHopping-r18 Indicates whether the UE supports SRS cyclic shift hopping. A UE supporting this feature shall also indicate support of *supportedSRS-Resources*.	Band	No	N/A	N/A
srs-cyclicShiftHoppingSmallGranularity-r18 Indicates whether the UE supports configuration of cyclic shift hopping with smaller granularity (with factor K=2). A UE supporting this feature shall also indicate the support *srs-cyclicShiftHopping-r18*.	Band	No	N/A	N/A
srs-increasedRepetition-r17 Indicates whether the UE supports increased repetition patterns (8, 10, 12, 14 symbols) for SRS resource. The UE supporting this feature shall also indicate the support of *srs-StartAnyOFDM-Symbol-r16*.	Band	No	N/A	N/A
srs-partialFreqSounding-r17 Indicates the support of partial frequency sounding for SRS for non-frequency hopping case. The UE indicating support of this feature shall also indicate the support of *srs-partialFrequencySounding-r17*.	Band	No	N/A	N/A
srs-partialFrequencySounding-r17 Indicates whether the UE supports partial frequency sounding for SRS with frequency hopping.	Band	No	N/A	N/A
srs-PortReport-r17 Indicates the maximum number of SRS ports for each UE reported quantity in *reportQuantity-r17*.	Band	No	N/A	N/A
srs-PortReportSP-AP-r17 Indicates that the UE supports the maximum number of SRS ports with semi-persistent/aperiodic capability value reporting. The UE supporting this feature shall also indicate support of *srs-PortReport-r17* and one of *aperiodicBeamReport*, *sp-BeamReportPUCCH*, *sp-BeamReportPUSCH, ssb-csirs-SINR-measurement-r16, semi-PersistentL1-SINR-Report-PUCCH-r16* or *semi-PersistentL1-SINR-Report-PUSCH-r16.*	Band	No	N/A	N/A

srs-PosResourcesRRC-Inactive-r17 Indicates support of positioning SRS transmission in RRC_INACTIVE for initial UL BWP. The capability signalling comprises the following parameters: - *maxNumberSRS-PosResourceSetPerBWP-r17* Indicates the max number of SRS Resource Sets for positioning supported by UE*;* - *maxNumberSRS-PosResourcesPerBWP-r17* indicates the max number of P/SP SRS Resources for positioning; - *maxNumberSRS-ResourcesPerBWP-PerSlot-r17* indicates the max number of P/SP SRS Resources for positioning per slot; - *maxNumberPeriodicSRS-PosResourcesPerBWP-r17* indicates the max number of periodic SRS Resources for positioning; - *maxNumberPeriodicSRS-PosResourcesPerBWP-PerSlot-r17* indicates the max number of periodic SRS Resources for positioning per slot. NOTE: OLPC for SRS for positioning based on SSB from the last serving cell (the cell that releases UE from connection) is part of this feature. No dedicated capability signalling is intended for this component	Band	No	N/A	N/A
srs-SemiPersistent-PosResourcesRRC-Inactive-r17 Indicates support of positioning SRS transmission in RRC_INACTIVE for initial UL BWP with semi-persistent SRS. UE indicating support of this feature shall indicate support of *srs-PosResourcesRRC-Inactive-r17*. The capability signalling comprises the following parameters: - *maxNumOfSemiPersistentSRSposResources-r17* indicates the max number of semi-persistent SRS Resources for positioning; - *maxNumOfSemiPersistentSRSposResourcesPerSlot-r17* indicates the max number of semi-persistent SRS Resources for positioning per slot.	Band	No	N/A	N/A
srs-startRB-locationHoppingPartial-r17 Indicates whether the UE supports start RB location hopping in partial frequency SRS transmission across different SRS frequency hopping periods for periodic/semi-persistent/aperiodic SRS. The UE supporting this feature shall also indicate the support of *srs-partialFrequencySounding-r17.*	Band	No	N/A	N/A
srs-TPC-CLPC-AdjustmentState-r19 Indicates whether the UE supports using DCI format 1_1 to indicate TPC command for SRS associated with a separate SRS CLPC adjustment state. A UE supporting this feature shall also indicate *support of twoSRS-PwrControlAdjust-r19*.	Band	No	N/A	N/A
srs-TriggeringDCI-r17 Indicates whether the UE supports triggering SRS in DCI 0_1/0_2 without data and without CSI.	Band	No	N/A	N/A
srs-TriggeringOffset-r17 Indicates the maximum number of configured available slots offsets for determining aperiodic SRS location based on available slot.	Band	No	N/A	N/A
ssb-BurstPeriodicityAdaptation-r19 Indicates whether the UE supports adaptation of SSB burst periodicity for SCell by DCI format 2_9. NOTE: The SSB for this feature is not cell defining SSB.	Band	No	N/A	N/A
ssb-PeriodicityAddition-r19 Indicates whether the UE supports additional default value (apart from 20 ms value) of 160ms periodicity of the half frames with SS/PBCH blocks during initial cell selection. This feature is only applicable for bands in Tables 5.2.2-1 and 5.2.3-1 in TS 38.101-5 [34].	Band	No	N/A	N/A

ssb-csirs-SINR-measurement-r16 Indicates the limitations of the UE support of SSB/CSI-RS for L1-SINR measurement. This capability signalling includes list of the following parameters: Per slot limitations: - *maxNumberSSB-CSIRS-OneTx-CMR-r16* indicates the maximum number of SSB/CSI-RS (1TX) across all CCs within a band for Channel Measurement Report - *maxNumberCSI-IM-NZP-IMR-res-r16* indicates the maximum number of CSI-IM/NZP-IMR resources across all CCs within a band - maxNumberCSIRS-2Tx-res-r16 indicates the maximum number of CSI-RS (2TX) resources across all CCs within a band for Channel Measurement Report Memory limitations: - *maxNumberSSB-CSIRS-res-r16* indicates the max number of SSB/CSI-RS resources across all CCs within a band as Channel Measurement Report - *maxNumberCSI-IM-NZP-IMR-res-mem-r16* indicates the maximum number of CSI-IM/NZP-IMR resources across all CCs within a band Other limitations: - *supportedCSI-RS-Density-CMR-r16* indicates supported density of CSI-RS for Channel Measurement Report. - *maxNumberAperiodicCSI-RS-Res-r16* indicates the maximum number of aperiodic CSI-RS resources across all CCs within a band configured to measure L1-SINR (including CMR and IMR) - *supportedSINR-meas* indicates the supported SINR measurements. - *supportedSINR-meas-r16* contains values {*ssbWithCSI-IM*, *ssbWithNZP-IMR*, *csirsWithNZP-IMR*, *csi-RSWithoutIMR*} representing {SSB as CMR with dedicated CSI-IM, SSB as CMR with dedicated NZP IMR, CSI-RS as CMR with dedicated NZP IMR configured, CSI-RS as CMR without dedicated IMR configured}. - *supportedSINR-meas-v1670* indicates a 4-bit bitmap {ssbWithCSI-IM, ssbWithNZP-IMR, csirsWithNZP-IMR, csi-RSWithoutIMR}, where the leftmost bit corresponds to ssbWithCSI-IM, the next bit corresponds to ssbWithNZP-IMR and so on. UE indicating *supportedSINR-meas-v1670* shall always indicate *supportedSINR-meas-r16.* UE supporting this feature shall also indicate support of CSI-RS as CMR with dedicated CSI-IM. UE indicating support of this feature shall also indicate support of *periodicBeamReport* and *aperiodicBeamReport* or *sp-BeamReportPUCCH* and *sp-BeamReportPUSCH.* UE indicating support of *ssb-csirs-SINR-measurement-r16* shall support periodic and aperiodic L1-SINR report. NOTE 1: The reference slot duration is the shortest slot duration defined for the frequency range where the reported band belongs. NOTE 2: For *maxNumberSSB-CSIRS-res-r16* and *maxNumberCSI-IM-NZP-IMR-res-mem-r16* the configured CSI-RS resources for both active and inactive BWPs are counted. NOTE 3: For *maxNumberSSB-CSIRS-OneTx-CMR-r16, maxNumberCSI-IM-NZP-IMR-res-r16* and *maxNumberCSIRS-2Tx-res-r16*, CSI-RS resources configured as CMR without dedicated IMR are counted both as CMR and IMR. NOTE 4: For *maxNumberSSB-CSIRS-OneTx-CMR-r16*, *maxNumberCSI-IM-NZP-IMR-res-r16*, *maxNumberCSIRS-2Tx-res-r16*, *maxNumberAperiodicCSI-RS-Res-r16*, a SSB/CSI-RS resource is counted within the duration of a reference slot in which the corresponding reference signals are transmitted. NOTE 5: For *maxNumberSSB-CSIRS-OneTx-CMR-r16*, *maxNumberCSI-IM-NZP-IMR-res-r16*, *maxNumberCSIRS-2Tx-res-r16*, *maxNumberAperiodicCSI-RS-Res-r16*, if one resource used for L1-SINR measurement is referred N times by one or more CSI reporting settings with *reportQuantity-r16* = *ssb-Index-SINR-r16* or *cri-SINR-r16*, it is counted N times. NOTE 6: If more than one type of SINR measurement is indicated in *supportedSINR-meas-v1670*, it is left to UE implementation which SINR measurement to indicate in *supportedSINR-meas-r16*.	Band	No	N/A	N/A

sssg-Switching-1BitInd-r17 Indicates whether the UE supports 1-bit indication of SSSG switching between 2 SSSGs by scheduling DCI, and timer based SSSG switching, if *pdcch-SkippingDurationList* is not configured as specified in TS 38.213 [11], clause 10.4. UE supports search space set group switching capability-1 according to Table 10.4-1 of TS 38.213 [11].	Band	No	N/A	N/A
sssg-Switching-2BitInd-r17 Indicates whether the UE supports 2-bit indication of SSSG switching among 3 SSSGs by scheduling DCI and timer based SSSG switching, if *pdcch-SkippingDurationList* is not configured as specified in TS 38.213 [11], clause 10.4. UE supports search space set group switching capability-1 according to Table 10.4-1 of TS 38.213 [11]. UE indicating support of this feature shall also indicate support of *sssg-Switching-1bitInd-r17*.	Band	No	N/A	N/A
support12PRB-CORESET0-r18 Indicates whether the UE supports reception of 12 PRB CORESET0 with an associated SS/PBCH block that is located according to Table 5.4.3.1-2 in TS 38.101-1 [2]. A UE supporting this feature shall also indicate support of *support3MHz-ChannelBW-Symmetric-r18*. This feature is supported for 15kHz SCS only. This feature is not applicable to UEs indicating *supportOfRedCap-r17* or *supportOfERedCap-r18*. NOTE: The UE supporting this capability supports configuration of 12 PRB BWP operation.	Band	No	FDD only	FR1 only
support3MHz-ChannelBW-Asymmetric-r18 Indicates whether the UE supports 3 MHz channel bandwidth in uplink with larger than 3 MHz channel BW in DL, including short RACH preamble formats with 15kHz SCS, and long PRACH formats with 1.25kHz SCS. This feature is supported for 15kHz SCS only (except for the PRACH formats with 1.25kHz SCS). It applies to bands where the UE indicates support for *asymmetricBandwidthCombinationSet* with 3 MHz UL according to clause 5.3.6 of TS 38.101-1 [2] for TN or clause 5.3.6 of TS 38.101-5 [34] for NTN. For NTN bands, a UE supporting this feature shall also indicate the support of *nonTerrestrialNetwork-r17*. This feature is not applicable to UEs indicating *supportOfRedCap-r17* or *supportOfERedCap-r18*. NOTE 1: The UE supporting this feature supports configuration of 15 PRB UL BWP operation. NOTE 2: If the UE indicates support in *asymmetricBandwidthCombinationSet* for a 3MHz UL in a band according to clause 5.3.6 of 38.101-1 [2] for TN or clause 5.3.6 of 38.101-5 [34] for NTN, this feature shall be indicated for the band.	Band	No	FDD only	FR1 only
support3MHz-ChannelBW-Symmetric-r18 Indicates whether the UE supports 3 MHz symmetric channel bandwidth in DL and UL, including the following functional components: - Reception of 12 PRB PBCH based on RB-level puncturing; - Short RACH preamble formats with 15kHz SCS, and long PRACH formats with 1.25kHz SCS; - Reception of 15 PRB CORESET0. This feature is supported for 15kHz SCS only (except for the PRACH formats with 1.25kHz SCS). It is applicable when an associated SS/PBCH block is located according to Table 5.4.3.3-2 in TS 38.101-1 [2] for TN or Table 5.4.3.3-1a of TS 38.101-5 [34] for NTN. For NTN bands, a UE supporting this feature shall also indicate the support of *nonTerrestrialNetwork-r17*. This feature is not applicable to UEs indicating *supportOfRedCap-r17* or *supportOfERedCap-r18*. NOTE: The UE supporting this capability supports configuration of 15 PRB BWP operation in DL and UL.	Band	No	FDD only	FR1 only

support64CandidateBeamRS-BFR-r16 Indicates UE support of configuring maximum 64 candidate beam RSs per BWP per CC. UE indicating support of this feature shall also indicate support of *maxNumberCSI-RS-BFD, maxNumberSSB-BFD* and *maxNumberCSI-RS-SSB-CBD.*	Band	No	N/A	N/A
supportCodeWordSoftCombining-r16 Indicates whether UE supports codeword soft combining for FDMSchemeB. UE indicates support of this feature depends on whether the *supportFDM-SchemeB-r16* is also supported.	Band	No	N/A	N/A
supportFDM-SchemeA-r16 Indicates whether UE supports single DCI based FDMSchemeA.	Band	No	N/A	N/A
supportInter-slotTDM-r16 Indicates whether UE supports single-DCI based inter-slot TDM. This capability signalling includes the following: - *supportRepNumPDSCH-TDRA-r16* indicates support of *repetitionNumber-r16* in *PDSCH-TimeDomainResourceAllocation-r16* and the maximum value of *repetitionNumber-r16* - *maxTBS-Size-r16* indicates maximum TBS size. - *maxNumberTCI-states-r16* indicates the maximum number of TCI states.	Band	No	N/A	N/A
supportNewDMRS-Port-r16 Indicates whether UE supports new DMRS port entry {0,2,3}. UE supports this feature should indicate support *singleDCI-SDM-scheme-r16* for the band.	Band	No	N/A	N/A
supportOf2RxXR-r18 Indicates that the UE is 2Rx XR UE as specified in TS 38.101-1 [2] (see "two antenna port XR UE"). A UE reporting this parameter shall not indicate support of *supportOfRedCap-r17* or *supportOfERedCap-r18*.	Band	No	N/A	N/A
supportRepNumPDSCH-TDRA-DCI-1-2-r17 Indicates support of *repetitionNumber-v1730* in *PDSCH-TimeDomainResourceAllocation* for DCI format 1_2 and the maximum value of *repetitionNumber-v1730*. The UE indicating support of this field shall also indicate support of *dci-Format1-2And0-2-r16*.	Band	No	N/A	N/A
supportTDM-SchemeA-r16 Indicates whether UE supports single DCI based TDMSchemeA. The capability signalling includes the maximum TBS size.	Band	No	N/A	N/A
supportTwoPortDL-PTRS-r16 Indicates whether UE supports 2-port DL PT-RS. UE supports this feature should indicate support *singleDCI-SDM-scheme-r16* for the band.	Band	No	N/A	N/A
ta-BasedPDC-NTN-SharedSpectrumChAccess-r17 Indicates whether the UE supports propagation delay compensation based on Rel-15 TA procedure for NTN and shared spectrum channel access.	Band	No	N/A	N/A
ta-IndicationCellSwitch-r18 Indicates whether the UE supports TA indication in cell switch command. A UE supporting this feature shall also indicate support of at least one of *ltm-MCG-IntraFreq-r18* or *ltm-SCG-IntraFreq-r18*. For cross-band operation, this capability refers to the source band.	Band	No	N/A	N/A
tb-ProcessingMultiSlotPUSCH-r17 Indicates whether UE supports TB processing over multi-slot PUSCH for DG and Type 2 CG without repetition in RRC connected mode.	Band	No	N/A	N/A
tb-ProcessingRepMultiSlotPUSCH-r17 Indicates whether UE supports repetition of TB processing over multi-slot PUSCH in RRC connected mode. UE supporting this feature shall also indicate support of *tb-ProcessingMultiSlotPUSCH-r17*.	Band	No	N/A	N/A

tci-StatePDSCH Defines support of TCI-States for PDSCH. The capability signalling comprises the following parameters: - *maxNumberConfiguredTCI-StatesPerCC* indicates the maximum number of configured TCI-states per CC for PDSCH. For FR2, the UE is mandated to set the value at least to 64 (i.e. value 128 is an optional value). For FR1, the UE is mandated to set these values at least to the maximum number of allowed SSBs in the supported band; - *maxNumberActiveTCI-PerBWP* indicates the maximum number of activated TCI-states per BWP per CC, including control and data. If a UE reports X active TCI state(s), it is not expected that more than X active QCL type D assumption(s) for any PDSCH and any CORESETs for a given BWP of a serving cell become active for the UE. The UE shall include this field. NOTE: the UE is required to track only the active TCI states. The UE is mandated to report *tci-StatePDSCH*.	Band	Yes	N/A	N/A
tci-StateSwitchInd-r18 Indicates whether the UE supports enhanced one-shot large UL transmit timing adjustment requirement to support FR2-1 PC6 Ues and enhanced TCI state switching delay requirements based on [the cross-RRH TCI state indication for UE-specific PDCCH MAC CE] in HST FR2 scenario, as specified in TS 38.133 [5]. A UE supporting this feature shall also indicate support of PC6 in *ue-PowerClass-v1700*.	Band	No	N/A	FR2 only
tci-JointTCI-UpdateMultiActiveTCI-PerCC-r18 Indicates whether the UE supports unified TCI with joint DL/UL TCI update for single-DCI based intra-cell multi-TRP with multiple activated TCI codepoints per CC. The capability signalling comprises the following parameters: - *tci-StateInd-r18* indicates TCI state indication for update and activation. Value *withAssignment* corresponds to MAC-CE+DCI-based TCI state indication (use of monitored DCI formats 1_1 and if supported 1_2) with DL assignment, value *withoutAssignment* corresponds to MAC-CE+DCI-based TCI state indication (use of monitored DCI formats 1_1 and if supported 1_2) without DL assignment; - *maxNumberActiveJointTCI-PerCC-r18* indicates the maximum number of activated joint TCI states per CC. A UE supporting this feature shall also indicate support *tci-JointTCI-UpdateSingleActiveTCI-PerCC-r18* and *unifiedJointTCI-multiMAC-CE-r17*. NOTE: *defaultQCL-TwoTCI-r16* can be used to indicate support of two default beams	Band	No	N/A	N/A
tci-JointTCI-UpdateMultiActiveTCI-PerCC-PerCORESET-r18 Indicates whether the UE supports unified TCI with joint DL/UL TCI update for multi-DCI based multi-TRP with multiple activated TCI codepoints per *CORESETPoolIndex* per CC. The capability indicates the maximum number of MAC-CE activated joint TCI states per *CORESETPoolIndex* per CC. The TCI state indication for update and activation includes: - MAC-CE+DCI-based TCI state indication (use of monitored DCI formats 1_1 and if supported 1_2) with DL assignment; - MAC-CE+DCI-based TCI state indication (use of monitored DCI formats 1_1 and if supported 1_2) without DL assignment. A UE supporting this feature shall also indicate support of *tci-JointTCI-UpdateSingleActiveTCI-PerCC-PerCORESET-r18* and *unifiedJointTCI-multiMAC-CE-r17*.	Band	No	N/A	N/A
tci-JointTCI-UpdateSingleActiveTCI-PerCC-r18 Indicates whether the UE supports unified TCI with joint DL/UL TCI update for single-DCI based intra-cell multi-TRP with single activated TCI codepoint per CC. The capability signalling comprises the following parameters: - *maxNumberConfigJointTCIPerCC-PerBWP-r18* indicates the maximum number of configured joint TCI states per CC per BWP; - *maxNumberActiveJointTCI-AcrossCC-r18* indicates the maximum number of activated joint TCI states across all CCs in a band. A UE supporting this feature shall also indicate support of *unifiedJointTCI-r17*. NOTE: *defaultQCL-TwoTCI-r16* can be used to indicate support of two default beams.	Band	No	N/A	N/A

tci-JointTCI-UpdateSingleActiveTCI-PerCC-PerCORESET-r18 Indicates whether the UE supports unified TCI with joint DL/UL TCI update for multi-DCI based multi-TRP with single activated TCI codepoint per *CORESETPoolIndex* per CC. A UE supporting this feature supports one MAC-CE activated joint TCI-states per CC in a band for a TRP associated with a '*coresetPoolIndex*' value. The capability signalling comprises the following parameters: - *mTRP-Operation-r18* indicates mTRP operation for M-DCI with joint TCI state; - *maxNumberConfigJointTCIPerCC-PerBWP-r18* indicates the maximum number of configured joint TCI states per BWP per CC; - *maxNumberActiveJointTCIAcrossCC-PerCORESET-r18* indicates the maximum number of activated joint TCI states across all CCs in a band per '*coresetPoolIndex*' value. A UE supporting this feature shall also indicate support of *unifiedJointTCI-r17*. NOTE 1: Activated joint TCI state(s) include all PDCCH/PDSCH receptions and PUSCH/PUCCH transmissions. NOTE 2: *defaultQCL-PerCORESETPoolIndex-r16* can be used to indicate support of two default beams.	Band	No	N/A	N/A
tci-SelectionAperiodicCSI-RS-r18 Indicates whether the UE supports per aperiodic CSI-RS resource/resource set configuration for TCI selection in S-DCI based MTRP. The UE supporting this feature shall also indicate support of *tci-JointTCI-UpdateSingleActiveTCI-PerCC-r18.* NOTE: When the UE supports NCJT CSI under *mTRP-CSI-EnhancementPerBand-r17* or CJT CSI under *twoTCI-StatePDSCH-CJT-TxScheme-r18*, UE is expected to support "*per resource*" when the corresponding NCJT CSI or CJT CSI is configured.	Band	No	N/A	N/A
tci-SelectionAperiodicCSI-RS-M-DCI-r18 Indicates whether the UE supports per aperiodic CSI-RS resource/resource set configuration for TCI selection in M-DCI based MTRP. The UE supporting this feature shall also indicate support of *tci-JointTCI-UpdateSingleActiveTCI-PerCC-PerCORESET-r18*.	Band	No	N/A	N/A
tci-SelectionDCI-r18 Indicates whether the UE supports DCI format 1_1 and if supported 1_2 configured with TCI selection field. The UE supporting this feature shall also indicate support of at least one of *tci-JointTCI-UpdateSingleActiveTCI-PerCC-r18, tci-JointTCI-UpdateMultiActiveTCI-PerCC-r18*, *tci-SeparateTCI-UpdateSingleActiveTCI-PerCC-r18,* and *tci-SeparateTCI-UpdateMultiActiveTCI-PerCC-r18*.	Band	No	N/A	N/A
tci-SeparateTCI-UpdateMultiActiveTCI-PerCC-r18 Indicates whether the UE supports unified TCI with separate DL/UL TCI update for single-DCI based intra-cell multi-TRP with multiple activated TCI codepoints per CC. TCI state indication for update and activation includes: - MAC-CE+DCI-based TCI state indication (use of monitored DCI formats 1_1 and if supported 1_2) with DL assignment; - MAC-CE+DCI-based TCI state indication (use of monitored DCI formats 1_1 and if supported 1_2) without DL assignment. The capability signalling comprises the following parameters: - *maxNumActiveDL-TCI-AcrossCC-r18* indicates the maximum number of activated DL TCI states across all CCs in a band. - *maxNumActiveUL-TCI-AcrossCC-r18* indicates the maximum number of activated UL TCI states across all CCs in a band. The UE supporting this feature shall also indicate support of *tci-SeparateTCI-UpdateSingleActiveTCI-PerCC-r18.* NOTE: *defaultQCL-TwoTCI-r16* can be used to indicate support of two default beams.	Band	No	N/A	N/A

tci-SeparateTCI-UpdateMultiActiveTCI-PerCC-PerCORESET-r18 Indicates whether the UE supports unified TCI with separate DL/UL TCI update for multi-DCI based multi-TRP with multiple activated TCI codepoints per *CORESETPoolIndex* per CC. TCI state indication for update and activation includes: - MAC-CE+DCI-based TCI state indication (use of monitored DCI formats 1_1 and if supported 1_2) with DL assignment; - MAC-CE+DCI-based TCI state indication (use of monitored DCI formats 1_1 and if supported 1_2) without DL assignment. The capability signalling comprises the following parameters: - *maxNumConfigDL-TCI-PerCC-PerBWP-r18* indicates the maximum number of activated DL TCI states per *CORESETPoolIndex* per CC per BWP; - *maxNumConfigUL-TCI-PerCC-PerBWP-r18* indicates the maximum number of activated UL TCI states per *CORESETPoolIndex* per CC per BWP. A UE supporting this feature shall also indicate support of *tci-SeparateTCI-UpdateSingleActiveTCI-PerCC-PerCORESET-r18* and *unifiedSeparateTCI-multiMAC-CE-r17*.	Band	No	N/A	N/A
tci-SeparateTCI-UpdateSingleActiveTCI-PerCC-r18 Indicates whether the UE supports unified TCI with separate DL/UL TCI update for single-DCI based intra-cell multi-TRP with single activated TCI codepoint per CC. The capability signalling comprises the following parameters: - *maxNumConfigDL-TCI-PerCC-PerBWP-r18* indicates the maximum number of configured DL TCI states per CC per BWP; - *maxNumConfigUL-TCI-PerCC-PerBWP-r18* indicates the maximum number of configured UL TCI states per CC per BWP; - *maxNumActiveDL-TCI-AcrossCC-r18* indicates the maximum number of activated DL TCI states across all CCs in a band; - *maxNumActiveUL-TCI-AcrossCC-r18* indicates the maximum number of activated UL TCI states across all CCs in a band. A UE supporting this feature shall also indicate support of *tci-JointTCI-UpdateSingleActiveTCI-PerCC-r18* and *unifiedSeparateTCI-r17*. NOTE: *defaultQCL-TwoTCI-r16* can be used to indicate support of two default beams	Band	No	N/A	N/A
tci-SeparateTCI-UpdateSingleActiveTCI-PerCC-PerCORESET-r18 Indicates whether the UE supports unified TCI with separate DL/UL TCI update for multi-DCI based multi-TRP with single activated TCI codepoint per *CORESETPoolIndex* per CC. A UE supporting this feature supports one MAC-CE activated DL TCI-state per CC in a band for a TRP associated with a '*coresetPoolIndex*' value and one MAC-CE activated UL TCI-state per CC in a band for a TRP associated with a '*coresetPoolIndex*' value. The capability signalling comprises the following parameters: - *mTRP-Operation-r18* indicates the mTRP operation for M-DCI with separate DL/UL TCI state; - *maxNumConfigDL-TCI-PerCC-PerBWP-r18* indicates the maximum number of configured DL TCI states per CC per BWP; - *maxNumConfigUL-TCI-PerCC-PerBWP-r18* indicates the maximum number of configured UL TCI states per CC per BWP; - *maxNumActiveDL-TCI-AcrossCC-r18* indicates the maximum number of activated DL TCI states across all CCs in a band; - *maxNumActiveUL-TCI-AcrossCC-r18* indicates the maximum number of activated UL TCI states across all CCs in a band. A UE supporting this feature shall also indicate support of *tci-JointTCI-UpdateSingleActiveTCI-PerCC-PerCORESET-r18* and *unifiedSeparateTCI-r17.*	Band	No	N/A	N/A
tci-TRP-BFR-r18 Indicates whether the UE supports TRP-specific BFR with unified TCI framework with unified TCI. A UE supporting this feature shall also indicate support of *mTRP-BFR-twoBFD-RS-Set-r17*.	Band	No	N/A	N/A

tdcp-Report-r18 Indicates whether the UE supports Y=1 delay value for TDCP report and amplitude report. The UE also supports to configure K_{TRS} = 1 TRS resource set. This capability signalling comprises the following parameters: - *valueX-r18* indicates CPU occupation (O_{CPU}=(Y+1)*X); - *maxNumberActiveResource-r18* indicates the index *N* of the maximum number of simultaneously active CSI-RS resources for TDCP across all CCs within a band. The maximum number of simultaneously active CSI-RS resources for TDCP across all CCs within a band is *N**2, where *N* = {2..32}. A UE supporting this feature shall also indicate support of *csi-ReportFramework* and *simultaneousCSI-ReportsAllCC.* NOTE: Counting of simultaneously active CSI-RS resources follows existing specification TS 38.214 [12].	Band	No	N/A	N/A
tdcp-Resource-r18 Indicates the number of CSI-RS resources for TDCP that the UE supports. This capability signalling comprises the following parameters: - *maxNumberConfigPerCC-r18* indicates the maximum number of configured CSI-RS resources for TDCP per CC. - *maxNumberConfigAcrossCC-r18* indicates the index *N* the maximum number of configured CSI-RS resources for TDCP across all CCs within a band. The maximum number of configured CSI-RS resources for TDCP across all CCs within a band is *N**2, where *N* = {1..32}. - *maxNumberSimultaneousPerCC-r18* indicates the maximum number of simultaneously active CSI-RS resources for TDCP per CC. A UE supporting this feature shall indicate support of *tdcp-Report-r18*. NOTE: Counting of simultaneously active CSI-RS resources follows existing specification TS 38.214 [12].	Band	No	N/A	N/A
thresholdBasedMulticastResume-r18 Indicates whether the UE supports *thresholdMBS-List-r18* as specified in TS 38.331 [9]. A UE supporting this feature shall also indicate support of *multicastInactive-r18*.	Band	No	N/A	N/A
timeBasedCondHandover-r17 Indicates whether the UE supports time based conditional handover, i.e., *CondEvent T1* as specified in TS 38.331 [9]. A UE supporting this feature shall also indicate the support of *condHandover-r16* for NTN bands and the support of *nonTerrestrialNetwork-r17*. UE shall set the capability value consistently for all FDD-FR1 NTN bands and all FDD-FR2 NTN bands respectively. The inter-band time based conditional handover is supported only if the UE sets the capability value for the source PCell and the target PCell bands.	Band	No	N/A	N/A
timelineRelax-CJT-CSI-r18 Indicates whether the UE supports timeline relaxation parameter for regular eType-II-CJT CSI, or for port selection FeType-II-CJT CSI. Value *n0* indicates 0, value *n2* indicates Z2. A UE supporting this feature shall also indicate support of *eType2CJT-r18* or *feType2CJT-r18*. NOTE: A UE that supports *eType2CJT-r18* or *feType2CJT-r18* must signal this feature.	Band	CY	N/A	N/A
timelineRelax-CJTC-Dd-eType2CJT-r19 Indicates whether the UE supports relaxed timeline for joint triggering of coherent joint transmission calibration delay offset and eType-II CJT, i.e., $D_{relax} = d_{relax.}$ If UE does not support this feature, $D_{relax} = 0$. A UE supporting this feature shall also indicate support of *linked-CJTC-Dd-eType2CJT-Joint-r19*.	Band	No	N/A	N/A
timeRestriction128Port-r19 Indicates whether the UE supports 4 CSI-RS resources configured within two slots for extended Type-I and Type II codebook for up to 128 ports. A UE supporting this feature shall also indicate support of at least one of *enhType1SP64PortsSchemeA-r19*, *enhType1SP64PortsSchemeB-r19*, *enhType1MP64Ports-r19*, *eType2-64PortExt-r19*, *feType2-64PortExt-r19* and *eType2Doppler-64PortExt-r19*.	Band	No	N/A	N/A

triggeredHARQ-CodebookRetx-r17 Indicates whether the UE supports triggered HARQ-ACK codebook re-transmission from an earlier PUCCH slot based on the triggering information in DCI format 1_1 and DCI format 1_2 (for a UE supporting DCI format 1_2 as indicated in dci-Format1-2And0-2-r16) and support the related PHY priority handling in terms of HARQ-ACK codebook selection and the applicable PUCCH configuration (for a UE supporting two HARQ-ACK codebooks / PUCCH config as indicated in twoHARQ-ACK-Codebook-type1-r16). The capability signalling comprises the following parameters: - *minHARQ-Retx-Offset-r17* indicates minimum value for the HARQ re-tx offset. Value *n-7* corresponds to -7, value *n-5* corresponds to -5, and so on. - *maxHARQ-Retx-Offset-r17* indicates maximum value for the HARQ re-tx offset. NOTE: The minimum requirement for *minHARQ-Retx-Offset-r17* and *maxHARQ-Retx-Offset-r17* is valid for HARQ CBs consisted of HARQ Processes with a single HARQ bit per HARQ Process ID.	Band	No	N/A	N/A
triggeredHARQ-CodebookRetxDCI-1-3-r18 Indicates whether the UE supports triggered HARQ-ACK codebook re-transmission from an earlier PUCCH slot based on the triggering information in DCI format 1_3 and supports the related PHY priority handling in terms of HARQ-ACK codebook selection and the applicable PUCCH configuration (for a UE supporting two HARQ-ACK codebooks / PUCCH config in *simultaneous-2-1-HARQ-ACK-CB-r18*). The capability signalling comprises the following parameters: - *minHARQ-Retx-Offset-r18* indicates minimum value for the HARQ re-tx offset. Value *n-7* corresponds to -7, value *n-5* corresponds to -5, and so on. If the UE also supports *triggeredHARQ-CodebookRetx-r17*, the same values as *minHARQ-Retx-Offset-r17* is reported. - *maxHARQ-Retx-Offset-r18* indicates maximum value for the HARQ re-tx offset. If the UE also supports *triggeredHARQ-CodebookRetx-r17*, the same values as *maxHARQ-Retx-Offset-r17* is reported. A UE supporting this feature shall also indicate support of at least one of *multiCell-PDSCH-DCI-1-3-SameSCS-r18* and *multiCell-PDSCH-DCI-1-3-DiffSCS-r18*. NOTE: The minimum requirement for *minHARQ-Retx-Offset-r18* and *maxHARQ-Retx-Offset-r18* is valid for HARQ CBs consisting of HARQ Processes with a single HARQ bit per HARQ Process ID.	Band	No	N/A	N/A
triggeredHARQ-CodebookRetxDCI-1-3-Diff-r19 Indicates whether the UE supports triggered HARQ-ACK codebook re-transmission from an earlier PUCCH slot based on the triggering information in DCI format 1_3 and supports the related PHY priority handling in terms of HARQ-ACK codebook selection and the applicable PUCCH configuration (for a UE supporting two HARQ-ACK codebooks / PUCCH config in *simultaneous-2-1-HARQ-ACK-CB-Diff-r19*) with different SCS and/or different carrier type. The capability signalling comprises the following parameters: - *minHARQ-Retx-Offset-r19* indicates minimum value for the HARQ re-tx offset. Value *n-7* corresponds to -7, value *n-5* corresponds to -5, and so on. If the UE also supports *triggeredHARQ-CodebookRetx-r17*, the same value as *minHARQ-Retx-Offset-r17* is reported. - *maxHARQ-Retx-Offset-r19* indicates maximum value for the HARQ re-tx offset. If the UE also supports *triggeredHARQ-CodebookRetx-r17*, the same value as *maxHARQ-Retx-Offset-r17* is reported. A UE supporting this feature shall also indicate support of *multiCell-PDSCH-DCI-1-3-DiffSCS-Diff-r19*. NOTE: The minimum requirement for *minHARQ-Retx-Offset-r19* and *maxHARQ-Retx-Offset-r19* is valid for HARQ CBs consisting of HARQ Processes with a single HARQ bit per HARQ Process ID.	Band	No	N/A	N/A
trs-AdditionalBandwidth-r16 Indicates the UE supported TRS bandwidths, in addition to 52 RBs, for a 10MHz UE channel bandwidth. This field only applies for the BWPs configured with 52 RBs size and 15kHz SCS, in FDD bands. Value *trs-AddBW-Set1* indicates 28, 32, 36, 40, 44, 48 RBs. Value *trs-AddBW-Set2* indicates 32, 36, 40, 44, 48 RBs.	Band	No	FDD only	FR1 only

twoHARQ-ACK-CodebookForUnicastAndMulticast-r17 Indicates whether the UE supports two HARQ-ACK codebooks simultaneously constructed for supporting HARQ-ACK codebooks with different priorities for unicast and multicast at a UE. For TN, the UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands and all TDD-FR2 bands, associated with supported shared and non-shared spectrum respectively. For NTN, UE shall set the capability value consistently for all FDD-FR1 NTN bands and all FDD-FR2 NTN bands respectively. A UE supporting this feature shall also indicate support of *priorityIndicatorInDCI-Multicast-r17*.	Band	No	N/A	N/A
twoPHR-Reporting-r18 Indicates whether the UE supports two PHR reporting related to STx2P. A UE supporting this feature shall also indicate support of at least one of *pusch-CB-SingleDCI-STx2P-SDM-r18, pusch-NonCB-SingleDCI-STx2P-SDM-r18, pusch-CB-SingleDCI-STx2P-SFN-r18, pusch-NonCB-SingleDCI-STx2P-SFN-r18, twoPUSCH-CB-MultiDCI-STx2P-DG-DG-r18,* and *twoPUSCH-NonCB-MultiDCI-STx2P-DG-DG-r18*. NOTE: If gNB does not configure corresponding RRC parameter for this feature, UE will report a PHR for an actual PUSCH transmission and PHR for the first indicated TCI state or PHR associated with *coresetPoolIndex0* is reported if actual PUSCH transmission is based on STx2P schemes.	Band	No	N/A	FR2 only
twoPortsPTRS-UL Defines whether UE supports PT-RS with 2 antenna ports for UL transmission.	Band	No	N/A	N/A
twoPUSCH-CB-MultiDCI-STx2P-CG-CG-r18 Indicates whether the UE supports multi-DCI based STx2P CG-PUSCH+CG-PUSCH. A UE supporting this feature shall also indicate support of *twoPUSCH-CB-MultiDCI-STx2P-DG-DG-r18*.	Band	No	N/A	FR2 only
twoPUSCH-CB-MultiDCI-STx2P-CG-DG-r18 Indicates whether the UE supports multi-DCI based STx2P DG-PUSCH+CG-PUSCH. A UE supporting this feature shall also indicate support of *twoPUSCH-CB-MultiDCI-STx2P-DG-DG-r18*.	Band	No	N/A	FR2 only
twoPUSCH-CB-MultiDCI-STx2P-FullTimeFullFreqOverlap-r18 Indicates whether the UE supports fully overlapping PUSCHs in time and fully overlapping in frequency for codebook multi-DCI based STx2P PUSCH+PUSCH. A UE supporting this feature shall also indicate support of *twoPUSCH-CB-MultiDCI-STx2P-DG-DG-r18*.	Band	No	N/A	FR2 only
twoPUSCH-CB-MultiDCI-STx2P-FullTimePartialFreqOverlap-r18 Indicates whether the UE supports fully overlapping PUSCHs in time and partially overlapping in frequency for codebook multi-DCI based STx2P PUSCH+PUSCH. A UE supporting this feature shall also indicate support of *twoPUSCH-CB-MultiDCI-STx2P-DG-DG-r18*.	Band	No	N/A	FR2 only
twoPUSCH-CB-MultiDCI-STx2P-PartialTimeFullFreqOverlap-r18 Indicates whether the UE supports partially overlapping PUSCHs in time and fully overlapping in frequency for codebook multi-DCI based STx2P PUSCH+PUSCH. A UE supporting this feature shall also indicate support of *twoPUSCH-CB-MultiDCI-STx2P-DG-DG-r18*.	Band	No	N/A	FR2 only
twoPUSCH-CB-MultiDCI-STx2P-PartialTimeNonFreqOverlap-r18 Indicates whether the UE supports the partially overlapping PUSCHs in time, non-overlapping in frequency for codebook multi-DCI based STx2P PUSCH+PUSCH. A UE supporting this feature shall also indicate support of *twoPUSCH-CB-MultiDCI-STx2P-DG-DG-r18*.	Band	No	N/A	FR2 only
twoPUSCH-CB-MultiDCI-STx2P-PartialTimePartialFreqOverlap-r18 Indicates whether the UE supports the partially overlapping PUSCHs in time, partially overlapping in frequency for codebook multi-DCI based STx2P PUSCH+PUSCH. A UE supporting this feature shall also indicate support of *twoPUSCH-CB-MultiDCI-STx2P-DG-DG-r18*.	Band	No	N/A	FR2 only
twoPUSCH-NonCB-MultiDCI-STx2P-CG-CG-r18 Indicates whether the UE supports multi-DCI based STx2P CG-PUSCH+CG-PUSCH for noncodebook. A UE supporting this feature shall also indicate support of *twoPUSCH-NonCB-MultiDCI-STx2P-DG-DG-r18*.	Band	No	N/A	FR2 only

twoPUSCH-NonCB-MultiDCI-STx2P-CG-DG-r18 Indicates whether the UE supports multi-DCI based STx2P DG-PUSCH+CG-PUSCH for noncodebook. A UE supporting this feature shall also indicate support of *twoPUSCH-NonCB-MultiDCI-STx2P-DG-DG-r18*.	Band	No	N/A	FR2 only
twoPUSCH-NonCB-Multi-DCI-STx2P-CSI-RS-Resource-r18 Indicates whether the UE supports up to two NZP CSI-RS resources associated with the two SRS resource sets for multi-DCI non-codebook based STx2P scheme for PUSCH. The capability signalling comprises the following parameters: - *maxNumberPeriodicSRS-r18* indicates the maximum number of periodic SRS resources associated with first and second CSI-RS per BWP; - *maxNumberAperiodicSRS-r18* indicates the maximum number of aperiodic SRS resources associated with first and second CSI-RS per BWP; - *maxNumberSemiPersistentSRS-r18* indicates the maximum number of semi-persistent SRS resources associated with first and second CSI-RS per BWP; - *simultaneousSRS-PerCC-r18* indicates the number of P/SP/A SRS resources associated with first and second CSI-RS resources simultaneously in a CC that the UE can process; - *simultaneousCSI-RS-NonCB-r18* indicates the maximum number of CSI-RS resources associated with SRS for non-codebook-based transmission simultaneously that the UE can process. A UE supporting this feature shall also indicate support of *srs-AssocCSI-RS*, *csi-RS-IM-ReceptionForFeedbackPerBandComb* and *twoPUSCH-NonCB-MultiDCI-STx2P-DG-DG-r18*.	Band	No	N/A	FR2 only
twoPUSCH-NonCB-MultiDCI-STx2P-FullTimeFullFreqOverlap-r18 Indicates whether the UE supports fully overlapping PUSCHs in time and fully overlapping in frequency for noncodebook multi-DCI based STx2P PUSCH+PUSCH. A UE supporting this feature shall also indicate support of *twoPUSCH-NonCB-MultiDCI-STx2P-DG-DG-r18*.	Band	No	N/A	FR2 only
twoPUSCH-NonCB-MultiDCI-STx2P-FullTimePartialFreqOverlap-r18 Indicates whether the UE supports fully overlapping PUSCHs in time and partially overlapping in frequency for noncodebook multi-DCI based STx2P PUSCH+PUSCH. A UE supporting this feature shall also indicate support of *twoPUSCH-NonCB-MultiDCI-STx2P-DG-DG-r18*.	Band	No	N/A	FR2 only
twoPUSCH-NonCB-MultiDCI-STx2P-PartialTimeFullFreqOverlap-r18 Indicates whether the UE supports partially overlapping PUSCHs in time and fully overlapping in frequency for noncodebook multi-DCI based STx2P PUSCH+PUSCH. A UE supporting this feature shall also indicate support of *twoPUSCH-NonCB-MultiDCI-STx2P-DG-DG-r18*.	Band	No	N/A	FR2 only
twoPUSCH-NonCB-MultiDCI-STx2P-PartialTimeNonFreqOverlap-r18 Indicates whether the UE supports partially overlapping PUSCHs in time, non-overlapping in frequency for noncodebook multi-DCI based STx2P PUSCH+PUSCH. A UE supporting this feature shall also indicate support of *twoPUSCH-NonCB-MultiDCI-STx2P-DG-DG-r18*.	Band	No	N/A	FR2 only
twoPUSCH-NonCB-MultiDCI-STx2P-PartialTimePartialFreqOverlap-r18 Indicates whether the UE supports partially overlapping PUSCHs in time, partially overlapping in frequency for noncodebook multi-DCI based STx2P PUSCH+PUSCH. A UE supporting this feature shall also indicate support of *twoPUSCH-NonCB-MultiDCI-STx2P-DG-DG-r18*.	Band	No	N/A	FR2 only

twoRateMatchingEUTRA-CRS-patterns-3-4-r18 Indicates whether the UE supports two LTE-CRS overlapping rate matching patterns configured by *lte-CRS-PatternList3-r18* and *lte-CRS-PatternList4-r18* within a part of NR carrier using 15 kHz SCS overlapping with an LTE carrier (regardless of support or configuration of multi-TRP) for the case when *crs-RateMatch-PerCORESETPoolIndex-r16* is not configured. The capability signalling comprises the following parameters: - *maxNumberPatterns-r18* indicates the maximum number of LTE-CRS rate matching patterns in total within a NR carrier using 15 kHz SCS. - *maxNumberNon-OverlapPatterns-r18* indicates the maximum number of LTE-CRS non-overlapping rate matching patterns within a NR carrier using 15 kHz SCS. A UE supporting this feature shall also indicate support of *rateMatchingLTE-CRS*. NOTE: If a UE supports this feature and *multipleRateMatchingEUTRA-CRS-r16*, *multipleRateMatchingEUTRA-CRS-r16* is reported for *lte-CRS-PatternList1-r16* and *lte-CRS-PatterList2-r16* and *twoRateMatchingEUTRA-CRS-patterns-3-4-r18* is reported for *lte-CRS-PatternList3-r18* and *lte-CRS-PatternList4-r18*.	Band	No	N/A	FR1 only
twoSRS-DCI-1-1-Joint-r19 Indicates whether the UE supports using DCI format 1_1 to indicate one or two separate SRS closed loop index(es) under joint TCI state mode. A UE supporting this feature shall also indicate support of *srs-TPC-CLPC-AdjustmentState-r19*.	Band	No	N/A	FR1 only
twoSRS-DCI-1-1-Separate-r19 Indicates whether the UE supports using DCI format 1_1 to indicate one or two separate SRS closed loop index(es) under separate DL/UL TCI state mode. A UE supporting this feature shall also indicate support of *srs-TPC-CLPC-AdjustmentState-r19*.	Band	No	N/A	N/A
twoSRS-PwrControlAdjust-r19 Indicates whether the UE supports two separate SRS closed loop power control adjustment states separate from PUSCH.	Band	No	N/A	N/A
twoSRS-TPC-DCI-2-3-r19 Indicates whether the UE supports using DCI format 2_3 to indicate TPC for one of two separate SRS closed loop indexes. A UE supporting this feature shall also indicate support of *twoSRS-PwrControlAdjust-r19*.	Band	No	N/A	N/A
twoTCI-StatePDSCH-CJT-TxScheme-r18 Indicates whether the UE supports two TCI states for CJT Tx scheme for PDSCH. Value *cjtSchemeA* corresponds to PDSCH DMRS port(s) is QCLed with the DL RSs of both indicated joint/DL TCI states with respect to QCL-TypeA, value *cjtSchemeB* corresponds to PDSCH DMRS port(s) is QCLed with the DL RSs of both indicated joint/DL TCI states with respect to QCL-TypeA except for QCL parameters {Doppler shift, Doppler spread} of the second indicated joint/DL TCI state. Value *both* corresponds to the supporting of both *cjtSchemeA* and *cjtSchemeB*. A UE supporting this feature shall also indicate support of *tci-JointTCI-UpdateSingleActiveTCI-PerCC-r18*.	Band	No	N/A	N/A
txDiversity-r16 Indicates whether the UE supports transparent Tx diversity requirements for 2Tx as specified in the suffix G clauses of TS 38.101-1 [2] (see also clauses 4.2 and 4.3 of TS 38.101-1 [2]). This field is only applicable for single CC case (i.e. non-CA).	Band	No	N/A	FR1 only
type1-HARQ-Codebook-r17 Indicates whether the UE supports Type-1 HARQ codebook enhancements when there are feedback-disabled HARQ processes. UE indicating support of this feature shall also indicate support of *harq-FeedbackDisabled-r17.* This field is only applicable for bands in Table 5.2.2-1 in TS 38.101-5 [34] and HAPS operation bands in clause 5.2 of TS 38.104 [35].	Band	No	N/A	N/A

type1-PUSCH-RepetitionMultiSlots-v1650 Indicates whether the UE supports Type 1 PUSCH transmissions with configured grant as specified in TS 38.214 [12] with UL-TWG-repK value equal to 2, 4, or 8 with a single repetition of the transport block within each slot, and redundancy version pattern as indicated by UL-TWG-RV-rep. A UE supporting this feature shall also support Type 1 PUSCH transmissions with configured grant as specified in TS 38.214 [12] with UL-TWG-repK value of one. This applies only to non-shared spectrum channel access. For shared spectrum channel access, *type1-PUSCH-RepetitionMultiSlots-r16* applies. Except for NTN bands, UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands, all TDD-FR2-1 bands and all TDD-FR2-2 bands respectively. For NTN, UE shall set the capability value consistently for all FDD-FR1 NTN bands and all FDD-FR2 NTN bands respectively. The UE only includes *type1-PUSCH-RepetitionMultiSlots-v1650* if *type1-PUSCH-RepetitionMultiSlots* is absent	Band	No	N/A	N/A
type2-HARQ-Codebook-r17 Indicates whether the UE supports Type-2 HARQ codebook enhancements when there are feedback-disabled HARQ processes. UE indicating support of this feature shall also indicate support of *harq-FeedbackDisabled-r17.* This field is only applicable for bands in Table 5.2.2-1 in TS 38.101-5 [34] and HAPS operation bands in clause 5.2 of TS 38.104 [35].	Band	No	N/A	N/A
type2-PUSCH-RepetitionMultiSlots-v1650 Indicates whether the UE supports Type 2 PUSCH transmissions with configured grant as specified in TS 38.214 [12] with UL-TWG-repK value equal to 2, 4, or 8 with a single repetition of the transport block within each slot, and redundancy version pattern as indicated by UL-TWG-RV-rep. A UE supporting this feature shall also support Type 2 PUSCH transmissions with configured grant as specified in TS 38.214 [12] with UL-TWG-repK value of one. This applies only to non-shared spectrum channel access. For shared spectrum channel access, *type2-PUSCH-RepetitionMultiSlots-r16* applies. Except for NTN bands, UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands, all TDD-FR2-1 bands and all TDD-FR2-2 bands respectively. For NTN, UE shall set the capability value consistently for all FDD-FR1 NTN bands and all FDD-FR2 NTN bands respectively. The UE only includes *type2-PUSCH-RepetitionMultiSlots-v1650* if *type2-PUSCH-RepetitionMultiSlots* is absent	Band	No	N/A	N/A
type3-HARQ-Codebook-r17 Indicates whether the UE supports Type-3 HARQ codebook enhancements when there are feedback-disabled HARQ processes. UE indicating support of this feature shall also indicate support of *harq-FeedbackDisabled-r17.* This field is only applicable for bands in Table 5.2.2-1 in TS 38.101-5 [34] and HAPS operation bands in clause 5.2 of TS 38.104 [35].	Band	No	N/A	N/A
uei-ModeA-Event1-r19 Indicates whether the UE supports Event-1 based measurement and report for Mode A that L1-RSRP of the current beam becomes worse than a configured threshold based on one event instance. NOTE: Regarding Event-1, QCL RS(s) in indicated TCI state(s) and resources configured for the configured RS(s) for new beam in the RS resource set of *uei-ModeA-Event2-r19* are also counted in *maxTotalResourcesForOneFreqRange-r16*, and *maxTotalResourcesForAcrossFreqRanges-r16*. A UE supporting this feature shall also indicate the support of *uei-ModeA-Event2-r19*.	Band	No	N/A	N/A

uei-ModeA-Event2-r19 Indicates whether the UE supports UE-initiated/event-driven beam report based on one event instance and Event-2 based measurement and report, Mode A UE-initiated/event-driven beam report, and the first PUCCH and second PUSCH from the same PUCCH group. The UE also indicates the maximum number of the configured RS(s) for new beam in the RS resource set and the support of current beam measurement by using QCL RS in the indicated TCI state and the corresponding QCL SSB for Scheme-1 and Scheme-2, respectively. NOTE 1: For the configured RS(s) for new beam in the RS resource set and its corresponding QCL RS in the indicated TCI state and its corresponding QCL SSB for Scheme-1 and Scheme-2, the SSB can be associated with the serving cell PCI or a PCI other than the serving cell PCI. NOTE 2: Regarding Event-2, QCL RS(s) in indicated TCI state(s) and resources configured for the configured RS(s) for new beam in the RS resource set are also counted in *maxTotalResourcesForOneFreqRange-r16*, and *maxTotalResourcesForAcrossFreqRanges-r16*. A UE supporting this feature shall also indicate support of *aperiodicBeamReport* and *beamManagementSSB-CSI-RS*.	Band	No	N/A	N/A
uei-ModeA-Event7-r19 Indicates whether the UE supports Event-7 based measurement and report for Mode A that L1-RSRP of at least one new beam becomes a threshold value better than the RS derived from the activated TCI state with the Q-th best quality based on one event instance. The Q is encoded as a bitmap, starting from the leading / leftmost bit (bit 0), each bit corresponds to the n-th best quality based on one event instance, where value '*1*' indicates '*support'* and value '*0*' indicates '*not support*'. The UE also supports the RS derived from the activated TCI state with the Q-th best quality measurement by using QCL RS in the activated TCI state with the Q-th best quality and the corresponding QCL SSB for the activated TCI state with the Q-th best quality for Scheme-1 and Scheme-2, respectively. NOTE 1: The UE does not expect that the configured Q is greater than the number of the activated DL/joint TCI state(s). NOTE 2: Regarding Event-7, the number of QCL RS(s) in activated TCI state(s) and resources configured for the configured RS(s) for new beam in the RS resource set of *uei-ModeA-Event2-r19* are also counted in *maxTotalResourcesForOneFreqRange-r16*, and *maxTotalResourcesForAcrossFreqRanges-r16*. NOTE 3: For the RS derived from the activated TCI state, an SSB can be associated with the serving cell PCI or a PCI other than the serving cell PCI. A UE supporting this feature shall also indicate the support of *uei-ModeA-Event2-r19*.	Band	No	N/A	N/A
uei-ModeB-r19 Indicates whether the UE supports Mode B UE-initiated/event-driven beam report. The UE also indicates the minimum value of symbols between the last symbol of sending first PUCCH and the first available symbol of transmission occasion of second PUSCH. A UE supporting this feature shall also indicate the support of *uei-ModeA-Event2-r19*.	Band	No	N/A	N/A
uei-TriggerEventDetermination-r19 Indicates whether the UE supports initiated/event driven beam report procedure via detecting ≥ M event instance(s) for at least one new beam within a time window, where M>1. The UE also indicates the maximum number of timers. A UE supporting this feature shall also indicate the support of *uei-ModeA-Event2-r19*.	Band	No	N/A	N/A
ue-OneShotUL-TimingAdj-r17 Indicates whether the UE supports one shot large UL timing adjustment. UE indicating support of this feature shall indicate support of *ue-PowerClass-v1700* set to *'pc6'.*	Band	No	N/A	FR2 only

ue-PowerClass, ue-PowerClass-v1610, ue-PowerClass-v1700 For FR1, if the UE supports the different UE power class than the default UE power class as defined in clause 6.2 of TS 38.101-1 [2], or in clause 6.2 of TS 38.101-5 [34], the UE shall report the supported UE power class in this field. For FR2, UE shall report the supported UE power class as defined in clause 6 and 7 of TS 38.101-2 [3] in this field. UE indicating support for *pc6* supports the enhanced intra-NR RRM and demodulation processing requirements for FR2 to support high speed up to 350 km/h as specified in TS 38.133 [5]. This capability is not applicable to IAB-MT or NCR-MT. The power class pc7 is only applicable for RedCap UEs operation in FR2. This capability is not applicable for UEs indicating support of *maxOutputPowerATG-r18*.	Band	Yes	N/A	N/A
ue-specific-K-Offset-r17 Indicates whether the UE supports the reception of UE-specific K-offset comprised of the following functional components: - Support of reception of Differential K-offset via MAC-CE - Support of determining the timing of PUSCH, PUCCH, CSI reference resource, transmission of aperiodic SRS, activation of TA command, first PUSCH transmission in CG Type 2 with Differential K-offset UE indicating support of this feature shall also indicate support of *uplinkPreCompensation-r17* and *uplink-TA-Reporting-r17* for this band. This field is only applicable for bands in Table 5.2.2-1 and Table 5.2.3-1 in TS 38.101-5 [34] and HAPS operation bands in clause 5.2 of TS 38.104 [35].	Band	No	N/A	N/A
ue-TA-Measurement-r18 Indicates whether the UE supports UE-based TA measurement by indicating the maximum number of candidate cells that the UE maintains the TA for. A UE supporting this feature shall also indicate the support of at least one of *ltm-MCG-IntraFreq-r18* or *ltm-SCG-IntraFreq-r18*. For cross-band operation, this capability refers to the source band.	Band	No	N/A	N/A
ul-GapFR2-r17 Indicates whether the UE supports FR2 UL gap to perform BPS sensing for Tx power management by the use of uplink gap patterns as specified in TS 38.133 [5] if UE supports a band in FR2. A UE indicating support of this feature shall also indicate support of *tdd-MPE-P-MPR-Reporting-r16*.	Band	No	N/A	FR2 only
ul-ResourceMutingCP-OFDM-r19 Indicates whether the UE supports semi-static configuration of time location and frequency location of UL resource muting for CP-OFDM waveform, comprised of the following functional components: - Up to two UL muting symbols within a slot for PUSCH; - A configurable comb offset {0, 1} for the UL muting symbol; - One common pattern of UL muting between DG/Type 2 CG PUSCH and Type 1 CG PUSCH; - dynamic on/off indication of the configured UL muting symbols by TDRA field in DCI for DG-PUSCH and Type-2 CG PUSCH; - semi-static determination of UL muting symbols for Type-1 CG PUSCH.	Band	No	TDD only	N/A
ul-ResourceMutingCP-OFDM-CG-Type1-r19 Indicates whether the UE supports separate UL resource muting for Type-1 CG PUSCH for CP-OFDM waveform. The UE indicates the maximum number of UL muting symbols per slot. A UE supporting this feature shall also indicate support of *ul-ResourceMutingCP-OFDM-r19* and *configuredUL-GrantType1*.	Band	No	TDD only	N/A

ul-ResourceMutingDFTS-OFDM-r19 Indicates whether the UE supports semi-static configuration of time location and frequency location of UL resource muting for DFTS-OFDM waveform, comprised of the following functional components: - Up to two UL muting symbols within a slot for PUSCH; - A configurable comb offset {0, 1} for the UL muting symbol; - One common pattern of UL muting between DG/Type 2 CG PUSCH and Type 1 CG PUSCH; - dynamic on/off indication of the configured UL muting symbols by TDRA field in DCI for DG-PUSCH and Type-2 CG PUSCH; - semi-static determination of UL muting symbols for Type-1 CG PUSCH.	Band	No	TDD only	N/A
ul-ResourceMutingDFTS-OFDM-CG-Type1-r19 Indicates whether the UE supports separate UL resource muting for Type-1 CG PUSCH for DFT-s-OFDM waveform. The UE indicates the maximum number of UL muting symbols per slot. A UE supporting this feature shall also indicate support of *ul-ResourceMutingDFTS-OFDM-r19* and *configuredUL-GrantType1*.	Band	No	TDD only	N/A
unifiedJointTCI-r17 Indicates the support of unified TCI state operation with joint DL/UL TCI update for intra-cell beam management including the support of: - One MAC-CE activated joint TCI state per CC in a band - TCI state indication for update and activation of MAC CE based TCI state indication for one active TCI state The capability signalling comprises the following parameters: - *maxConfiguredJointTCI-r17* indicates the maximum number of configured joint TCI states per BWP per CC in a band - *maxActivatedTCIAcrossCC-r17* indicates the maximum number of MAC-CE activated joint TCI states across all CC(s) in a band If a UE supports *unifiedJointTCI-InterCell-r17*, the signalled component values (except *additionalMAC-CE-AcrossCC-r17*) also apply to inter-cell beam management, NOTE: Activated joint TCI state(s) include all PDCCH/PDSCH receptions and PUSCH/PUCCH transmissions	Band	No	N/A	N/A
unifiedJointTCI-BeamAlignDLRS-r17 Indicates the support of beam misalignment between the DL source RS in the TCI state to provide spatial relation indication and the PL-RS. The UE indicating support of this feature shall also indicate support of *unifiedJointTCI-r17*.	Band	No	N/A	FR2 only
unifiedJointTCI-commonMultiCC-r17 Indicates the support of common multi-CC TCI state ID update and activation. The UE indicating support of this feature shall also indicate support of *unifiedJointTCI-r17*.	Band	No	N/A	N/A

unifiedJointTCI-InterCell-r17 Indicates the support of unified TCI with joint DL/UL TCI update for inter-cell beam management including following parameters: - *additionalMAC-CE-PerCC-r17* indicates the number of K additional MAC-CEs to indicate joint TCI states per CC in a band. - *additionalMAC-CE-AcrossCC-r17* indicates the number of K additional MAC-CE activated joint TCI states across all CC(s) in a band. A UE indicating support of this shall also indicate support of *unifiedJointTCI-r17* and *unifiedJointTCI-mTRP-InterCell-BM-r17*. NOTE: A UE that supports *unifiedJointTCI-InterCell-r17* supports K additional MAC-CE activated joint TCI states across all CC(s) in a band in addition to the maximum number of MAC-CE activated joint TCI states across all CC(s) in a band signalled in *unifiedJointTCI-r17*. The signalled value in *additionalMAC-CE-AcrossCC-r17* plus the signalled value in *maxActivatedTCIAcrossCC-r17* determine the maximum number of MAC-CE activated joint TCI states across all CC(s) in a band that are applied to intra and inter-cell beam management jointly.	Band	No	N/A	N/A
unifiedJointTCI-Legacy-r17 Indicates the support of indication/configuration of R17 TCI states for aperiodic CSI-RS, PDCCH, PDSCH (except for TRS and for CORESET #0 and the respective PDSCH reception) reusing the Rel-15/16 signalling/configuration design(s). The UE indicating support of this feature shall also indicate support of *unifiedJointTCI-r17*.	Band	No	N/A	N/A
unifiedJointTCI-Legacy-CORESET0-r17 Indicates the support of indication/configuration of R17 TCI states for CORESET #0 and the respective PDSCH reception reusing the Rel-15/16 signalling/configuration design(s)***.*** The UE indicating support of this feature shall also indicate support of *unifiedJointTCI-r17*.	Band	No	N/A	N/A
unifiedJointTCI-Legacy-SRS-r17 Indicates the support of indication/configuration of R17 TCI states for SRS (except for periodic/semi-persistent SRS for BM) reusing the Rel-15/16 signalling/configuration design(s). The UE indicating support of this feature shall also indicate support of *unifiedJointTCI-r17*.	Band	No	N/A	N/A
unifiedJointTCI-ListSharingCA-r17 Indicates the support of reference BWP/serving cell index to indicate reference TCI state list shared by multiple BWPs/serving cells. The value indicates the maximum number of configured joint TCI state lists across all BWPs and all Serving cells in a band. The UE indicating support of this feature shall also indicate support of *unifiedJointTCI-r17*. A UE that supports CA and *unifiedJointTCI-r17* shall indicate support of this feature.	Band	No	N/A	N/A
unifiedJointTCI-mTRP-InterCell-BM-r17 Indicates the support of inter-cell beam measurement and reporting for inter-cell BM and mTRP. This feature includes support of L1-RSRP measurement and reporting on SSB(s) with PCI(s) different from serving cell PCI (additional PCI) and support of up to K SSBRI-RSRP pairs in one report where a pair is associated with a PCI different from serving cell PCI can be reported, where K is equal to *maxNumberNonGroupBeamReporting*. This feature also includes following parameters: - *maxNumAdditionalPCI-L1-RSRP-r17* indicates the maximum number of RRC-configured] PCI(s) different from serving cell PCI for L1-RSRP measurement. - *maxNumSSB-ResourceL1-RSRP-AcrossCC-r17* indicates the maximum number of SSB resources configured to measure L1-RSRP within a slot with PCI(s) same as or different from serving cell PCI [across all CC]. NOTE: *maxNumSSBResource-L1-RSRP-AcrossCC-r17* is also counted in *maxTotalResourcesForOneFreqRange-r16/ maxTotalResourcesForAcrossFreqRanges-r16*.	Band	No	N/A	N/A

unifiedJointTCI-multiMAC-CE-r17, unifiedJointTCI-multiMAC-CE-v17b0 Indicates the support of unified TCI state operation with joint DL/UL TCI update for intra- and inter-cell beam management with more than one MAC-CE activated joint TCI state per CC with MAC CE and DCI based TCI state indication in DCI formats 1_1 and 1_2 with and without DL assignment. This capability signalling includes the following parameters: - *minBeamApplicationTime-r17* indicates the minimum beam application time in Y symbols per SCS. - *maxNumMAC-CE-PerCC-r17* indicates the maximum number of MAC-CE activated joint TCI states per CC in a band. The UE indicating support of this feature shall also indicate support of *unifiedJointTCI-r17*. *unifiedJointTCI-multiMAC-CE-r17* is included only when the UE supports a single SCS for the band in all the supported band combinations. *unifiedJointTCI-multiMAC-CE-v17b0* is only included when *unifiedJointTCI-multiMAC-CE-r17* is absent. NOTE 1: The maximum number of MAC-CE activated joint TCI states across all CC(s) in a band for more than one MAC-CE activated joint TCI state is signaled in *unifiedJointTCI-r17.* NOTE 2: Activated joint TCI state(s) include all PDCCH/PDSCH receptions and PUSCH/PUCCH.	Band	No	N/A	N/A
unifiedJointTCI-multiMAC-CE-DCI-1-3-r18 Indicates whether the UE supports unified TCI with joint DL/UL TCI update by DCI format 1_3 for intra-cell and inter-cell beam management with more than one MAC-CE activated joint TCI state per CC. This capability also indicates support of using TCI state indication for update and activation, i.e. MAC-CE+DCI-based TCI state indication (use of DCI formats 1_3 with DL assignment for at least one serving cell in a *scheduledCellListDCI-1-3* to provide indicated unified TCI state(s) for the CC(s) in the *scheduledCellListDCI-1-3*). The capability signalling comprises the following parameters: - *minBeamApplicationTime-r18* indicates the minimum beam application time in symbols per SCS. If the UE also supports *unifiedJointTCI-multiMAC-CE-r17*, same values as *minBeamApplicationTime-r17* for *unifiedJointTCI-multiMAC-CE-r17* are reported. - *maxActivatedTCI-PerCC-r18* indicates the maximum number of MAC-CE activated joint TCI states per CC in a band. If the UE also supports *unifiedJointTCI-multiMAC-CE-r17*, same values as *maxNumMAC-CE-PerCC-r17* for *unifiedJointTCI-multiMAC-CE-r17* are reported. NOTE 1: The maximum number of MAC-CE activated joint TCI states across all CC(s) in a band for more than one MAC-CE activated joint TCI state is signalled in *maxActivatedTCIAcrossCC-r17* of *unifiedJointTCI-r17*. NOTE 2: Activated joint TCI state(s) include all PDCCH/PDSCH receptions and PUSCH/PUCCH. A UE supporting this feature shall also indicate support of *unifiedJointTCI-r17*, and at least one of *multiCell-PDSCH-DCI-1-3-SameSCS-r18* and *multiCell-PDSCH-DCI-1-3-DiffSCS-r18*.	Band	No	N/A	N/A

unifiedJointTCI-multiMAC-CE-DCI-1-3-Diff-r19 Indicates whether the UE supports unified TCI with joint DL/UL TCI update by DCI format 1_3 for intra-cell and inter-cell beam management with more than one MAC-CE activated joint TCI state per CC with different SCS and/or different carrier type. This capability also indicates support of using TCI state indication for update and activation, i.e. MAC-CE+DCI-based TCI state indication (use of DCI formats 1_3 with DL assignment for at least one serving cell in a *scheduledCellListDCI-1-3* to provide indicated unified TCI state(s) for the CC(s) in the *scheduledCellListDCI-1-3*). The capability signalling comprises the following parameters: - *minBeamApplicationTime-r19* indicates the minimum beam application time in symbols per SCS. If the UE also supports *unifiedJointTCI-multiMAC-CE-r17*, same value as *minBeamApplicationTime-r17* for *unifiedJointTCI-multiMAC-CE-r17* is reported. - *maxActivatedTCI-PerCC-r19* indicates the maximum number of MAC-CE activated joint TCI states per CC in a band. If the UE also supports *unifiedJointTCI-multiMAC-CE-r17*, same value as *maxNumMAC-CE-PerCC-r17* for *unifiedJointTCI-multiMAC-CE-r17* is reported. NOTE 1: The maximum number of MAC-CE activated joint TCI states across all CC(s) in a band for more than one MAC-CE activated joint TCI state is signalled in *maxActivatedTCIAcrossCC-r17* of *unifiedJointTCI-r17*. NOTE 2: Activated joint TCI state(s) include all PDCCH/PDSCH receptions and PUSCH/PUCCH. A UE supporting this feature shall also indicate support of *unifiedJointTCI-r17* and *multiCell-PDSCH-DCI-1-3-DiffSCS-DiffCC-r19*.	Band	No	N/A	N/A
unifiedJointTCI-PC-association-r17 Indicates the support of association between TCI state and UL PC settings except for PL RS for PUCCH, PUSCH, and SRS. The UE indicating support of this feature shall also indicate support of *unifiedJointTCI-r17*.	Band	No	N/A	N/A
unifiedJointTCI-perBWP-CA-r17 Indicates the support of TCI state list configuration per BWP when CA is configured. The UE indicating support of this feature shall also indicate support of *unifiedJointTCI-r17*.	Band	No	N/A	N/A
unifiedJointTCI-SCellBFR-r17 Indicates the support of SCell BFR with unified TCI operation. The maximum number of CCs configured with SCell BFR with unified TCI framework in a band with SpCell BFR is given by *maxNumberSCellBFR-r16*. The UE supporting this feature assumes that maxNumberSCellBFR-r16 includes SpCell.	Band	No	N/A	N/A
unifiedSeparateTCI-r17 Indicates the support of unified TCI state operation with joint DL/UL TCI update for intra-cell beam management including the support of: - One MAC-CE activated DL TCI state per CC in a band - One MAC-CE activated UL TCI state per CC in a band - TCI state indication for update and activation including MAC CE based TCI state indication for one active DL/UL TCI state The capability signalling comprises the following parameters: - *maxConfiguredDL-TCI-r17* indicates the maximum number of configured DL TCI states per BWP per CC - *maxConfiguredUL-TCI-r17* indicates the maximum number of configured UL TCI states per BWP per CC - *maxActivatedDL-TCIAcrossCC-r17* indicates the maximum number of MAC-CE activated DL TCI states across all CC(s) in a band - *maxActivatedUL-TCIAcrossCC-r17* indicates the maximum number of MAC-CE activated UL TCI states across all CC(s) in a band The UE indicating support of this feature shall also indicate support of *unifiedJointTCI-r17*. If a UE supports *unifiedSeparateTCI-InterCell-r17*, the *maxConfiguredDL-TCI-r17* and *maxConfiguredUL-TCI-r17* apply to intra- and inter-cell beam management jointly.	Band	No	N/A	N/A
unifiedSeparateTCI-commonMultiCC-r17 Indicates the Common multi-CC DL/UL-TCI state ID update and activation. The UE indicating support of this feature shall also indicate support of *unifiedSeparateTCI-r17*.	Band	No	N/A	N/A

unifiedSeparateTCI-InterCell-r17 Indicates the support of unified TCI with separate DL/UL TCI update for inter-cell beam management with more than one MAC-CE activated separate TCI state per CC. This feature also includes following parameters: - *k-DL-PerCC-r17* indicates the number of additional MAC-CE activated DL TCI states per CC in a band - *k-UL-PerCC-r17* indicates the number of additional MAC-CE activated UL TCI states per CC in a band - *k-DL-AcrossCC-r17* indicates the number of additional MAC-CE activated DL TCI states across all CC(s) in a band - *k-UL-AcrossCC-r17* indicates the number of additional MAC-CE activated UL TCI states across all CC(s) in a band The UE indicating support of this feature shall also indicate support of *unifiedSeparateTCI-r17*. NOTE: A UE that supports this feature supports K additional MAC-CE activated DL and K additional MAC-CE activated UL TCI states across all CC(s) in a band in addition to the maximum number of MAC-CE activated DL and UL TCI states across all CC(s) in a band signalled in *unifiedSeparateTCI-r17*. The signalled value in *k-DL-AcrossCC-r17* (*k-UL-AcrossCC-r17*) plus the signalled value in *maxActivatedDL-TCIAcrossCC-r17* (*maxActivatedUL-TCIAcrossCC-r17*) determine the maximum number of MAC-CE activated DL (UL) TCI states across all CC(s) in a band that are applied to intra and inter-cell beam management jointly.	Band	No	N/A	N/A
unifiedSeparateTCI-ListSharingCA-r17 Indicates the support of reference BWP/serving cell configured with reference TCI state pool shared by a set of BWPs/serving cells. The value indicates the maximum number of configured DL/UL TCI state pools across all BWPs and all serving cells in a band.	Band	No	N/A	N/A
unifiedSeparateTCI-multiMAC-CE-r17, unifiedSeparateTCI-multiMAC-CE-v17b0 Indicates TCI state indication for update and activation a) MAC-CE+DCI-based TCI state indication (use of DCI formats 1_1/1_2 with DL assignment) And b) MAC-CE+DCI-based TCI state indication (use of DCI formats 1_1/1_2 without DL assignment). This capability signalling includes the following parameters: - *minBeamApplicationTime-r17* indicates the minimum beam application time in Y symbols per SCS. - *maxActivatedDL-TCIPerCC-r17* indicates the maximum number of MAC-CE activated DL TCI states per CC in a band - *maxActivatedUL-TCIPerCC-r17* indicates the maximum number of MAC-CE activated UL TCI states per CC in a band *unifiedSeparateTCI-multiMAC-CE-r17* is included only when the UE supports a single SCS for the band in all the supported band combinations. *unifiedSeparateTCI-multiMAC-CE-v17b0* is only included when *unifiedSeparateTCI-multiMAC-CE-r17* is absent. The UE indicating support of this feature shall also indicate support of *unifiedSeparateTCI-r17*.	Band	No	N/A	N/A

unifiedSeparateTCI-MultiMAC-CE-IntraCell-r18 Indicates whether the UE supports unified TCI with separate DL/UL TCI update by DCI format 1_3 for intra-cell beam management with more than one MAC-CE activated separate TCI state per CC. This capability also indicates support of TCI state indication for update and activation, i.e. MAC-CE+DCI-based TCI state indication (use of DCI formats 1_3 with DL assignment for at least one serving cell in a *scheduledCellListDCI-1-3* to provide indicated unified TCI state(s) for the CC(s) in the *scheduledCellListDCI-1-3*). The capability signalling comprises the following parameters: - *minBeamApplicationTime-r18* indicates the minimum beam application time in symbols per SCS. If the UE also supports *unifiedJointTCI-multiMAC-CE-r17*, same values as *minBeamApplicationTime-r17* for *unifiedJointTCI-multiMAC-CE-r17* are reported. - *maxActivatedDL-TCI-PerCC-r18* indicates the maximum number of MAC-CE activated DL TCI states per CC in a band. - *maxActivatedUL-TCI-PerCC-r18* indicates the maximum number of MAC-CE activated UL TCI states per CC in a band. If a UE supports *unifiedSeparateTCI-InterCell-r17*, the signalled component values also apply to inter-cell beam management. A UE supporting this feature shall also indicate support of *unifiedSeparateTCI-r17*, and at least one of *multiCell-PDSCH-DCI-1-3-SameSCS-r18* and *multiCell-PDSCH-DCI-1-3-DiffSCS-r18*. NOTE: For *minBeamApplicationTime-r18*, *maxActivatedDL-TCI-PerCC-r18* and *maxActivatedUL-TCI-PerCC-r18*, if the UE also reports *unifiedSeparateTCI-multiMAC-CE-r17*, same values as for *unifiedSeparateTCI-multiMAC-CE-r17* are reported.	Band	No	N/A	N/A
unifiedSeparateTCI-MultiMAC-CE-IntraCell-Diff-r19 Indicates whether the UE supports unified TCI with separate DL/UL TCI update by DCI format 1_3 for intra-cell beam management with more than one MAC-CE activated separate TCI state per CC. This capability also indicates support of TCI state indication for update and activation, i.e. MAC-CE+DCI-based TCI state indication (use of DCI formats 1_3 with DL assignment for at least one serving cell in a *scheduledCellListDCI-1-3* to provide indicated unified TCI state(s) for the CC(s) in the *scheduledCellListDCI-1-3*). The capability signalling comprises the following parameters: - *minBeamApplicationTime-r19* indicates the minimum beam application time in symbols per SCS. If the UE also supports *unifiedJointTCI-multiMAC-CE-r17*, same value as *minBeamApplicationTime-r17* for *unifiedJointTCI-multiMAC-CE-r17* is reported. - *maxActivatedDL-TCI-PerCC-r19* indicates the maximum number of MAC-CE activated DL TCI states per CC in a band. - *maxActivatedUL-TCI-PerCC-r19* indicates the maximum number of MAC-CE activated UL TCI states per CC in a band. If a UE supports *unifiedSeparateTCI-InterCell-r17*, the signalled component values also apply to inter-cell beam management. A UE supporting this feature shall also indicate support of *unifiedSeparateTCI-r17* and *multiCell-PDSCH-DCI-1-3-DiffSCS-DiffCC-r19*. NOTE: For *minBeamApplicationTime-r19*, *maxActivatedDL-TCI-PerCC-r19* and *maxActivatedUL-TCI-PerCC-r19*, if the UE also reports *unifiedSeparateTCI-multiMAC-CE-r17*, same value as for *unifiedSeparateTCI-multiMAC-CE-r17* is reported.	Band	No	N/A	N/A
unifiedSeparateTCI-perBWP-CA-r17 Indicates the support of DL/UL TCI state pool configuration per BWP for CA mode. The UE indicating support of this feature shall also indicate support of *unifiedSeparateTCI-r17*.	Band	No	N/A	N/A

uplinkBeamManagement
Defines support of beam management for UL. This capability signalling comprises the following parameters:
- *maxNumberSRS-ResourcePerSet-BM* indicates the maximum number of SRS resources per SRS resource set configurable for beam management, supported by the UE.
- *maxNumberSRS-ResourceSet* indicates the maximum number of SRS resource sets configurable for beam management, supported by the UE.

If the UE does not set *beamCorrespondenceWithoutUL-BeamSweeping* to *supported*, the UE shall report this capability. This feature is optional for the UE that supports beam correspondence without uplink beam sweeping as defined in clause 6.6, TS 38.101-2 [3].

NOTE: The network uses *maxNumberSRS-ResourceSet* to determine the maximum number of SRS resource sets that can be configured to the UE for periodic/semi-persistent/aperiodic configurations as below:

Maximum number of SRS resource sets across all time domain behaviour (periodic/semi-persistent/aperiodic) reported in *maxNumberSRS-ResourceSet*	**Additional constraint on the maximum number of SRS resource sets configured to the UE for each supported time domain behaviour (periodic/semi-persistent/aperiodic)**
1	1
2	1
3	1
4	2
5	2
6	2
7	4
8	4

Band | No | N/A | FR2 only

uplinkPreCompensation-r17
Indicates whether the UE supports the uplink time and frequency pre-compensation and timing relationship enhancements comprised of the following functional components:
- Support of UE specific TA calculation based on its GNSS-acquired position and the serving satellite ephemeris.
- Support of common TA calculation according to the parameters provided by the network (UE considers common TA as 0 if the parameters are not provided)
- For TA update in RRC_CONNECTED state, support of combination of both open (i.e. UE autonomous TA estimation, and common TA estimation) and closed (i.e., received TA commands) control loops
- Support of pre-compensation of the calculated TA in its uplink transmissions
- Support of estimating UE-gNB RTT and delaying the start of RAR window by UE-gNB RTT
- Support of frequency pre-compensation to counter shift the Doppler experienced on the service link
- Support of determining timing of the scheduling of PUSCH, PUCCH and PDCCH ordered PRACH, CSI reference resource, transmission of aperiodic SRS activation of TA command, first PUSCH transmission in CG Type 2 with cell-specific K_offset if indicated
- Support of determining timing of the UE action and assumption on a downlink configuration carried by MAC CE command by K_mac if it is indicated and determining the timing of PDCCH monitoring in recovery search space using K-mac during beam failure recovery procedure
- Support of UE receiving cell-specific K_offset/K_mac in system information

Support of this feature in NTN bands is mandatory for UE supporting *nonTerrestrialNetwork-r17*. This field is only applicable for bands in Table 5.2.2-1 and Table 5.2.3-1 in TS 38.101-5 [34] and HAPS operation bands in clause 5.2 of TS 38.104 [35].

Band | CY | N/A | N/A

uplink-TA-Reporting-r17
Indicates whether the UE supports UE reporting of information related to TA pre-compensation as specified in TS 38.321 [8]. UE indicating support of this feature shall also indicate support of *uplinkPreCompensation-r17* for this band. This field is only applicable for bands in Table 5.2.2-1 and Table 5.2.3-1 in TS 38.101-5 [34] and HAPS operation bands in clause 5.2 of TS 38.104 [35].

Band | No | N/A | N/A

4.2.7.2a *SharedSpectrumChAccessParamsPerBand*

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
ul-DynamicChAccess-r16 Indicates whether the UE supports UL channel access for dynamic channel access mode. Support of this feature is mandatory if UE supports any of the deployment scenarios A.2, B, C, D and E in Annex B.3 of TS 38.300 [28] with dynamic channel access mode.	Band	CY	N/A	N/A
ul-Semi-StaticChAccess-r16 Indicates whether the UE supports UL channel access for semi-static channel access mode. Support of this feature is mandatory if UE supports any of the deployment scenarios A.2, B, C, D and E in Annex B.3 of TS 38.300 [28] with semi-static channel access mode.	Band	CY	N/A	N/A
ssb-RRM-DynamicChAccess-r16 Indicates whether the UE supports SSB-based RRM for dynamic channel access mode. Support of this feature is mandatory if UE supports any of the deployment scenarios A.1, A.2, B, C, D and E in Annex B.3 of TS 38.300 [28] with dynamic channel access mode.	Band	CY	N/A	N/A
ssb-RRM-Semi-StaticChAccess-r16 Indicates whether the UE supports SSB-based RRM for semi-static channel access mode, when SMTC window is no longer than the fixed frame period. Support of this feature is mandatory if UE supports any of the deployment scenarios A.1, A.2, B, C, D and E in Annex B.3 of TS 38.300 [28] with semi-static channel access mode.	Band	CY	N/A	N/A
mib-Acquisition-r16 Indicates whether the UE supports acquiring MIB on an unlicensed cell for SpCell. Support of this feature is mandatory if UE supports any of the deployment scenarios B, C, D and E in Annex B.3 of TS 38.300 [28].	Band	CY	N/A	N/A
ssb-RLM-DynamicChAccess-r16 Indicates whether the UE supports SSB-based RLM for dynamic channel access mode. Support of this feature is mandatory if UE supports any of the deployment scenarios B, C, D and E in Annex B.3 of TS 38.300 [28] with dynamic channel access mode.	Band	CY	N/A	N/A
ssb-RLM-Semi-StaticChAccess-r16 Indicates whether the UE supports SSB-based RLM for semi-static channel access mode, when discovery burst transmission window is no longer than the fixed frame period. Support of this feature is mandatory if UE supports any of the deployment scenarios B, C, D and E in Annex B.3 of TS 38.300 [28] with semi-static channel access mode.	Band	CY	N/A	N/A
sib1-Acquisition-r16 Indicates whether the UE supports acquiring SIB1 on an unlicensed cell for PCell. Support of this feature is mandatory if UE supports any of the deployment scenarios C and D in Annex B.3 of TS 38.300 [28].	Band	CY	N/A	N/A
extRA-ResponseWindow-r16 Indicates whether the UE supports the configuration of maximum length of RAR window with a value larger than 10ms and up to 40ms by decoding of the 2 LSBs of SFN in the DCI format 1_0 for 4-step RA type. Support of this feature is mandatory if the UE supports any of the deployment scenarios B, C, D and E in Annex B.3 of TS 38.300 [28].	Band	CY	N/A	N/A
ssb-BFD-CBD-dynamicChannelAccess-r16 Indicates whether the UE supports SSB based Beam Failure Detection and Candidate Beam Detection with N_{SSB}^{QCL} for dynamic channel access mode.	Band	No	N/A	N/A
ssb-BFD-CBD-semi-staticChannelAccess-r16 Indicates whether the UE supports SSB based Beam Failure Detection and Candidate Beam Detection with N_{SSB}^{QCL} for semi-static channel access mode.	Band	No	N/A	N/A
csi-RS-BFD-CBD-r16 Indicates whether the UE supports CSI-RS based Beam Failure Detection and Candidate Beam Detection for shared spectrum operation.	Band	No	N/A	N/A
ul-ChannelBW-SCell-10mhz-r16 Indicates whether the UE supports 10 MHz of LBT bandwidth for an SCell. A UE that supports this feature shall also support *ul-DynamicChAccess-r16* or *ul-Semi-StaticChAccess-r16*.	Band	No	N/A	N/A

rssi-ChannelOccupancyReporting-r16 Indicates whether the UE supports RSSI measurements and channel occupancy reporting.	Band	No	N/A	N/A
srs-StartAnyOFDM-Symbol-r16 Indicates whether the UE supports transmitting SRS starting in all symbols (0 to 13) of a slot. This capability is also applicable to a frequency band that does not require shared spectrum access.	Band	No	N/A	N/A
searchSpaceFreqMonitorLocation-r16 Indicates the maximum number of frequency domain locations supported by the UE, for a search space set configuration with *freqMonitorLocations-r16*.	Band	No	N/A	N/A
coreset-RB-Offset-r16 Indicates whether the UE supports CORESET configuration with *rb-Offset-r16*. This capability is also applicable to a frequency band that does not require shared spectrum access.	Band	No	N/A	N/A
cgi-Acquisition-r16 Indicates whether the UE supports acquisition of CGI information from a neighbouring NR unlicensed cell in an unlicensed carrier by reading SIB1 of the neighbouring unlicensed cell and reporting the acquired information to the network.	Band	No	N/A	N/A
configuredUL-Tx-r16 Indicates whether the UE supports configuration of enableConfiguredUL-r16 and enable transmission of higher-layer configured UL (SRS, PUCCH, CG-PUSCH, etc) when SFI field in DCI 2_0 is configured but DCI 2_0 is not detected.	Band	No	N/A	N/A
prach-Wideband-r16 Indicates whether the UE supports enhanced PRACH design for operation with shared spectrum channel access by adopting a single long ZC sequence, with ZC sequence = 1151 for 15 kHz and ZC sequence = 571 for 30 kHz.	Band	No	N/A	N/A
dci-AvailableRB-Set-r16 Indicates whether the UE supports monitoring DCI 2_0 to read available RB set indicator.	Band	No	N/A	N/A
dci-ChOccupancyDuration-r16 Indicates whether the UE supports monitoring DCI 2_0 to read COT duration.	Band	No	N/A	N/A
typeB-PDSCH-length-r16 Indicates whether the UE supports 1. Type B PDSCH length {3, 5, 6, 8, 9, 10, 11, 12, 13} without DMRS shift due to CRS collision. This capability is also applicable to a frequency band that does not require shared spectrum access.	Band	No	N/A	N/A
searchSpaceSwitchWithDCI-r16 Indicates whether the UE supports switching between two groups of search space sets with DCI 2_0 monitoring that comprises of the following functional components: - Monitor DCI 2_0 with a search space set switching field; - Support switching the search space set group with PDCCH decoding in group 1; - Support a timer to switch back to original search space set group; - Monitor DCI 2_0 for channel occupancy time and use the end of channel occupancy time to switch back to the original search space set group. The UE can switch search space set groups for different cells independently, unless the UE supports *jointSearchSpaceSwitchAcrossCells-r16*. The UE supports search space set group switching capability-1: P=25/25/25 symbols for μ=0/1/2, unless the UE supports *searchSpaceSwitchCapability2-r16*. The UE supports search space switching triggers to be configured for up to 4 cells or 4 cell groups.	Band	No	N/A	N/A
extendedSearchSpaceSwitchWithDCI-r16 Indicates whether the UE supports search space switching triggers to be individually configured for up to 16 cells. UE indicating support of this feature shall indicate support of *searchSpaceSwitchWithDCI-r16*.	Band	No	N/A	N/A

searchSpaceSwitchWithoutDCI-r16 Indicates whether the UE supports switching between two groups of search space sets without DCI 2_0 monitoring (i.e. implicit PDCCH decoding) that comprises of the following functional components: - Support switching the search space set group with PDCCH decoding in group 1; - Support a timer to switch back to original search space set group. The UE can switch search space set groups for different cells independently, unless the UE supports *jointSearchSpaceSwitchAcrossCells-r16*. The UE supports search space set group switching capability-1: P=25/25/25 symbols for μ=0/1/2, unless the UE supports *searchSpaceSwitchCapability2-r16*.	Band	No	N/A	N/A
searchSpaceSwitchCapability2-r16 Indicates whether the UE supports search space set group switching Capability-2: P=10/12/22 symbols for μ = 0/1/2 SCS. If the UE supports this feature, the UE needs to report *searchSpaceSwitchWithDCI-r16* or *searchSpaceSwitchWithoutDCI-r16*.	Band	No	N/A	N/A
non-numericalPDSCH-HARQ-timing-r16 Indicates whether the UE supports configuration of a value for *dl-DataToUL-ACK-r16* indicating an inapplicable time to report HARQ ACK.	Band	No	N/A	N/A
enhancedDynamicHARQ-codebook-r16 Indicates whether the UE supports enhanced dynamic HARQ codebook supporting grouping of HARQ ACK and triggering the retransmission of HARQ ACK in each group. The enhanced dynamic HARQ codebook comprises of the following functional components: - Support of bit fields signalling PDSCH HARQ group index and NFI in DCI 1_1 (configuration of nfi-TotalDAI-Included); - Support of bit field in DCI 0_1 for other group total DAI if configured. (configuration of ul-TotalDAI-Included); - Support the retransmission of HARQ ACK (pdsch-HARQ-ACK-Codebook = enhancedDynamic-r16). This capability is also applicable to a frequency band that does not require shared spectrum access.	Band	No	N/A	N/A
oneShotHARQ-feedback-r16 Indicates whether the UE supports one shot HARQ ACK feedback comprised of the following functional components: - Support feedback of type 3 HARQ-ACK codebook, triggered by a DCI 1_1 scheduling a PDSCH; - Support feedback of type 3 HARQ-ACK codebook, triggered by a DCI 1_1 without scheduling a PDSCH using a reserved FDRA value. This capability is also applicable to a frequency band that does not require shared spectrum access.	Band	No	N/A	N/A
multiPUSCH-UL-grant-r16 Indicates whether the UE supports scheduling up to 8 PUSCH with a single DCI 0_1. This capability is also applicable to a frequency band that does not require shared spectrum access.	Band	No	N/A	N/A
csi-RS-RLM-r16 Indicates whether the UE supports CSI-RS based RLM for NR-Unlicensed.	Band	No	N/A	N/A
csi-RSRP-AndRSRQ-MeasWithSSB-r16 Indicates whether the UE can perform CSI-RSRP and CSI-RSRQ measurement as specified in TS 38.215 [13], where CSI-RS resource is configured with an associated SS/PBCH in shared spectrum channel access.	Band	No	N/A	N/A
csi-RSRP-AndRSRQ-MeasWithoutSSB-r16 Indicates whether the UE can perform CSI-RSRP and CSI-RSRQ measurement as specified in TS 38.215 [13], where CSI-RS resource is configured for a cell that transmits SS/PBCH block and without an associated SS/PBCH block in shared spectrum channel access.	Band	No	N/A	N/A
csi-SINR-Meas-r16 Indicates whether the UE can perform CSI-SINR measurements based on configured CSI-RS resources as specified in TS 38.215 [13] in shared spectrum channel access. If the UE supports this feature, the UE needs to report *maxNumberCSI-RS-RRM-RS-SINR*. UE indicating support of this feature shall indicate support of *csi-RSRP-AndRSRQ-MeasWithSSB-r16.*	Band	No	N/A	N/A

ssb-AndCSI-RS-RLM-r16 Indicates whether the UE can perform radio link monitoring procedure based on measurement of SS/PBCH block and CSI-RS as specified in TS 38.213 [11] and TS 38.133 [5] in shared spectrum channel access. If the UE supports this feature, the UE needs to report *maxNumberResource-CSI-RS-RLM*. UE indicating support of this feature shall indicate support of *csi-RS-RLM-r16* and either *ssb-RLM-DynamicChAccess-r16* or *ssb-RLM-Semi-StaticChAccess-r16*.	Band	No	N/A	N/A
csi-RS-CFRA-ForHO-r16 Indicates whether the UE can perform reconfiguration with sync using a contention free random access with 4-step RA type on PRACH resources that are associated with CSI-RS resources of the target cell in shared spectrum channel access. UE indicating support of this feature shall indicate support of either *csi-RSRP-AndRSRQ-MeasWithSSB-r16* or *csi-RSRP-AndRSRQ-MeasWithoutSSB-r16.*	Band	No	N/A	N/A
periodicAndSemi-PersistentCSI-RS-r16 indicates whether the UE supports validating P/SP-CSI-RS reception when receiving a DCI granting a PDSCH over the same set of symbols, and when receiving a DCI triggering an A-CSI-RS over the same set of symbols.	Band	No	N/A	N/A
pusch-PRB-interlace-r16 Indicates whether the UE supports PRB interlace frequency domain resource allocation for PUSCH.	Band	No	N/A	N/A
pucch-F0-F1-PRB-Interlace-r16 Indicates whether the UE supports PRB interlace frequency domain resource allocation for PUCCH format 0, 1, 2 and 3.	Band	No	N/A	N/A
occ-PRB-PF2-PF3-r16 Indicates whether the UE supports OCC for PRB interface mapping for PUCCH format 2 and 3. If the UE supports this feature, the UE needs to report *pucch-F0-F1-PRB-Interlace-r16*.	Band	No	N/A	N/A
extCP-rangeCG-PUSCH-r16 Indicates whether the UE supports generating a CP extension of length longer than 1 symbol for Configured Grant PUSCH transmission. If the UE supports this feature, the UE needs to report *configuredUL-GrantType1* or *configuredUL-GrantType1-v1650* and/or *configuredUL-GrantType2* or *configuredUL-GrantType2-v1650*.	Band	No	N/A	N/A
configuredGrantWithReTx-r16 Indicates whether the UE supports configured grant with retransmission in configured grant resource, comprised of retransmission timer, DFI monitoring and CG-UCI in CG-PUSCH. If the UE supports this feature, the UE needs to report *configuredUL-GrantType1* or *configuredUL-GrantType1-v1650* and/or *configuredUL-GrantType2* or *configuredUL-GrantType2-v1650*.	Band	No	N/A	N/A
ed-Threshold-r16 Indicates whether the UE supports using ED threshold given by gNB for UL to DL COT sharing. A UE that supports this feature shall also support *ul-DynamicChAccess-r16*.	Band	No	N/A	N/A
ul-DL-COT-Sharing-r16 Indicates whether the UE supports UL to DL COT sharing. A UE that supports this feature shall also support *ul-DynamicChAccess-r16*.	Band	No	N/A	N/A
mux-CG-UCI-HARQ-ACK-r16 Indicates whether the UE supports multiplexing CG-UCI with HARQ ACK. If the UE supports this feature, the UE needs to report *configuredGrantWithReTx-r16*.	Band	No	N/A	N/A
cg-resourceConfig-r16 Indicates whether the UE supports configuration of resources with *cg-nrofSlots-r16* and *cg-nrofPUSCH-InSlot-r16*. If the UE supports this feature, the UE needs to report *configuredUL-GrantType1* or *configuredUL-GrantType1-v1650* and/or *configuredUL-GrantType2* or *configuredUL-GrantType2-v1650*.	Band	No	N/A	N/A
dl-ReceptionLBT-subsetRB-r16 Indicates whether the UE supports reception in a wideband carrier when LBT is successful in a subset of the configured RB sets, which are either contiguous or non-contiguous, of the carrier.	Band	No	N/A	N/A
dl-ReceptionIntraCellGuardband-r16 Indicates whether the UE supports reception in the non-zero intra-cell guardband between contiguous RB sets in DL wideband carrier operation wider than 20MHz when LBT is successful only in a subset of RB sets. A UE that indicates support of this capability shall also indicate support of *dl-ReceptionLBT-subsetRB-r16.*	Band	No	N/A	N/A

ul-Semi-StaticChAccessDependentConfig-r17 Indicates whether the UE supports initiating a semi-static channel occupancy with configurations dependent on gNB semi-static channel access configurations, comprised of the following functional components: - Support initiating a semi-static channel access occupancy by the UE where the corresponding period is the same as, integer multiple of, or inter-factor of the period configured for a semi-static channel occupancy that can be initiated by gNB; - Sensing to initiate a semi-static CO or transmit after a gap greater than 16us from any transmission burst within a UE-initiated CO; - Determination of COT initiator assumption based on rules for configured UL; - Validating COT initiator assumption indicated in UL scheduling DCI. A UE supporting this feature shall also indicate support of *ul-Semi-StaticChAccess-r16.*	Band	No	N/A	N/A
ul-Semi-StaticChAccessIndependentConfig-r17 Indicates whether the UE supports initiating a semi-static channel access occupancy by the UE where the corresponding period is independently configured from the period configured for a semi-static channel occupancy that can be initiated by gNB. A UE supporting this feature shall also indicate support of *ul-Semi-StaticChAccess-r16* and *ul-Semi-StaticChAccessDependentConfig-r17.*	Band	No	N/A	N/A

4.2.7.2b *FR2-2-AccessParamsPerBand*

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
dl-FR2-2-SCS-120kHz-r17 Indicates whether the UE supports reception of 120kHz subcarrier spacing for DL data and control channels, SSB, and reference signals in FR2-2 for non-initial access. It is mandatory for UE supporting at least one FR2-2 frequency band.	Band	CY	N/A	N/A
dl-FR2-2-SCS-480kHz-r17 Indicates whether the UE supports the following: - Reception of 480kHz subcarrier spacing for DL data and control channels, SSB, and reference signals in FR2-2 for non-initial access. - Multiple-slot PDCCH monitoring for 480kHz with (Xs,Ys) = (4,1) - Multi-PDSCH scheduling by single DCI for the operation with 480 kHz SCS and corresponding HARQ enhancements. - Within the Ys = 1 slot (with Xs=4), monitoring of type 1 CSS with dedicated RRC configuration, type 3 CSS, and UE-SS with a maximum of two monitoring spans per slot with a span duration of Y symbols and a minimum gap of X symbols between the start of two spans, where (X,Y) = (4, 3) and (7, 3) are supported. - Processing one unicast DCI scheduling DL and one unicast DCI scheduling UL per slot group of Xs slots per scheduled CC for FDD. - Processing one unicast DCI scheduling DL and 2 unicast DCI scheduling UL per slot group of Xs slots per scheduled CC for TDD. - For type 1 CSS without dedicated RRC configuration and for type 0, 0A, and 2 CSS, the configured monitoring occasion(s) can be any OFDM symbol(s) of any slot(s) of the slot group, and the actual monitoring occasions for any one of Type 1- CSS without dedicated RRC configuration, or Types 0, 0A, or 2 CSS is within a single span of three consecutive OFDM symbols within a single slot of the slot group. UE indicating support of this feature shall also indicate support of *dl-FR2-2-SCS-120kHz-r17*.	Band	No	N/A	N/A
dl-FR2-2-SCS-960kHz-r17 Indicates whether the UE supports the following: - Reception of 960kHz subcarrier spacing for DL data and control channels, SSB, and reference signals in FR2-2 for non-initial access. - Multiple-slot PDCCH monitoring for 960kHz with (Xs,Ys) = (8,1). - Multi-PDSCH scheduling by single DCI for the operation with 960 kHz SCS and corresponding HARQ enhancements. - Within the Ys = 1 slot (with Xs=8), monitoring of type 1 CSS with dedicated RRC configuration, type 3 CSS, and UE-SS with a maximum of two monitoring spans per slot with a span duration of Y symbols and a minimum gap of X symbols between the start of two spans, where (X,Y) = (7, 3) is supported. - Processing one unicast DCI scheduling DL and one unicast DCI scheduling UL per slot group of Xs slots per scheduled CC for FDD. - Processing one unicast DCI scheduling DL and 2 unicast DCI scheduling UL per slot group of Xs slots per scheduled CC for TDD. - For type 1 CSS without dedicated RRC configuration and for type 0, 0A, and 2 CSS, the configured monitoring occasion(s) can be any OFDM symbol(s) of any slot(s) of the slot group, and the actual monitoring occasions for any one of Type 1- CSS without dedicated RRC configuration, or Types 0, 0A, or 2 CSS is within a single span of three consecutive OFDM symbols within a single slot of the slot group. UE indicating support of this feature shall also indicate support of *dl-FR2-2-SCS-120kHz-r17*.	Band	No	N/A	N/A
enhancedPDCCH-monitoringSCS-480kHz-r17 Indicates whether the UE supports multiple-slot PDCCH monitoring of type 1 CSS with dedicated RRC configuration, type 3 CSS, and UE-SS in the first 3 OFDM symbols of each slot within each of the Ys=2 slots (with Xs=4) for 480kHz with (Xs,Ys)=(4,2). UE indicating support of this feature shall also indicate support of *dl-FR2-2-SCS-480kHz-r17*.	Band	No	N/A	N/A

enhancedPDCCH-monitoringSCS-960kHz-r17 Indicates whether the UE supports multiple-slot PDCCH monitoring for one or more of (Xs, Ys) = {(4,1), (4,2), (8,4)} for 960kHz: - Type 1 CSS with dedicated RRC configuration, type 3 CSS, and UE-SS in the first 3 OFDM symbols of each slot within each of the Ys=2 slots (with Xs=4) or Ys =4 slots (with Xs=8). - Type 1 CSS with dedicated RRC configuration, type 3 CSS, and UE-SS with a span duration of Y symbols and a minimum gap of X symbols between the start of two spans where (X,Y) = (7, 3) within the Ys=1 slot (with Xs=4). UE indicating support of this feature shall also indicate support of *dl-FR2-2-SCS-960kHz-r17* and shall include at least one of pdcch-monitoring4-1, pdcch-monitoring4-2, or pdcch-monitoring8-4.	Band	No	N/A	N/A
modulation64-QAM-PUSCH-FR2-2-r17 Indicates whether the UE supports 64-QAM modulation for FR2-2 PUSCH.	Band	No	N/A	N/A
ul-FR2-2-SCS-120kHz-r17 Indicates whether the UE supports PRACH with 120kHz SCS and length 139 and transmission of 120kHz subcarrier spacing for UL data and control channels and reference signals in FR2-2. UE indicating support of this feature shall also indicate support of *dl-FR2-2-SCS-120kHz-r17.*	Band	No	N/A	N/A
ul-FR2-2-SCS-480kHz-r17 Indicates whether the UE supports the following: - PRACH with 480kHz SCS and length 139. - Transmission of 4800kHz subcarrier spacing for UL data and control channels and reference signals in FR2-2. - Multi-PUSCH scheduling by single DCI for the operation with 480 kHz SCS. UE indicating support of this feature shall also indicate support of *dl-FR2-2-SCS-480kHz-r17* and *ul-FR2-2-SCS-120kHz-r17.*	Band	No	N/A	N/A
ul-FR2-2-SCS-960kHz-r17 Indicates whether the UE supports the following: - PRACH with 960kHz SCS and length 139. - Transmission of 960kHz subcarrier spacing for UL data and control channels and reference signals in FR2-2. - Multi-PUSCH scheduling by single DCI for the operation with 960 kHz SCS. UE indicating support of this feature shall also indicate support of *dl-FR2-2-SCS-960kHz-r17* and *ul-FR2-2-SCS-120kHz-r17.*	Band	No	N/A	N/A
initialAccessSSB-120kHz-r17 Indicates whether the UE supports 120kHz SSB for initial access in FR2-2. UE indicating support of this feature shall also indicate support of *dl-FR2-2-SCS-120kHz-r17* and *ul-FR2-2-SCS-120kHz-r17.*	Band	No	N/A	N/A
initialAccessSSB-480kHz-r17 Indicates whether the UE supports 480kHz SSB for initial access in FR2-2. UE indicating support of this feature shall also indicate support of *initialAccessSSB-120kHz-r17, dl-FR2-2-SCS-480kHz-r17* and *ul-FR2-2-SCS-480kHz-r17.*	Band	No	N/A	N/A
multiPDSCH-SingleDCI-FR2-2-SCS-120kHz-r17 Indicates whether the UE supports multi-PDSCH scheduling by single DCI for the operation with 120 kHz SCS in FR2-2 and HARQ enhancements for both type 1 and type 2 HARQ codebook. UE indicating support of this feature shall also indicate support of *dl-FR2-2-SCS-120kHz-r17.*	Band	No	N/A	N/A
multiPUSCH-SingleDCI-FR2-2-SCS-120kHz-r17 Indicates whether the UE supports multi-PUSCH scheduling by single DCI for the operation with 120 kHz SCS in FR2-2. UE indicating support of this feature shall also indicate support of *ul-FR2-2-SCS-120kHz-r17*.	Band	No	N/A	N/A

multiRB-PUCCH-SCS-120kHz-r17 Indicates whether the UE supports multi-RB PUCCH format 0/1/4 for 120kHz SCS. This feature is only applicable when PSD limitation applies within FR2-2 based on the regional regulations. UE indicating support of this feature shall also indicate support of *ul-FR2-2-SCS-120kHz-r17*.	Band	No	N/A	N/A
multiRB-PUCCH-SCS-480kHz-r17 Indicates whether the UE supports multi-RB PUCCH format 0/1/4 for 480kHz SCS. This feature is only applicable when PSD limitation applies within FR2-2 based on the regional regulations. UE indicating support of this feature shall also indicate support of *ul-FR2-2-SCS-480kHz-r17*.	Band	No	N/A	N/A
multiRB-PUCCH-SCS-960kHz-r17 Indicates whether the UE supports multi-RB PUCCH format 0/1/4 for 960kHz SCS. This feature is only applicable when PSD limitation applies within FR2-2 based on the regional regulations. UE indicating support of this feature shall also indicate support of *ul-FR2-2-SCS-960kHz-r17*.	Band	No	N/A	N/A
reduced-BeamSwitchTiming-FR2-2-r17 Indicates whether the UE supports reduced beam switching time delay d = 56 symbols for 480 kHz SCS as specified in TS 38.214 [12], clause 5.2.1.5.1a. If this capability is not reported and the UE supports both *dl-FR2-2-SCS-480kHz-r17* and *dl-FR2-2-SCS-960kHz-r17*, the default value of 112 symbols is assumed.	Band	No	N/A	N/A
support32-DL-HARQ-ProcessPerSCS-r17 Indicates whether the UE supports 32 HARQ processes in DL for each SCS in FR2-2 (i.e. SCS 120kHz/480kHz/960kHz). A UE supporting 32 HARQ processes for 480/960 kHz SCS for DL shall support 32 as the maximum number of HARQ processes for 120 kHz SCS for DL in FR2-2. UE indicating support of this feature shall indicate support of *dl-FR2-2-SCS-120kHz-r17*.	Band	No	N/A	N/A
support32-UL-HARQ-ProcessPerSCS-r17 Indicates whether the UE supports 32 HARQ processes in UL for each SCS in FR2-2 (i.e. SCS 120kHz/480kHz/960kHz). A UE supporting 32 HARQ processes for 480/960 kHz SCS for UL shall support 32 as the maximum number of HARQ processes for 120 kHz SCS for UL in FR2-2. UE indicating support of this feature shall indicate support of *dl-FR2-2-SCS-120kHz-r17*.	Band	No	N/A	N/A
type1-ChannelAccess-FR2-2-r17 Indicates whether the UE supports Type 1 channel access procedure in uplink for FR2-2 with shared spectrum channel access and supports LBT performed per channel, as defined in TS 37.213 [32], clause 4.4. UE indicating support of this feature shall also indicate support of *ul-FR2-2-SCS-120kHz-r17.* It is mandatory for UE supporting FR2-2 frequency band to indicate this when required by regulation.	Band	CY	N/A	N/A
type2-ChannelAccess-FR2-2-r17 Indicates whether the UE supports Type 2 channel access procedure in uplink for FR2-2 with shared spectrum channel access and supports LBT performed per channel, as defined in TS 37.213 [32], clause 4.4. UE indicating support of this feature shall also indicate support of *ul-FR2-2-SCS-120kHz-r17 and type1-ChannelAccess-FR2-2-r17.* It is mandatory for UE supporting FR2-2 frequency band to indicate this when required by regulation.	Band	CY	N/A	N/A
widebandPRACH-SCS-120kHz-r17 Indicates whether the UE supports enhanced PRACH design for operation by adopting a single long ZC sequence, with ZC sequence equal to 1151 and 571 for 120kHz SCS. This feature is only applicable when PSD limitation applies within FR2-2 based on the regional regulations. UE indicating support of this feature shall also indicate support of *ul-FR2-2-SCS-120kHz-r17*.	Band	No	N/A	N/A

widebandPRACH-SCS-480kHz-r17 Indicates whether the UE supports enhanced PRACH design for operation with ZC sequence equal to 571 for 480kHz SCS. This feature is only applicable when PSD limitation applies within FR2-2 based on the regional regulations. UE indicating support of this feature shall also indicate support of *ul-FR2-2-SCS-480kHz-r17*.	Band	No	N/A	N/A

4.2.7.3 *CA-ParametersEUTRA*

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
additionalRx-Tx-PerformanceReq *additionalRx-Tx-PerformanceReq* defined in 4.3.5.22, TS 36.306 [15].	BC	No	N/A	N/A
dl-1024QAM-TotalWeightedLayers Indicates total number of weighted layers for the LTE part of the concerned (NG)EN-DC/NE-DC band combination the UE can process for 1024QAM, as described in TS 36.306 [15] equation 4.3.5.31-1. Actual value = (10 + indicated value x 2), i.e. value 0 indicates 10 layers, value 1 indicates 12 layers and so on. For an (NG)EN-DC/NE-DC band combination for which this field is not included, *dl-1024QAM-TotalWeightedLayers-r15* as described in TS 36.331 [17] applies, if included.	BC	No	N/A	N/A
multipleTimingAdvance *multipleTimingAdvance* defined in 4.3.5.3, TS 36.306 [15].	BC	No	N/A	N/A
simultaneousRx-Tx *simultaneousRx-Tx* defined in 4.3.5.4, TS 36.306 [15].	BC	No	N/A	N/A
supportedBandwidthCombinationSetEUTRA Indicates the set of supported bandwidth combinations for the LTE part for inter-band (NG)EN-DC without intra-band (NG)EN-DC component, inter-band NE-DC without intra-band NE-DC component and intra-band (NG)EN-DC/NE-DC with additional inter-band LTE CA component. The field is encoded as a bit map, where bit N is set to "1" if UE support Bandwidth Combination Set N for this band combination. The leading / leftmost bit (bit 0) corresponds to the Bandwidth Combination Set 0, the next bit corresponds to the Bandwidth Combination Set 1 and so on. The UE shall neither include the field for a (NG)EN-DC/NE-DC combination which has only one LTE carrier, nor for a (NG)EN-DC/NE-DC combination which has more than one LTE carrier for which the UE only supports Bandwidth Combination Set 0 for the LTE part. If the inter-band (NG)EN-DC/NE-DC has more than one LTE carrier, the UE shall support of at least one bandwidth combination for the supported LTE part.	BC	CY	N/A	N/A
supportedNAICS-2CRS-AP *supportedNAICS-2CRS-AP* defined in 4.3.5.8, TS 36.306 [15].	BC	No	N/A	N/A
fd-MIMO-TotalWeightedLayers Indicates total number of weighted layers for the LTE part of the concerned (NG)EN-DC/NE-DC band combination the UE can process for FD-MIMO, as described in TS 36.306 [15] equation 4.3.28.13-1 and TS 36.331 [17] clause 6.3.6, NOTE 8 in *UE-EUTRA-Capability* field descriptions. For an (NG)EN-DC/NE-DC band combination for which this field is not included, *totalWeightedLayers-r13* as described in TS 36.331 [17] applies, if included.	BC	No	N/A	N/A
ue-CA-PowerClass-N *ue-CA-PowerClass-N* defined in 4.3.5.1.3, TS 36.306 [15].	BC	No	N/A	N/A

4.2.7.4 *CA-ParametersNR*

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
ack-NACK-FeedbackForMulticast-r17 Indicates whether the UE supports ACK/NACK based HARQ-ACK feedback and RRC-based enabling/disabling ACK/NACK-based feedback for dynamic scheduling for multicast, comprised of the following functional components: - Supports ACK/NACK based HARQ-ACK feedback, and support of enabling/disabling ACK/NACK based HARQ-ACK feedback configured by RRC signalling; - Supports PTM retransmission for multicast; - Supports Type-1 and Type-2 HARQ-ACK CB for multicast feedback only; - Supports shared PUCCH resource configurations with unicast; - Supports Type-2 HARQ-ACK codebook for multicast on PUSCH/PUCCH with max number of G-RNTIs indicated in *maxNumberG-RNTI-HARQ-ACK-Codebook-r17*, which is not larger than max number of G-RNTIs indicated in *maxNumberG-RNTI-r17*. A UE supporting this feature shall also indicate support of *dynamicMulticastPCell-r17*.	BC	No	N/A	N/A
ack-NACK-FeedbackForSPS-Multicast-r17 Indicates whether the UE supports ACK/NACK based HARQ-ACK feedback and RRC-based enabling/disabling ACK/NACK-based feedback for SPS group-common PDSCH for multicast, comprised of the following functional components: - Support of ACK/NACK based HARQ-ACK feedback, enabling/disabling ACK/NACK based HARQ-ACK feedback configured by RRC signalling for SPS group-common PDSCH without PDCCH scheduling and first PDSCH after SPS activation; - Support of PTM retransmission for SPS multicast associated with G-CS-RNTI; - Support of Type-1 and Type-2 HARQ-ACK CB for SPS multicast feedback only; - Support of shared *SPS-PUCCH-AN-List* configuration from unicast SPS. A UE supporting this feature shall also indicate support of *sps-Multicast-r17*.	BC	No	N/A	N/A
advUnicastDCI-DL-r18 Indicates whether the UE supports processing up to X unicast DCI scheduling PDSCH per scheduled cell in a set of cells configured for multi-cell PDSCH scheduling by DCI format 1_3. The UE supports up to X DCI formats 1_3 for the set of cells, and up to X unicast DL DCI formats 1_0/1_1/1_2 (if supported) for each of the cells in the set of cells. For each cell in the set of cells, the UE supports no more than X DCIs scheduling PDSCH for the cell. X is based on pair of (scheduling CC SCS, scheduled CC SCS): X={2,4} for (15,120), (15,60), (30,120). X={2} for (15,30), (30,60), (60,120 kHz). X applies per slot of scheduling CC. A UE supporting this feature shall also indicate support of *multiCell-PDSCH-DCI-1-3-DiffSCS-r18.*	BC	No	N/A	N/A
advUnicastDCI-DL-DiffSCS-DiffCC-r19 Indicates whether the UE supports processing up to Y DCI formats 1_3 for the set of cells, and processing up to X unicast DL DCI formats 1_0/1_1/1_2 (if supported) for each of the cells in the set of cells configured for multi-cell PDSCH scheduling by DCI format 1_3. X, *unicastDCI-Formats-r19*, is based on pair (SCS1, SCS2), Y, *numDCI-1-3-r19*, is based on pair of (SCS1, SCS3), where SCS1 is the SCS for scheduling CC, SCS2 is the SCS of a cell in the set of cells, and SCS3 is the largest SCS among all cells in the cell set. For each cell in the set of cells, no more than X DCIs scheduling PDSCH for the cell. X and Y apply per slot of scheduling CC. A UE supporting this feature shall also indicate support of *multicell-PDSCH-DCI-1-3-DiffSCS-DiffCC-r19*.	BC	No	N/A	N/A

advUnicastDCI-UL-r18 Indicates whether the UE supports processing up to X unicast DCI scheduling PUSCH per scheduled cell in a set of cells configured for multi-cell PUSCH scheduling by DCI format 0_3. The UE supports up to X DCI formats 0_3 for the set of cells, and up to X unicast UL DCI formats 0_0/0_1/0_2 (if supported) for each of the cells in the set of cells. For a cell in the set of cells, the UE supports no more than X DCIs scheduling PUSCH for the cell. X is based on pair of (scheduling CC SCS, scheduled CC SCS): X={2,4} for (15,120), (15,60), (30,120). X={2} for (15,30), (30,60), (60,120 kHz). X applies per slot of scheduling CC. A UE supporting this feature shall also indicate support of *multiCell-PUSCH-DCI-0-3-DiffSCS-r18.*	BC	No	N/A	N/A
advUnicastDCI-UL-DiffSCS-DiffCC-r19 Indicates whether the UE supports processing up to Y DCI formats 0_3 for the set of cells, and processing up to X unicast UL DCI formats 0_0/0_1/0_2 (if supported) for each of the cells in the set of cells configured for multi-cell PUSCH scheduling by DCI format 0_3. X, *unicastDCI-Formats-r19*, is based on pair (SCS1, SCS2), Y, *numDCI-0-3-r19*, is based on pair of (SCS1, SCS3), where SCS1 is the SCS for scheduling CC, SCS2 is the SCS of a cell in the set of cells, and SCS3 is the largest SCS among all cells in the cell set. For each cell in the set of cells, no more than X DCIs scheduling PUSCH for the cell. X and Y apply per slot of scheduling CC. A UE supporting this feature shall also indicate support of *multiCell-PUSCH-DCI-0-3-DiffSCS-DiffCC-r19*.	BC	No	N/A	N/A

aiml-CSI-PredictionDopplerPerBC-r19 The UE optionally includes *maxNumberOfAperiodic-CSI-RS-Resource-r19* to indicate the maximum number of aperiodic CSI-RS resources that can be configured in the same CSI report setting for eType-II doppler measurement for UE side inference of CSI prediction. The UE optionally includes *eType2DopplerR2-r19* to indicate whether the UE supports R=2 for eType-II doppler codebook for UE side inference of CSI prediction. This field includes the list of supported CSI-RS resources in a band combination by referring to *codebookVariantsList*. The following parameters are included for the supported CSI-RS resource: - *maxNumberTxPortsPerResource* indicates the maximum number of Tx ports in a resource of a band combination for inference. The minimum of maxNumberTxPortsPerResource is '*p4*'; - *totalNumberTxPortsPerBand* indicates the total number of Tx ports across all CCs in a band combination for inference. The minimum value of totalNumberTxPortsPerBand is '*4*'; The UE optionally includes *eType2DopplerX1-r19* to indicate whether the UE supports X=1 based on first and last slot of W_{CSI}, for eType-II doppler codebook for UE side inference of CSI prediction (i.e., TDCQI = '1-2'). The UE optionally includes *eType2DopplerX2-r19* to indicate whether the UE supports X=2 CQI based on 2 slots for eType-II doppler codebook for UE side inference of CSI prediction (i.e., TDCQI = '2'). The UE optionally includes *eType2DopplerL-N4D1-r19* to indicate whether the UE supports l = (n – nCSI,ref) for CSI reference slot for eType-II doppler codebook for UE side inference of CSI prediction when *vectorLengthDD-r18* = 1 and *unitDurationDD-r18* > 1, or when *vectorLengthDD-r18* > 1. The UE optionally includes *eType2DopplerL6-r19* to indicate whether the UE supports L=6 for eType-II doppler codebook for UE side inference of CSI prediction. The UE optionally includes *eType2DopplerR3R4-r19* to indicate whether the UE supports rank equals 3 and 4 for eType-II doppler codebook for UE side inference of CSI prediction. The UE optionally includes *codebookComboParameterMixedTypePrediction-r19* to indicate the list of supported CSI-RS resources across all bands in a band combination by referring to *codebookVariantsList* for the mixed codebook types. For mixed codebook types, UE reports the support of active CSI-RS resources and ports for up to 2 mixed codebook combinations in any slot. The following parameters are included in *codebookVariantsList* for each codebook type: - *maxNumberTxPortsPerResource* indicates the maximum number of Tx ports in a resource across all bands within a band combination; - *maxNumberResourcesPerBand* indicates the maximum number of resources across all CCs within a band combination, simultaneously; - *totalNumberTxPortsPerBand* indicates the total number of Tx ports across all CCs within a band combination, simultaneously. NOTE 1: If a UE indicates one or more codebook combinations in *codebookComboParameterMixedTypePrediction-r19*, the usage of active CSI-RS resources and ports for multiple codebooks in any slot is allowed only within those combinations. NOTE 2: For coexisting of mixed codebooks in any slot, the supported values for these three parameters are determined in conjunction with *codebookComboParametersAdditionPerBC-r16*, *codebookComboParameterMixedTypePerBC-r17*, *codebookComboParameterMixedTypePerdiction-r19* of *aiml-CSI-PredictionDopplerPerBC-r19*, and per-codebook capability *type1*, *type2* of *codebookParametersPerBC*, *etype2R1-r16* of *codebookParametersAdditionPerBC-r16*, and *fetype2basic-r17*, *fetype2R1-r17*, *fetype2R2-r17* of *codebookParametersfetype2PerBC-r17.* A UE supporting this feature shall also indicate support of *aiml-CSI-PredictionPerBC-r19*.	BC	No	N/A	N/A

aiml-CSI-PredictionMonitoringPerBC-r19 Indicates whether the UE supports performance monitoring of CSI prediction model, including two performance metric SGCS, one wideband frequency granularity SGCS per layer and one configured time instance for *vectorLengthDD-r18*>1. This field includes the following parameters: - *suppportedCSI-RS-ResourceList-r19* indicates the list of supported CSI-RS resources in a band combination by referring to *codebookVariantsList*. The following parameters are included for the supported CSI-RS resource: - *maxNumberTxPortsPerResource* indicates the maximum number of Tx ports in a resource of a band combination. The minimum of *maxNumberTxPortsPerResource* is '*p4*'; - *maxNumberResourcesPerBand* indicates the maximum number of resources across all CCs in a band combination; - *totalNumberTxPortsPerBand* indicates the total number of Tx ports across all CCs in a band combination. The minimum value of *totalNumberTxPortsPerBand* is '*4*'; - *numOccupiedCPU-r19* indicates the number of occupied CPU. NOTE: The summation of the value reported by *numOccupiedCPU-r19* of *aiml-CSI-PredictionMonitoringPerBC-r19* and the one reported by the *numberOfOccupiedCPU-r19* of *aiml-CSI-PredictionPerBC-r19* (or *numOccupiedCPU-r19* of *aiml-CSI-PredictionN4PerBC-r19*) should not significant than the N_CPU UE reported. A UE supporting this feature shall also indicate support of *aiml-CSI-PredictionPerBC-r19*.	BC	No	N/A	N/A

aiml-CSI-PredictionN4PerBC-r19
Indicates whether the UE supports CSI prediction for UE-sided inference when *vectorLengthDD-r18*>1. The UE also supports reporting predicted PMI with *vectorLengthDD-r18* >1, value of *unitDurationDD-r18*=m for the DD unit size when A-CSI-RS is configured for CMR and the size of DD-basis, *vectorLengthDD-r18*>1. This field includes the following parameters:
- *supportedCSI-RS-ReportSettingAcrossCC-r19* indicates the list of supported combinations across all CCs in a band combination simultaneously by referring to *supportedCSI-RS-ReportSetting-r18*. The following parameters are included in *supportedCSI-RS-ReportSetting-r18*:
  - *maxN4-r18* indicates the max number of *vectorLengthDD-r18* across all CCs in a band combination, simultaneously;
  - *maxNumberTxPortsPerResource-r18* indicates the maximum number of Tx ports in a report of a band combination across all CCs in a band combination, simultaneously. The minimum of *maxNumberTxPortsPerAggregatedResource-r18* is '*p4*';
  - *maxNumberResourcesPerBand-r18* indicates the maximum number of sets of aggregated resources or groups of aggregated resource across all CCs in a band combination, simultaneously. The minimum of *maxNumberResourcesPerBand-r18* is '*2*';
  - *totalNumberTxPortsPerBand-r18* indicates the total number of Tx ports across all CCs in a band combination, simultaneously. The minimum of *totalNumberTxPortsPerBand-r18* is *'4'*.
- *supportedCSI-RS-ReportSettingOneReport-r19* indicates the list of supported combinations for one CSI report setting by referring to *supportedCSI-RS-ReportSetting-r18*. The following parameters are included in *supportedCSI-RS-ReportSetting-r18*:
  - *maxN4-r18* indicates the max number of *vectorLengthDD-r18* across all CCs in a band combination, simultaneously;
  - *maxNumberTxPortsPerResource-r18* indicates the maximum number of Tx ports in one CSI report setting. The minimum of *maxNumberTxPortsPerAggregatedResource-r18* is '*p4*';
  - *maxNumberResourcesPerBand-r18* indicates the maximum number of sets of aggregated resources or groups of aggregated resource for one CSI report setting. The value of *maxNumberResourcesPerBand-r18* is '*4*', '*8*' and '*12*';
  - *totalNumberTxPortsPerBand-r18* indicates the total number of Tx ports for one CSI report setting. The minimum of *totalNumberTxPortsPerBand-r18* is *'4'*.
- *numOccupiedCPU-r19* indicates the number of occupied CPU;
- *numOccupiedCPUx-r19* indicates the number of occupied CPU,2 or CPU,3;
- *occupiedPool-r19* indicates the occupied resource pool between CPU,2 and CPU,3. The value '*p1*' represents the first CPU pool (i.e., CPU,2), the value '*p2*' represents the second CPU pool (i.e., CPU,3).
 	
NOTE: UE should not report non-zero value for *numOccupiedCPUx-r19* if *aiml-CSI-ReportPerBC-r19* is not supported.
 	
A UE supporting this feature shall also indicate support of *aiml-CSI-PredictionPerBC-r19*.
	BC	No	N/A	N/A

aiml-CSI-PredictionPerBC-r19 Indicates whether the UE supports CSI prediction for UE-sided inference when *vectorLengthDD-r18*=1. The UE also indicates the support of reporting predicted PMI with *vectorLengthDD-r18*=1, support of eType-II regular codebook refinement for predicted PMI with PMI subband R=1, support of parameter combinations with L=2,4, support of rank=1,2, support of the size of DD-basis *vectorLengthDD-r18*=1, support of X=1 CQI based on the first/earliest slot of the CSI reporting window and the first/earliest predicted PMI (TDCQI='1-1'). This field includes the following parameters: - *supportedCSI-RS-ResourceList-r19* indicates the list of supported CSI-RS resources in a band combination by referring to *codebookVariantsList*. The following parameters are included for the supported CSI-RS resource: - *maxNumberTxPortsPerResource* indicates the maximum number of Tx ports in a resource of a band combination. The minimum of *maxNumberTxPortsPerResource* is '*p4*'; - *maxNumberResourcesPerBand* indicates the maximum number of resources across all CCs in a band combination. The minimum of *maxNumberResourcesPerBand* is '*2*'; - *totalNumberTxPortsPerBand* indicates the total number of Tx ports across all CCs in a band combination. The minimum value of *totalNumberTxPortsPerBand* is '*4*'; - *scalingFactor-r19* indicates the scaling factor for active resource counting K_p; - *relaxationTimelineT-r19* indicates the supported value of Ti for the relaxation of Z and Z' timeline; - *numberOfOccupiedCPU-r19* indicates the number of occupied CPU; - *numberOfOccupiedCPUx-r19* indicates the number of occupied CPU,2/CPU,3; - *occupiedResourcePool-r19* indicates the occupied resource pool between CPU,2 and CPU,3; - *inferenceReportType-r19* indicates the supported inference report type. A UE supporting this feature shall also indicate support of *simultaneousCSI-ReportsAllCC*. NOTE: UE should not report non-zero value for *numberOfOccupiedCPUx-r19* if *aiml-CSI-Report-r19* is not supported.	BC	No	N/A	N/A
aiml-CSI-PredictionUE-DataCollectionPerBC-r19 Indicates whether the UE supports UE-side data collection for CSI prediction. The UE also supports providing UE preferred configuration for UE-side CSI prediction data configuration. A UE supporting this feature shall also indicate support of *simultaneousCSI-ReportsAllCC*.	BC	No	N/A	N/A
aiml-CSI-PredictionUnitDurationDD-PerBC-r19 Indicates whether the UE supports value of *unitDurationDD-r18*=1 for the DD unit duration when A-CSI-RS is configured for CMR *vectorLengthDD-r18* >1 for UE side inference of CSI prediction. A UE supporting this feature shall also indicate support of *aiml-CSI-PredictionPerBC-r19*.	BC	No	N/A	N/A
aiml-CSI-ReportPerBC-r19 Indicates whether the UE supports CSI report framework for UE-sided inference. The UE indicates the list of *CPU-PoolInfo-r19* which includes the following parameters: - *maxNumCPU-PerCC-r19* indicates the maximum number of CPU in each CPU,x pool of UE-sided inference for CSI report(s) for simultaneously in a CC; - *maxNumCPU-AllCC-r19* indicates the maximum number of CPU in each CPU,x pool of UE-sided inference for CSI report(s) simultaneously across all CCs. A UE supporting this feature shall also indicate support of *simultaneousCSI-ReportsAllCC*.	BC	No	N/A	N/A

atg-RxBeamType-r19 Indicates the number of Rx beams supported by the UE when UE is capable of *antennaArrayType-r18* on both PCC and SCC. Value *rxType1* indicates the UE supports one common Rx beam, value *rxType2* indicates the UE supports two simultaneous separate Rx beams. This UE feature is applicable only for inter-band CA band combination(s) in TS 38.101-1 [2]. It is mandatory for UE supporting *antennaArrayType-r18* on each band of the supported band combination.	BC	CY	N/A	FR1 only
beamManagementType-r16, beamManagementType-CBM-r17 Indicates the supported beam management type for inter-band CA within FR2. Beam management type can be independent beam management (IBM) or common beam management (CBM). The UE can support independent beam management (IBM) only or common beam management (CBM) only or both. NOTE: *beamManagementType-CBM-r17* is only applicable to the band combinations with 2 bands.	BC	Yes	TDD only	FR2 only
blindDetectFactor-r16 Defines the value of factor R for blind detection as specified in Clause 10.1 [11]. The UE that indicates support of this feature shall support *multiDCI-MultiTRP-r16.*	BC	No	N/A	N/A
bwp-SwitchingDCI-0-3-And-1-3-r18 Indicates whether the UE supports BWP switch indication by DCI format 0_3 and 1_3. A UE supporting this feature shall indicate support of at least one of *multiCell-PDSCH-DCI-1-3-SameSCS-r18, multiCell-PDSCH-DCI-1-3-DiffSCS-r18, multiCell-PUSCH-DCI-0-3-SameSCS-r18* and *multiCell-PUSCH-DCI-0-3-DiffSCS-r18* for the same BC. A UE supporting this feature shall also indicate support of at least one of *upto2* in *bwp-SameNumerology, upto4* in *bwp-SameNumerology* and *upto4* in *bwp-DiffNumerology* for at least one band of the same BC.	BC	No	N/A	N/A
bwp-SwitchingDCI-0-3-And-1-3-Diff-r19 Indicates whether the UE supports BWP switch indication by DCI format 0_3 and 1_3 with different SCS and/or different carrier type. A UE supporting this feature shall indicate support of at least one of *multiCell-PDSCH-DCI-1-3-DiffSCS-DiffCC-r19* and *multiCell-PUSCH-DCI-0-3-DiffSCS-DiffCC-r19* for the same BC. A UE supporting this feature shall also indicate support of at least one of *upto2* in *bwp-SameNumerology, upto4* in *bwp-SameNumerology* and *upto4* in *bwp-DiffNumerology* for at least one band of the same BC.	BC	No	N/A	N/A
cjtc-DdFO-ReportPerBC-r19 Indicates whether the UE supports coherent joint transmission calibration delay offset and frequency offset report. This capability signaling comprises the following parameters: - *minRangeDdInCyclicPrefix-r19* indicates the configured minimum quantization range for coherent joint transmission calibration delay offset reporting. The cyclic prefix of '*full*' is lower than '*half*''; - *maxResolutionDd-r19* indicates the configured maximum resolution (number of steps) for the quantization alphabet for coherent joint transmission calibration delay offset reporting. The larger reported value is the lower capability. - *minRangeFO-r19* indicates the configured minimum quantization range for coherent joint transmission calibration frequency offset reporting, where value *ppmDot1* indicates 0.1 parts per million of the carrier frequency, value *ppmDot2* indicates 0.2 parts per million of the carrier frequency. The '*ppmDot2*' is of lower capability than '*ppmDot1*'. - *maxResolutionFO-r19* indicates the configured maximum resolution (number of steps) for the quantization alphabet for coherent joint transmission calibration frequency offset reporting. The larger reported value is the lower capability. - *scalingFactor-r19* indicates the supported value of scaling factor X for OCPU calculation. The larger reported value is the lower capability. A UE supporting this feature shall also indicate support of *simultaneousCSI-ReportsAllCC*, *cjtc-DdReportPerBC-r19* and *cjtc-FO-ReportPerBC-r19*. NOTE: OCPU = 2X*NTRP.	BC	No	N/A	N/A

cjtc-DdFO-ReportProcessingPerBC-r19 Indicates whether the UE supports coherent joint transmission calibration delay and frequency offset report processing. This capability signaling comprises the following parameters: - *maxNumberTRS-Resource-r19* indicates the maximum number of configured TRS resource sets for joint delay and frequency offset report; - *maxNumberTRS-ResourceAcrossCC-r19* indicates the maximum number of configured TRS resource sets for joint delay and frequency offset report across all CCs in a band combination; - *maxNumberCSI-RS-ResourcePerCC-r19* indicates the maximum number of simultaneously active CSI-RS resources for joint delay and frequency offset report per CC; - *maxNumberCSI-RS-ResourceAcrossCC-r19* indicates the number of simultaneously active CSI-RS resources for joint delay and frequency offset report across all CCs in a band combination; - *valueX-r19* indicates the value X for CPU occupation, where $O_{CPU}=2X*N_{TRP}$. A UE supporting this feature shall also indicate support of *cjtc-DdFO-ReportPerBC-r19*.	BC	No	N/A	N/A
cjtc-DdReportPerBC-r19 Indicates whether the UE supports coherent joint transmission calibration delay offset report. This capability signaling comprises the following parameters: - *minRangeDdInCyclicPrefix-r19* indicates the configured minimum quantization range for coherent joint transmission calibration delay offset reporting. The cyclic prefix of '*full*' is lower than '*half*'; - *maxResolutionDd-r19* indicates the configured maximum resolution (number of steps) for the quantization alphabet for coherent joint transmission calibration delay offset reporting. The larger reported value is the lower capability; - *scalingFactor-r19* indicates the supported value of scaling factor X for OCPU calculation. The larger reported value is the lower capability. A UE supporting this feature shall also indicate support of *simultaneousCSI-ReportsAllCC*. NOTE: OCPU = X*NTRP.	BC	No	N/A	N/A
cjtc-DdReportProcessingPerBC-r19 Indicates whether the UE supports coherent joint transmission calibration delay offset report processing. This capability signaling comprises the following parameters: - *maxNumberTRS-Resource-r19* indicates the maximum number of configured TRS resource sets for delay offset report; - *maxNumberTRS-ResourceAcrossCC-r19* indicates the maximum number of configured TRS resource sets for delay offset report across all CCs in a band combination; - *maxNumberCSI-RS-ResourcePerCC-r19* indicates the maximum number of simultaneously active CSI-RS resources for delay offset report per CC; - *maxNumberCSI-RS-ResourceAcrossCC-r19* indicates the number of simultaneously active CSI-RS resources for delay offset report across all CCs in a band combination; - *valueX-r19* indicates the value X for CPU occupation, where $O_{CPU}=X*N_{TRP}$. A UE supporting this feature shall also indicate support of *cjtc-DdReportPerBC-r19*.	BC	No	N/A	N/A
cjtc-FO-ReportPerBC-r19 Indicates whether the UE supports coherent joint transmission calibration frequency offset report. This capability signaling comprises the following parameters: - *minRangeFO-r19* indicates the configured minimum quantization range for coherent joint transmission calibration frequency offset reporting, where value *ppmDot1* indicates 0.1 parts per million of the carrier frequency, value *ppmDot2* indicates 0.2 parts per million of the carrier frequency. The '*ppmDot2*' is of lower capability than '*ppmDot1*'; - *maxResolutionFO-r19* indicates the configured maximum resolution (number of steps) for the quantization alphabet for coherent joint transmission calibration frequency offset reporting. The larger reported value is the lower capability; - *scalingFactor-r19* indicates the supported value of scaling factor X for OCPU calculation. The larger reported value is the lower capability; A UE supporting this feature shall also indicate support of *simultaneousCSI-ReportsAllCC*. NOTE: OCPU = X*NTRP.	BC	No	N/A	N/A

cjtc-FO-ReportProcessingPerBC-r19 Indicates whether the UE supports coherent joint transmission calibration frequency offset report processing. This capability signaling comprises the following parameters: - *maxNumberTRS-Resource-r19* indicates the maximum number of configured TRS resource sets for frequency offset report; - *maxNumberTRS-ResourceAcrossCC-r19* indicates the maximum number of configured TRS resource sets for frequency offset report across all CCs in a band combination; - *maxNumberCSI-RS-ResourcePerCC-r19* indicates the maximum number of simultaneously active CSI-RS resources for frequency offset report per CC; - *maxNumberCSI-RS-ResourceAcrossCC-r19* indicates the number of simultaneously active CSI-RS resources for frequency offset report across all CCs in a band combination; - *valueX-r19* indicates the value X for CPU occupation, where $O_{CPU}=X*N_{TRP}$. A UE supporting this feature shall also indicate support of *cjtc-FO-ReportPerBC-r19*.	BC	No	N/A	N/A
cjtc-PO-ReportSubbandPerBC-r19 Indicates whether the UE supports coherent joint transmission calibration subband phase offset report. This capability signalling comprises the following parameters: - *maxResolution-r19* indicates the configured maximum resolution (number of steps) for the quantization alphabet for coherent joint transmission calibration subband phase offset reporting. - *minSubbandSize-r19* indicates the configured minimum subband size in resource blocks for the coherent joint transmission calibration subband phase offset report. - *scalingFactor-r19* indicates the supported value of scaling factor X for OCPU calculation. - *maxSlotDuration-r19* indicates the supported maximum slot duration for N_{TRP} P/SP CSI-RS occasions being confined in. A UE supporting this feature shall also indicate support of *simultaneousCSI-ReportsAllCC*. NOTE: OCPU = X*NTRP.	BC	No	N/A	N/A
cjtc-PO-ReportWidebandPerBC-r19 Indicates whether the UE supports coherent joint transmission calibration wideband phase offset report. This capability signalling comprises the following parameters: - *maxResolution-r19* indicates the configured maximum resolution (number of steps) for the quantization alphabet for coherent joint transmission calibration wideband phase offset reporting. - *scalingFactor-r19* indicates the supported value of scaling factor X for OCPU calculation. - *maxSlotDuration-r19* indicates the supported maximum slot duration for N_{TRP} P/SP CSI-RS occasions being confined in. A UE supporting this feature shall also indicate support of *simultaneousCSI-ReportsAllCC*. NOTE: OCPU = X*NTRP.	BC	No	N/A	N/A
cjtc-PO-ReportWidebandProcessingPerBC-r19 Indicates whether the UE supports coherent joint transmission calibration wideband phase offset report processing. This capability signalling comprises the following parameters: - *maxNumberCSI-RS-Configured-r19* indicates the maximum number of configured CSI-RS resources for phase offset report; - *maxNumberCSI-RS-ConfiguredAcrossCC-r19* indicates the maximum number of configured CSI-RS resources for phase offset report across all CCs in a band combination; - *maxNumberCSI-RS-ResourcePerCC-r19* indicates the maximum number of simultaneously active CSI-RS resources for phase offset report per CC; - *maxNumberCSI-RS-ResourceAcrossCC-r19* indicates the number of simultaneously active CSI-RS resources for phase offset report across all CCs in a band combination; - *valueX-r19* indicates the value X for CPU occupation, where $O_{CPU}=X*N_{TRP}$. A UE supporting this feature shall also indicate support of *cjtc-PO-ReportWidebandPerBC-r19*.	BC	No	N/A	N/A

codebookComboParametersAdditionPerBC-r16 Indicates the list of supported CSI-RS resources across all bands in a band combination by referring to *codebookVariantsList* for the mixed codebook types. For mixed codebook types, UE reports support active CSI-RS resources and ports for up to 4 mixed codebook combinations in any slot. The following parameters are included in *codebookVariantsList* for each code book type: - *maxNumberTxPortsPerResource* indicates the maximum number of Tx ports in a resource across all bands within a band combination; - *maxNumberResourcesPerBand* indicates the maximum number of resources across all CCs within a band combination, simultaneously; - *totalNumberTxPortsPerBand* indicates the total number of Tx ports across all CCs within a band combination, simultaneously. For each band in a band combination, supported values for these three parameters are determined in conjunction with *codebookComboParametersAddition-r16* reported in *MIMO-ParametersPerBand*.	BC	No	N/A	N/A
CodebookComboParametersCJT-PerBC-r18 Indicates the support of active CSI-RS resources and ports for mixed codebook types including Type-II-CJT in any slot. The UE reports supported active CSI-RS resources and ports for the following are the possible mixed codebook combinations {Codebook1, Codebook2, Codebook3}: - cjt-Type1SP-eType2R1-null indicates {Type I SP, eType-II-CJT R=1, NULL} - cjt-Type1SP-eType2R2-null indicates {Type I SP, eType-II-CJT R=2, NULL} - cjt-Type1SP-feType2R1M1-null indicates {Type I SP, FeType-II-CJT PS R=1 M=1, NULL} - cjt-Type1SP-feType2R1M2-null indicates {Type I SP, FeType-II-CJT PS R=1 M=2, NULL} - cjt-Type1SP-feType2R2M2-null indicates {Type I SP, FeType-II-CJT PS R=2 M=2, NULL} - cjt-Type1MP-eType2R1-null indicates {Type I MP, eType-II-CJT R=1, NULL} - cjt-Type1MP-eType2R2-null indicates {Type I MP, eType-II-CJT R=2, NULL} - cjt-Type1MP-feType2R1M1-null indicates {Type I MP, FeType-II-CJT PS R=1 M=1, NULL} - cjt-Type1MP-feType2R1M2-null indicates {Type I MP, FeType-II-CJT PS R=1 M=2, NULL} - cjt-Type1MP-feType2R2M2-null indicates {Type I MP, FeType-II-CJT PS R=2 M=2, NULL} For each mixed codebook supported by the UE, *supportedCSI-RS-ResourceListAdd-r16* indicates the list of supported CSI-RS resources across all CCs in a band combination by referring to *codebookVariantsList*. The following parameters are included in *codebookVariantsList*: - *maxNumberTxPortsPerResource* indicates the maximum number of Tx ports in a resource of a band combination. The minimum of *maxNumberTxPortsPerResource* is '*p4*'; - *maxNumberResourcesPerBand* indicates the maximum number of resources across all CCs in a band combination. - *totalNumberTxPortsPerBand* indicates the total number of Tx ports across all CCs in a band combination. The minimum value of *totalNumberTxPortsPerBand* is 4. A UE supporting this feature shall also indicate support of individual codebook types in the reported mixed codebook combination among *eType2CJT-r18*, *feType2CJT-r18*, Type I single panel codebook and Type I multi-panel codebook.	BC	No	N/A	N/A
codebookParametersAdditionPerBC-r16 Indicates the list of supported CSI-RS resources across all bands in a band combination by referring to *codebookVariantsList* for the additional codebook types. The following parameters are included in *codebookVariantsList* for each code book type: - *maxNumberTxPortsPerResource* indicates the maximum number of Tx ports in a resource across all bands within a band combination; - *maxNumberResourcesPerBand* indicates the maximum number of resources across all CCs within a band combination, simultaneously; - *totalNumberTxPortsPerBand* indicates the total number of Tx ports across all CCs within a band combination, simultaneously. For each band in a band combination, supported values for these three parameters are determined in conjunction with *codebookParametersAddition-r16* reported in *MIMO-ParametersPerBand*.	BC	No	N/A	N/A

codebookParametersetype2CJT-PerBC-r18
Indicates the UE support of additional codebooks and the corresponding parameters supported by the UE of Enhanced Type II Codebook (eType-II) with refinement for multi-TRP CJT.
 	
The basic features of eType-II codebook with refinement for multi-TRP CJT are included in *eType2CJT-r18*. This capability signalling comprises the following parameters:
- *supportedCSI-RS-ResourceList-r18* indicates the list of supported CSI-RS resources across all CCs in a band combination by referring to *codebookVariantsList*. The following parameters are included in *codebookVariantsList*:
  - *maxNumberTxPortsPerResource* indicates the maximum number of Tx ports in one NZP CSI-RS resource associated with multi-TRP CJT;
  - *maxNumberResourcesPerBand* indicates the maximum total number of NZP CSI-RS resource associated with multi-TRP CJT;
  - *totalNumberTxPortsPerBand* indicates the total number of Tx ports of NZP CSI-RS resources associated with multi-TRP CJT.
- *scalingfactor-r18* indicates the scaling factor X for CPU occupation counting for CJT etype-II codebook;
- *maxNumberNZP-CSI-RS-MultiTRP-CJT-r18* indicates the maximum number of NZP CSI-RS resources in one NZP CSI-RS resource set associated with multi-TRP CJT.
 	
The UE indicating *eType2CJT-r18* shall support N=N_TRP only, N_L=1 only, support mode 2 for eType-II codebook refinement for multi-TRP CJT, support PMI subband R=1, support parameter combinations with L=2,4, support rank 1,2, and support frequency basis selection mode 2, i.e., common frequency basis selection among different TRPs.
The UE indicating support of *eType2CJT-r18* shall also indicate support of *csi-ReportFramework* and *simultaneousCSI-ReportsAllCC.*
 	
NOTE 1: When NTRP=1 TRP is configured, OCPU =1. When NTRP>1 TRPS are configured, OCPU = ceil(X * NTRP).
NOTE 2: A-CSI is supported, and whether UE supports SP-CSI on PUSCH is dependent on *sp-CSI-ReportPUSCH*.
 	
The UE optionally includes *eType2CJT-FD-IO-r18* to indicate whether the UE supports mode 1 for CJT eType-II codebook with FD basis selection integer frequency offset. This capability signalling comprises the list of supported NZP CSI-RS resources across all CCs in a band combination by referring to *codebookVariantsList*. The UE indicating *eType2CJT-FD-IO-r18* shall also support frequency basis selection mode 1, i.e., common frequency basis selection among different TRPs with FD basis selection integer frequency offset.
 	
The UE optionally indicates *eType2CJT-FD-FO-r18* to indicate whether the UE supports FD basis selection fractional offset mode for Rel-16-based CJT codebook with mode1. The UE indicating *eType2CJT-FD-FO-r18* shall also indicate support of *eType2CJT-FD-IO-r18.*
 	
The UE optionally indicates *eType2CJT-R2-r18* to indicate whether the UE supports eType-II codebook refinement for multi-TRP CJT with PMI subbands R=2. This capability signalling comprises the list of supported NZP CSI-RS resources with R=2 across all CCs in a band combination by referring to *codebookVariantsList* across all CCs.
 	
The UE optionally indicates *eType2CJT-PV-Beta-r18* to indicate whether the UE supports eType-II codebook refinement for multi-TRP CJT with parameter combination pv={1/2,1/2,1/2,1/2} and beta=1/2.
 	
The UE optionally indicates *eType2CJT-2NN1N2-r18* to indicate whether the UE supports 2NN1N2 >32 for eType-II CJT codebook. The UE indicates the maximum number of ports across all TRPs for one CJT CSI measurement.
 	
The UE optionally indicates *eType2CJT-Rank3Rank4-r18* to indicate whether the UE supports eType-II codebook refinement for multi-TRP CJT with rank 3,4.
	BC	No	N/A	N/A

The UE optionally indicates *eType2CJT-L6-r18* to indicate whether the UE supports eType-II codebook refinement for multi-TRP CJT with parameter combination with L=6. The UE supports this capability only for N_TRP=1. The UE indicating *eType2CJT-L6-r18* shall also indicate support of *eType2CJT-r18*. The UE optionally indicates *eType2CJT-NN-r18* to indicate whether the UE supports selection of N <= N_TRP CSI-RS resource by UE for multi-TRP CJT based on eType-II codebook. The UE optionally indicates *eType2CJT-NL-SD-r18* to indicate whether the UE supports N_L>1 combinations of number of SD basis across CSI-RS resources for CJT eType-II codebook. The UE indicates the maximum number of lists for spatial basis selection, i.e., N_L, for multi-TRP CJT based on eType-II codebook. The UE optionally indicates *eType2CJT-Unequal-r18* to indicate whether the UE supports unequal number of spatial basis selection configuration across CSI-RS resources for multi-TRP CJT including eType-II codebook refinement. For *codebookVariantsList* related to the eType-II: - The minimum of *maxNumberTxPortsPerResource* is '*p4*'; - The minimum of *maxNumberResourcesPerBand* is 2; - The minimum value of *totalNumberTxPortsPerBand* is 4.				

codebookParametersetype2DopplerCSI-PerBC-r18
Indicates the UE support of additional codebooks and the corresponding parameters supported by the UE of Enhanced Type II Codebook (eType-II) based on doppler CSI as specified in TS 38.214 [12].
 	
The basic features of eType-II doppler codebook are included in *eType2Doppler-r18*. This capability signalling comprises the following parameters:
- *supportedCSI-RS-ResourceList-r18* indicates the list of supported CSI-RS resources across all CCs in a band combination by referring to *codebookVariantsList*. The following parameters are included in *codebookVariantsList*:
  - *maxNumberTxPortsPerResource* indicates the maximum number of Tx ports in a resource of a band combination;
  - *maxNumberResourcesPerBand* indicates the maximum number of resources across all CCs in a band combination, simultaneously;
  - *totalNumberTxPortsPerBand* indicates the total number of Tx ports across all CCs in a band combination, simultaneously.
- *valueY-P-SP-CSI-RS-r18* indicates value of Y for CPU occupation (OCPU = Y**vectorLengthDD-r18*), when P/SP-CSI-RS is configured for CMR;
- *valueY-A-CSI-RS-r18* indicates value of Y for CPU occupation (OCPU = Y*K), when A-CSI-RS is configured for CMR;
- *scalingfactor-r18* indicates scaling factor for active resource counting Kp.
 	
The UE indicating *eType2Doppler-r18* shall support X=1 CQI based on the first/earliest slot of the CSI reporting window and the first/earliest predicted PMI (TDCQI='1-1'), support eType-II regular codebook refinement for predicted PMI with PMI subband R=1, support parameter combinations with L=2,4, support rank = 1,2, and support the size of DD-basis, *vectorLengthDD-r18* =1.
 	
The UE indicating support of *eType2Doppler-r18* shall also indicate support of *csi-ReportFramework* and *simultaneousCSI-ReportsAllCC.*
 	
NOTE 1: When *vectorLengthDD-r18* =1, OCPU =4.
NOTE 2: OCPU ≥ 4 when P/SP-CSI-RS is configured for CMR.
NOTE 3: When K=12, OCPU =8.
NOTE 4: A UE that supports CSI enhancement for Rel-16 based type-II doppler must support this feature.
 	
The UE optionally includes *eType2DopplerN4-r18* to indicate whether the UE supports doppler measurement with *vectorLengthDD-r18*>1 for eType-II doppler codebook. This capability signalling comprises the following parameters:
- *supportedCSI-RS-ReportSettingList1-r18* indicates the list of supported combinations across all CCs in a band combination simultaneously by referring to *SupportedCSI-RS-ReportSetting-r18.* The following parameters are included in *SupportedCSI-RS-ReportSetting-r18.*
  - *maxN4-r18* indicates the max number of *vectorLengthDD-r18;*
  - *maxNumberTxPortsPerResource-r18* indicates the maximum number of Tx ports in a resource of a band combination;
  - *maxNumberResourcesPerBand-r18* indicates the maximum number of resources across all CCs in a band combination, simultaneously;
  - *totalNumberTxPortsPerBand-r18* indicates the total number of Tx ports across all CCs in a band combination, simultaneously.
- *supportedCSI-RS-ReportSettingList2-r18* indicates the list of supported combinations for one CSI report setting by referring to *SupportedCSI-RS-ReportSetting-r18.* The following parameters are included in *SupportedCSI-RS-ReportSetting-r18:*
  - *maxN4-r18* indicates the max number of *vectorLengthDD-r18;*
  - *maxNumberTxPortsPerResource-r18* indicates the maximum number of Tx ports in a resource of a band combination;
  - *maxNumberResourcesPerBand-r18* indicates the maximum number of resources across all CCs in a band combination, simultaneously;
  - *totalNumberTxPortsPerBand-r18* indicates the total number of Tx ports across all CCs in a band combination, simultaneously.
 	
The UE indicating support of *eType2DopplerN4-r18* shall also indicate support for the size of DD-basis, *vectorLengthDD-r18* >1, and value of *unitDurationDD-r18*=m for the DD unit size when A-CSI-RS is configured for CMR.
	BC	No	N/A	N/A

The UE optionally includes *ddUnitSize-A-CSI-RS-CMR-r18* to indicate whether the UE supports value of *unitDurationDD-r18*=1 for the DD unit duration when A-CSI-RS is configured for CMR. A UE supporting this feature shall also indicate support of *eType2DopplerN4-r18*. The UE optionally includes *maxNumberAperiodicCSI-RS-Resource-r18* to indicate the maximum number of aperiodic CSI-RS resources that can be configured in the same CSI report setting for eType-II doppler measurement. The UE optionally includes *eType2DopplerR2-r18* to indicate whether the UE supports R=2 for eType-II doppler codebook. This capability signalling comprises the list of supported CSI-RS resources across all CCs in a band combination by referring to *codebookVariantsList*. The UE optionally includes *eType2DopplerX1-r18* to indicate whether the UE supports X=1 based on first and last slot of W_{CSI}, for eType-II doppler codebook. The UE optionally includes *eType2DopplerX2-r18* to indicate whether the UE supports X=2 CQI based on 2 slots for eType-II doppler codebook. The UE optionally includes *eType2DopplerL-N4D1-r18* to indicate whether the UE supports l = (n – nCSI,ref) for CSI reference slot for eType-II doppler codebook. The UE optionally includes *eType2DopplerL6-r18* to indicate whether the UE supports L=6 for eType-II doppler codebook. The UE optionally includes *eType2DopplerR3R4-r18* to indicate whether the UE supports rank equals 3 and 4 for eType-II doppler codebook. For *codebookVariantsList-r16* related to the eType-II: - The minimum of *maxNumberTxPortsPerResource* is 'p4'; - The minimum of *maxNumberResourcesPerBand* is 2, except for *eType2DopplerR2-r18*; - The minimum value of *totalNumberTxPortsPerBand* is 4.				

codebookParameterseType2DopplerExtPerBC-r19
Indicates whether the UE supports extended eType-II Doppler codebook.
 	
The basic features of extended eType-II Doppler codebook for 64 Tx ports by aggregating multiple NZP CSI-RS resource groups within 1 slot are included in *eType2Doppler-64PortExt-r19*. This capability signalling comprises the following parameters:
- *supportedCSI-RS-ResourceExtList-r19* indicates the list of supported CSI-RS resources across all CCs in a band combination by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources across all CCs in a band combination, simultaneously.
 	
  - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across all CCs in a band combination, simultaneously.
 	
- *processingCapability-r19* indicates the supported processing capability. Value *cap1* indicates the processing capability reuses timeline of enhanced Type II Codebook (eType-II) based on doppler CSI and OCPU = Y**vectorLengthDD-r18**ceil(P/32)) when P/SP-CSI-RS is configured for CMR, OCPU = Y*K_{DOPP}*ceil(P/32)) when A-CSI-RS is configured for CMR. Value *cap2* indicates the processing capability scales the timeline of enhanced Type II Codebook (eType-II) based on doppler CSI by ceil(P/32) where P is the total number of ports across all the K aggregated CSI-RS resources and OCPU = Y**vectorLengthDD-r18*, when P/SP-CSI-RS is configured for CMR, OCPU = Y*K_{DOPP}, when A-CSI-RS is configured for CMR. '*cap1*' is a higher capability than '*cap2*'.
- *valueY-P-SP-CSI-RS-r19* indicates value of Y for CPU occupation when P/SP-CSI-RS is configured for CMR.
- *valueY-A-CSI-RS-r19* indicates value of Y for CPU occupation when A-CSI-RS is configured for CMR.
- *scalingfactor-r19* indicates scaling factor for active resource counting Kp.
- *maxNumberResource-r19* indicates the maximum number of CSI-RS resource in a resource group for aperiodic CSI-RS resource set or in a resource set for periodic CSI-RS resource set.
- *supportedCSI-RS-ResourceListPerCC-r19* indicates the list of supported CSI-RS resources per CC simultaneously in a band combination by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources per CC in a band combination, simultaneously.
 	
  - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across per CC in a band combination, simultaneously.
 	
The UE indicating *eType2Doppler-64PortExt-r19* shall also support X=1 CQI based on the first/earliest slot of the CSI reporting window and the first/earliest predicted PMI (TDCQI='1-1'), support PMI subband R=1, support parameter combinations with L=2,4, support rank = 1,2, and support the size of DD-basis, *vectorLengthDD-r18* =1.
A UE supporting this feature shall also indicate support of *eType2Doppler-r18*.
 	
The UE optionally includes *eType2Doppler-48PortExt-r19* to indicate whether the UE supports extended eType-II Doppler codebook for 48 Tx ports by aggregating multiple NZP CSI-RS resource groups within 1 slot. This capability signalling comprises the following parameters:
- *supportedCSI-RS-ResourceExtList-r19* indicates the list of supported CSI-RS resources across all CCs in a band combination by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources across all CCs in a band combination, simultaneously.
 	
  - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across all CCs in a band combination, simultaneously.
	BC	No	N/A	N/A

- *processingCapability-r19* indicates the supported processing capability. Value *cap1* indicates the processing capability reuses timeline of enhanced Type II Codebook (eType-II) based on doppler CSI and OCPU = Y**vectorLengthDD-r18**ceil(P/32)) when P/SP-CSI-RS is configured for CMR, OCPU = Y*K_{DOPP}*ceil(P/32)) when A-CSI-RS is configured for CMR. Value *cap2* indicates the processing capability scales the timeline of enhanced Type II Codebook (eType-II) based on doppler CSI by ceil(P/32) where P is the total number of ports across all the K aggregated CSI-RS resources and OCPU = Y**vectorLengthDD-r18*, when P/SP-CSI-RS is configured for CMR, OCPU = Y*K_{DOPP}, when A-CSI-RS is configured for CMR. '*cap1*' is a higher capability than '*cap2*'.
- *valueY-P-SP-CSI-RS-r19* indicates value of Y for CPU occupation when P/SP-CSI-RS is configured for CMR.
- *valueY-A-CSI-RS-r19* indicates value of Y for CPU occupation when A-CSI-RS is configured for CMR.
- *scalingfactor-r19* indicates scaling factor for active resource counting Kp.
- *maxNumberResource-r19* indicates the maximum number of CSI-RS resource in a resource group for aperiodic CSI-RS resource set or in a resource set for periodic CSI-RS resource set.
- *supportedCSI-RS-ResourceListPerCC-r19* indicates the list of supported CSI-RS resources per CC simultaneously in a band combination by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources per CC in a band combination, simultaneously.
  - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across per CC in a band combination, simultaneously.
 	
The UE optionally includes *eType2Doppler-128PortExt-r19* to indicate whether the UE supports extended eType-II Doppler codebook for 128 Tx ports by aggregating multiple NZP CSI-RS resource groups within 1 slot and 4 CSI-RS resources in a resource group for aperiodic CSI-RS resource set or in a resource set for periodic CSI-RS resource set. This capability signalling comprises the following parameters:
- *supportedCSI-RS-ResourceExtList-r19* indicates the list of supported CSI-RS resources across all CCs in a band combination by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources across all CCs in a band combination, simultaneously.
  - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across all CCs in a band combination, simultaneously.
 	
- *processingCapability-r19* indicates the supported processing capability. Value *cap1* indicates the processing capability reuses timeline of enhanced Type II Codebook (eType-II) based on doppler CSI and OCPU = Y**vectorLengthDD-r18**ceil(P/32)) when P/SP-CSI-RS is configured for CMR, OCPU = Y*K_{DOPP}*ceil(P/32)) when A-CSI-RS is configured for CMR. Value *cap2* indicates the processing capability scales the timeline of enhanced Type II Codebook (eType-II) based on doppler CSI by ceil(P/32) where P is the total number of ports across all the K aggregated CSI-RS resources and OCPU = Y**vectorLengthDD-r18*, when P/SP-CSI-RS is configured for CMR, OCPU = Y*K_{DOPP}, when A-CSI-RS is configured for CMR. '*cap1*' is a higher capability than '*cap2*'.
- *valueY-P-SP-CSI-RS-r19* indicates value of Y for CPU occupation when P/SP-CSI-RS is configured for CMR.
- *valueY-A-CSI-RS-r19* indicates value of Y for CPU occupation when A-CSI-RS is configured for CMR.
- *scalingfactor-r19* indicates scaling factor for active resource counting Kp.
- *supportedCSI-RS-ResourceListPerCC-r19* indicates the list of supported CSI-RS resources per CC simultaneously in a band combination by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources per CC in a band combination, simultaneously.				

- *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across per CC in a band combination, simultaneously.

NOTE 1: The maximum OCPU is 8.
NOTE 2: K_{DOPP} is the number of CSI-RS resource groups configured for channel measurement, and each CSI-RS resource groups contain K CSI-RS resources for aggregating up to 128 ports.

The UE optionally includes *eType2DopplerN4Ext-r19* to indicate whether the UE supports doppler measurement with *vectorLengthDD-r18* >1 for extended eType-II doppler codebook for up to 128 ports. This capability signalling comprises the following parameters:

- *supportedCSI-RS-ReportSettingList1-r19* indicates the list of supported combinations across all CCs in a band combination simultaneously by referring to *supportedCSI-RS-ReportSettingExt-r19*. The following parameters are included in *supportedCSI-RS-ReportSettingExt-r19*:
  - *maxN4-r19* indicates the max number of *vectorLengthDD-r18* across all CCs in a band combination, simultaneously.
  - *maxNumberTxPortsPerAggregatedResource-r19* indicates the maximum number of Tx ports in a report of a band combination across all CCs in a band combination, simultaneously.
  - *maxNumberAggregatedResources-r19* indicates the maximum number of sets of aggregated resources or groups of aggregated resource across all CCs in a band combination, simultaneously.
  - *totalNumberTxPorts-r19* indicates the total number of Tx ports across all CCs in a band combination, simultaneously.
- *supportedCSI-RS-ReportSettingList2-r19* indicates the list of supported combinations for one CSI report setting by referring to *supportedCSI-RS-ReportSettingExt-r19.* The following parameters are included in *supportedCSI-RS-ReportSettingExt-r19*:
  - *maxN4-r19* indicates the max number of *vectorLengthDD-r18* for one CSI report setting.
  - *maxNumberTxPortsPerAggregatedResource-r19* indicates the maximum number of Tx ports in a report for one CSI report setting.
  - *maxNumberAggregatedResources-r19* indicates the maximum number of sets of aggregated resources or groups of aggregated resource for one CSI report setting.
  - *totalNumberTxPorts-r19* indicates the total number of Tx ports for one CSI report setting.

For *supportedCSI-RS-ReportSettingList2-r19* related to *eType2DopplerN4Ext-r19*:

- The values of *maxNumberAggregatedResources-r19* are restricted to '*4*', '*8*', and '*12*'.
- The maximum value of *totalNumberTxPorts-r19* is '*256*'.

The UE indicating support of *eType2DopplerN4Ext-r19* shall also support value of *unitDurationDD-r18*=m for the DD unit size when A-CSI-RS is configured for CMR.

The UE optionally includes *ddUnitSize-A-CSI-RS-CMR-Ext-r19* to indicate the support of value of *unitDurationDD-r18*=1 for the DD unit duration when A-CSI-RS is configured for CMR for extended eType-II Doppler codebook for up to 128 ports.

The UE optionally includes *maxNumberAperiodicCSI-RS-ResourceExt-r19* to indicate the supported maximum number of aperiodic CSI-RS resources groups that can be configured in the same CSI report setting for extended eType-II Doppler codebook for up to 128 ports.

The UE optionally includes *eType2DopplerR2Ext-r19* to indicate whether the UE supports PMI subband R=2 for eType-II Doppler codebook enhancement for up to 128 ports. This capability signalling comprises the list of supported combinations across all CCs in a band combination simultaneously by referring to *supportedCSI-RS-ReportSettingExt-r19*. The following parameters are included in *supportedCSI-RS-ReportSettingExt-r19*:

- *maxN4-r19* indicates the max number of *vectorLengthDD-r18* across all CCs in a band combination, simultaneously.

- *maxNumberTxPortsPerAggregatedResource-r19* indicates the maximum number of Tx ports in a report of a band combination across all CCs in a band combination, simultaneously. - *maxNumberAggregatedResources-r19* indicates the maximum number of sets of aggregated resources or groups of aggregated resource across all CCs in a band combination, simultaneously. - *totalNumberTxPorts-r19* indicates the total number of Tx ports across all CCs in a band combination, simultaneously. The UE optionally includes *eType2DopplerX1Ext-r19* to indicate whether the UE supports X=1 based on first and last slot of WCSI for extended eType-II Doppler codebook for up to 128 ports. The UE optionally includes *eType2DopplerX2Ext-r19* to indicate whether the UE supports X=2 CQI based on 2 slots for extended eType-II Doppler codebook for up to 128 ports and supports TDCQI='2'. The UE optionally includes *eType2DopplerL-N4D1Ext-r19* to indicate whether the UE supports l = (n – nCSI,ref) for CSI reference slot for extended eType-II Doppler codebook for up to 128 ports when *vectorLengthDD-r18* = 1 and *unitDurationDD-r18* > 1, or when *vectorLengthDD-r18* > 1. The UE optionally includes *eType2DopplerL6Ext-r19* to indicate whether the UE supports L=6 for CSI reference slot for extended eType-II Doppler codebook for up to 128 ports. The UE optionally includes *eType2DopplerR3R4Ext-r19* to indicate whether the UE supports rank equals 3 and 4 for CSI reference slot for extended eType-II Doppler codebook for up to 128 ports. The UE optionally includes *eType2DopplerProcessingTimelineExt-r19* to indicate whether the UE supports aperiodic CSI report timing relaxation for extended eType-II Doppler codebook for up to 128 ports. The capability signalling comprises of the following parameters: - *valueW-r19* indicates aperiodic CSI report timing relaxation, w, for doppler codebook based on extended eType-II doppler codebook for up to 128 ports. UE reports *valueW-r18*, independently for each SCS in unit of symbols. *value1* indicates $14*(K_P–1)*d$ symbols, *value2* indicates $14*K_P*d$ symbols, where K_P is according to *scalingfactor-r19* of *eType2Doppler-64PortExt-r19* and d =4 (minimum periodicity of periodic CSI-RS). - *timeRelaxation-r18* indicates aperiodic CSI report timing relaxation, type, for extended eType-II Doppler codebook for up to 128 ports. '*cap1*' is a higher capability than '*cap2*'. For *vectorLengthDD-r18* = 1 1) For AP CSI-RS: $(Z,Z') = (Z_2 + 14*(K_{DOPP}–1)*m, Z'_2)$; 2) For P/SP CSI-RS: $(Z,Z') = (Z_2 + w, Z'_2)$. For *vectorLengthDD-r18* > 1 and *cap1* in *timeRelaxation-r19*: 1) For AP CSI-RS: $(Z,Z') = (Z_2 + 14*(K_{DOPP}–1)*m, Z'_2)$; 2) For P/SP CSI-RS: $(Z,Z') = (Z_2 + w, Z'_2)$. For *vectorLengthDD-r18* > 1 and *cap2* in *timeRelaxation-r19:* 1) For AP CSI-RS: $(Z,Z') = (Z_2 + 14*(K_{DOPP}–1)*m + Z'_2, 2Z'_2)$; 2) For P/SP CSI-RS: $(Z,Z') = (Z_2 + w + Z'_2, 2Z'_2)$. Z_2/Z'_2 are defined in Table 5.4-2 in TS 38.214 [12]. K_{DOPP} is the number of CSI-RS resource groups configured for channel measurement, and each CSI-RS resource groups contain K CSI-RS resources for aggregating up to 128 ports. m = {1,2}, is the offset between two adjacent AP CSI-RS resources for the CMR in slots. *eType2DopplerProcessingTimelineExt-r19* is not applicable to FR 2-2. The UE optionally includes *eType2MaxPeriodicityCMR-r19* to indicate the supported maximum periodicity in slots of CMR when configured as periodic CSI-RS for extended eType-II Doppler codebook for up to 128 ports.				

codebookParameterseType2ExtPerBC-r19
Indicates whether the UE supports extended eType-II codebook.
 	
The basic features of extended eType-II codebook for 64 Tx ports by aggregating multiple NZP CSI-RS resources within 1 slot are included in *eType2-64PortExt-r19*. This capability signalling comprises the following parameters:
- *supportedCSI-RS-ResourceExtList-r19* indicates the list of supported CSI-RS resources across all CCs in a band combination by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources across all CCs in a band combination, simultaneously.
 	
  - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across all CCs in a band combination, simultaneously.
 	
- *processingCapability-r19* indicates the supported processing capability. Value *cap1* indicates the processing capability reuses Z/Z' values and OCPU = ceil(P/32). Value *cap2* indicates the processing capability scales the timeline Z/Z' by ceil(P/32) where P is the total number of ports across all the K aggregated CSI-RS resources and OCPU = 1. '*cap1*' is a higher capability than '*cap2*'.
- *maxNumberResource-r19* indicates the maximum number of CSI-RS resource in a resource set.
- *supportedCSI-RS-ResourceListPerCC-r19* indicates the list of supported CSI-RS resources per CC simultaneously in a band combination by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources per CC in a band combination, simultaneously.
 	
  - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across per CC in a band combination, simultaneously.
 	
The UE indicating *eType2-64PortExt-r19* shall also support parameter combination 1-6, support rank 1-2 and support R=1.
A UE supporting this feature shall also indicate support of *etype2R1-r16*.
 	
The UE optionally includes *eType2-48PortExt-r19* to indicate whether the UE supports extended eType-II codebook for 48 Tx ports by aggregating multiple NZP CSI-RS resources within 1 slot. This capability signalling comprises the following parameters:
- *supportedCSI-RS-ResourceExtList-r19* indicates the list of supported CSI-RS resources across all CCs in a band combination by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources across all CCs in a band combination, simultaneously.
 	
  - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across all CCs in a band combination, simultaneously.
 	
- *processingCapability-r19* indicates the supported processing capability. Value *cap1* indicates the processing capability reuses Z/Z' values and OCPU = ceil(P/32). Value *cap2* indicates the processing capability scales the timeline Z/Z' by ceil(P/32) where P is the total number of ports across all the K aggregated CSI-RS resources and OCPU = 1. '*cap1*' is a higher capability than '*cap2*'.
- *maxNumberResource-r19* indicates the maximum number of CSI-RS resource in a resource set.
- *supportedCSI-RS-ResourceListPerCC-r19* indicates the list of supported CSI-RS resources per CC simultaneously in a band combination by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources per CC in a band combination, simultaneously.
	BC	No	N/A	N/A

- *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across per CC in a band combination, simultaneously. The UE optionally includes *eType2-128PortExt-r19* to indicate whether the UE supports extended eType-II codebook for 128 Tx ports by aggregating multiple NZP CSI-RS resources within 1 slot and 4 CSI-RS resources in a resource set. This capability signalling comprises the following parameters: - *supportedCSI-RS-ResourceExtList-r19* indicates the list of supported CSI-RS resources across all CCs in a band combination by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*: - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources across all CCs in a band combination, simultaneously. - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across all CCs in a band combination, simultaneously. - *processingCapability-r19* indicates the supported processing capability. Value *cap1* indicates the processing capability reuses Z/Z' values and OCPU = ceil(P/32). Value *cap2* indicates the processing capability scales the timeline Z/Z' by ceil(P/32) where P is the total number of ports across all the K aggregated CSI-RS resources and OCPU = 1. '*cap1*' is a higher capability than '*cap2*'. - *supportedCSI-RS-ResourceListPerCC-r19* indicates the list of supported CSI-RS resources per CC simultaneously in a band combination by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*: - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources per CC in a band combination, simultaneously. - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across per CC in a band combination, simultaneously. The UE optionally includes *eType2R2Ext-r19* to indicate whether the UE supports PMI sub-bands with R=2 for extended eType-II codebook for up to 128 ports. This capability indicates the list of supported CSI-RS resources across all CCs in a band combination by referring to *codebookVariantsListAggregate-r19*. The following parameters are included in *codebookVariantsListAggregate-r19*: - *maxNumberTxPortsPerAggregatedResource-r19* indicates the maximum number of Tx ports in a resource of across all CCs a band combination. - *maxNumberAggregatedResources-r19* indicates the maximum number of resources across all CCs in a band combination, simultaneously. - *totalNumberTxPorts-r19* indicates the total number of Tx ports across all CCs in a band combination, simultaneously. The UE optionally includes *eType2ExtPC7-8-r19* to indicate whether the UE supports parameter combinations 7-8 for extended eType-II codebook for up to 128 ports. The UE optionally includes *eType2R3R4Ext-r19* to indicate whether the UE supports rank 3,4 for extended eType-II codebook for up to 128 ports. This capability indicates the list of supported CSI-RS resources across all CCs in a band combination by referring to *codebookVariantsListAggregate-r19*. The following parameters are included in *codebookVariantsListAggregate-r19*: - *maxNumberTxPortsPerAggregatedResource-r19* indicates the maximum number of Tx ports in a resource of across all CCs a band combination. - *maxNumberAggregatedResources-r19* indicates the maximum number of resources across all CCs in a band combination, simultaneously. - *totalNumberTxPorts-r19* indicates the total number of Tx ports across all CCs in a band combination, simultaneously. For *codebookVariantsListAggregate-r19* related to *eType2R2Ext-r19* and *eType2R3R4Ext-r19*: - The minimum of *totalNumberTxPorts-r19* is '*64*'. For *codebookVariantsListAggregate-r19* related to *eType2R3R4Ext-r19*: - The maximum value of *maxNumberAggregatedResources-r19* is '*64*'.				

codebookParametersfetype2CJT-PerBC-r18
Indicates the UE support of additional codebooks and the corresponding parameters supported by the UE of Further Enhanced Type II Codebook (feType-II) with refinement for multi-TRP CJT.
 	
The basic features of feType-II codebook with refinement for multi-TRP CJT are included in *feType2CJT-r18*. This capability signalling comprises the following parameters:
- *supportedCSI-RS-ResourceList-r18* indicates the list of supported CSI-RS resources across all CCs in a band combination by referring to *codebookVariantsList*. The following parameters are included in *codebookVariantsList:*
  - *maxNumberTxPortsPerResource* indicates the maximum number of Tx ports in one NZP CSI-RS resource associated with multi-TRP CJT;
  - *maxNumberResourcesPerBand* indicates the maximum total number of NZP CSI-RS resource associated with multi-TRP CJT;
  - *totalNumberTxPortsPerBand* indicates the total number of Tx ports of NZP CSI-RS resources associated with multi-TRP CJT.
- *scalingfactor-r18* indicates the scaling factor X for CPU occupation counting for CJT fetype-II codebook;
- *maxNumberNZP-CSI-RS-MultiTRP-CJT-r18* indicates the maximum number of NZP CSI-RS resources in one NZP CSI-RS resource set associated with multi-TRP CJT.
 	
The UE indicating *feType2CJT-r18* shall support N=N_TRP only, N_L=1 only, support mode 2 for FeType-II port selection codebook refinement for multi-TRP CJT, support PMI subband R=1, support parameter combinations with M=1, support rank 1,2, and support frequency basis selection mode 2, i.e., common frequency basis selection among different TRPs.
The UE indicating support of *feType2CJT-r18* shall also indicate support of *csi-ReportFramework* and *simultaneousCSI-ReportsAllCC.*
 	
NOTE 1: When NTRP=1 TRP is configured, OCPU =1. When NTRP>1 TRPS are configured, OCPU = ceil(X * NTRP).
NOTE 2: A-CSI is supported, and whether UE supports SP-CSI on PUSCH is dependent on *sp-CSI-ReportPUSCH*.
NOTE 3: A UE that supports CSI enhancement for Rel 17 based type-II CJT must support this feature.
 	
The UE optionally includes *feType2CJT-FD-IO-r18* to indicate whether the UE supports FeType-II port selection codebook refinement for multi-TRP CJT with PMI subband R=1. This capability signalling comprises the list of supported NZP CSI-RS resources across all CCs in a band combination by referring to *codebookVariantsList*. The UE indicating *feType2CJT-FD-IO-r18* shall also support frequency basis selection mode 1, i.e., common frequency basis selection among different TRPs with FD basis selection integer frequency offset.
 	
The UE optionally Indicates *feType2CJT-FD-FO-r18* to indicate whether the UE supports frequency basis selection mode 1 with FD basis selection fractional frequency offset for FeType-II port selection based CJT codebook. The UE indicating *feType2CJT-FD-FO-r18* shall also indicate support of *feType2CJT-FD-IO-r18.*
 	
The UE optionally Indicates *eType2CJT-M2R1-r18* to indicate whether the UE supports FeType-II port selection codebook refinement for multi-TRP CJT with M=2 and PMI subband R=1. This capability signalling comprises the list of supported NZP CSI-RS resources with R=2 across all CCs in a band combination by referring to *codebookVariantsList*. The UE indicating *feType2CJT-M2R1-r18* shall also indicate support of *feType2CJT-r18* or *feType2CJT-FD-IO-r18*.
 	
The UE optionally indicates *feType2CJT-R2-r18* to indicate whether the UE supports FeType-II port selection codebook refinement for multi-TRP CJT with PMI subband R=2. This capability signalling comprises the list of supported NZP CSI-RS resources with R=2 across all CCs in a band combination by referring to *codebookVariantsList*. The UE indicating *feType2CJT-R2-r18* shall also indicate support of *feType2CJT-r18* or *feType2CJT-FD-IO-r18*.
	BC	No	N/A	N/A

The UE optionally indicates *feType2CJT-2NN1N2-r18* to indicate whether the UE supports 2NN1N2 >32 for FeType-II CJT codebook. The UE indicates the maximum number of ports across all TRPs for one CJT CSI measurement. The UE optionally indicates *feType2CJT-Rank3Rank4-r18* to indicate whether the UE supports FeType-II port selection codebook refinement for multi-TRP CJT with rank 3,4. The UE optionally indicates *feType2CJT-NN-r18* to indicate whether the UE supports selection of N <= N_TRP CSI-RS resource by UE for multi-TRP CJT based on FeType-II port selection codebook. The UE optionally indicates *feType2CJT-NL-r18* to indicate whether the UE supports N_L>1 combinations of number of ports across CSI-RS resources for CJT Fetype-II codebook. The UE indicates the maximum number of lists for ports selection, i.e., NL, for multi-TRP CJT based on FeType-II port selection codebook. The UE optionally indicates *feType2CJT-Unequal-r18* to indicate whether the UE supports unequal number of port selection configuration across CSI-RS resources for multi-TRP CJT including FeType-II port selection codebook refinement. For *codebookVariantsList* related to the FeType-II: - The minimum of *maxNumberTxPortsPerResource* is '*p4*'; - The minimum of *maxNumberResourcesPerBand* is 2; - The minimum value of *totalNumberTxPortsPerBand* is 4.				

codebookParametersfetype2DopplerCSI-PerBC-r18
Indicates the UE support of additional codebooks and the corresponding parameters supported by the UE of Further Enhanced Type II Codebook (FeType-II) based on doppler CSI as specified in TS 38.214 [12].
 	
The basic features of FeType-II doppler codebook are included in *eType2Doppler-r18*. This capability signalling comprises the following parameters:
- *supportedCSI-RS-ResourceList-r18* indicates the list of supported CSI-RS resources across all CCs in a band combination by referring to *codebookVariantsList*. The following parameters are included in *codebookVariantsList*;
  - *maxNumberTxPortsPerResource* indicates the maximum number of Tx ports in a resource of a band combination;
  - *maxNumberResourcesPerBand* indicates the maximum number of resources across all CCs within a band combination, simultaneously;
  - *totalNumberTxPortsPerBand* indicates the total number of Tx ports across all CCs within a band combination, simultaneously.
- *valueY-A-CSI-RS-r18* indicates value of Y for CPU occupation (OCPU = Y*K), when A-CSI-RS is configured for CMR;
- *scalingfactor-r18* indicates scaling factor for active resource counting Kp.
 	
The UE indicating *feType2Doppler-r18* shall support X=1 CQI based on the first/earliest slot of the CSI reporting window and the first/earliest predicted PMI, support FeType-II regular codebook refinement for predicted PMI with PMI subband R=1, support parameter combinations with M=1, support rank = 1,2, and support *vectorLengthDD-r18* =1. A UE indicating this feature shall also indicate the support of *csi-ReportFramework*.
 	
The UE indicating support of *feType2Doppler-r18* shall also indicate support of *eType2Doppler-r18*, *csi-ReportFramework* and *simultaneousCSI-ReportsAllCC.*
 	
NOTE 1: OCPU = 4 when P/SP-CSI-RS is configured for CMR.
NOTE 2: When K=12, OCPU =8.
NOTE 3: Void.
 	
The UE optionally includes *maxNumberAperiodicCSI-RS-Resource-r18* to indicate the maximum number of aperiodic CSI-RS resources that can be configured in the same CSI report setting for FeType-II doppler measurement.
 	
The UE optionally includes *feType2DopplerM2R1-r18* to indicate whether the UE supports M=2 and R=1 for FeType-II doppler codebook. This capability signalling comprises the list of supported CSI-RS resources across all CCs in a band combination by referring to *codebookVariantsList*.
 	
The UE optionally includes *feType2DopplerR2-r18* to indicate whether the UE supports R=2 for FeType-II doppler codebook. This capability signalling comprises the list of supported CSI-RS resources across all CCs in a band combination by referring to *codebookVariantsList*.
 	
The UE optionally includes *feType2DopplerL-N4D1-r18* to indicate whether the UE supports support of l = (n – nCSI,ref) for CSI reference slot for FeType-II doppler codebook.
 	
The UE optionally includes *feType2DopplerR3R4-r18* to indicate whether the UE supports rank equals 3 and 4 for FeType-II doppler codebook.
 	
For *codebookVariantsList-r16* related to the feType-II:
- The minimum of *maxNumberTxPortsPerResource* is '*p4*';
- The minimum of *maxNumberResourcesPerBand* is 2, except for *eType2DopplerR2-r18*;
- The minimum value of *totalNumberTxPortsPerBand* is 4.
	BC	No	N/A	N/A

codebookParametersfeType2ExtPerBC-r19
Indicates whether the UE supports extended feType-II codebook.
 	
The basic features of extended feType-II codebook for 64 Tx ports by aggregating multiple NZP CSI-RS resources within 1 slot are included in *feType2-64PortExt-r19*. This capability signalling comprises the following parameters:
- *supportedCSI-RS-ResourceExtList-r19* indicates the list of supported CSI-RS resources across all CCs in a band combination by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources across all CCs in a band combination, simultaneously.
 	
  - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across all CCs in a band combination, simultaneously.
 	
- *processingCapability-r19* indicates the supported processing capability. Value *cap1* indicates the processing capability reuses Z/Z' values and OCPU = ceil(P/32). Value *cap2* indicates the processing capability scales the timeline Z/Z' by ceil(P/32) where P is the total number of ports across all the K aggregated CSI-RS resources and OCPU = 1. '*cap1*' is a higher capability than '*cap2*'.
- *maxNumberResource-r19* indicates the maximum number of CSI-RS resource in a resource set.
- *supportedCSI-RS-ResourceListPerCC-r19* indicates the list of supported CSI-RS resources per CC simultaneously in a band combination by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources per CC in a band combination, simultaneously.
 	
  - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across per CC in a band combination, simultaneously.
 	
The UE indicating *feType2-64PortExt-r19* shall also support parameter combination with M=1, support rank 1-2 and support R=1.
A UE supporting this feature shall also indicate support of *fetype2basic-r17*.
 	
The UE optionally includes *feType2-48PortExt-r19* to indicate whether the UE supports extended feType-II codebook for 48 Tx ports by aggregating multiple NZP CSI-RS resources within 1 slot. This capability signalling comprises the following parameters:
- *supportedCSI-RS-ResourceExtList-r19* indicates the list of supported CSI-RS resources across all CCs in a band combination by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources across all CCs in a band combination, simultaneously.
 	
  - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across all CCs in a band combination, simultaneously.
 	
- *processingCapability-r19* indicates the supported processing capability. Value *cap1* indicates the processing capability reuses Z/Z' values and OCPU = ceil(P/32). Value *cap2* indicates the processing capability scales the timeline Z/Z' by ceil(P/32) where P is the total number of ports across all the K aggregated CSI-RS resources and OCPU = 1. '*cap1*' is a higher capability than '*cap2*'.
- *maxNumberResource-r19* indicates the maximum number of CSI-RS resource in a resource set.
- *supportedCSI-RS-ResourceListPerCC-r19* indicates the list of supported CSI-RS resources per CC simultaneously in a band combination by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources per CC in a band combination, simultaneously.
	BC	No	N/A	N/A

The UE optionally includes *feType2-M2R1Ext-r19* to indicate whether the UE supports parameter combinations with M=2 and R=1 for extended FeType-II port selection codebook for up to 64 ports. This capability indicates the list of supported CSI-RS resources across all CCs in a band combination by referring to *codebookVariantsListAggregate-r19*. The following parameters are included in *codebookVariantsListAggregate-r19*: - *maxNumberTxPortsPerAggregatedResource-r19* indicates the maximum number of Tx ports in a resource of across all CCs a band combination. - *maxNumberAggregatedResources-r19* indicates the maximum number of resources across all CCs in a band combination, simultaneously. - *totalNumberTxPorts-r19* indicates the total number of Tx ports across all CCs in a band combination, simultaneously. The UE optionally includes *feType2-M2R2Ext-r19* to indicate whether the UE supports parameter combinations with M=2 and R=2 for extended FeType-II port selection codebook for up to 64 ports. This capability indicates the list of supported CSI-RS resources across all CCs in a band combination by referring to *codebookVariantsListAggregate-r19*. The following parameters are included in *codebookVariantsListAggregate-r19*: - *maxNumberTxPortsPerAggregatedResource-r19* indicates the maximum number of Tx ports in a resource of across all CCs a band combination. - *maxNumberAggregatedResources-r19* indicates the maximum number of resources across all CCs in a band combination, simultaneously. - *totalNumberTxPorts-r19* indicates the total number of Tx ports across all CCs in a band combination, simultaneously. The UE optionally includes *feType2-R3R4Ext-r19* to indicate whether the UE supports rank 3, 4 for extended FeType-II port selection codebook for up to 64ports. For *codebookVariantsListAggregate-r19* related to the *feType2-M2R1Ext-r19* and *feType2-M2R2Ext-r19*: - The maximum of *maxNumberTxPortsPerAggregatedResource-r19* is '*p64*'; - The minimum value of *totalNumberTxPorts-r19* is '*64*'.				
codebookParametersfetype2perBC-r17 Indicates the list of supported CSI-RS resources across all bands in a band combination by referring to *codebookVariantsList* for the additional codebook types. The following parameters are included in *codebookVariantsList* for each code book type: - *maxNumberTxPortsPerResource* indicates the maximum number of Tx ports in a resource across all bands within a band combination; - *maxNumberResourcesPerBand* indicates the maximum number of resources across all CCs within a band combination, simultaneously; - *totalNumberTxPortsPerBand* indicates the total number of Tx ports across all CCs within a band combination, simultaneously. For each band in a band combination, supported values for these three parameters are determined in conjunction with *CodebookParametersfetyp2-r17* reported in *MIMO-ParametersPerBand*. For *codebookVariantsList* related to the FeType-II: - The minimum of *maxNumberTxPortsPerResource* is '*p4*'; - The minimum value of *totalNumberTxPortsPerBand* is 4.	BC	No	N/A	N/A

codebookParametersHARQ-ACK-PUSCH-PerBC-r18 Indicates whether the UE supports Multiplexing HARQ-ACK codebook in a PUSCH for PDSCH scheduled after UL grant. This capability signalling comprises the following parameters: - *multiplexingType1-r18* indicates whether the UE supports multiplexing Type-1 HARQ-ACK codebook on a repetition of a PUSCH transmission other than a first repetition, where ACK/NACK is generated for the HARQ-ACK codebook including HARQ-ACK information associated with PDSCH reception(s) scheduled after the UL grant scheduling the PUSCH transmission. A UE supporting this feature shall also indicate support of *semiItaticHARQ-ACK-Codebook.* - *multiplexingType2-r18* indicates whether the UE supports multiplexing Type-2 HARQ-ACK codebook on a repetition of a PUSCH transmission other than a first repetition, where ACK/NACK is generated for the HARQ-ACK codebook including HARQ-ACK information associated with PDSCH reception(s) scheduled after the UL grant scheduling the PUSCH transmission. A UE supporting this feature shall also indicate support of *dynamicHARQ-ACK-Codebook*. - *multiplexingType3-r18* indicates whether the UE supports multiplexing Type-3 HARQ-ACK codebook on a repetition of a PUSCH transmission other than a first repetition, where ACK/NACK is generated for the HARQ-ACK codebook including HARQ-ACK information associated with PDSCH reception(s) scheduled after the UL grant scheduling the PUSCH transmission. A UE supporting this feature shall also indicate support of *oneShotHARQ-feedback-r16*. A UE supporting this feature shall also indicate support of one of *pusch-RepetitionMultiSlots* and *pusch-RepetitionTypeB-r16*. UE does not expect to determine a different codebook size in a PUCCH slot from the codebook size determined based on HARQ-ACK information associated with PDSCH reception(s) scheduled before a UL grant that schedules a PUSCH in a slot overlapping with the PUCCH slot. UE does not expect to determine a different PUCCH time domain resource in a slot from the PUCCH time domain resource determined based on HARQ-ACK information associated with PDSCH reception(s) scheduled before a UL grant that schedules a PUSCH in that slot. The UE optionally includes *pucch-DiffResource-PDSCH-r18* to indicate whether the UE supports determining a different PUCCH resource in a slot from the PUCCH resource indicated by the last DCI format before a UL grant in the slot, to include HARQ-ACK information associated with PDSCH reception(s) scheduled after the UL grant scheduling a PUSCH transmission with repetitions and the HARQ-ACK information are multiplexed on a repetition of the PUSCH transmission other than a first repetition in the same slot. A UE supporting *pucch-DiffResource-PDSCH-r18* shall also indicate support of one of *multiplexingType1-r18*, *multiplexingType2-r18* and *multiplexingType3-r18*. The UE optionally includes *diffCB-Size-PDSCH-r18* to indicate whether the UE supports determining different codebook size in a PUCCH slot from the size determined based on HARQ-ACK information associated with PDSCH reception(s) scheduled before a UL grant, to include HARQ-ACK information associated with PDSCH reception(s) scheduled after the UL grant scheduling a PUSCH transmission with repetitions and the HARQ-ACK information are multiplexed on a repetition of the PUSCH transmission other than a first repetition in the same slot. A UE supporting *diffCB-Size-PDSCH-r18* shall also indicate support of one of *multiplexingType1-r18*, *multiplexingType2-r18* and *multiplexingType3-r18*.	BC	No	N/A	N/A

codebookParametersHybridBF-eType2PerBC-r19
Indicates whether the UE supports hybrid BF (CRI-based) with eType-II codebook.
This capability signalling comprises the following parameters:
- *maxNumberCRI-Report-r19* indicates the maximal supported number of CRI report M;
- *supportedCSI-RS-ResourceHybridList-r19* indicates the list of supported CSI-RS resources across all CCs in a band combination by referring to *codebookVariantsListHybrid-r19*. The following parameters are included in *codebookVariantsListHybrid-r19*:
  - *maxNumberTxPortsPerResource-r19* indicates the maximum number of Tx ports in one resource across all CCs in a band combination, simultaneously;
  - *maxNumberResources-r19* indicates the maximum number of resources across all CCs in a band combination, simultaneously;
  - *totalNumberTxPorts-r19* indicates the total number of Tx ports across all CCs in a band combination, simultaneously.
- *maxValueKs-r19* indicates the maximum value of K_s.
A UE supporting this feature shall also indicate the support of *etype2R1-r16*.
	BC	No	N/A	N/A

codebookParametersHybridBF-Type1SP-PerBC-r19
Indicates whether the UE supports hybrid BF (CRI-based) with Rel-15 Type-I SP codebook.
This capability signalling comprises the following parameters:
- *maxNumberCRI-Report-r19* indicates the maximal supported number of CRI report M;
- *supportedCSI-RS-ResourceHybridList-r19* indicates the list of supported CSI-RS resources across all CCs in a band combination by referring to *codebookVariantsListHybrid-r19*. The following parameters are included in *codebookVariantsListHybrid-r19*:
  - *maxNumberTxPortsPerResource-r19* indicates the maximum number of Tx ports in one resource across all CCs in a band combination, simultaneously;
  - *maxNumberResources-r19* indicates the maximum number of resources across all CCs in a band combination, simultaneously;
  - *totalNumberTxPorts-r19* indicates the total number of Tx ports across all CCs in a band combination, simultaneously.
- *maxValueKs-r19* indicates the maximum value of K_s.
A UE supporting this feature shall also indicate the support of Type-I single panel codebook.
	BC	No	N/A	N/A

codebookParametersType1MP-PerBC-r19 Indicates whether the UE supports enhanced Type-I MP codebook within 1 slot. The basic features of enhanced Type-I MP codebook for 64 ports within 1 slot are included in *enhType1MP64Ports-r19*. This capability signalling comprises the following parameters: - *supportedCSI-RS-ResourceExtList-r19* indicates the list of supported CSI-RS resources across all CCs in a band combination by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*: - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources across all CCs in a band combination, simultaneously. - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across all CCs in a band combination, simultaneously. - *maxPanel-r19* indicates the supported maximum number of panels. - *maxNumberResource-r19* indicates the maximum number of CSI-RS resource in a resource set. - *processingCapability-r19* indicates the supported processing capability. Value *cap1* indicates the processing capability reuses Z/Z' values and OCPU = ceil(P/32). Value *cap2* indicates the processing capability scales the timeline Z/Z' by ceil(P/32) where P is the total number of ports across all the K aggregated CSI-RS resources and OCPU = 1. '*cap1*' is a higher capability than '*cap2*'. - *supportedCSI-RS-ResourceListPerCC-r19* indicates the list of supported CSI-RS resources per CC simultaneously in a band combination by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*: - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources per CC in a band combination, simultaneously. - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across per CC in a band combination, simultaneously. A UE supporting this feature shall also indicate support of *simultaneousCSI-ReportsAllCC*. The UE optionally includes *enhType1MP48Ports-r19* to indicate whether the UE supports enhanced Type-I MP codebook for 48 ports within 1 slot. This capability signalling comprises the following parameters: - *supportedCSI-RS-ResourceExtList-r19* indicates the list of supported CSI-RS resources across all CCs in a band combination by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*: - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources across all CCs in a band combination, simultaneously. - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across all CCs in a band combination, simultaneously. - *maxPanel-r19* indicates the supported maximum number of panels. - *maxNumberResource-r19* indicates the maximum number of CSI-RS resource in a resource set. - *processingCapability-r19* indicates the supported processing capability. Value *cap1* indicates the processing capability reuses Z/Z' values and OCPU = ceil(P/32). Value *cap2* indicates the processing capability scales the timeline Z/Z' by ceil(P/32) where P is the total number of ports across all the K aggregated CSI-RS resources and OCPU = 1. '*cap1*' is a higher capability than '*cap2*'. - *supportedCSI-RS-ResourceListPerCC-r19* indicates the list of supported CSI-RS resources per CC simultaneously in a band combination by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*: - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources per CC in a band combination, simultaneously. - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across per CC in a band combination, simultaneously.	BC	No	N/A	N/A

The UE optionally includes *enhType1MP128Ports-r19* to indicate whether the UE supports enhanced Type-I MP codebook for 128 ports within 1 slot and 4 CSI-RS resources in a resource set. This capability signalling comprises the following parameters:
- *supportedCSI-RS-ResourceExtList-r19* indicates the list of supported CSI-RS resources across all CCs in a band combination by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources across all CCs in a band combination, simultaneously.
  - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across all CCs in a band combination, simultaneously.
- *maxRank-r19* indicates the supported maximum rank.
- *processingCapability-r19* indicates the supported processing capability. Value *cap1* indicates the processing capability reuses Z/Z' values and OCPU = ceil(P/32). Value *cap2* indicates the processing capability scales the timeline Z/Z' by ceil(P/32) where P is the total number of ports across all the K aggregated CSI-RS resources and OCPU = 1. '*cap1*' is a higher capability than '*cap2*'.
- *supportedCSI-RS-ResourceListPerCC-r19* indicates the list of supported CSI-RS resources per CC simultaneously in a band combination by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources per CC in a band combination, simultaneously.
  - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across per CC in a band combination, simultaneously.				

codebookParametersType1SP-SchemeA-PerBC-r19
Indicates whether the UE supports enhanced Type-I SP codebook for Scheme-A by aggregating multiple NZP CSI-RS resources within one slot.
The basic feature of enhanced Type-I SP codebook for 64 ports Scheme-A are included in *enhType1SP64PortsSchemeA-r19*. This capability signalling comprises the following parameters:
- *supportedCSI-RS-ResourceExtList-r19* indicates the list of supported CSI-RS resources across all CCs in a band combination by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources across all CCs in a band combination, simultaneously.
  - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across all CCs in a band combination, simultaneously.
- *maxRank-r19* indicates the supported maximum rank.
- *maxNumberResource-r19* indicates the maximum number of CSI-RS resource in a resource set.
- *processingCapability-r19* indicates the supported processing capability. Value *cap1* indicates the processing capability reuses Z/Z' values and OCPU = ceil(P/32). Value *cap2* indicates the processing capability scales the timeline Z/Z' by ceil(P/32) where P is the total number of ports across all the K aggregated CSI-RS resources and OCPU = 1. '*cap1*' is a higher capability than '*cap2*'.
- *supportedCSI-RS-ResourceListPerCC-r19* indicates the list of supported CSI-RS resources per CC simultaneously in a band combination by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources per CC in a band combination, simultaneously.
  - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across per CC in a band combination, simultaneously.
 	
A UE supporting this feature shall also indicate support of *simultaneousCSI-ReportsAllCC*.
 	
The UE optionally includes *enhType1SP48PortsSchemeA-r19* to indicate whether the UE supports enhanced Type-I SP codebook for Scheme-A with 48 Tx ports by aggregating multiple NZP CSI-RS resources within one slot. This capability signalling comprises the following parameters:
- *supportedCSI-RS-ResourceExtList-r19* indicates the list of supported CSI-RS resources across all CCs in a band combination by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources across all CCs in a band combination, simultaneously.
  - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across all CCs in a band combination, simultaneously.
- *maxRank-r19* indicates the supported maximum rank.
- *maxNumberResource-r19* indicates the maximum number of CSI-RS resource in a resource set.
- *processingCapability-r19* indicates the supported processing capability. Value *cap1* indicates the processing capability reuses Z/Z' values and OCPU = ceil(P/32). Value *cap2* indicates the processing capability scales the timeline Z/Z' by ceil(P/32) where P is the total number of ports across all the K aggregated CSI-RS resources and OCPU = 1. '*cap1*' is a higher capability than '*cap2*'.
- *supportedCSI-RS-ResourceListPerCC-r19* indicates the list of supported CSI-RS resources per CC simultaneously in a band combination by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources per CC in a band combination, simultaneously.
	BC	No	N/A	N/A

- *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across per CC in a band combination, simultaneously. The UE optionally includes *enhType1SP128PortsSchemeA-r19* to indicate whether the UE supports enhanced Type-I SP codebook for Scheme-A with 128 Tx ports by aggregating multiple NZP CSI-RS resources within one slot and 4 CSI-RS resources in a resource set. This capability signalling comprises the following parameters: - *supportedCSI-RS-ResourceExtList-r19* indicates the list of supported CSI-RS resources across all CCs in a band combination by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*: - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources across all CCs in a band combination, simultaneously. - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across all CCs in a band combination, simultaneously. - *maxRank-r19* indicates the supported maximum rank. - *processingCapability-r19* indicates the supported processing capability. Value *cap1* indicates the processing capability reuses Z/Z' values and OCPU = ceil(P/32). Value *cap2* indicates the processing capability scales the timeline Z/Z' by ceil(P/32) where P is the total number of ports across all the K aggregated CSI-RS resources and OCPU = 1. '*cap1*' is a higher capability than '*cap2*'. - *supportedCSI-RS-ResourceListPerCC-r19* indicates the list of supported CSI-RS resources per CC simultaneously in a band combination by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*: - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources per CC in a band combination, simultaneously. - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across per CC in a band combination, simultaneously.				

codebookParametersType1SP-SchemeB-PerBC-r19
Indicates whether the UE supports enhanced Type-I SP codebook for Scheme-B by aggregating multiple NZP CSI-RS resources within one slot.
The basic features of enhanced Type-I SP codebook for 64 ports Scheme-B are included in *enhType1SP64PortsSchemeB-r19*. This capability signalling comprises the following parameters:
- *supportedCSI-RS-ResourceExtList-r19* indicates the list of supported CSI-RS resources across all CCs in a band combination by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources across all CCs in a band combination, simultaneously.
  - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across all CCs in a band combination, simultaneously.
- *maxRank-r19* indicates the supported maximum rank.
- *maxNumberResource-r19* indicates the maximum number of CSI-RS resource in a resource set.
- *processingCapability-r19* indicates the supported processing capability. Value *cap1* indicates the processing capability reuses Z/Z' values and OCPU = ceil(P/32). Value *cap2* indicates the processing capability scales the timeline Z/Z' by ceil(P/32) where P is the total number of ports across all the K aggregated CSI-RS resources and OCPU = 1. '*cap1*' is a higher capability than '*cap2*'.
- *supportedCSI-RS-ResourceListPerCC-r19* indicates the list of supported CSI-RS resources per CC simultaneously in a band combination by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources per CC in a band combination, simultaneously.
  - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across per CC in a band combination, simultaneously.
 	
A UE supporting this feature shall also indicate support of *simultaneousCSI-ReportsAllCC*.
 	
The UE optionally includes *enhType1SP48PortsSchemeB-r19* to indicate whether the UE supports enhanced Type-I SP codebook for Scheme-B with 48 Tx ports by aggregating multiple NZP CSI-RS resources within one slot. This capability signalling comprises the following parameters:
- *supportedCSI-RS-ResourceExtList-r19* indicates the list of supported CSI-RS resources across all CCs in a band combination by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources across all CCs in a band combination, simultaneously.
  - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across all CCs in a band combination, simultaneously.
- *maxRank-r19* indicates the supported maximum rank.
- *maxNumberResource-r19* indicates the maximum number of CSI-RS resource in a resource set.
- *processingCapability-r19* indicates the supported processing capability. Value *cap1* indicates the processing capability reuses Z/Z' values and OCPU = ceil(P/32). Value *cap2* indicates the processing capability scales the timeline Z/Z' by ceil(P/32) where P is the total number of ports across all the K aggregated CSI-RS resources and OCPU = 1. '*cap1*' is a higher capability than '*cap2*'.
- *supportedCSI-RS-ResourceListPerCC-r19* indicates the list of supported CSI-RS resources per CC simultaneously in a band combination by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*:
  - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources per CC in a band combination, simultaneously.
	BC	No	N/A	N/A

- *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across per CC in a band combination, simultaneously. The UE optionally includes *enhType1SP128PortsSchemeB-r19* to indicate whether the UE supports enhanced Type-I SP codebook for Scheme-B with 128 Tx ports by aggregating multiple NZP CSI-RS resources within one slot and 4 CSI-RS resources in a resource set. This capability signalling comprises the following parameters: - *supportedCSI-RS-ResourceExtList-r19* indicates the list of supported CSI-RS resources across all CCs in a band combination by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*: - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources across all CCs in a band combination, simultaneously. - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across all CCs in a band combination, simultaneously. - *maxRank-r19* indicates the supported maximum rank. - *processingCapability-r19* indicates the supported processing capability. Value *cap1* indicates the processing capability reuses Z/Z' values and OCPU = ceil(P/32). Value *cap2* indicates the processing capability scales the timeline Z/Z' by ceil(P/32) where P is the total number of ports across all the K aggregated CSI-RS resources and OCPU = 1. '*cap1*' is a higher capability than '*cap2*'. - *supportedCSI-RS-ResourceListPerCC-r19* indicates the list of supported CSI-RS resources per CC simultaneously in a band combination by referring to *codebookVariantsListExt-r19*. The following parameters are included in *codebookVariantsListExt-r19*: - *maxNumberResourcesPerBand-r19* indicates the maximum number of resources per CC in a band combination, simultaneously. - *totalNumberTxPortsPerBand-r19* indicates the total number of Tx ports across per CC in a band combination, simultaneously.				

codebookComboParameterMixedTypePerBC-r17 Indicates the support of active CSI-RS resources and ports for mixed codebook types in any slot. The UE reports supported active CSI-RS resources and ports for up to 4 mixed codebook combinations in any slot. The following are the possible mixed codebook combinations {Codebook1, Codebook2, Codebook3}: - *type1SP-feType2PS-null-r17 indicates* {Type 1 Single Panel, FeType II PS M=1, NULL} - *type1SP-feType2PS-M2R1-null-r17* indicates {Type 1 Single Panel, FeType II PS M=2 R=1, NULL} - *type1SP-feType2PS-M2R2-null-r17* indicates {Type 1 Single Panel, FeType II PS M=2 R=2, NULL} - *type1SP-Type2-feType2-PS-M1-r17* indicates {Type 1 Single Panel, Type II, FeType II PS M=1} - *type1SP-Type2-feType2-PS-M2R1-r17* indicates {Type 1 Single Panel, Type II, FeType II PS M=2 R=1} - *type1SP-eType2R1-feType2-PS-M1-r17* indicates {Type 1 Single Panel, eType II R=1, FeType II PS M=1} - *type1SP-eType2R1-feType2-PS-M2R1-r17* indicates {Type 1 Single Panel, eType II R=1, FeType II PS M=2 R=1} - *type1MP-feType2PS-null-r17* indicates {Type 1 Multi Panel, FeType II PS M=1, NULL} - *type1MP-feType2PS-M2R1-null-r17* indicates {Type 1 Multi Panel, FeType II PS M=2 R=1, NULL} - *type1MP-feType2PS-M2R2-null-r17* indicates {Type 1 Multi Panel, FeType II PS M=2 R=2, NULL} - *type1MP-Type2-feType2-PS-M1-r17* indicates {Type 1 Multi Panel, Type II, FeType II PS M=1} - *type1MP-Type2-feType2-PS-M2R1-r17* indicates {Type 1 Multi Panel, Type II, FeType II PS M=2 R=1} - *type1MP-eType2R1-feType2-PS-M1-r17* indicates {Type 1 Multi Panel, eType II R=1, FeType II PS M=1} - *type1MP-eType2R1-feType2-PS-M2R1-r17* indicates {Type 1 Multi Panel, eType II R=1, FeType II PS M=2 R=1} For each mixed codebook supported by the UE, *supportedCSI-RS-ResourceListAdd-r16* indicates the list of supported CSI-RS resources in a band by referring to *codebookVariantsList*. The following parameters are included in *codebookVariantsList*: - *maxNumberTxPortsPerResource* indicates the maximum number of Tx ports in a resource of a band combination with the minimum value of '*p4*'. - *maxNumberResourcesPerBand* indicates the maximum number of resources across all CCs in a band combination with the minimum value of 4. - *totalNumberTxPortsPerBand* indicates the total number of Tx ports across all CCs in a band combination. The UE supporting this feature shall indicate the support of individual codebook types in the reported mixed codebook combination(s) among *fetype2basic-r17, etype2R1-r16, codebookParameters (type1-singlePanel, type1-multiPanel, type2), fetype2R1-r17, fetype2R2-r17.*	BC	No	N/A	N/A

codebookComboParameterMultiTRP-PerBC-r17 Indicates the support of active CSI-RS resources and ports in the presence of multi-TRP CSI. Indicates the support of active CSI-RS resources and ports for mixed codebook types in any slot. The UE reports supported active CSI-RS resources and ports for up to 4 mixed codebook combinations. The following are the possible mixed codebook combinations {Codebook1, Codebook2, Codebook3}: - *nCJT-null-null* indicates {NCJT, NULL, NULL} - *nCJT1SP-null-null* indicates {NCJT+Type 1 SP for sTRP, NULL, NULL} - *nCJT-Type2-null-r16* indicates {NCJT*, Type 2, Null}* - *nCJT-Type2PS-null-r16* indicates {NCJT*, Type 2 with port selection, Null}* - *nCJT-eType2R1-null-r16* indicates {NCJT*, eType 2 with R=1, Null}* - *nCJT-eType2R2-null-r16* indicates {NCJT*, eType 2 with R=2, Null}* - *nCJT-eType2R1PS-null-r16* indicates {NCJT*, eType 2 with R=1 and port selection, Null}* - *nCJT-eType2R2PS-null-r16* indicates {NCJT*, eType 2 with R=2 and port selection, Null}* - *nCJT-Type2-Type2PS-r16* indicates {NCJT*, Type 2, Type 2 with port selection}* - *nCJT1SP-Type2-null-r16* indicates {NCJT+Type 1 SP for sTRP, Type 2, Null} - *nCJT1SP-Type2PS-null-r16* indicates {NCJT+Type 1 SP for sTRP, Type 2 with port selection, Null} - *nCJT1SP-eType2R1-null-r16* indicates {NCJT+Type 1 SP for sTRP, eType 2 with R=1, Null} - *nCJT1SP-eType2R2-null-r16* indicates {NCJT+Type 1 SP for sTRP, eType 2 with R=2, Null} - *nCJT1SP-eType2R1PS-null-r16* indicates {NCJT+Type 1 SP for sTRP, eType 2 with R=1 and port selection, Null} - *nCJT1SP-eType2R2PS-null-r16* indicates {NCJT+Type 1 SP for sTRP, eType 2 with R=2 and port selection, Null} - *nCJT1SP-Type2-Type2PS-r16* indicates {NCJT+Type 1 SP for sTRP, Type 2, Type 2 with port selection} - *nCJT-feType2PS-null-r17 indicates* {NCJT, FeType II PS M=1, NULL} - *nCJT-feType2PS-M2R1-null-r17* indicates {NCJT, FeType II PS M=2 R=1, NULL} - *nCJT-feType2PS-M2R2-null-r17* indicates {NCJT, FeType II PS M=2 R=2, NULL} - *nCJT-Type2-feType2-PS-M1-r17* indicates {NCJT, Type II, FeType II PS M=1} - *nCJT-Type2-feType2-PS-M2R1-r17* indicates {NCJT, Type II, FeType II PS M=2 R=1} - *nCJT-eType2R1-feType2-PS-M1-r17* indicates {NCJT, eType II R=1, FeType II PS M=1} - *nCJT-eType2R1-feType2-PS-M2R1-r17* indicates {NCJT, eType II R=1, FeType II PS M=2 R=1} - *nCJT1SP-feType2PS-null-r17 indicates* {NCJT+Type 1 SP for sTRP, FeType II PS M=1, NULL} - *nCJT1SP-feType2PS-M2R1-null-r17* indicates {NCJT+Type 1 SP for sTRP, FeType II PS M=2 R=1, NULL} - *nCJT1SP-feType2PS-M2R2-null-r17* indicates {NCJT+Type 1 SP for sTRP, FeType II PS M=2 R=2, NULL} - *nCJT1SP-Type2-feType2-PS-M1-r17* indicates {NCJT+Type 1 SP for sTRP, Type II, FeType II PS M=1} - *nCJT1SP-Type2-feType2-PS-M2R1-r17* indicates {NCJT+Type 1 SP for sTRP, Type II, FeType II PS M=2 R=1} - *nCJT1SP-eType2R1-feType2-PS-M1-r17* indicates {NCJT+Type 1 SP for sTRP, eType II R=1, FeType II PS M=1} - *nCJT1SP-eType2R1-feType2-PS-M2R1-r17* indicates {NCJT+Type 1 SP for sTRP, eType II R=1, FeType II PS M=2 R=1} For each mixed codebook supported by the UE, *supportedCSI-RS-ResourceListAdd-r16* indicates the list of supported CSI-RS resources in a band by referring to *codebookVariantsList*. The following parameters are included in *codebookVariantsList*: - *maxNumberTxPortsPerResource* indicates the maximum number of Tx ports in a resource of a band combination.	BC	No	N/A	N/A

- *maxNumberResourcesPerBand* indicates the maximum number of resources across all CCs in a band combination. - *totalNumberTxPortsPerBand* indicates the total number of Tx ports across all CCs in a band combination. NOTE 1: A CMR pair configured for NCJT will be counted as two activated resources, a CMR configured for sTRP will be counted as one activated resource for a triplet. NOTE2: his capability is relevant only when UE is configured with NCJT CSI in at least one CSI report setting in at least one CC in the band and/or band combination. The UE indicating support of this feature shall also indicate the support of *mTRP-CSI-EnhancementPerBand-r17*.				
crossCarrierA-CSI-trigDiffSCS-r16 Indicates the UE support of handling cross-carrier aperiodic CSI report with aperiodic CSI-RS where triggering PDCCH and triggered CSI-RS resource are on different cells with different SCS. Value *higherA-CSI-SCS* indicates the UE support of PDCCH cell of lower SCS and CSI RS cell of higher SCS and value *lowerA-CSI-SCS* indicates the UE support of PDCCH cell of higher SCS and CSI RS cell of lower SCS, and value *both* indicates the support of both variations. A UE supporting this feature shall also indicate support of CSI-RS and CSI-IM reception for CSI feedback using *csi-RS-IM-ReceptionForFeedback*	BC	No	N/A	N/A
crossCarrierSchedulingDefaultQCL-r16 Indicates whether the UE can be configured with *enabledDefaultBeamForCCS* for default QCL assumption for cross-carrier scheduling for same/different numerologies. A UE supporting this feature shall either indicate support of *crossCarrierScheduling-SameSCS* or *crossCarrierSchedulingDL-DiffSCS-r16*. Value *diff-only* indicates UE supports this feature only for different SCS combination(s). Value *both* indicates UE supports this feature for same SCS and for different SCS combination(s).	BC	No	N/A	N/A
crossCarrierSchedulingDL-DiffSCS-r16 Indicates the UE supports cross carrier scheduling for the different numerologies with carrier indicator field (CIF) in DL carrier aggregation where numerologies for the scheduling CC and scheduled CC are different. Value *low-to-high* indicates UE supports scheduling CC of lower SCS to scheduled CC of higher SCS; Value *high-to-low* indicates UE supports scheduling CC of higher SCS to scheduled CC of lower SCS; Value *both* indicates UE supports both scheduling CC of lower SCS to scheduled CC of higher SCS and scheduling CC of higher SCS to scheduled CC of lower SCS. NOTE 1: Following components are applicable to cross carrier scheduling from lower SCS to higher SCS when the UE reports this feature: - Processing one unicast DCI scheduling DL per scheduling CC slot per scheduled CC for FDD scheduling CC - Processing one unicast DCI scheduling DL per scheduling CC slot per scheduled CC for TDD scheduling CC NOTE 2: Following components are applicable to cross carrier scheduling from higher SCS to lower SCS when the UE reports this feature: - Processing one unicast DCI scheduling DL per N consecutive scheduling CC slot per scheduled CC for FDD scheduling CC - Processing one unicast DCI scheduling DL per N consecutive scheduling CC slot per scheduled CC for TDD scheduling CC - N is based on pair of (scheduling CC SCS, scheduled CC SCS): N=2 for (30,15), (60,30), (120,60) and N=4 for (60,5), (120,30), N = 8 for (120,15)	BC	No	N/A	N/A

crossCarrierSchedulingSCell-SpCellTypeB-r17
Indicates whether the UE supports cross-carrier scheduling from SCell configured with cross-carrier scheduling to PCell/PSCell (sSCell) to PCell/PSCell (Type B). This capability signalling comprises the following parameters:
- *supportedSCS-Combinations-r17* indicates which {PCell/PSCell SCS in kHz, sSCell SCS in kHz} combinations are supported. For {PCell/PSCell SCS in kHz, sSCell SCS in kHz} combinations = {(30,30), (30, 60), (60,60)}, the capability also indicates the band pair(s) that are supported. The band-pair is encoded as a bitmap with size L * (L – 1) / 2, and bit N (leftmost bit is indexed as bit 0) is set to "1" if the UE supports cross-carrier scheduling from SCell toPCell/PSCell for the band pair (x, y), where L is the number of band entries in the band combination, x and y are the indices of the band entry in the band combination (the first band entry is indexed as 0), x < y, and N = x*(2*L – x – 1)/2 + y – x – 1.
- sSCell USS set(s) (for CCS from sSCell to PCell/PSCell) and search space sets on PCell/PSCell can be configured so that the UE monitors them in overlapping slot of PCell/PSCell and sSCell.
- Configuration of scaling factor α for BD and CCE limit handling and PDCCH overbooking handling on P(S)Cell
- The number of unicast DCI limits for PCell/PSCell scheduling
  - Processing K1 unicast DCI scheduling DL on PCell/PSCell per PCell/PSCell slot and its aligned N consecutive sSCell slot(s)
  - Processing K2 unicast DCI scheduling UL on PCell/PSCell per PCell/PSCell slot and its aligned N consecutive sSCell slot(s)
  - N is based on pair of (PCell/PSCell SCS, sSCell SCS): N=1 for (15,15), (30,30), (60,60) and N=2 for (15,30), (30,60) and N=4 for (15, 60)
  - (K1, K2) = {(1,1) for FDD P(S)Cell; (K1, K2) = (1,2) for TDD P(S)Cell}
- Same numerology between sSCell and P(S)Cell or sSCell SCS is larger than P(S)Cell SCS.
- USS set(s) for DCI format 0_1,1_1 configured on sSCell for CCS from sSCell to PCell/PSCell and USS set(s) for DCI format 0_2,1_2 configured on sSCell for CCS from sSCell to PCell/PSCell if UE supports *dci-Format1-2And0-2-r16*
- *pdcch-MonitoringOccasion-r17* indicates the PDCCH monitoring occasion(s) on sSCell for cross-carrier scheduling to Pcell/PSCell. There are 2 values {val1, val2} where val1 = within the first 3 OFDM symbols of sSCell slot overlapping with the first 3 OFDM symbols of PCell/PSCell slot and val2 = within the first 3 OFDM symbols of any sSCell slot overlapping with a PCell/PSCell slot.
- Frame boundary alignment between PCell/PSCell and sSCell.
 	
NOTE 1: A UE supporting this FG does not imply that the UE can be configured with sSCell in shared channel access spectrum.
NOTE 2: The CCS from sSCell to PCell is applicable to FR1 only but there can be other SCells in FR2 configured for the UE.
NOTE 3: Parameters in *CSI-MeasConfig* of P(S)Cell and sSCell are configured such that combination of P(S)Cell and sSCell configurations does not result in exceeding any of the UE's capabilities for A-/SP-CSI reporting on PUSCH on P(S)Cell.
	BC	No	N/A	FR1 only

crossCarrierSchedulingSCell-SpCellTypeA-r17
Indicates whether the UE supports cross-carrier scheduling from SCell configured with cross-carrier scheduling to PCell/PSCell (sSCell) to PCell/PSCell with search space restrictions (Type A). This capability signalling comprises the following parameters:
- *supportedSCS-Combinations-r17* indicates which {PCell/PSCell SCS in kHz, sSCell SCS in kHz} combinations are supported. For {PCell/PSCell SCS in kHz, sSCell SCS in kHz} combinations = {(30,30), (30, 60), (60,60)}, the capability also indicates the band pair(s) that are supported. The band-pair is encoded as a bitmap with size L * (L – 1) / 2, and bit N (leftmost bit is indexed as bit 0) is set to "1" if the UE supports cross-carrier scheduling from SCell toPCell/PSCell for band pair (x, y), where L is the number of band entries in the band combination, x and y are the indices of the band entry in the band combination (the first band entry is indexed as 0), x < y, and N = x*(2*L – x – 1)/2 + y – x – 1.
- Search space restrictions: sSCell USS set(s) (for CCS from sSCell to PCell/PSCell) and following search space sets on PCell/PSCell can only be configured such that UE does not monitor them in overlapping slot of PCell/PSCell and sSCell:
  - USS sets for DCI formats 0_1,1_1,0_2,1_2.
  - USS sets for DCI formats 0_0,1_0.
  - Type3-CSS set(s) for DCI formats 1_0/0_0 with C-RNTI/CS-RNTI/MCS-C-RNTI.
- Configuration of scaling factor α for BD and CCE limit handling and PDCCH overbooking handling on P(S)Cell.
- The number of unicast DCI limits for PCell/PSCell scheduling:
  - Processing K1 unicast DCI scheduling DL on PCell/PSCell per PCell/PSCell slot and its aligned N consecutive sSCell slot(s).
  - Processing K2 unicast DCI scheduling UL on PCell/PSCell per PCell/PSCell slot and its aligned N consecutive sSCell slot(s).
  - N is based on pair of (PCell/PSCell SCS, sSCell SCS): N=1 for (15,15), (30,30), (60,60) and N=2 for (15,30), (30,60) and N=4 for (15, 60).
  - (K1, K2) = {(1,1) for FDD P(S)Cell; (K1, K2) = (1,2) for TDD P(S)Cell}.
- Same numerology between sSCell and P(S)Cell or sSCell SCS is larger than P(S)Cell SCS.
- USS set(s) for DCI format 0_1,1_1 configured on sSCell for CCS from sSCell to PCell/PSCell and USS set(s) for DCI format 0_2,1_2 configured on sSCell for CCS from sSCell to PCell/PSCell if UE supports dci-Format1-2And0-2-r16.
- sSCell USS set(s) (for CCS from sSCell to PCell/PSCell) and Type0/0A/1/2 CSS sets on PCell/PSCell can be configured so that the UE monitors them in overlapping slot of PCell/PSCell and sSCell
  - no simultaneous monitoring between 'USS sets (for P(S)Cell scheduling) on sSCell' and 'Type 0/0A/1/2 CSS sets on P(S)Cell for DCI formats with CRC scrambled by C-RNTI/MCS-C-RNTI/CS-RNTI'
  - simultaneous monitoring of 'USS sets (for P(S)Cell scheduling) on sSCell' and 'Type 0/0A/1/2 CSS sets on P(S)Cell for DCI formats with CRC not scrambled by C-RNTI/MCS-C-RNTI/CS-RNTI'.
- *pdcch-MonitoringOccasion-r17* indicates the PDCCH monitoring occasion(s) on sSCell for cross-carrier scheduling to PCell/PSCell. There are 2 values {val1, val2} where val1 = within the first 3 OFDM symbols of sSCell slot overlapping with the first 3 OFDM symbols of PCell/PSCell slot and val2 = within the first 3 OFDM symbols of any sSCell slot overlapping with a PCell/PSCell slot.
- Frame boundary alignment between PCell/PSCell and sSCell.
 	
NOTE 1: A UE supporting this FG does not imply that the UE can be configured with sSCell in shared channel access spectrum.
NOTE 2: The CCS from sSCell to PCell is applicable to FR1 only but there can be other SCells in FR2 configured for the UE.
NOTE 3: Parameters in *CSI-MeasConfig* of P(S)Cell and sSCell are configured such that combination of P(S)Cell and sSCell configurations does not result in exceeding any of the UE's capabilities for A-/SP-CSI reporting on PUSCH on P(S)Cell.
	BC	No	N/A	FR1 only

crossCarrierSchedulingUL-DiffSCS-r16 Indicates the UE supports cross carrier scheduling for the different numerologies with carrier indicator field (CIF) in UL carrier aggregation where numerologies for the scheduling CC and scheduled CC are different. Value *low-to-high* indicates UE supports scheduling CC of lower SCS to scheduled CC of higher SCS; Value *high-to-low* indicates UE supports scheduling CC of higher SCS to scheduled CC of lower SCS; Value *both* indicates UE supports both scheduling CC of lower SCS to scheduled CC of higher SCS and scheduling CC of higher SCS to scheduled CC of lower SCS. NOTE 1: Following components are applicable to cross carrier scheduling from lower SCS to higher SCS when the UE reports this feature: - Processing one unicast DCI scheduling UL per scheduling CC slot per scheduled CC for FDD scheduling CC - Processing 2 unicast DCI scheduling UL per scheduling CC slot per scheduled CC for TDD scheduling CC NOTE 2: Following components are applicable to cross carrier scheduling from higher SCS to lower SCS when the UE reports this feature: - Processing one unicast DCI scheduling UL per N consecutive scheduling CC slot per scheduled CC for FDD scheduling CC - Processing 2 unicast DCI scheduling UL per N consecutive scheduling CC slot per scheduled CC for TDD scheduling CC - N is based on pair of (scheduling CC SCS, scheduled CC SCS): N=2 for (30,15), (60,30), (120,60) and N=4 for (60,5), (120,30), N = 8 for (120,15)	BC	No	N/A	N/A

csi-ReportingCrossPUCCH-Grp-r16
Indicates the support of CSI reporting cross PUCCH group, comprised of the following functional components:
 	
- Support reporting CSI of an SCell belonging to secondary PUCCH group by PUSCH or PUCCH of active serving cells belonging to primary PUCCH group, for both during and after SCell activation procedure;
- Support reporting CSI of an SCell belonging to primary PUCCH group by PUSCH or PUCCH of active serving cells belonging to secondary PUCCH group, for both during and after SCell activation procedure;
- Support for P-CSI and A-CSI for cross-PUCCH group CSI reporting;
- *computationTimeForA-CSI-r16* indicates the CSI computation time for A-CSI; if '*relaxed*' is reported, the *additionalSymbols-r16* shall be reported to indicate for each supported SCS the required additional number of symbols in addition to existing Z and Z' for aperiodic CSI report for cross-PUCCH group CSI reporting (the same SCS set definition as in clause 5.4 of TS 38.214 [12]). The value *s14* indicates 14 symbols, and so on. For FR2-2 bands, the time relaxation values of the required additional number of symbols for SCS 480/960 kHz (μ=5 and μ=6) are the same amount of absolute time as UE reported for SCS 120kHz (μ=3).
- *sp-CSI-ReportingOnPUCCH-r16* indicates whether the UE supports SP-CSI reporting on PUCCH for cross-PUCCH group CSI reporting;
- *sp-CSI-ReportingOnPUSCH-r16* indicates whether the UE supports SP-CSI reporting on PUSCH for cross-PUCCH group CSI reporting;
- *carrierTypePairList-r16* indicates one or multiple supported carrier type pairs(s). For each supported carrier type pair in *carrierTypePairList-r16*:
  - carrierForCSI-Measurement-r16 indicates the carrier type in a PUCCH group in which CSI measurement is performed;
  - carrierForCSI-Reporting-r16 indicates the carrier type in the other PUCCH group in which CSI report is performed,
  - where a carrier type is one of {*fr1-NonSharedTDD-r16, fr1-SharedTDD-r16, fr1-NonSharedFDD-r16, fr2-r16*}
 	
UE indicating support of this feature shall indicate *csi-ReportFramework* and indicate support of at least one of *twoPUCCH-Group*, *diffNumerologyAcrossPUCCH-Group* and *twoPUCCH-Grp-ConfigurationsList-r16.*
 	
NOTE 1: For a band combination with SUL, the SUL band is counted as one of the bands.
NOTE 2: For a band combination with SDL, the SDL band is counted as one of the bands. SDL is indicated as 'FR1-NonSharedFDD' carrier type. Per UE capabilities that are TDD only are not applicable to SDL.
NOTE 3: When the carrier type of NUL is indicated for PUCCH/PUSCH transmission location for CSI measurement or CSI reporting, the SUL in the same cell as in the NUL can also be configured for PUCCH/PUSCH transmission.
	BC	No	N/A	N/A

csi-RS-IM-ReceptionForFeedbackPerBandComb Indicates support of CSI-RS and CSI-IM reception for CSI feedback. This capability signalling comprises the following parameters: - *maxNumberSimultaneousNZP-CSI-RS-ActBWP-AllCC* indicates the maximum number of simultaneous CSI-RS resources (irrespective of the associated codebook type) in active BWPs across all CCs, and across MCG and SCG in case of NR-DC. The network applies this limit in addition to the limits signalled in *MIMO-ParametersPerBand-> maxNumberSimultaneousNZP-CSI-RS-PerCC* and in *Phy-ParametersFRX-Diff-> maxNumberSimultaneousNZP-CSI-RS-PerCC*; - *totalNumberPortsSimultaneousNZP-CSI-RS-ActBWP-AllCC* indicates the total number of CSI-RS ports in simultaneous CSI-RS resources (irrespective of the associated codebook type) in active BWPs across all CCs, and across MCG and SCG in case of NR-DC. The network applies this limit in addition to the limits signalled in *MIMO-ParametersPerBand-> totalNumberPortsSimultaneousNZP-CSI-RS-PerCC* and in *Phy-ParametersFRX-Diff-> totalNumberPortsSimultaneousNZP-CSI-RS-PerCC*. The UE is mandated to report *csi-RS-IM-ReceptionForFeedbackPerBandComb*.	BC	Yes	N/A	N/A

currentSpCellInclL1-Report-r18 Indicates support of always including the current SpCell in the L1 measurement report based on SSB(s). UE supporting this feature shall also indicate support of *intraFreqL1-MeasConfig-r18*.	BC	No	N/A	N/A
currentSpCellInclL1-ReportCSI-RS-r19 Indicates support of always including the current SpCell in the L1 measurement report based on CSI-RS(s). UE supporting this feature shall also indicate support of *intraFreqL1-MeasConfigPeriodicCSI-RS-r19, intraFreqL1-MeasConfigSP-CSI-RS-r19*, *interFreqL1-MeasConfigPeriodicCSI-RS-r19* or *interFreqL1-MeasConfigSP-CSI-RS-r19*.	BC	No	N/A	N/A
dci-FormatsPCellPSCellUSS-Sets-r17 Indicates whether UE supports the monitoring DCI formats 0_1,1_1,0_2 (if supported),1_2 (if supported) on PCell/PSCell USS set(s). UE indicating support of this feature shall indicate support of *crossCarrierSchedulingSCell-SpCellTypeA-r17*.	BC	No	N/A	FR1 only
defaultQCL-CrossCarrierA-CSI-Trig-r16 Indicates whether the UE can be configured with *enabledDefaultBeamForCCS* for default QCL assumption for cross-carrier A-CSI-RS triggering for same/different numerologies as specified in TS 38.213 [11]. Value *diffOnly* indicates the UE supports this feature for different SCS combination(s). Value *both* indicates the UE supports this feature for same SCS and for different SCS combination(s) (low-to-high, high-to-low or both) reported for *crossCarrierA-CSI-trigDiffSCS-r16.*	BC	No	N/A	N/A
demodulationEnhancementCA-r17 Indicates whether the UE supports the enhanced demodulation processing for carrier aggregation for HST-SFN joint transmission scheme with velocity up to 500km/h as specified in TS 38.101-4 [18]. UE indicating support of this feature shall indicate support of *demodulationEnhancement-r16*.	BC	No	No	FR1 only
diffGroupPUCCH-PUSCH-r19 Indicates whether the UE supports first PUCCH and second PUSCH from different PUCCH groups. A UE supporting this feature shall also indicate support of *uei-ModeA-Event2-r19*.	BC	No	N/A	N/A
diffNumerologyAcrossPUCCH-Group Indicates whether different numerology across two NR PUCCH groups for data and control channel at a given time in NR CA and (NG)EN-DC/NE-DC is supported by the UE.	BC	No	N/A	N/A
diffNumerologyAcrossPUCCH-Group-CarrierTypes-r16 Indicates whether different numerology across two NR PUCCH groups for data and control channel at a given time in NR CA for UE supporting two PUCCH groups with 3 or more bands with at least two carrier types. UE indicating support of this feature shall indicate support of *twoPUCCH-Grp-ConfigurationsList-r16.*	BC	No	N/A	N/A
diffNumerologyWithinPUCCH-GroupLargerSCS Indicates whether UE supports different numerology across carriers within a PUCCH group and a same numerology between DL and UL per carrier for data/control channel at a given time in NR CA, (NG)EN-DC/NE-DC and NR-DC. In case of NR CA and (NG)EN-DC/NE-DC with one NR PUCCH group and in case of NR CA with two NR PUCCH groups, it also indicates whether the UE supports different numerologies across NR carriers within the same NR PUCCH group up to two different numerologies within the same NR PUCCH group, wherein NR PUCCH is sent on the carrier with larger SCS for data and control channel at a given time. In case of (NG)EN-DC/NE-DC with two NR PUCCH groups, it indicates whether the UE supports different numerologies across NR carriers up to two different numerologies within an NR PUCCH group in FR1, wherein NR PUCCH is sent on the carrier with larger SCS, and same numerology across NR carriers within another NR PUCCH group in FR2 for data and control channel at a given time. In case of NR-DC, it indicates whether the UE supports different numerologies across NR carriers within the same NR PUCCH group in MCG (in FR1) up to two different numerologies within the same NR PUCCH group wherein NR PUCCH is sent on the carrier with larger SCS for data/control channel at a given time; and same numerology across NR carriers in SCG (in FR2).	BC	No	N/A	N/A

diffNumerologyWithinPUCCH-GroupLargerSCS-CarrierTypes-r16 Indicates whether UE supports different numerology across carriers up to 2 different numerologies within the same PUCCH group wherein PUCCH is sent on the carrier with larger SCS for data/control channel at a given time in NR CA for UE supporting two PUCCH groups with 3 or more bands with at least two carrier types. UE indicating support of this feature shall indicate support of *twoPUCCH-Grp-ConfigurationsList-r16.* NOTE: PUCCH is sent on a carrier with SCS not smaller than SCS of any DL carriers corresponding to the PUCCH group.	BC	No	N/A	N/A
diffNumerologyWithinPUCCH-GroupSmallerSCS Indicates whether UE supports different numerology across carriers within a PUCCH group and a same numerology between DL and UL per carrier for data/control channel at a given time in NR CA, (NG)EN-DC/NE-DC and NR-DC. In case of NR CA and (NG)EN-DC/NE-DC with one NR PUCCH group and in case of NR CA with two NR PUCCH groups, it also indicates whether the UE supports different numerologies across NR carriers within the same NR PUCCH group up to two different numerologies within the same NR PUCCH group, wherein NR PUCCH is sent on the carrier with smaller SCS for data and control channel at a given time. In case of (NG)EN-DC/NE-DC with two NR PUCCH groups, it indicates whether the UE supports different numerologies across NR carriers up to two different numerologies within an NR PUCCH group in FR1, wherein NR PUCCH is sent on the carrier with smaller SCS, and same numerology across NR carriers within another NR PUCCH group in FR2 for data and control channel at a given time. In case of NR-DC, it indicates whether the UE supports different numerologies across NR carriers within the same NR PUCCH group in MCG (in FR1) up to two different numerologies within the same NR PUCCH group wherein NR PUCCH is sent on the carrier with smaller SCS for data/control channel at a given time; and same numerology across NR carriers in SCG (in FR2).	BC	No	N/A	N/A
diffNumerologyWithinPUCCH-GroupSmallerSCS-CarrierTypes-r16 Indicates whether UE supports different numerology across carriers up to 2 different numerologies within the same PUCCH group wherein PUCCH is sent on the carrier with smaller SCS for data/control channel at a given time in NR CA for UE supporting two PUCCH groups with 3 or more bands with at least two carrier types. UE indicating support of this feature shall indicate support of *twoPUCCH-Grp-ConfigurationsList-r16.* NOTE: NR PUCCH is sent on a carrier with SCS not larger than SCS of any DL carriers corresponding to the NR PUCCH group.	BC	No	N/A	N/A
disablingScalingFactorDeactSCell-r17 Indicates whether UE supports disabling scaling factor α for Cross-carrier scheduling (CCS) from SCell configured with cross-carrier scheduling to PCell/PSCell (sSCell) to PCell/PSCell(Type A or Type B) when sSCell is deactivated (i.e. scaling factor α is not applied for PDCCH overbooking/BD/CCE limit computation when sSCell is deactivated). UE indicating support of this feature shall indicate support of *crossCarrierSchedulingSCell-SpCellTypeA-r17* or *crossCarrierSchedulingSCell-SpCellTypeB-r17*.	BC	No	N/A	FR1 only
disablingScalingFactorDormantSCell-r17 Indicates whether UE supports disabling scaling factor α for Cross-carrier scheduling (CCS) from SCell configured with cross-carrier scheduling to PCell/PSCell (sSCell) to PCell/PSCell(Type A or Type B) when sSCell is switched to dormant BWP (i.e. scaling factor α is not applied for PDCCH overbooking/BD/CCE limit computation when sSCell is switched to dormant BWP). UE indicating support of this feature shall indicate support of *crossCarrierSchedulingSCell-SpCellTypeA-r17* or *crossCarrierSchedulingSCell-SpCellTypeB-r17*.	BC	No	N/A	FR1 only

dmrs-BundlingNonBackToBackTX-PerBC-r17 Indicates whether the UE supports DM-RS bundling for non-back-to-back transmission for consecutive slots for PUSCH and PUCCH only for corresponding supported back-to-back transmission as reported in *dmrs-BundlingPUSCH-RepTypeAPerBC-r17*, *dmrs-BundlingPUSCH-RepTypeBPerBC-r17*, *dmrs-BundlingPUSCH-multiSlotPerBC-r17* or *dmrs-BundlingPUCCH-RepPerBC-r17*. UE indicating support of this feature shall also indicate support of at least one of *dmrs-BundlingPUSCH-RepTypeAPerBC-r17*, *dmrs-BundlingPUSCH-RepTypeBPerBC-r17*, *dmrs-BundlingPUSCH-multiSlotPerBC-r17* or *dmrs-BundlingPUCCH-RepPerBC-r17*. NOTE: This capability is only applicable when UE is configured with single uplink carrier within a frequency range.	BC	No	N/A	N/A
dmrs-BundlingPUCCH-RepPerBC-r17 Indicates whether the UE supports DM-RS bundling for PUCCH repetitions for PUCCH formats 1/3/4 over consecutive symbols. UE indicating support of this feature shall also indicate support of *maxDurationDMRS-Bundling-r17* in at least one of the bands in the band combination and *pucch-Repetition-F1-3-4*. This feature is applicable to following multiple carrier scenarios in addition to single carrier scenarios: - FR1+FR2 UL CA, FR1+FR2 DC, and EN-DC with NR on FR2. DMRS bundling configuration is limited to one uplink NR carrier in total on all FRs at a time. - FR1 inter-band DL CA with a "single" uplink band configured, meaning no switching to transmit SRS on another carrier. - DL CA with "additional" UL carrier configured with SRS only (i.e. no PUCCH/PUSCH configured). - FR1 inter-band UL CA with DMRS bundling. - SUL with DMRS bundling. For the last three scenarios listed above, DMRS bundling can be applied with the following conditions: - Concurrent transmissions scheduled/configured over multiple carriers are not expected by UE. - Only configuration of a single TAG. - Only applicable for the back-to-back case (i.e., zero gap between two transmissions within an actual TDW). - Only one band can be configured with DMRS bundling at a time. NOTE 1: Under the above conditions, phase continuity and power consistency within any actual TDW on one carrier is not impacted by operations on a different carrier. NOTE 2: Under the above conditions, the events defined in clause 6.1.7 of TS 38.214 [12] for the carrier with DMRS bundling are not triggered by any transmission within any actual TDW on the other carrier. NOTE 3: If the modulation scheme higher than QPSK is scheduled for transmission on any carrier configured with DMRS bundling, DMRS bundling is not applicable (i.e., the error case and up to UE implementation).	BC	No	N/A	N/A

dmrs-BundlingPUSCH-multiSlotPerBC-r17 Indicates whether the UE supports DM-RS bundling for TB processing over multi-slot (TBoMS) PUSCH over consecutive symbols. UE indicating support of this feature shall also indicate support of *maxDurationDMRS-Bundling-r17* and *tb-ProcessingMultiSlotPUSCH-r17* in at least one of the bands in the band combination. This feature is applicable to following multiple carrier scenarios in addition to single carrier scenarios: - FR1+FR2 UL CA, FR1+FR2 DC, and EN-DC with NR on FR2. DMRS bundling configuration is limited to one uplink NR carrier in total on all FRs at a time. - FR1 inter-band DL CA with a "single" uplink band configured, meaning no switching to transmit SRS on another carrier. - DL CA with "additional" UL carrier configured with SRS only (i.e. no PUCCH/PUSCH configured). - FR1 inter-band UL CA with DMRS bundling. - SUL with DMRS bundling. For the last three scenarios listed above, DMRS bundling can be applied with the following conditions: - Concurrent transmissions scheduled/configured over multiple carriers are not expected by UE. - Only configuration of a single TAG. - Only applicable for the back-to-back case (i.e., zero gap between two transmissions within an actual TDW). - Only one band can be configured with DMRS bundling at a time. NOTE 1: Under the above conditions, phase continuity and power consistency within any actual TDW on one carrier is not impacted by operations on a different carrier. NOTE 2: Under the above conditions, the events defined in clause 6.1.7 of TS 38.214 [12] for the carrier with DMRS bundling are not triggered by any transmission within any actual TDW on the other carrier. NOTE 3: If the modulation scheme higher than QPSK is scheduled for transmission on any carrier configured with DMRS bundling, DMRS bundling is not applicable (i.e., the error case and up to UE implementation). NOTE 4: If a UE reports support of *tb-ProcessingRepMultiSlotPUSCH-r17* and *dmrs-BundlingPUSCH-multiSlot-r17* in a band in the band combination and *dmrs-BundlingPUSCH-multiSlotPerBC-r17* is supported for the band combination, the UE supports DMRS bundling for the repetitions of TBoMS for the band.	BC	No	N/A	N/A

dmrs-BundlingPUSCH-RepTypeAPerBC-r17 Indicates whether the UE supports DM-RS bundling for PUSCH repetition type A over consecutive symbols. UE indicating support of this feature shall also indicate support of *maxDurationDMRS-Bundling-r17* in at least one of the bands in the band combination and at least one of *type1-PUSCH-RepetitionMultiSlots*, *type2-PUSCH-RepetitionMultiSlots* or *pusch-RepetitionMultiSlots*. This feature is applicable to following multiple carrier scenarios in addition to single carrier scenarios: - FR1+FR2 UL CA, FR1+FR2 DC, and EN-DC with NR on FR2. DMRS bundling configuration is limited to one uplink NR carrier in total on all FRs at a time. - FR1 inter-band DL CA with a "single" uplink band configured, meaning no switching to transmit SRS on another carrier. - DL CA with "additional" UL carrier configured with SRS only (i.e. no PUCCH/PUSCH configured) - FR1 inter-band UL CA with DMRS bundling - SUL with DMRS bundling For the last three scenarios listed above, DMRS bundling can be applied with the following conditions: - Concurrent transmissions scheduled/configured over multiple carriers are not expected by UE - Only configuration of a single TAG - Only applicable for the back-to-back case (i.e., zero gap between two transmissions within an actual TDW) - Only one band can be configured with DMRS bundling at a time NOTE 1: Under the above conditions, phase continuity and power consistency within any actual TDW on one carrier is not impacted by operations on a different carrier. NOTE 2: Under the above conditions, the events defined in clause 6.1.7 of TS 38.214 [12] for the carrier with DMRS bundling are not triggered by any transmission within any actual TDW on the other carrier. NOTE 3: If the modulation scheme higher than QPSK is scheduled for transmission on any carrier configured with DMRS bundling, DMRS bundling is not applicable (i.e., the error case and up to UE implementation).	BC	No	N/A	N/A

dmrs-BundlingPUSCH-RepTypeBPerBC-r17 Indicates whether the UE supports DM-RS bundling for PUSCH repetition type B over consecutive symbols. UE indicating support of this feature shall also indicate support of *maxDurationDMRS-Bundling-r17* in at least one of the bands in the band combination and *pusch-RepetitionTypeB-r16*. This feature is applicable to following multiple carrier scenarios in addition to single carrier scenarios: - FR1+FR2 UL CA, FR1+FR2 DC, and EN-DC with NR on FR2. DMRS bundling configuration is limited to one uplink NR carrier in total on all FRs at a time. - FR1 inter-band DL CA with a "single" uplink band configured, meaning no switching to transmit SRS on another carrier. - DL CA with "additional" UL carrier configured with SRS only (i.e. no PUCCH/PUSCH configured). - FR1 inter-band UL CA with DMRS bundling. - SUL with DMRS bundling. For the last three scenarios listed above, DMRS bundling can be applied with the following conditions: - Concurrent transmissions scheduled/configured over multiple carriers are not expected by UE. - Only configuration of a single TAG. - Only applicable for the back-to-back case (i.e., zero gap between two transmissions within an actual TDW). - Only one band can be configured with DMRS bundling at a time. NOTE 1: Under the above conditions, phase continuity and power consistency within any actual TDW on one carrier is not impacted by operations on a different carrier. NOTE 2: Under the above conditions, the events defined in clause 6.1.7 of TS 38.214 [12] for the carrier with DMRS bundling are not triggered by any transmission within any actual TDW on the other carrier. NOTE 3: If the modulation scheme higher than QPSK is scheduled for transmission on any carrier configured with DMRS bundling, DMRS bundling is not applicable (i.e., the error case and up to UE implementation).	BC	No	N/A	N/A
dmrs-BundlingRestartPerBC-r17 Indicates whether the UE supports restarting DM-RS bundling after the events triggered by DCI or MAC CE that violate power consistency and phase continuity. UE indicating support of this feature shall also indicate support of *maxDurationDMRS-Bundling-r17* in at least one of the bands in the band combination. NOTE: Events which are triggered by DCI or MAC CE, but do not require UE capability to resume maintaining power consistency and/or phase continuity as specified in clause 6.1.7 of TS 38.214 [12] are excluded from this feature.	BC	No	N/A	N/A
dualPA-Architecture For band combinations with single-band with UL CA, this field indicates the support of dual PA and dual LO frequencies for FR1, or dual LO frequencies for FR2. If absent in such band combinations, the UE supports single PA and single LO frequency for all the ULs for FR1, or single LO frequency for all the ULs for FR2. For other band combinations, this field is not applicable.	BC	No	N/A	N/A

dynamicPUCCH-CellSwitchDiffLengthSingleGroup-r17 Indicates whether the UE supports PUCCH cell switching based on dynamic indication in the DCI scheduling the PUCCH for different length (in physical time) of overlapping PUCCH slots/sub-slots for a single PUCCH group only. The capability signalling comprises the following parameters: - *pucch-Group-r17* indicates for which PUCCH group the UE supports PUCCH cell switching based on dynamic indication. Value *primaryGroupOnly* indicates that only primary PUCCH group can support PUCCH cell switch, value *secondaryGroupOnly* indicates that only secondary PUCCH group can support PUCCH cell switch, and value *eitherPrimaryOrSecondaryGroup* indicates that either primary or secondary PUCCH group can support PUCCH cell switch. - *pucch-Group-Config-r17* indicates one or multiple of supported carrier type pairs that can support PUCCH cell switch, with *fr1-FR1-NonSharedTDD-r17* indicating the carrier type pair (FR1 licensed TDD, FR1 licensed TDD), *fr2-FR2-NonSharedTDD-r17* indicating the carrier type pair (FR2 licensed TDD, FR2 licensed TDD), and *fr1-FR2-NonSharedTDD-r17* indicating the carrier type pair (FR1 licensed TDD, FR2 licensed TDD). NOTE: This feature applies to cells in the same TAG only. If UE supporting this FG also supports both *diffNumerologyWithinPUCCH-GroupSmallerSCS* and *diffNumerologyWithinPUCCH-GroupLargerSCS* or both *diffNumerologyWithinPUCCH-GroupSmallerSCS-CarrierTypes-r16* and *diffNumerologyWithinPUCCH-GroupLargerSCS-CarrierTypes-r16* or *maxUpTo3Diff-NumerologiesConfigSinglePUCCH-grp-r16* or *maxUpTo4Diff-NumerologiesConfigSinglePUCCH-grp-r16* when UE is not configured with two NR PUCCH groups, the UE supports the cases of both same and different numerologies between switchable cells. Otherwise, the UE supports the case of same numerology between switchable cells.	BC	No	TDD only	N/A
dynamicPUCCH-CellSwitchSameLengthSingleGroup-r17 Indicates whether the UE supports PUCCH cell switching based on dynamic indication in the DCI scheduling the PUCCH for same length (in physical time) of overlapping PUCCH slots/sub-slots for a single PUCCH group only. The capability signalling comprises the following parameters: - *pucch-Group-r17* indicates for which PUCCH group the UE supports PUCCH cell switching based on dynamic indication. Value *primaryGroupOnly* indicates that only primary PUCCH group can support PUCCH cell switch, value *secondaryGroupOnly* indicates that only secondary PUCCH group can support PUCCH cell switch, and value *eitherPrimaryOrSecondaryGroup* indicates that either primary or secondary PUCCH group can support PUCCH cell switch. - *pucch-Group-Config-r17* indicates one or multiple of supported carrier type pairs that can support PUCCH cell switch, with *fr1-FR1-NonSharedTDD-r17* indicating the carrier type pair (FR1 licensed TDD, FR1 licensed TDD), *fr2-FR2-NonSharedTDD-r17* indicating the carrier type pair (FR2 licensed TDD, FR2 licensed TDD), and *fr1-FR2-NonSharedTDD-r17* indicating the carrier type pair (FR1 licensed TDD, FR2 licensed TDD). NOTE: This feature applies to cells in the same TAG only. If UE supporting this FG also supports both *diffNumerologyWithinPUCCH-GroupSmallerSCS* and *diffNumerologyWithinPUCCH-GroupLargerSCS* or both *diffNumerologyWithinPUCCH-GroupSmallerSCS-CarrierTypes-r16* and *diffNumerologyWithinPUCCH-GroupLargerSCS-CarrierTypes-r16* or *maxUpTo3Diff-NumerologiesConfigSinglePUCCH-grp-r16* or *maxUpTo4Diff-NumerologiesConfigSinglePUCCH-grp-r16* when UE is not configured with two NR PUCCH groups, the UE supports the cases of both same and different numerologies between switchable cells. Otherwise, the UE supports the case of same numerology between switchable cells.	BC	No	TDD only	N/A

dynamicPUCCH-CellSwitchDiffLengthTwoGroups-r17 Indicates whether the UE supports PUCCH cell switching based on dynamic indication in the DCI scheduling the PUCCH for different length (in physical time) of overlapping PUCCH slots/sub-slots for two PUCCH groups. The capability indicates one or multiple of supported configuration(s) of {primary PUCCH group config, secondary PUCCH group config}. The capability signalling of each primary or secondary PUCCH group configuration indicates one or multiple of carrier type pairs that can support PUCCH cell switch, with *fr1-FR1-NonSharedTDD-r17* indicating the carrier type pair (FR1 licensed TDD, FR1 licensed TDD), *fr2-FR2-NonSharedTDD-r17* indicating the carrier type pair (FR2 licensed TDD, FR2 licensed TDD), and *fr1-FR2-NonSharedTDD-r17* indicating the carrier type pair (FR1 licensed TDD, FR2 licensed TDD). NOTE: This feature applies to cells in the same TAG only. If UE supporting this FG also supports both *diffNumerologyWithinPUCCH-GroupSmallerSCS* and *diffNumerologyWithinPUCCH-GroupLargerSCS* or both *diffNumerologyWithinPUCCH-GroupSmallerSCS-CarrierTypes-r16* and *diffNumerologyWithinPUCCH-GroupLargerSCS-CarrierTypes-r16*, the UE supports the cases of both same and different numerologies between switchable cells. Otherwise, the UE supports the case of same numerology between switchable cells.	BC	No	TDD only	N/A
dynamicPUCCH-CellSwitchSameLengthTwoGroups-r17 Indicates whether the UE supports PUCCH cell switching based on dynamic indication in the DCI scheduling the PUCCH for same length (in physical time) of overlapping PUCCH slots/sub-slots for two PUCCH groups. The capability indicates one or multiple of supported configuration(s) of {primary PUCCH group config, secondary PUCCH group config}. The capability signalling of each primary or secondary PUCCH group configuration indicates one or multiple of carrier type pairs that can support PUCCH cell switch, with *fr1-FR1-NonSharedTDD-r17* indicating the carrier type pair (FR1 licensed TDD, FR1 licensed TDD), *fr2-FR2-NonSharedTDD-r17* indicating the carrier type pair (FR2 licensed TDD, FR2 licensed TDD), and *fr1-FR2-NonSharedTDD-r17* indicating the carrier type pair (FR1 licensed TDD, FR2 licensed TDD). NOTE: This feature applies to cells in the same TAG only. If UE supporting this FG also supports both *diffNumerologyWithinPUCCH-GroupSmallerSCS* and *diffNumerologyWithinPUCCH-GroupLargerSCS* or both *diffNumerologyWithinPUCCH-GroupSmallerSCS-CarrierTypes-r16* and *diffNumerologyWithinPUCCH-GroupLargerSCS-CarrierTypes-r16*, the UE supports the cases of both same and different numerologies between switchable cells. Otherwise, the UE supports the case of same numerology between switchable cells.	BC	No	TDD only	N/A
fdm-CodebookForMux-UnicastMulticastHARQ-ACK-r17 Indicates whether the UE supports FDM-ed Type-1 and Type-2 HARQ-ACK codebooks for multiplexing HARQ-ACK for unicast and HARQ-ACK for multicast, comprised of the following functional components: - Support of FDM-ed Type-1 HARQ-ACK codebooks for multiplexing HARQ-ACK for unicast and ACK/NACK-based HARQ-ACK for multicast on PUCCH or PUSCH; - Support of Type-2 HARQ-ACK codebooks for multiplexing HARQ-ACK for unicast and HARQ-ACK for multicast on PUCCH or PUSCH with max number of G-RNTIs indicated in *maxNumberG-RNTI-HARQ-ACK-Codebook-r17*, which is not larger than max number of G-RNTIs indicated in *maxNumberG-RNTI-r17* or G-CS-RNTIs indicated in *maxNumberG-CS-RNTI-r17.* A UE supporting this feature shall also indicate support of *fdm-MulticastUnicast-r17*, and at least one of {*ack-NACK-FeedbackForMulticast-r17*, *nack-OnlyFeedbackForMulticast-r17*, *ack-NACK-FeedbackForSPS-Multicast-r17, nack-OnlyFeedbackForSPS-Multicast-r17*}. NOTE 1: FDM-ed Type-1 HARQ-ACK codebook is generated by concatenating the Type-1 sub-codebook for unicast and the Type-1 sub-codebook for multicast. NOTE 2: The Type-2 HARQ-ACK codebook is generated by concatenating the Type-2 sub-codebook for unicast and the Type-2 sub-codebook for multicast.	BC	No	N/A	N/A

groupScalingFactorPerBC-r19 Indicates whether the UE supports group-specific 3-bit scaling factors for up to 128 ports. Value '*rank1*' indicates the support of rank-1, value '*rank1and2*' indicates the support of rank-1 and rank-2. '*rank1*' is the lower capability. A UE supporting this feature shall also indicate the support of one or more of *enhType1SP64PortsSchemeA-r19* and *enhType1SP64PortsSchemeB-r19*. NOTE: 3-bit scaling applies only to the Type-I SP codebook.	BC	No	N/A	N/A
half-DuplexTDD-CA-SameSCS-r16 Indicates whether the UE supports directional collision handling between reference and other cell(s) for half-duplex operation in TDD CA with same SCS. The UE can include this field for band combinations including only intra-band TDD CA or if *simultaneousRxTxInterBandCA* is not present for band combinations involving mix of intra-band TDD CA and inter-band TDD CA. If this field is included in *ca-ParametersNR-forDC-v1610* for IAB-MT, it indicates IAB-MT supports directional collision handling between reference and other cells for half-duplex operation in TDD NR-DC with same SCS across MCG and SCG.	BC	No	TDD only	N/A
higherPowerLimit-r17 Indicates whether UE supports increase in maximum output power above the power class indication for inter-band UL CA and NR-DC band combinations as defined in clause 6.2A of TS 38.101-1 [2].	BC	No	N/A	FR1 only
interCA-NonAlignedFrame-r16 Indicates whether the UE supports inter-band carrier aggregation operation where, within the same cell group, the frame boundaries of the SpCell and the SCell(s) are not aligned, the slot boundaries are aligned and the lowest subcarrier spacing of the subcarrier spacings given in *scs-SpecificCarrierList* for SpCell is smaller than or equal to the lowest subcarrier spacing of the subcarrier spacings given in *scs-SpecificCarrierList* for each of the non-aligned SCells.	BC	No	N/A	N/A
interCA-NonAlignedFrame-B-r16 Indicates whether the UE supports inter-band carrier aggregation operation where, within the same cell group, the frame boundaries of the SpCell and the SCell(s) are not aligned, the slot boundaries are aligned and the lowest subcarrier spacing of the subcarrier spacings given in *scs-SpecificCarrierList* for SpCell is larger than the lowest subcarrier spacing of the subcarrier spacings given in *scs-SpecificCarrierList* for at least one of the non-aligned SCells. A UE indicating support of *interCA-NonAlignedFrame-B-r16* shall also indicate support of *interCA-NonAlignedFrame-r16*.	BC	No	N/A	N/A

interFreqDAPS-r16 Indicates whether the UE supports inter-frequency handover, e.g. support of simultaneous DL reception of PDCCH and PDSCH from source and target cell. A UE indicating this capability shall also support inter-frequency synchronous DAPS handover, and single UL transmission for inter-frequency DAPS handover. The capability signalling comprises of the following parameters: - *interFreqAsyncDAPS-r16* indicates whether the UE supports asynchronous DAPS handover. - *interFreqDiffSCS-DAPS-r16* indicates whether the UE supports different SCSs in source PCell and inter-frequency target PCell in DAPS handover. The UE only includes this field if different SCSs can be supported in both UL and DL. If absent, the UE does not support either UL or DL SCS being different in DAPS handover. - *interFreqMultiUL-TransmissionDAPS-r16* indicates whether the UE supports simultaneous UL transmission in source PCell and target PCell during a DAPS handover. The UE can include this field only if any of *semiStaticPowerSharingDAPS-Mode1-r16*, *semiStaticPowerSharingDAPS-Mode2-r16* or *dynamicPowersharingDAPS-r16* are included. Otherwise, the UE does not include this field. - *interFreqSemiStaticPowerSharingDAPS-Mode1-r16* indicates whether the UE supports semi-static UL power sharing mode 1 during DAPS handover between source and target cells of same FR. - *interFreqSemiStaticPowerSharingDAPS-Mode2-r16* indicates whether the UE supports semi-static UL power sharing mode 2 during DAPS handover between source and target cells of same FR. It is only applicable to DAPS Handover in synchronous scenarios. The UE only includes this field if *semiStaticPowerSharingDAPS-Mode1-r16* is included. Otherwise, the UE does not include this field. - *interFreqDynamicPowersharingDAPS-r16* indicates the value of T offset (short or long) that the UE supports for dynamic UL power sharing during DAPS handover between source and target cells of same FR. The UE only include this field if *semiStaticPowerSharingDAPS-Mode1-r16* is included. Otherwise, the UE does not include this field. - *interFreqUL-TransCancellationDAPS-r16* indicates support of cancelling UL transmission to the source PCell for inter-frequency DAPS handover.	BC	No	N/A	N/A
interFreqL1-MeasConfig-r18 Indicates whether UE supports inter-frequency L1-RSRP measurement and reporting based on SSB(s) of candidate cell(s), regardless whether the candidate cell(s) are inside or outside of the BC (unless the UE also indicates support of *ltm-interFreqL1-OnlyInBC-r18*). This capability signalling comprises of the following parameters: - *supportedMaxIntraInterFreqCellsConfig-r18* indicates the maximum number of RRC configured candidate cells for intra- and inter-frequency L1-RSRP measurement; - *supportedMaxIntraInterFreqCellsPerReport-r18* indicates maximum number of candidate cells in one report where a SSBRI-RSRP pair is used for each beam report for intra- and inter-frequency L1-RSRP measurement; - *supportedMaxIntraInterFreqBeamsPerCellReports-r18* indicates maximum number of candidate beams per candidate cell in one report where a SSBRI-RSRP pair is used for each beam report for intra- and inter-frequency L1-RSRP measurement; - *supportedMaxIntraInterFreqBeamsReports-r18* indicates maximum number of candidate cells beams in total across all cells in one report where a SSBRI-RSRP pair is used for each beam report for intra- and inter-frequency L1-RSRP measurement; UE supporting this feature shall also indicate support of *intraFreqL1-MeasConfig-r18*.	BC	No	N/A	N/A

interFreqL1-MeasConfigPeriodicCSI-RS-r19 Indicates whether UE supports inter-frequency L1- RSRP measurement and reporting based on periodic CSI-RS(s) of candidate cell(s). This capability signalling comprises of the following parameters: - *supportedMaxInterFreqCellsConfig-r19* indicates the maximum number of RRC configured candidate cells for inter-frequency L1-RSRP measurement on CSI-RS resource; - *supportedMaxInterFreqCellsPerReport-r19* indicates the maximum number of candidate cells in one report where a CRI-RSRP pair is used for each beam report for inter-frequency L1-RSRP measurement; - *supportedMaxReportBeamsPerReportedCell-r19* indicates the maximum number of candidate beams per candidate cell in one report where a CRI-RSRP pair is used for each beam report for inter-frequency L1-RSRP measurement; - *supportedMaxReportBeamsReports-r19* indicates the maximum number of candidate beams in total across all cells in one report where a CRI-RSRP pair is used for each beam report for inter-frequency L1-RSRP measurement; - *supportedMaxAperiodic-LTM-CSI-ReportConfig-r19* indicates maximum number of aperiodic *LTM-CSI-ReportConfig*; - *supportedMaxPeriodic-LTM-CSI-ReportConfig-r19* indicates maximum number of periodic *LTM-CSI-ReportConfig*; - *supportedMaxSemiPersistent-LTM-CSI-ReportConfig-r19* indicates maximum number of semi-persistent *LTM-CSI-ReportConfig*; A UE supporting this feature shall also indicate support of *interFreqL1-MeasConfig-r18.*	BC	No	N/A	N/A
interFreqL1-MeasConfigSP-CSI-RS-r19 Indicates whether UE supports inter-frequency L1- RSRP measurement and reporting based on semi-persistent CSI-RS(s) of candidate cell(s). This capability signalling comprises of the following parameters: - *supportedMaxAperiodic-LTM-CSI-ReportConfig-r19* indicates maximum number of aperiodic *LTM-CSI-ReportConfig* using semi-persistent CSI-RS as measurement resource; - *supportedMaxSemiPersistent-LTM-CSI-ReportConfig-r19* indicates maximum number of semi-persistent *LTM-CSI-ReportConfig* using semi-persistent CSI-RS as measurement resource; A UE supporting this feature shall also indicate support of *interFreqL1-MeasConfigPeriodicCSI-RS-r19*. NOTE: The UE must support a non-zero value for at least one of *supportedMaxAperiodic-LTM-CSI-ReportConfig-r19* and *supportedMaxSemiPersistent-LTM-CSI-ReportConfig-r19*.	BC	No	N/A	N/A
interFreqSSB-L1-MeasWithoutGaps-r18 Indicates whether UE supports SSB based inter-frequency L1-RSRP measurements on SSBs within active DL BWP without measurement gaps (without interruption on serving cell(s)) for LTM. UE supporting this feature shall also indicate support of *interFreqL1-MeasConfig-r18.*	BC	No	N/A	N/A
intraBandFreqSeparationUL-AggBW-GapBW-r16 Indicates the UL frequency separation class between lower edge of lowest CC and upper edge of highest CC of Intra-band UL non-contiguous CA, i.e. including both the aggregated bandwidth and the gap bandwidth. 3 frequency separation classes are introduced and the values are defined in Table 5.3A.5-2 of TS 38.101-1 [2].	BC	No	N/A	FR1 only

intraBandNR-CA-non-collocated-r18 Indicates whether the UE supports TDD-TDD intra-band non-collocated NR-CA operation with MTTD/MRTD requirements according to Table 7.5.4-1/Table 7.6.4-2 in TS 38.133 [5] and UE RF requirements for intra-band non-collocated NR-CA including 7.10A in TS 38.101-1 [2], and TDD-TDD intra-band NR-CA operation with MRTD according to Table 7.6.4-1 in TS 38.133 [5] and UE RF requirements for intra-band NR-CA except for 7.10A in TS 38.101-1 [2] (i.e. Type 2 UE). If the capability is not reported, the UE only supports TDD-TDD intra-band NR-CA operation with MRTD according to Table 7.6.4-1 in TS 38.133 [5] and UE RF requirements for intra-band NR-CA except for 7.10A in TS 38.101-1 [2] (i.e. Type 1 UE). A UE supporting this feature shall also support network controlled indication of the MTTD/MRTD and RF requirements by *nonCollocatedTypeNR-CA-r18* for intra-band non-collocated NR-CA, as defined in TS 38.331 [9]. The UE is allowed to indicate this capability for the band combination with more than 2 intra-band NR CCs, but this capability is only applicable for the corresponding fallback band combination with only 2 intra-band NR CCs.	BC	No	N/A	FR1 only
intraBandNR-CA-non-collocated-r19 Indicates whether the UE supports Type 1 UE requirements and Type 4 UE requirements in TS 38.101-1 [2]. If the capability is not reported, the UE supports Type 1 UE requirements in TS 38.101-1 [2]. A UE supporting this feature shall also indicate support of *intraBandNR-CA-non-collocated-r18*. A UE supporting this feature shall also support network controlled indication of the MTTD/MRTD and RF requirements by *nonCollocatedTypeNR-CA-v1900* for intra-band non-collocated NR-CA, as defined in TS 38.331 [9]. The UE is allowed to indicate this capability for the band combination with more than 2 intra-band NR CCs, but this capability is only applicable for the corresponding fallback band combination with only 2 intra-band NR CCs.	BC	No	N/A	FR1 only
intraFreqL1-MeasConfig-r18 Indicates whether UE supports intra-frequency L1-RSRP measurement and reporting based on SSB(s) of candidate cell(s). This capability signalling comprises of the following parameters: - *supportedMaxIntraFreqCellsConfig-r18* indicates the maximum number of RRC configured candidate cells for intra-frequency L1-RSRP measurement; - *supportedMaxIntraFreqCellsPerReport-r18* indicates the maximum number of candidate cells in one report where a SSBRI-RSRP pair is used for each beam report for intra-frequency L1-RSRP measurement; - *supportedMaxReportBeamsPerReportedCell-r18* indicates the maximum number of candidate beams per candidate cell in one report where a SSBRI-RSRP pair is used for each beam report for intra-frequency L1-RSRP measurement; - *supportedMaxReportBeamsReports-r18* indicates the maximum number of candidate beams in total across all cells in one report where a SSBRI-RSRP pair is used for each beam report for intra-frequency L1-RSRP measurement; - *supportedMaxAperiodic-LTM-CSI-ReportConfig-r18* indicates maximum number of aperiodic *LTM-CSI-ReportConfig*; - *supportedMaxPeriodic-LTM-CSI-ReportConfig-r18* indicates maximum number of periodic *LTM-CSI-ReportConfig*; - *supportedMaxSemiPersistent-LTM-CSI-ReportConfig-r18* indicates maximum number of semi-persistant *LTM-CSI-ReportConfig*; UE supporting this feature shall also indicate support of *periodicBeamReport* or *aperiodicBeamReport* or *sp-BeamReportPUCCH* or *sp-BeamReportPUSCH.*	BC	No	N/A	N/A

intraFreqL1-MeasConfigPeriodicCSI-RS-r19 Indicates whether UE supports intra-frequency L1- RSRP measurement and reporting based on periodic CSI-RS(s) of candidate cell(s). This capability signalling comprises of the following parameters: - *supportedMaxIntraFreqCellsConfig-r19* indicates the maximum number of RRC configured candidate cells for intra-frequency L1-RSRP measurement on CSI-RS resource; - *supportedMaxIntraFreqCellsPerReport-r19* indicates the maximum number of candidate cells in one report where a CRI-RSRP pair is used for each beam report for intra-frequency L1-RSRP measurement; - *supportedMaxReportBeamsPerReportedCell-r19* indicates the maximum number of candidate beams per candidate cell in one report where a CRI-RSRP pair is used for each beam report for intra-frequency L1-RSRP measurement; - *supportedMaxReportBeamsReports-r19* indicates the maximum number of candidate beams in total across all cells in one report where a CRI-RSRP pair is used for each beam report for intra-frequency L1-RSRP measurement; - *supportedMaxAperiodic-LTM-CSI-ReportConfig-r19* indicates maximum number of aperiodic *LTM-CSI-ReportConfig*; - *supportedMaxPeriodic-LTM-CSI-ReportConfig-r19* indicates maximum number of periodic *LTM-CSI-ReportConfig*; - *supportedMaxSemiPersistent-LTM-CSI-ReportConfig-r19* indicates maximum number of semi-persistent *LTM-CSI-ReportConfig*; UE supporting this feature shall also indicate support of *intraFreqL1-MeasConfig-r18.*	BC	No	N/A	N/A
intraFreqL1-MeasConfigSP-CSI-RS-r19 Indicates whether UE supports intra-frequency L1- RSRP measurement and reporting based on semi-persistent CSI-RS(s) of candidate cell(s). This capability signalling comprises of the following parameters: - *supportedMaxAperiodic-LTM-CSI-ReportConfig-r19* indicates maximum number of aperiodic *LTM-CSI-ReportConfig* using semi-persistent CSI-RS as measurement resource; - *supportedMaxSemiPersistent-LTM-CSI-ReportConfig-r19* indicates maximum number of semi-persistent *LTM-CSI-ReportConfig* using semi-persistent CSI-RS as measurement resource; UE supporting this feature shall also indicate support of *intraFreqL1-MeasConfigPeriodicCSI-RS-r19*. NOTE: The UE must support a non-zero value for at least one of *supportedMaxAperiodic-LTM-CSI-ReportConfig-r19* and *supportedMaxSemiPersistent-LTM-CSI-ReportConfig-r19*.	BC	No	N/A	N/A
jointSearchSpaceSwitchAcrossCells-r16 Indicates whether the UE supports being configured with a group of cells and switching search space set group jointly over these cells. If the UE supports this feature, the UE needs to report *searchSpaceSwitchWithDCI-r16* or *searchSpaceSwitchWithoutDCI-r16*.	BC	No	N/A	N/A
linked-CJTC-Dd-eType2CJT-JointPerBC-r19 Indicates whether the UE supports joint triggering for linked CJTC delay offset reporting and eType-II CJT CSI. A UE supporting this feature shall also indicate support of *cjtc-DdReportPerBC-r19* and *eType2CJT-r18*.	BC	No	N/A	N/A
linked-CJTC-Dd-eType2CJT-SeparatePerBC-r19 Indicates whether the UE supports separate triggering for linked CJTC delay offset reporting and eType-II CJT CSI. A UE supporting this feature shall also indicate support of *cjtc-DdReportPerBC-r19* and *eType2CJT-r18*.	BC	No	N/A	N/A
linked-CJTC-Dd-eType2CJT-SeparatePerStatePerBC-r19 Indicates whether the UE supports 1 bit indicator per trigger state for separate triggering of linked delay offset reporting and Type II CJT reporting. A UE supporting this feature shall also indicate support of *linked-CJTC-Dd-eType2CJT-SeparatePerBC-r19*.	BC	No	N/A	N/A

ltm-CSI-RS-CSI-IM-PeriodicCandidateInterFreq-r19 Indicates whether the UE supports inter-frequency CSI-RS and CSI-IM measurement before reception of CSC MAC CE based on periodic CSI-RS(s) and CSI-IM resources of candidate cells. This capability comprises the following parameters: - *maxNumOfCandidateCells-r19* indicates the maximum number of RRC configured candidate cells for CSI measurement before LTM CSC MAC CE; - *maxNumOfCSI-RS-ResourceAcrossCells-r19* indicates the maximum number of RRC configured CSI-RS resources across candidate cells RRC configured for CSI measurement before LTM CSC MAC CE; - *maxNumOfCSI-RS-PortsPerCell-r19* indicates the maximum number of ports of CSI-RS resource(s) associated with a CSI report configuration for CSI reporting for a candidate cell; - *maxNumOfNZP-CSI-RS-PortsPerCell-r19* indicates the maximum number of ports in one NZP CSI-RS resource associated with a CSI report configuration for CSI reporting for a candidate cell; - *maxNumOfCSI-IM-ResourceAcrossCells-r19* indicates the maximum number of RRC configured CSI-IM resources across candidate cells RRC configured for CSI measurement before LTM CSC MAC CE. A UE supporting this feature shall also indicate support of *ltm-CSI-RS-CSI-IM-Periodic-r19*.	BC	No	N/A	N/A
ltm-CSI-RS-CSI-IM-PeriodicCandidateIntraFreq-r19 Indicates whether the UE supports intra-frequency CSI-RS and CSI-IM measurement before reception of CSC MAC CE based on periodic CSI-RS(s) and CSI-IM resources of candidate cells. This capability comprises the following parameters: - *maxNumOfCandidateCells-r19* indicates the maximum number of RRC configured candidate cells for CSI measurement before LTM CSC MAC CE; - *maxNumOfCSI-RS-ResourceAcrossCells-r19* indicates the maximum number of RRC configured CSI-RS resources across candidate cells RRC configured for CSI measurement before LTM CSC MAC CE; - *maxNumOfCSI-RS-PortsPerCell-r19* indicates the maximum number of ports of CSI-RS resource(s) associated with a CSI report configuration for CSI reporting for a candidate cell; - *maxNumOfNZP-CSI-RS-PortsPerCell-r19* indicates the maximum number of ports in one NZP CSI-RS resource associated with a CSI report configuration for CSI reporting for a candidate cell; - *maxNumOfCSI-IM-ResourceAcrossCells-r19* indicates the maximum number of RRC configured CSI-IM resources across candidate cells RRC configured for CSI measurement before LTM CSC MAC CE. A UE supporting this feature shall also indicate support of *ltm-CSI-RS-CSI-IM-Periodic-r19*.	BC	No	N/A	N/A
ltm-CSI-RS-CSI-IM-SP-CandidateInterFreq-r19 Indicates whether the UE supports inter-frequency CSI-RS and CSI-IM measurement before reception of CSC MAC CE based on semi-persistent CSI-RS(s) and CSI-IM resources of candidate cells. This capability comprises the following parameters: - *maxNumOfCandidateCells-r19* indicates the maximum number of RRC configured candidate cells for CSI measurement before LTM CSC MAC CE; - *maxNumOfCSI-RS-ResourceAcrossCells-r19* indicates the maximum number of RRC configured CSI-RS resources across candidate cells RRC configured for CSI measurement before LTM CSC MAC CE; - *maxNumOfCSI-RS-PortsPerCell-r19* indicates the maximum number of ports of CSI-RS resource(s) associated with a CSI report configuration for CSI reporting for a candidate cell; - *maxNumOfNZP-CSI-RS-PortsPerCell-r19* indicates the maximum number of ports in one NZP CSI-RS resource associated with a CSI report configuration for CSI reporting for a candidate cell; - *maxNumOfCSI-IM-ResourceAcrossCells-r19* indicates the maximum number of RRC configured CSI-IM resources across candidate cells RRC configured for CSI measurement before LTM CSC MAC CE. A UE supporting this feature shall also indicate support of *ltm-CSI-RS-CSI-IM-SP-r19*.	BC	No	N/A	N/A

ltm-CSI-RS-CSI-IM-SP-CandidateIntraFreq-r19 Indicates whether the UE supports intra-frequency CSI-RS and CSI-IM measurement before reception of CSC MAC CE based on semi-persistent CSI-RS(s) and CSI-IM resources of candidate cells. This capability comprises the following parameters: - *maxNumOfCandidateCells-r19* indicates the maximum number of RRC configured candidate cells for CSI measurement before LTM CSC MAC CE; - *maxNumOfCSI-RS-ResourceAcrossCells-r19* indicates the maximum number of RRC configured CSI-RS resources across candidate cells RRC configured for CSI measurement before LTM CSC MAC CE; - *maxNumOfCSI-RS-PortsPerCell-r19* indicates the maximum number of ports of CSI-RS resource(s) associated with a CSI report configuration for CSI reporting for a candidate cell; - *maxNumOfNZP-CSI-RS-PortsPerCell-r19* indicates the maximum number of ports in one NZP CSI-RS resource associated with a CSI report configuration for CSI reporting for a candidate cell; - *maxNumOfCSI-IM-ResourceAcrossCells-r19* indicates the maximum number of RRC configured CSI-IM resources across candidate cells RRC configured for CSI measurement before LTM CSC MAC CE. A UE supporting this feature shall also indicate support of *ltm-CSI-RS-CSI-IM-SP-r19*.	BC	No	N/A	N/A
maxCC-32-DL-HARQ-ProcessFR2-2-r17 Indicates the maximum number of component carriers that can be configured with 32 DL HARQ processes. Value n1 means maximum 1 component carrier, value n2 means maximum 2 component carriers, and so on. UE supporting this feature shall indicate support of *support32-DL-HARQ-ProcessPerSCS-r17*.	BC	No	N/A	N/A
maxCC-32-UL-HARQ-ProcessFR2-2-r17 Indicates the maximum number of component carriers that can be configured with 32 UL HARQ processes. Value n1 means 1 component carrier, value n2 means 2 component carriers, and so on. UE supporting this feature shall indicate support of *support32-UL-HARQ-ProcessPerSCS-r17*.	BC	No	N/A	N/A
maxCSI-RS-ResourceL1-Meas-r19 Indicates the max number of CSI-RS resources for L1-RSRP measurement that UE can measure within a slot across candidate cells for L1-RSRP measurement. If UE does not support this feature, there is no limitation on the number of CSI-RS resources for L1 measurement within a slot. A UE supporting this feature shall also indicate support of *intraFreqL1-MeasConfigPeriodicCSI-RS-r19*. NOTE: The CSI-RS resources of this feature are also counted in *beamManagementSSB-CSI-RS*.	BC	No	N/A	N/A
maxFreqLayersL1-Meas-r18 Indicates the number of frequency layers for L1-RSRP measurement. This capability signalling comprises of the following parameters: - *supportedMaxIntraInterFreqLayersWithoutGaps-r18* indicates the maximum number of frequency layers UE can measure for intra- and inter-frequency without measurement gaps L1-RSRP measurement. Only frequency layers which are configured with SSB-based L1-RSRP measurement on neighbour cell(s) by *LTM-CSI-ResourceConfig-r18* are counted. A UE indicating support for this component shall also indicate support for *intraFreqL1-MeasConfig-r18* and/or *interFreqSSB-L1-MeasWithoutGaps-r18.* - *supportedMaxInterFreqLayersWithGaps-r18* indicates the maximum number of frequency layers UE can measure for inter-frequency L1-RSRP measurement with measurement gaps. A UE indicating support for this component shall also indicate support for *ltm-InterFreqMeasGap-r18*.	BC	No	N/A	N/A

maxNeighCellsPerFreqLayerL1-Meas-r18 Indicates the number of neighbouring cells per frequency layer for L1-RSRP measurement. This capability signalling comprises of the following parameters: - *supportedMaxNeighCellsPerFreqLayersWithoutGaps-r18* indicates the max number of neighbour cells UE can measure for L1-RSRP per frequency layer for intra-frequency or inter-frequency without measurement gaps. A UE indicating support for this component shall also indicate support for *intraFreqL1-MeasConfig-r18* or *interFreqSSB-L1-MeasWithoutGaps-r18.* - *supportedMaxNeighCellsPerFreqLayersWithGaps-r18* indicates the max number of neighbour cells UE can measure for L1-RSRP per frequency layer for inter-frequency with measurement gaps. A UE indicating support for this component shall also indicate support for *ltm-InterFreqMeasGap-r18.*	BC	No	N/A	N/A
maxNumberTAG-AcrossCC-r18 Indicates the maximum number of TAGs across all CCs in a band combination when UE supports multi-DCI Multi-TRP operation with two TA enhancement. It is applied to NR CA, NR-DC, (NG)EN-DC/NE-DC and DAPS handover. For (NG)EN-DC/NE-DC, it indicates number of TAGs only for NR CG. The number of TAGs for the LTE MCG is signalled by existing LTE TAG capability signalling. For NR CA/NR-DC band combination, if the band combination comprised of more than one band entry (i.e., inter-band or intra-band non-contiguous band combination), it indicates that different timing advances on different band entries are supported. It is mandatory for the UE to support more than one TAG for NR-DC and it is mandatory for UE to support 2 TAGs for inter-frequency DAPS. For the mixed inter-band and intra-band NR CA/NR-DC band combination, if the network configures more non-contiguous UL serving cells than the number of supported TAG, the UE only supports the configuration where all UL CCs of the same frequency band are configured with the same Timing Advance Group ID. A UE supporting this feature shall indicate support of *multiDCI-IntraCellMultiTRP-TwoTA-r18* or *multiDCI-InterCellMultiTRP-TwoTA-r18*. NOTE: UE only supports the configuration where all UL CCs of the same frequency band are configured with up to 2 Timing Advance Group ID.	BC	No	N/A	N/A
maxSSB-PerFreqLayerL1-Meas-r18 Indicates the maximum number of SSB resources for L1-RSRP measurement per frequency layer UE can measure. This capability signalling comprises of the following parameters: - *supportedMaxSSB-PerFreqLayersWithoutGaps-r18* indicates the max number of SSB resources UE can measure for L1-RSRP per frequency layer for intra-frequency or inter-frequency without measurement gaps. LTM candidate cells and serving cells are counted regardless of whether SSB L1-RSRP measurement on serving cell is configured in *LTM-CSI-ResourceConfig-r18* or not. A UE indicating support for this component shall also indicate support for *intraFreqL1-MeasConfig-r18* or *interFreqSSB-L1-MeasWithoutGaps-r18.* - *supportedMaxSSB-PerFreqLayersWithGaps-r18* indicates the max number of SSB resources UE can measure for L1-RSRP per frequency layer for inter-frequency with measurement gaps. A UE indicating support for this component shall also indicate support for *ltm-InterFreqMeasGap-r18*.	BC	No	N/A	N/A
maxUplinkDutyCycle-interBandCA-PC2-r17 Indicates the maximum average percentage of symbols during a certain evaluation period that can be scheduled for uplink transmission so as to ensure compliance with applicable electromagnetic energy absorption requirements provided by regulatory bodies. The average percentage of uplink symbols is specified in 6.2A.1.3, 6.2H.3.1 and 6.2L.3.1 in TS 38.101-1 [2] and the capability applies to the CA combinations listed in table 6.2A.1.3-1, 6.2H.3.1-1 and 6.2L.3.1-1 in TS 38.101-1 [2]. If the field is absent, UE may use P-MPR$_c$ as defined in 6.2.4 in TS 38.101-1 [2] if necessary. Value n50 corresponds to 50%, value n60 corresponds to 60% and so on. NOTE 1: Specific targeted UL duty cycle percentage is not assumed if the field is absent. NOTE 2: This field is applicable for both power class 2 and power class 1.5 inter-band UL CA.	BC	No	N/A	FR1 only

maxUplinkDutyCycle-SULcombination-PC2-r17 Indicates the maximum average percentage of symbols during a certain evaluation period that can be scheduled for uplink transmission so as to ensure compliance with applicable electromagnetic energy absorption requirements provided by regulatory bodies. The average percentage of uplink symbols is specified in 6.2C.1 in TS 38.101-1 [2] and the capability applies to all the SUL configurations with 1 SUL band + 1 TDD band. If the field is absent, UE shall work on power class 2 regardless of UL duty cycle and may use P-MPR$_c$ as defined in 6.2.4 in TS 38.101-1 [2] if necessary. Value n50 corresponds to 50%, value n60 corresponds to 60% and so on. NOTE: Specific targeted UL duty cycle percentage is not assumed if the field is absent.	BC	No	N/A	FR1 only
maxUpTo3Diff-NumerologiesConfigSinglePUCCH-grp-r16 Indicates the UE support of up to 3 different numerologies in the same PUCCH group where UE is not configured with two NR PUCCH groups by indicating one or multiple NR carrier types {FR1 licensed TDD (*fr1-NonSharedTDD-r16*), FR1 unlicensed TDD (*fr1-SharedTDD-r16*), FR1 licensed FDD (*fr1-NonSharedFDD-r16*), FR2(*fr2-r16*)} that can transmit the PUCCH for NR part of (NG)EN-DC, NE-DC and NR-CA. NOTE: When the carrier type of NUL is indicated for PUCCH transmission location, the SUL in the same cell as in the NUL can also be configured for PUCCH transmission.	BC	No	N/A	N/A
maxUpTo4Diff-NumerologiesConfigSinglePUCCH-grp-r16 Indicates the UE support of up to 4 different numerologies in the same PUCCH group where UE is not configured with two NR PUCCH groups by indicating one or multiple the NR carrier types {FR1 licensed TDD (*fr1-NonSharedTDD-r16*), FR1 unlicensed TDD (*fr1-SharedTDD-r16*), FR1 licensed FDD (*fr1-NonSharedFDD-r16*), FR2(*fr2-r16*)} that can transmit the PUCCH for NR part of (NG)EN-DC, NE-DC and NR-CA. NOTE: When the carrier type of NUL is indicated for PUCCH transmission location, the SUL in the same cell as in the NUL can also be configured for PUCCH transmission.	BC	No	N/A	N/A
mixCodeBookSpatialAdaptationPerBC-r18 Indicates the list of supported CSI-RS resources across all bands in a band combination by referring to *codebookVariantsList* for the mixed codebook types when UE supports mixed codebook combination for spatial domain adaptation with CSI feedback based on CSI report sub-configuration(s). The following parameters are included in *codebookVariantsList* for each code book type: - *maxNumberTxPortsPerResource* indicates the maximum number of Tx ports in a resource across all bands within a band combination; - *maxNumberResourcesPerBand* indicates the maximum number of resources across all CCs within a band combination, simultaneously; - *totalNumberTxPortsPerBand* indicates the total number of Tx ports across all CCs within a band combination, simultaneously. A UE supporting this feature shall also indicate support of *spatialAdaptation-CSI-FeedbackPerBC-r18*, or *spatialAdaptation-CSI-FeedbackPUSCH-PerBC-r18*, or *spatialAdaptation-CSI-FeedbackPUCCH-PerBC-r18*, or *spatialAdaptation-CSI-FeedbackAperiodicPerBC-r18*.	BC	No	N/A	N/A
mode1-ForType1-CodebookGeneration-r17 Indicates whether the UE supports type1-Codebook-Generation-Mode configured as mode 1, for multiplexing HARQ-ACK for unicast and HARQ-ACK for multicast on PUCCH or PUSCH. A UE supporting this feature shall also indicate support of *mode2-TDM-CodebookForMux-UnicastMulticastHARQ-ACK-r17*.	BC	No	N/A	N/A

mode2-TDM-CodebookForMux-UnicastMulticastHARQ-ACK-r17 Indicates whether the UE supports Mode 2 TDM-ed Type-1 and Type-2 HARQ-ACK codebook for multiplexing HARQ-ACK for unicast and HARQ-ACK for multicast, comprised of the following functional components: - Support of Mode 2 TDM-ed Type-1 HARQ-ACK codebook for multiplexing HARQ-ACK for unicast and ACK/NACK-based HARQ-ACK for multicast on PUCCH or PUSCH; - Support of Type-2 HARQ-ACK codebooks for multiplexing HARQ-ACK for unicast and HARQ-ACK for multicast on PUCCH or PUSCH with max number of G-RNTIs indicated in *maxNumberG-RNTI-HARQ-ACK-Codebook-r17*, which is not larger than max number of G-RNTIs indicated in *maxNumberG-RNTI-r17* or G-CS-RNTIs indicated in *maxNumberG-CS-RNTI-r17.* A UE supporting this feature shall also indicate support of *ack-NACK-FeedbackForMulticast-r17* or *nack-OnlyFeedbackForMulticast-r17* or *ack-NACK-FeedbackForSPS-Multicast-r17* or *nack-OnlyFeedbackForSPS-Multicast-r17*. NOTE 1: Mode 2 TDM-ed Type-1 HARQ-ACK codebook is generated based on the union TDRA tables from unicast and multicast and the union of k1 sets from unicast and multicast. NOTE 2: The Type-2 HARQ-ACK codebook is generated by concatenating the Type-2 sub-codebook for unicast and the Type-2 sub-codebook for multicast.	BC	No	N/A	N/A
mpr-ActivateDependent-r19 Indicates whether the UE supports MPR based on activation status of its configured CCs and when all activated CCs form a contiguous block in both UL and DL for intra-band contiguous CA.	BC	No	N/A	FR2 only
mpr-ActiveCarrierEnh-r19 Indicates whether the UE supports reduced MPR for single CC if single CC is activated for intra-band UL contiguous CA. If the UE also supports *powerBoosting-pi2BPSK-QPSK-r18* and/or *powerBoosting-pi2BPSK-QPSK-Modified-r18*, then these capabilities are applicable to the activated CC. If the UE does not support this feature, the FR1 UE shall support MPR requirement based on UL CA configuration even for single activated CC.	BC	No	N/A	FR1 only
mpr-DL-Independent-r19 Indicates whether the UE supports reduced MPR by removing dependence on DL CA configuration.	BC	No	N/A	FR2 only
mr-AlwaysReported-eType2PerBC-r19 Indicates whether the UE supports MR={1} for hybrid BF (CRI-based) with eType-II codebook with R=1. If UE does not support this feature, UE supports MR=0 with eType-II codebook with R=1. A UE supporting this feature shall also indicate the support of *codebookParametersHybridBF-eType2PerBC-r19*.	BC	No	N/A	N/A
mr-AlwaysReportedType1SP-PerBC-r19 Indicates whether the UE supports MR={1,2} for hybrid BF (CRI-based) with Type-I SP codebook. If UE does not support this feature, UE supports MR=0 with Type-I SP codebook. A UE supporting this feature shall also indicate the support of *codebookParametersHybridBF-Type1SP-PerBC-r19*.	BC	No	N/A	N/A
msgA-SUL-r16 Indicates whether the UE supports MSGA transmission in a band combination including SUL. A UE supporting this feature shall also indicate support of *twoStepRACH-r16*.	BC	No	N/A	N/A

mTRP-CSI-EnhancementPerBC-r17
Indicates support of CSI enhancements for multi-TRP including support of NZP CSI-RS resource pairs used as CMR (channel measurement resource) pairs for NCJT measurement hypothesis with N=1.
This feature also includes following parameters:
- *maxNumNZP-CSI-RS-r17* indicates the maximum number of NZP CSI-RS resources in one CSI-RS resource set: Ks,max
- *cSI-Report-mode-r17* indicates the CSI report mode selection. Mode indicates mode 1 with X=0, mode2 indicates mode 2, both indicate the support of both mode 1 with X=0 and mode 2.
- A list of supported combinations, up to 16, across all CCs simultaneously, where each combination is
  - *maxNumTx-Ports-r17* indicates the maximum number of Tx ports in one NZP CSI-RS resource associated with an NCJT measurement hypothesis
  - *maxTotalNumCMR-r17* indicates the maximum total number of CMRs for NCJT measurement
  - *maxTotalNumTx-PortsNZP-CSI-RS-r17*: indicates the maximum total number of Tx ports of NZP CSI-RS resources associated with NCJT measurement hypotheses
- *codebookMode-NCJT-r17* indicates the supported codebook modes for NCJT CSI.
	BC	No	N/A	N/A

multiCell-PDSCH-DCI-1-3-DiffSCS-r18 Indicates whether the UE supports monitoring DCI format 1_3 for DL scheduling where scheduling cell is not included in a set of cells in same PUCCH group and supports Type-2 for 'Antenna port(s)' field. The number of unicast DL DCIs to process per N consecutive slots of scheduling cell for a set of cells configured for multi-cell PDSCH scheduling by DCI format 1_3; - One DCI format 1_3 for the set of cells and, - One unicast DL DCI formats 1_0/1_1/1_2 (if supported) for each of the cells that are not scheduled by DCI 1_3 - For low-to-high SCS, N = 1. - For high-to-low SCS, N is based on pair of (scheduling CC SCS, scheduled CC SCS): N=2 for (30,15), (60,30), (120,60) and N=4 for (60,15), (120,30), N = 8 for (120,15) The UE monitors SS set(s) for DCI format 1_3 for a set of cells when search space set configurations for DCI format 1_3 for the set of cells with the same *searchSpaceId* are provided on both the scheduling cell and a serving cell in the set of cells. Scheduling cell is PCell or SCell, and a set of cells includes only SCells. The capability signalling comprises the following parameters: - *coScheduledCellSCS-r18* indicates scheduling cell and co-scheduled cells have different SCS. The set of co-scheduled cells share the same SCS and carrier type. - *combinationCarrierType-r18* indicates scheduling cell and co-scheduled cells have same or different carrier type (FR1 licensed FDD or FR1 licensed TDD or FR1 unlicensed TDD or FR2-1 or FR2-2). - *maxNumberCoScheduledCell-r18* indicates the max number of co-scheduled cells per set of cells supported by UE. - *maxNumberSetsOfCellAcrossPUCCH-Group-r18* indicates the max number of sets of cells supported by UE across PUCCH groups. - *maxNumberSetsOfCellScheduling-r18* indicates the max number of sets of cells supported by UE for a same scheduling cell. - *harqFeedbackType-r18* indicates the supported HARQ feedback types. The UE shall report the same value for all BCs supporting *multiCell-PDSCH-DCI-1-3-DiffSCS-r18,* i.e. The UE shall report the same value for all supported BCs with *multiCell-PDSCH-DCI-1-3-DiffSCS-r18* reported. - *coScheduledCellIndicationScheme-r18* indicates the supported co-scheduled cell indication schemes. NOTE 1: Support of CCS with DL DCI formats 1_1/1_2 is according to *crossCarrierSchedulingDL-DiffSCS-r16*. NOTE 2: 480/960 kHz SCS is not applicable to multi-cell scheduling with DCI format 1_3.	BC	No	N/A	N/A

multiCell-PDSCH-DCI-1-3-DiffSCS-DiffCC-r19
Indicates whether the UE supports monitoring DCI format 1_3 for DL scheduling with different SCS and/or different carrier types for the cells in the set and supports Type-2 for 'Antenna port(s)' field.
Scheduling cell is PCell if set of cells includes PCell, and scheduling cell is PCell or an SCell if set of cells includes only SCells. The UE monitors SS set(s) for DCI format 1_3 for a set of cells for the following cases:
- Search space set configuration for DCI format 1_3 for the set of cells is provided only on the scheduling cell, or;
- Search space set configurations for DCI format 1_3 for the set of cells with the same *searchSpaceId* are provided on both the scheduling cell and a serving cell in the set of cells with the scheduling cell being not in the set of cells.
The number of unicast DL DCIs to process per N consecutive slots of scheduling cell for a set of cells configured for multi-cell PDSCH scheduling by DCI format 1_3;
- One DCI format 1_3 for the set of cells and;
- One unicast DL DCI formats 1_0/1_1/1_2 (if supported) for each of the cells that are not scheduled by DCI 1_3;
- SCS1 is the SCS of scheduling CC and SCS2 is the smallest SCS among all cells in the cell set; For SCS1 smaller than or equal to SCS2, N=1. For SCS1 larger than SCS, N=2 for (SCS1 equal to 30kHz, SCS2 equal to 15kHz).
The capability signalling comprises the following parameters:
- *combinationCarrierTypeSCS-r19* indicates the supported applicable combinations of the following from the band combination:
  - Two sets of (carrier type, SCS) for the cells in the set: {(FR1 licensed FDD, 15kHz), (FR1 licensed TDD, 30kHz), (FR2-1, 60kHz), (FR2-1, 120kHz)};
  - A set of (carrier type, SCS) for scheduling cell: {(FR1 licensed FDD, 15kHz), (FR1 licensed TDD, 30kHz)};
- *maxNumberCoScheduledCell-r19* indicates the max number of co-scheduled cells per set of cells supported by UE;
- *maxNumberSetsOfCellAcrossPUCCH-Group-r19* indicates the max number of sets of cells supported by UE across PUCCH groups;
- *maxNumberSetsOfCellScheduling-r19* indicates the max number of sets of cells supported by UE for a same scheduling cell;
- *harqFeedbackType-r19* indicates the supported HARQ feedback types. The UE shall report the same value for all BCs supporting *multiCell-PDSCH-DCI-1-3-DiffSCS-r18,* i.e. The UE shall report the same value for all supported BCs with *multiCell-PDSCH-DCI-1-3-DiffSCS-r18* reported;
NOTE: The UE shall report the same value for all supported BCs for *multicell-PDSCH-DCI-1-3-DiffSCS-DiffCC-r19*.
- *coScheduledCellIndicationScheme-r19* indicates the supported co-scheduled cell indication schemes;
- *supportOfSearchSpace-r19* indicates the UE additionally support Search space set configurations for DCI format 1_3 for the set of cells with the same searchSpaceId are provided on both the scheduling cell and a serving cell in the set of cells with the scheduling cell being in the set of cells.
 	
The UE optionally includes *threeSetsCombination-r19* to indicate whether the UE supports three sets of (carrier type, SCS) for the cells in the set for multi-cell PDSCH scheduling by DCI format 1_3 with different SCS and/or different carrier type. The supported applicable combinations of the following from the band combination:
- Three sets of (carrier type, SCS) for the cells in the set: {(FR1 licensed FDD, 15kHz), (FR1 licensed TDD, 30kHz), (FR2-1, 60kHz), (FR2-1, 120kHz)};
- A set of (carrier type, SCS) for scheduling cell: {(FR1 licensed FDD, 15kHz), (FR1 licensed TDD, 30kHz)}. The UE shall report the same value as for *carrierTypeSCS-SchedulingCell-r19* of *combinationCarrierTypeSCS-r19*.
	BC	No	N/A	N/A

multiCell-PDSCH-DCI-1-3-SameSCS-r18 Indicates whether the UE supports monitoring DCI format 1_3 for DL scheduling with same SCS between scheduling cell and cells in the set and supports Type-2 for 'Antenna port(s)' field. The number of unicast DL DCIs to process per slot of scheduling cell for a set of cells configured for multi-cell PDSCH scheduling by DCI format 1_3: - One DCI format 1_3 for the set of cells and, - One unicast DL DCI formats 1_0/1_1/1_2 (if supported) for each of the cells that are not scheduled by DCI 1_3. Scheduling cell is PCell if set of cells includes PCell, and scheduling cell is PCell or an SCell if set of cells includes only SCells. The UE monitors SS set(s) for DCI format 1_3 for a set of cells for the following cases: - Search space set configuration for DCI format 1_3 for the set of cells is provided only on the scheduling cell, or; - Search space set configurations for DCI format 1_3 for the set of cells with the same *searchSpaceId* are provided on both the scheduling cell and a serving cell in the set of cells with the scheduling cell being not in the set of cells. - A UE supporting this capability can additionally report *supportOfSearchSpace-r18* to indicate whether the UE supports search space set configurations for DCI format 1_3 for the set of cells with the same searchSpaceId are provided on both the scheduling cell and a serving cell in the set of cells with the scheduling cell being in the set of cells. The capability signalling comprises the following parameters: - *coScheduledCellSCS-r18* indicates scheduling cell and co-scheduled cells have same SCS and carrier type. - *maxNumberCoScheduledCell-r18* indicates the max number of co-scheduled cells per set of cells supported by UE. - *maxNumberSetsOfCellAcrossPUCCH-Group-r18* indicates the max number of sets of cells supported by UE across PUCCH groups. - *maxNumberSetsOfCellScheduling-r18* indicates the max number of sets of cells supported by UE for a same scheduling cell. - *harqFeedbackType-r18* indicates the supported HARQ feedback types. The UE shall report the same value for all BC supporting *multiCell-PDSCH-DCI-1-3-SameSCS-r18,* i.e. The UE shall report the same value for all supported BCs with *multiCell-PDSCH-DCI-1-3-SameSCS-r18* reported. - *coScheduledCellIndicationScheme-r18* indicates the supported co-scheduled cell indication schemes. When multiple values are reported in *coScheduledCellSCS-r18* and if scheduling cell is not included in the set of cells, the UE supports multi-cell PDSCH scheduling by DCI format 1_3 from one carrier type, indicated in *coScheduledCellSCS-r18*, to another carrier type, indicated in *coScheduledCellSCS-r18*, for the following scheduling cases: - FR1 licensed TDD to FR1 unlicensed TDD - FR2-1 to FR2-2 - UE can additionally report *licensed-fdd-tdd-fr1* indicating the support of FR1 licensed FDD from/to FR1 licensed TDD. NOTE 1: Support of CCS with DL DCI formats 1_1/1_2 is according to *crossCarrierScheduling-SameSCS*. NOTE 2: 480/960 kHz SCS is not applicable to multi-cell scheduling with DCI format 1_3.	BC	No	N/A	N/A

multiCell-PUSCH-DCI-0-3-DiffSCS-r18
Indicates whether the UE supports monitoring DCI format 0_3 for UL scheduling where scheduling cell is not included in a set of cells in same PUCCH group and supports Type-2 for 'Antenna port(s)', 'Precoding information and number of layers' and 'SRS resource indicator' fields. Scheduling cell is PCell or SCell, and a set of cells includes only SCells.
The number of unicast UL DCIs to process per N consecutive slots of scheduling cell for a set of cells configured for multi-cell PUSCH scheduling by DCI format 0_3:
- For FDD scheduling cell
  - Up to one DCI format 0_3 for the set of cells and,
  - Up to one unicast UL DCI formats 0_0/0_1/0_2 (if supported) for each of the cells
  - For a cell in a set of cells, no more than one DCI scheduling PUSCH for the cell
- For TDD scheduling cell
  - Up to two DCI format 0_3 for the set of cells and,
  - Up to two unicast UL DCI formats 0_0/0_1/0_2 (if supported) for each of the cells
  - For a cell in a set of cells, no more than two DCI scheduling PUSCH for the cell
- For low-to-high SCS, N = 1.
- For high-to-low SCS, N is based on pair of (scheduling CC SCS, scheduled CC SCS): N=2 for (30,15), (60,30), (120,60) and N=4 for (60,15), (120,30), N = 8 for (120,15).
The UE monitors SS set(s) for DCI format 0_3 for a set of cells when search space set configurations for DCI format 0_3 for the set of cells with the same *searchSpaceId* are provided on both the scheduling cell and a serving cell in the set of cells.
The capability signalling comprises the following parameters:
- *coScheduledCellSCS-r18* indicates scheduling cell and co-scheduled cells have different SCS. The set of co-scheduled cells share the same SCS and carrier type.
- *combinationCarrierType-r18* indicates scheduling cell and co-scheduled cells have same or different carrier type (FR1 licensed FDD or FR1 licensed TDD or FR1 unlicensed TDD or FR2-1 or FR2-2).
- *maxNumberCoScheduledCell-r18* indicates the max number of co-scheduled cells per set of cells supported by UE.
- *maxNumberSetsOfCellAcrossPUCCH-Group-r18* indicates the max number of sets of cells supported by UE across PUCCH groups.
- *maxNumberSetsOfCellScheduling-r18* indicates the max number of sets of cells supported by UE for a same scheduling cell.
- *coScheduledCellIndicationScheme-r18* indicates the supported co-scheduled cell indication schemes.
NOTE 1: Support of CCS with UL DCI formats 0_1/0_2 is according to *crossCarrierSchedulingUL-DiffSCS-r16*.
NOTE 2: 480/960 kHz SCS is not applicable to multi-cell scheduling with DCI format 0_3.
	BC	No	N/A	N/A

multiCell-PUSCH-DCI-0-3-DiffSCS-DiffCC-r19
Indicates whether the UE supports monitoring DCI format 0_3 for UL scheduling with different SCS and/or different carrier types for the cells in the set and supports Type-2 for 'Antenna port(s)', 'Precoding information and number of layers' and 'SRS resource indicator' fields.
Scheduling cell is PCell if set of cells includes PCell, and scheduling cell is PCell or an SCell if set of cells includes only SCells. The UE monitors SS set(s) for DCI format 0_3 for a set of cells for the following cases:
- Search space set configuration for DCI format 0_3 for the set of cells is provided only on the scheduling cell, or;
- Search space set configurations for DCI format 0_3 for the set of cells with the same *searchSpaceId* are provided on both the scheduling cell and a serving cell in the set of cells with the scheduling cell being not in the set of cells.
The number of unicast UL DCIs to process per N consecutive slots of scheduling cell for a set of cells configured for multi-cell PUSCH scheduling by DCI format 0_3;
- For FDD scheduling cell
  - Up to one DCI format 0_3 for the set of cells and,
  - Up to one unicast UL DCI formats 0_0/0_1/0_2 (if supported) for each of the cells
  - For a cell in a set of cells, no more than one DCI scheduling PUSCH for the cell
- For TDD scheduling cell
  - Up to two DCI format 0_3 for the set of cells and,
  - Up to two unicast UL DCI formats 0_0/0_1/0_2 (if supported) for each of the cells
  - For a cell in a set of cells, no more than two DCI scheduling PUSCH for the cell
- SCS1 is the SCS of scheduling CC and SCS2 is the smallest SCS among all cells in the cell set; For SCS1 smaller than or equal to SCS2, N=1. For SCS1 larger than SCS, N=2 for (SCS1 equal to 30kHz, SCS2 equal to 15kHz).
The capability signalling comprises the following parameters:
- *combinationCarrierTypeSCS-r19* indicates the supported applicable combinations of the following from the band combination:
  - Two sets of (carrier type, SCS) for the cells in the set: {(FR1 licensed FDD, 15kHz), (FR1 licensed TDD, 30kHz), (FR2-1, 60kHz), (FR2-1, 120kHz)};
  - A set of (carrier type, SCS) for scheduling cell: {(FR1 licensed FDD, 15kHz), (FR1 licensed TDD, 30kHz)};
- *maxNumberCoScheduledCell-r19* indicates the max number of co-scheduled cells per set of cells supported by UE;
- *maxNumberSetsOfCellAcrossPUCCH-Group-r19* indicates the max number of sets of cells supported by UE across PUCCH groups;
- *maxNumberSetsOfCellScheduling-r19* indicates the max number of sets of cells supported by UE for a same scheduling cell;
- *coScheduledCellIndicationScheme-r19* indicates the supported co-scheduled cell indication schemes;
- *supportOfSearchSpace-r19* indicates the UE supporting *multiCell-PDSCH-DCI-1-3-DiffSCS-DiffCC-r19* additionally support Search space set configurations for DCI format 0_3 for the set of cells with the same *searchSpaceId* are provided on both the scheduling cell and a serving cell in the set of cells with the scheduling cell being in the set of cells.
 	
The UE optionally includes *threeSetsCombination-r19* to indicate whether the UE supports three sets of (carrier type, SCS) for the cells in the set for multi-cell PUSCH scheduling by DCI format 0_3 with different SCS and/or different carrier type. The supported applicable combinations of the following from the band combination:
- Three sets of (carrier type, SCS) for the cells in the set: {(FR1 licensed FDD, 15kHz), (FR1 licensed TDD, 30kHz), (FR2-1, 60kHz), (FR2-1, 120kHz)};
- A set of (carrier type, SCS) for scheduling cell: {(FR1 licensed FDD, 15kHz), (FR1 licensed TDD, 30kHz)}. The UE shall report the same value as for *carrierTypeSCS-SchedulingCell-r19* of *combinationCarrierTypeSCS-r19*.
	BC	No	N/A	N/A

multiCell-PUSCH-DCI-0-3-SameSCS-r18
Indicates whether the UE supports monitoring DCI format 0_3 for UL scheduling with same SCS between scheduling cell and cells in the set and supports Type-2 for 'Antenna port(s)', 'Precoding information and number of layers' and 'SRS resource indicator' fields. Scheduling cell is PCell if set of cells includes PCell, and scheduling cell is PCell or an SCell if set of cells includes only SCells.
The number of unicast UL DCIs to process per slot of scheduling cell for a set of cells configured for multi-cell PUSCH scheduling by DCI format 0_3:
- For FDD scheduling cell:
  - Up to one DCI format 0_3 for the set of cells and,
  - Up to one unicast UL DCI formats 0_0/0_1/0_2 (if supported) for each of the cells
  - For a cell in a set of cells, no more than one DCI scheduling PUSCH for the cell
- For TDD scheduling cell:
  - Up to two DCI format 0_3 for the set of cells and,
  - Up to two unicast UL DCI formats 0_0/0_1/0_2 (if supported) for each of the cells
  - For a cell in a set of cells, no more than two DCI scheduling PUSCH for the cell.
The UE monitors SS set(s) for DCI format 0_3 for a set of cells for the following cases:
- Search space set configuration for DCI format 0_3 for the set of cells is provided only on the scheduling cell, or;
- Search space set configurations for DCI format 0_3 for the set of cells with the same *searchSpaceId* are provided on both the scheduling cell and a serving cell in the set of cells with the scheduling cell being not in the set of cells.
- A UE supporting this capability can additionally report *supportOfSearchSpace-r18* to indicate whether the UE supports search space set configurations for DCI format 0_3 for the set of cells with the same *searchSpaceId* are provided on both the scheduling cell and a serving cell in the set of cells with the scheduling cell being in the set of cells.
The capability signalling comprises the following parameters:
- *coScheduledCellSCS-r18* indicates scheduling cell and co-scheduled cells have same SCS and carrier type.
- *maxNumberCoScheduledCell-r18* indicates the max number of co-scheduled cells per set of cells supported by UE.
- *maxNumberSetsOfCellAcrossPUCCH-Group-r18* indicates the max number of sets of cells supported by UE across PUCCH groups.
- *maxNumberSetsOfCellScheduling-r18* indicates the max number of sets of cells supported by UE for a same scheduling cell.
- *coScheduledCellIndicationScheme-r18* indicates the supported co-scheduled cell indication schemes.
When multiple values are reported in *coScheduledCellSCS-r18* and if scheduling cell is not included in the set of cells, the UE supports multi-cell PUSCH scheduling by DCI format 0_3 from one carrier type, indicated in *coScheduledCellSCS-r18*, to another carrier type, indicated in *coScheduledCellSCS-r18*, for the following scheduling cases:
- FR1 licensed TDD to FR1 unlicensed TDD
- FR2-1 to FR2-2
- UE can additionally report *licensed-fdd-tdd-fr1* indicating the support of FR1 licensed FDD from/to FR1 licensed TDD.
NOTE 1: Support of CCS with UL DCI formats 0_1/0_2 is according to *crossCarrierScheduling-SameSCS*.
NOTE 2: 480/960 kHz SCS is not applicable to multi-cell scheduling with DCI format 0_3.
	BC	No	N/A	N/A

multiCellL1-measRTD-greaterThan-CP-r18 Indicates the capability of simultaneous L1-RSRP measurements for more than one cell when the max RTD among the cells on the same frequency layer or in the same active BWP is larger than CP length of the cell on the frequency layer or in the same active BWP. A UE supporting this feature shall also indicate support of either *intraFreqL1-MeasConfig-r18, interFreqSSB-L1-MeasWithoutGaps-r18* or *ltm-InterFreqMeasGap-r18.*	BC	No	N/A	N/A

multiCellMultiPDSCH-DCI-1-3-r19 Indicates whether the UE supports DCI format 1_3 for DL scheduling of one or more PDSCH(s) per cell in the set of cells and Type 1/Type 2 HARQ codebook for supporting multi-cell multi-PDSCH scheduling with single DCI. The UE also indicates the maximum number of PDSCHs that can be scheduled by a DCI format 1_3 for multi-cell multi-PDSCH scheduling. A UE supporting this feature shall also indicate support of at least one of *multiCell-PDSCH-DCI-1-3-SameSCS-r18*, *multiCell-PDSCH-DCI-1-3-DiffSCS-r18* and *multiCell-PDSCH-DCI-1-3-DiffSCS-DiffCC-r19*. NOTE: Only cell(s) with {120kHz SCS, FR2-1} among the set of cells can be scheduled with more than one PDSCH.	BC	No	N/A	N/A
multiCellMultiPUSCH-DCI-0-3-r19 Indicates whether the UE supports DCI format 0_3 for UL scheduling of one or more PUSCH(s) per cell in the set of cells. The UE also indicates the maximum number of PUSCHs that can be scheduled by a DCI format 0_3 for multi-cell multi-PUSCH scheduling. A UE supporting this feature shall also indicate support of at least one of *multiCell-PUSCH-DCI-0-3-SameSCS-r18*, *multiCell-PUSCH-DCI-0-3-DiffSCS-r18*, and *multiCell-PUSCH-DCI-0-3-DiffSCS-DiffCC-r19*. NOTE: Only cell(s) with {120kHz SCS, FR2-1}, {15kHz SCS, FR1} and/or {30kHz SCS, FR1} among the set of cells can be scheduled with more than one PUSCH.	BC	No	N/A	N/A
multiPUCCH-ConfigForMulticast-r17 Indicates whether the UE supports *PUCCH-ConfigurationList* for multicast HARQ-ACK feedback, separate from that of unicast configurations. A UE supporting this feature shall also indicate support of *singlePUCCH-ConfigForMulticast-r17* and *priorityIndicatorInDCI-Multicast-r17*.	BC	No	N/A	N/A
mux-HARQ-ACK-UnicastMulticast-r17 Indicates whether the UE supports multiplexing HARQ-ACK for unicast and for multicast with the same priority and different HARQ-ACK codebook types in a PUCCH or in a PUSCH. A UE supporting this feature shall also indicate support of *ack-NACK-FeedbackForMulticast-r17* or *nack-OnlyFeedbackForMulticast-r17* or *ack-NACK-FeedbackForSPS-Multicast-r17* or *nack-OnlyFeedbackForSPS-Multicast-r17*.	BC	No	N/A	N/A

nack-OnlyFeedbackForMulticast-r17
Indicates whether the UE supports NACK-only based HARQ-ACK feedback for multicast RRC-based enabling/disabling with ACK/NACK transforming, comprised of the following functional components:
- Supports NACK-only based HARQ-ACK feedback and enabling/disabling NACK-only based HARQ-ACK feedback configured by RRC signalling for dynamic scheduling for multicast, including:
  - A single TB with NACK-only feedback transmitted in PUCCH
  - Multiple TB with NACK-only feedback transmitted in PUCCH by transforming into ACK/NACK bits
- Supports shared PUCCH resource configurations with unicast;
- Supports one or multiple TB with NACK-only feedback transmitted in PUSCH by transforming into ACK/NACK bits;
- Supports One or multiple TB with NACK-only feedback transmitted in PUCCH by transforming into ACK/NACK bits when multiplexing with other UCI.
 	
A UE supporting this feature shall also indicate support of *ack-NACK-FeedbackForMulticast-r17*.
	BC	No	N/A	N/A

nack-OnlyFeedbackForSPS-Multicast-r17
Indicates whether the UE supports RRC-based enabling/disabling NACK-only based feedback for SPS group-common PDSCH for multicast, comprised of the following functional components:
- Support NACK-only based HARQ-ACK feedback, and support of enabling/disabling NACK-only based HARQ-ACK feedback configured by RRC signalling for SPS group-common PDSCH without PDCCH scheduling, including:
  - A single TB with NACK-only feedback transmitted in PUCCH
  - Multiple TBs with NACK-only feedback transmitted in PUCCH by transforming into ACK/NACK bits
- Support of shared PUCCH resource configurations with unicast
- One or multiple TB with NACK-only feedback transmitted in PUSCH by transforming into ACK/NACK bits
- One or multiple TB with NACK-only feedback transmitted in PUCCH by transforming into ACK/NACK bits when multiplexing with other UCI
 	
A UE supporting this feature shall also indicate support of *ack-NACK-FeedbackForSPS-Multicast-r17*.
	BC	No	N/A	N/A

nack-OnlyFeedbackSpecificResourceForMulticast-r17 Indicates whether the UE supports NACK-only based HARQ-ACK feedback for multicast corresponding to a specific sequence or a PUCCH transmission, comprised of the following functional components: - Supports NACK-only based HARQ-ACK feedback for dynamic scheduling for multicast, including: - Up to 4 TBs with NACK-only feedback transmitted in PUCCH by select one PUCCH resource - Supports separate PUCCH resource configurations from unicast; - Supports single TB with NACK-only feedback transmitted in PUCCH; - Supports up to 4TBs with NACK-only feedback transmitted in PUSCH by transforming into ACK/NACK bits. A UE supporting this feature shall also indicate support of *nack-OnlyFeedbackForMulticast-r17*.	BC	No	N/A	N/A
nack-OnlyFeedbackSpecificResourceForSPS-Multicast-r17 Indicates whether the UE supports NACK-only based HARQ-ACK feedback for multicast corresponding to a specific sequence or a PUCCH transmission for SPS group-common PDSCH for multicast, comprised of the following functional components: - Supports NACK-only based HARQ-ACK feedback for SPS PDSCH for multicast, including: - Up to 2TBs with NACK-only feedback transmitted in PUCCH by select one PUCCH resource - Supports separate *SPS-PUCCH-AN-List* from unicast; - Single TB with NACK-only feedback transmitted in PUCCH; - Up to 2TBs with NACK-only feedback transmitted in PUSCH by transforming into ACK/NACK bits. UE supporting this feature shall also indicate support of *nack-OnlyFeedbackForSPS-Multicast-r17*.	BC	No	N/A	N/A

nes-SD-Type1-SP-PerBC-r19 Indicates whether the UE supports NES SD Type1 for Rel-19 Type-I single-panel codebook. The capability signalling comprises the following parameters: - *timeline-r19* indicates NES SD Type1 timeline from two timeline capabilities, for Type-I single-panel codebook. Value '*cap1*' indicates reuse Z/Z' values (i.e., Z_2 and Z'_2). Value '*cap2*' indicates scaling timeline Z/Z' (i.e., Z_2 and Z'_2) by $\left\lceil \mathbf{max}\left(\sum_{\mathbf{i}=\mathbf{1}}^{\mathbf{M}} \mathbf{P_i}, \mathbf{P}\right)/\mathbf{32} \right\rceil$ where M is the number of sub-configurations that refer to the any of the K aggregated CSI-RS resources. '*cap1*' is a higher capability than '*cap2*'; - *numOfPortCSI-Report-r19* indicates a combination of supported number of ports for CSI report sub-configuration. The *numOfPortCSI-Report-r19* is encoded as a bitmap, where starting from the leading / leftmost bit (bit 0), each bit corresponds to {2, 4, 8, 12, 16, 24, 32, 48, 64, 128}. A UE supporting this feature shall also indicate support of *codebookParametersType1SP-SchemeA-PerBC-r19*, *codebookParametersType1SP-SchemeB-PerBC-r19*, and *spatialAdaptation-CSI-FeedbackPerBC-r18*, *spatialAdaptation-CSI-FeedbackPUSCH-PerBC-r18*, *spatialAdaptation-CSI-FeedbackAperiodicPerBC-r18*, or *spatialAdaptation-CSI-FeedbackPUCCH-PerBC-r18*.	BC	No	N/A	N/A
non-AlignedFrameBoundaries-r17 Indicates whether UE supports carrier aggregation with non-aligned frame boundaries for PCell/PSCell and SCell configured with cross-carrier scheduling to PCell/PSCell (sSCell) in inter-band CA. The capability indicates the band pairs of the {PCell/PSCell SCS in kHz, sSCell SCS in kHz} combination which supports non-aligned frame boundary PCell/PSCell and SCell. The band-pair is encoded as a bitmap with size L * (L – 1) / 2, and bit N (leftmost bit is indexed as bit 0) is set to "1" if the UE supports non-frame boundary for PCell/PSCell and SCell for the band pair (x, y), where L is the number of band entries in the band combination, x and y are the indices of the band entry in the band combination (the first band entry is indexed as 0), x < y, and N = x*(2*L – x – 1)/2 + y – x – 1. UE indicating support of this feature shall indicate support of *crossCarrierSchedulingSCell-SpCellTypeA-r17* or *crossCarrierSchedulingSCell-SpCellTypeB-r17*.	BC	No	N/A	FR1 only
nonCodebook-CSI-RS-SRS-PerBC-r18 Indicates the list of supported CSI-RS resources supporting association between CSI-RS and SRS for non-codebook case by referring to *codebookVariantsList*. The following parameters are included in *codebookVariantsList*: - *maxNumberTxPortsPerResource* indicates the maximum number of Tx ports in a resource of a feature set per CC, simultaneously. - *maxNumberResourcesPerBand* indicates the maximum number of resources across all CCs in a feature set per CC, simultaneously. - *totalNumberTxPortsPerBand* indicates the total number of Tx ports across all CCs in a feature set per CC, simultaneously. A UE supporting this feature shall indicate support of *nonCodebook-8TxPUSCH-r18* and *nonCodebook-CSI-RS-SRS-r18*.	BC	No	N/A	N/A
nonCodebook-CSI-RS-SRS-PerBC-Enh-r19 Indicates the list of supported CSI-RS resources supporting association between up to 128 CSI-RS ports and SRS resource set for non-codebook-based PUSCH by referring to a list of *CodebookVariantsListAggregate-r19*. The following parameters are included in *CodebookVariantsListAggregate-r19*: - *maxNumberTxPortsPerAggregatedResource-r19* indicates the maximum number of Tx ports in a set of aggregated resources, simultaneously. - *maxNumberAggregatedResources-r19* indicates the maximum number of sets of aggregated resource, simultaneously. - *totalNumberTxPorts-r19* indicates the total number of Tx ports, simultaneously. A UE supporting this feature shall also indicate support of *nonCodebook-CSI-RS-SRS-Enh-r19*. For *CodebookVariantsListAggregate-r19* related to this feature: - The minimum of *maxNumberAggregatedResources-r19* is '*2*', the maximum of *maxNumberAggregatedResources-r19* is '*64*'.	BC	No	N/A	N/A

od-SSB-FastMeasWinLowerBound-r19 Indicates whether the UE supports the lower bound of measurement periodicity as 10ms. The lower bound is applied to the deactivated SCell measurement requirement in fast measurement window on OD-SSB SCell. A UE supporting this feature shall also indicate support of at least one among *od-SSB-NoAlwaysOn-RRC-r19*, *od-SSB-AlwaysOn-RRC-r19*, *od-SSB-AlwaysOn-RRC-Diff-r19*, *od-SSB-NoAlwaysOn-MAC-CE-r19*, *od-SSB-AlwaysOn-MAC-CE-r19*, *od-SSB-AlwaysOn-MAC-CE-Diff-r19*.	BC	No	N/A	N/A
parallelTxMsgA-SRS-PUCCH-PUSCH-r16 Indicates whether the UE supports parallel transmission of MsgA in PCell and SRS/ PUCCH/ PUSCH across different CCs belonging to different frequency bands in a CA band combination for NR SA or NR SCG in (NG)EN-DC. A UE supporting this feature shall also indicate support of *parallelTxPRACH-SRS-PUCCH-PUSCH*.	BC	No	N/A	N/A
parallelTxMsgA-SRS-PUCCH-PUSCH-intraBand-r17 Indicates whether the UE supports parallel transmission of MsgA in SpCell and SRS/ PUCCH/ PUSCH across CCs in an intra-band non-contiguous CA band combination for NR SA or NR SCG in (NG)EN-DC or across CCs in an intra-band non-contiguous CA of the Cell Group in which intra-band non-contiguous CA is configured for NR-DC (i.e. the UE capability is applicable to NR-DC band combination where only one of the Cell Groups is configured with intra-band non-contiguous CA and the Cell Group contains a single intra-band non-contiguous CA component). The UE indicating support of this field shall also indicate support of *parallelTxMsgA-SRS-PUCCH-PUSCH-r16*.	BC	No	N/A	N/A
parallelTxSRS-PUCCH-PUSCH Indicates whether the UE supports parallel transmission of SRS and PUCCH/ PUSCH across different CCs belonging to different frequency bands in a CA band combination for NR SA or NR SCG in (NG)EN-DC.	BC	No	N/A	N/A
parallelTxSRS-PUCCH-PUSCH-intraBand-r17 Indicates whether the UE supports parallel transmission of SRS and PUCCH/ PUSCH across CCs in an intra-band non-contiguous CA band combination for NR SA or NR SCG in (NG)EN-DC or across CCs in an intra-band non-contiguous CA of the Cell Group in which intra-band non-contiguous CA is configured for NR-DC (i.e. the UE capability is applicable to NR-DC band combination where only one of the Cell Groups is configured with intra-band non-contiguous CA and the Cell Group contains a single intra-band non-contiguous CA component).	BC	No	N/A	N/A
parallelTxPRACH-SRS-PUCCH-PUSCH Indicates whether the UE supports parallel transmission of PRACH and SRS/PUCCH/PUSCH across different CCs belonging to different frequency bands in a CA band combination for NR SA or NR SCG in (NG)EN-DC.	BC	No	N/A	N/A
parallelTxPRACH-SRS-PUCCH-PUSCH-intraBand-r17 Indicates whether the UE supports parallel transmission of PRACH and SRS/PUCCH/PUSCH across CCs in an intra-band non-contiguous CA band combination for NR SA or NR SCG in (NG)EN-DC or across CCs in an intra-band non-contiguous CA of the Cell Group in which intra-band non-contiguous CA is configured for NR-DC (i.e. the UE capability is applicable to NR-DC band combination where only one of the Cell Groups is configured with intra-band non-contiguous CA and the Cell Group contains a single intra-band non-contiguous CA component).	BC	No	N/A	N/A
parallelTxPUCCH-PUSCH-r17 Indicates whether the UE supports simultaneous PUCCH and PUSCH transmissions of different priority across different CCs belonging to different frequency bands in a CA band combination for NR SA or NR SCG in (NG)EN-DC.	BC	No	N/A	N/A
parallelTxPUCCH-PUSCH-SamePriority-r17 Indicates whether the UE supports simultaneous PUCCH and PUSCH transmissions of same priority across different CCs belonging to different frequency bands in a CA band combination for NR SA or NR SCG in (NG)EN-DC as specified in clause 9 of TS 38.213 [11].	BC	No	N/A	N/A
pdcch-BlindDetectionCA-Mixed-r16, pdcch-BlindDetectionCA-Mixed-v16a0 This field indicates mixed operation of two variants of the number of blind detections in case of CA. UE indicating support of this feature shall also indicate support of *pdcch-MonitoringMixed-r16*. UE indicating support of *pdcch-BlindDetectionCA-Mixed-v16a0* shall also indicate support of *pdcch-MonitoringMixed-r16*. Only one between *pdcch-BlindDetectionCA-Mixed-r16* and *pdcch-BlindDetectionCA-Mixed-NonAlignedSpan-r16* can be reported by UE.	BC	No	N/A	N/A

pdcch-BlindDetectionCA-Mixed-r18 Indicates the supported combinations of the capability on the number of CCs for CCE/BD scaling with DL CA with mix of Rel-16 and Rel-15 PDCCH monitoring capabilities on different carriers. The capability signalling comprises the following parameters: - *blindDetectionCA-Mixed-r18* indicates the supported combination(s) of (*pdcch-BlindDetectionCA1-r16* (for Rel-15), *pdcch-BlindDetectionCA2-r16* (for Rel-16) - *supportedSpanArrangement-r18* indicates the supported span arrangement for CA When a UE reports both *pdcch-BlindDetectionCA-MixedExt-r16* and this capability, the value reported in this capability is used if the configured span pattern of any serving cell satisfies *pdcch-MonitoringSpan2-2-r18*. UE indicating support of this feature shall also indicate support of (7,3) or (4,3) span based PDCCH monitoring for *pdcch-MonitoringMixed-r16* and (2,2) span based PDCCH monitoring for *pdcch-MonitoringMixed-r18* with additional restriction(s). The minimum of the summation of capability on the number of CCs with Rel-15 PDCCH monitoring capability and the capability on the number of CCs with Rel-16 PDCCH monitoring capability is 3. Only one between *pdcch-BlindDetectionCA-Mixed-r18* and *pdcch-BlindDetectionCA-Mixed-NonAlignedSpan-r18* can be reported by UE.	BC	No	N/A	N/A
pdcch-BlindDetectionCA-Mixed-NonAlignedSpan-r16, pdcch-BlindDetectionCA-Mixed-NonAlignedSpan-v16a0 This field indicates mixed operation of two variants of the number of blind detections in case of CA when the UE supports aligned span and non-aligned span. In the case of non-aligned span, when the configured number of CCs with Rel-16 PDCCH monitoring is larger than the UE reported value, PDCCH monitoring occasion(s) should be configured only on same symbol(s) every slot. UE indicating support of this feature shall also indicate support of *pdcch-MonitoringMixed-r16*. The minimum of the summation of capability on the number of CCs with Rel-15 PDCCH monitoring capability and the capability on the number of CCs with Rel-16 PDCCH monitoring capability is 3. UE indicating support of *pdcch-BlindDetectionCA-Mixed-NonAlignedSpan-v16a0* shall also indicate support of *pdcch-BlindDetectionCA-Mixed-NonAlignedSpan-r16*. Only one between *pdcch-BlindDetectionCA-Mixed-r16* and *pdcch-BlindDetectionCA-Mixed-NonAlignedSpan-r16* can be reported by UE.	BC	No	N/A	N/A
pdcch-BlindDetectionCA-Mixed-NonAlignedSpan-r18 Indicates the supported combination of the capability on the number of CCs for CCE/BD scaling with DL CA with mix of Rel-16 and Rel-15 PDCCH monitoring capabilities on different carriers with restriction for non-aligned span case. In case of non-aligned span when the configured number of cells with Rel-16 PDCCH monitoring is larger than the UE reported value, PDCCH monitoring occasion(s) should be configured only on same symbol(s) every slot. When a UE reports both *pdcch-BlindDetectionCA-Mixed-NonAlignedSpan-r16* and this capability, the value reported in this capability is used if the configured span pattern of any serving cell satisfies *pdcch-MonitoringSpan2-2-r18*. UE indicating support of this feature shall also indicate support of (7,3) or (4,3) span based PDCCH monitoring for *pdcch-MonitoringMixed-r16* and (2,2) span based PDCCH monitoring for *pdcch-MonitoringMixed-r18* with additional restriction(s). The minimum of the summation of capability on the number of CCs with Rel-15 PDCCH monitoring capability and the capability on the number of CCs with Rel-16 PDCCH monitoring capability is 3. Only one between *pdcch-BlindDetectionCA-Mixed-r18* and *pdcch-BlindDetectionCA-Mixed-NonAlignedSpan-r18* can be reported by UE.	BC	No	N/A	N/A

pdcch-BlindDetectionMCG-UE-r16, pdcch-BlindDetectionSCG-UE-r16 This field indicates the number of blind detections supported for MCG and SCG, respectively as specified in clause 10 in TS 38.213 [11] for the NR-DC. UE shall report the fields for MCG and for SCG together if supported. If a UE supports *pdcch-MonitoringCA-r16* or *pdcch-MonitoringCA-NonAlighedSpan-r16*, then the capability defined by *pdcch-MonitoringCA-r16* or *pdcch-MonitoringCA-NonAlighedSpan-r16* is applied to the feature as defined in clause 10 in TS 38.213 [11].	BC	No	N/A	N/A
pdcch-BlindDetectionMCG-SCG-List-r17 Indicates the supported combinations of the capability on the number of CCs for monitoring a maximum number of BDs and non-overlapped CCEs for MCG and for SCG (i.e. *pdcch-BlindDetectionMCG-UE-r17* and *pdcch-BlindDetectionSCG-UE-r17*) when configured for NR-DC operation with Rel-17 PDCCH monitoring capability on all the serving cells. UE indicating support of this feature shall also indicate support of *dl-FR2-2-SCS-480kHz-r17* or *dl-FR2-2-SCS-960kHz-r17.* NOTE: If the UE reports *pdcch-MonitoringCA-r17*, - Candidate values for pdcch-BlindDetectionMCG-UE-r17 is 1 to *pdcch-MonitoringCA-r17*-1 - Candidate values for pdcch-BlindDetectionSCG-UE-r17 is 1 *pdcch-MonitoringCA-r17*-1 - *pdcch-BlindDetectionMCG-UE-r17* + *pdcch-BlindDetectionSCG-UE-r17 >= pdcch-MonitoringCA-r17* Otherwise, the value of *pdcch-BlindDetectionMCG-UE-r17* or of *pdcchBlindDetectionSCG-UE-r17* is {1, 2, 3}	BC	No	N/A	N/A

pdcch-BlindDetectionMCG-SCG-List-r18 Indicates the supported combination of capability on the number of CCs for CCE/BD scaling for MCG and for SCG when configured for NR-DC operation with mix of Rel-16 and Rel-15 PDCCH monitoring capabilities on different carriers. When a UE reports both *pdcch-BlindDetectionCG-UE-MixedExt-r16* and this capability, the value reported in this capability is used if the configured span pattern of any serving cell satisfies *pdcch-MonitoringSpan2-2-r18*. UE indicating support of this feature shall also indicate support of (7,3) or (4,3) span based PDCCH monitoring for *pdcch-MonitoringMixed-r16* and (2,2) span based PDCCH monitoring for *pdcch-MonitoringMixed-r18* with additional restriction(s). One combination of (*pdcch-BlindDetectionMCG-UE1* (for Rel-15), *pdcch-BlindDetectionSCG-UE1* (for Rel-15) , *pdcch-BlindDetectionMCG-UE2* (for Rel-16), *pdcch-BlindDetectionSCG-UE2* (for Rel-16)) corresponds to one combination of (*pdcch-BlindDetectionCA1* (for Rel-15), *pdcch-BlindDetectionCA2* (for Rel-16)). If the UE reports *pdcch-BlindDetectionCA1-r16* (for Rel-15), - Candidate values for *pdcch-BlindDetectionMCG-UE1* (for Rel-15) is 0 to *pdcch-BlindDetectionCA1-r16* (for Rel-15), - Candidate values for *pdcch-BlindDetectionSCG-UE1* (for Rel-15) is 0 to *pdcch-BlindDetectionCA1-r16* (for Rel-15), - *pdcch-BlindDetectionMCG-UE1* (for Rel-15) + *pdcch-BlindDetectionSCG-UE1* (for Rel-15) >= *pdcch-BlindDetectionCA1-r16* (for Rel-15). Otherwise, if N_(NR-DC,max,r15)^(DL,cells) is a maximum total number of downlink cells for which the UE is provided *monitoringCapabilityConfig-r16* = *r15monitoringcapability*: - Candidate values for *pdcch-BlindDetectionMCG-UE-r15* is [0, 1, 2] - Candidate values for *pdcch-BlindDetectionSCG-UE-r15* is [0, 1, 2] - *pdcch-BlindDetectionMCG-UE-r15* + *pdcch-BlindDetectionSCG-UE-r15* >= N_(NR-DC,max,r15)^(DL,cells) If the UE reports *pdcch-BlindDetectionCA2-r16* (for Rel-16), - Candidate values for *pdcch-BlindDetectionMCG-UE2* (for Rel-16) is 0 to *pdcch-BlindDetectionCA2-r16* (for Rel-16), - Candidate values for *pdcch-BlindDetectionSCG-UE2* (for Rel-16) is 0 to *pdcch-BlindDetectionCA2-r16* (for Rel-16), - *pdcch-BlindDetectionMCG-UE2* (for Rel-16) + *pdcch-BlindDetectionSCG-UE2* (for Rel-16) >= *pdcch-BlindDetectionCA2-r16* (for Rel-16). Otherwise, if N_(NR-DC,max,r16)^(DL,cells) is a maximum total number of downlink cells for which the UE is provided *monitoringCapabilityConfig-r16* = *r16monitoringcapability*: - Candidate values for *pdcch-BlindDetectionMCG-UE2* (for Rel-16) is [0, 1] - Candidate values for *pdcch-BlindDetectionSCG-UE2* (for Rel-16) is [0, 1] - *pdcch-BlindDetectionMCG-UE2* (for Rel-16) + *pdcch-BlindDetectionSCG-UE2* (for Rel-16) >= N_(NR-DC,max,r16)^(DL,cells) NOTE: If a UE supports *pdcch-BlindDetectionCA-MixedExt-r18*, then the capability defined by *pdcch-BlindDetectionCA-MixedExt-r18* is applied to this feature.	BC	No	N/A	N/A

pdcch-BlindDetectionMCG-UE-Mixed-r16, pdcch-BlindDetectionSCG-UE-Mixed-r16, pdcch-BlindDetectionMCG-UE-Mixed-v16a0, pdcch-BlindDetectionSCG-UE-Mixed-v16a0 This field indicates mixed operation of two variants of the number of blind detections supported for MCG and SCG, respectively. UE shall report the fields for MCG and for SCG together if supported. UE indicating support of *pdcch-BlindDetectionMCG-UE-Mixed-v16a0* and *pdcch-BlindDetectionSCG-UE-Mixed-v16a0* shall also indicate support of *pdcch-BlindDetectionMCG-UE-Mixed-r16* and *pdcch-BlindDetectionSCG-UE-Mixed-r16*. If a UE supports *pdcch-BlindDetectionCA-Mixed* or *pdcch-BlindDetectionCA-Mixed-NonAlignedSpan*, then the capability defined by *pdcch-BlindDetectionCA-Mixed* or *pdcch-BlindDetectionCA-Mixed-NonAlignedSpan* is applied to the combination of *pdcch-BlindDetectionMCG-UE-Mixed and pdcch-BlindDetectionSCG-UE-Mixed* correspondingly as defined in clause 10 in TS 38.213 [11].	BC	No	N/A	N/A
pdcch-BlindDetectionMixedList1-r17 Indicates the supported combinations of the number of carriers for CCE/BD scaling for MCG and for SCG when configured for NR-DC operation and/or with DL CA with mix of Rel-15 and Rel-17 PDCCH monitoring capabilities on different carriers. UE indicating support of this feature shall also indicate support of *dl-FR2-2-SCS-480kHz-r17* or *dl-FR2-2-SCS-960kHz-r17*. NOTE 1: For DL CA combinations, the range of *pdcch-BlindDetectionCA1-r17* (for Rel-15) + *pdcch-BlindDetectionCA2-r17* (for Rel-17) is {4, …,16}. NOTE 2: For NR-DC operation: If the UE reports *pdcch-BlindDetectionCA1-r17* (for Rel-15), - Candidate values for *pdcch-BlindDetectionMCG-UE1* (for Rel-15) are 0 to *pdcch-BlindDetectionCA1-r17* (for Rel-15) - Candidate values for *pdcch-BlindDetectionSCG-UE1* (for Rel-15) are 0 to *pdcch-BlindDetectionCA1-r17* (for Rel-15) - *pdcch-BlindDetectionMCG-UE1* (for Rel-15) + *pdcch-BlindDetectionSCG-UE1* (for Rel-15) >= *pdcch-BlindDetectionCA1-r17* (for Rel-15), Otherwise, - Candidate values for *pdcch-BlindDetectionMCG-UE1* (for Rel-15) are {0, 1, 2, 3} - Candidate values for *pdcch-BlindDetectionSCG-UE1* (for Rel-15) are {0, 1, 2, 3} If the UE reports *pdcch-BlindDetectionCA2-r17* (for Rel-17), - Candidate values for *pdcch-BlindDetectionMCG-UE2* (for Rel-17) are 0 to *pdcch-BlindDetectionCA2-r17* (for Rel-17) - Candidate values for *pdcch-BlindDetectionSCG-UE2* (for Rel-17) are 0 to *pdcch-BlindDetectionCA2-r17* (for Rel-17) - *pdcch-BlindDetectionMCG-UE2* (for Rel-17) + *pdcch-BlindDetectionSCG-UE2* (for Rel-17) >= *pdcch-BlindDetectionCA2-r17* (for Rel-17), Otherwise, - Candidate values for *pdcch-BlindDetectionMCG-UE2* (for Rel-17) are {0, 1, 2, 3} - Candidate values for *pdcch-BlindDetectionSCG-UE2* (for Rel-17) are {0, 1, 2, 3}	BC	No	N/A	N/A

pdcch-BlindDetectionMixedList2-r17 Indicates the supported combinations of the number of carriers for CCE/BD scaling for MCG and for SCG when configured for NR-DC operation and/or with DL CA with mix of Rel-16 and Rel-17 PDCCH monitoring capabilities on different carriers. UE indicating support of this feature shall also indicate support of *dl-FR2-2-SCS-480kHz-r17* or *dl-FR2-2-SCS-960kHz-r17* NOTE 1: For DL CA combinations, the range of *pdcch-BlindDetectionCA1-r17* (for Rel-16) + *pdcch-BlindDetectionCA2-r17* (for Rel-17) is {3, …,16} NOTE 2: For NR-DC operation: If the UE reports *pdcch-BlindDetectionCA1-r17* (for Rel-16), - Candidate values for *pdcch-BlindDetectionMCG-UE1* (for Rel-16) are 0 to *pdcch-BlindDetectionCA1-r17* (for Rel-16) - Candidate values for *pdcch-BlindDetectionSCG-UE1* (for Rel-16) are 0 to *pdcch-BlindDetectionCA1-r17* (for Rel-16) - *pdcch-BlindDetectionMCG-UE1* (for Rel-16) + *pdcch-BlindDetectionSCG-UE1* (for Rel-16) >= *pdcch-BlindDetectionCA1-r17* (for Rel-16), Otherwise, - Candidate values for *pdcch-BlindDetectionMCG-UE1* (for Rel-16) are {0, 1} - Candidate values for *pdcch-BlindDetectionSCG-UE1* (for Rel-16) are {0, 1} If the UE reports *pdcch-BlindDetectionCA2-r17* (for Rel-17), - Candidate values for *pdcch-BlindDetectionMCG-UE2* (for Rel-17) are 0 to *pdcch-BlindDetectionCA2-r17* (for Rel-17) - Candidate values for *pdcch-BlindDetectionSCG-UE2* (for Rel-17) are 0 to *pdcch-BlindDetectionCA2-r17* (for Rel-17) - *pdcch-BlindDetectionMCG-UE2* (for Rel-17) + *pdcch-BlindDetectionSCG-UE2* (for Rel-17) >= *pdcch-BlindDetectionCA2-r17* (for Rel-17), Otherwise, - Candidate values for *pdcch-BlindDetectionMCG-UE2* (for Rel-17) are {0, 1, 2} - Candidate values for *pdcch-BlindDetectionSCG-UE2* (for Rel-17) are {0, 1, 2}	BC	No	N/A	N/A

pdcch-BlindDetectionMixedList3-r17 Indicates the supported combinations of the number of carriers for CCE/BD scaling for MCG and for SCG when configured for NR-DC operation and/or with DL CA with mix of Rel-15, Rel-16 and Rel-17 PDCCH monitoring capabilities on different carriers. UE indicating support of this feature shall also indicate support of *dl-FR2-2-SCS-480kHz-r17* or *dl-FR2-2-SCS-960kHz-r17* NOTE 1: For DL CA combinations, the range of *pdcch-BlindDetectionCA1-r17* (for Rel-15) plus *pdcch-BlindDetectionCA2-r17* (for Rel-16) + *pdcch-BlindDetectionCA3-r17* (for Rel-17) is {3, …,16}. NOTE 2: For NR-DC operation: If the UE reports *pdcch-BlindDetectionCA1-r17* (for Rel-15), - Candidate values for *pdcch-BlindDetectionMCG-UE1* (for Rel-15) are 0 to *pdcch-BlindDetectionCA1-r17* (for Rel-15) - Candidate values for *pdcch-BlindDetectionSCG-UE1* (for Rel-15) are 0 to *pdcch-BlindDetectionCA1-r17* (for Rel-15) - *pdcch-BlindDetectionMCG-UE1* (for Rel-15) + *pdcch-BlindDetectionSCG-UE1* (for Rel-15) >= *pdcch-BlindDetectionCA1-r17* (for Rel-15), Otherwise, - Candidate values for *pdcch-BlindDetectionMCG-UE1* (for Rel-15) are {0, 1} - Candidate values for *pdcch-BlindDetectionSCG-UE1* (for Rel-15) are {0, 1} If the UE reports *pdcch-BlindDetectionCA2-r17* (for Rel-16), - Candidate values for *pdcch-BlindDetectionMCG-UE2* (for Rel-16) are 0 to *pdcch-BlindDetectionCA2-r17* (for Rel-16) - Candidate values for *pdcch-BlindDetectionSCG-UE2* (for Rel-16) are 0 to *pdcch-BlindDetectionCA2-r17* (for Rel-16) - *pdcch-BlindDetectionMCG-UE2* (for Rel-16) + *pdcch-BlindDetectionSCG-UE2* (for Rel-16) >= *pdcch-BlindDetectionCA2-r17* (for Rel-16), Otherwise, - Candidate values for *pdcch-BlindDetectionMCG-UE2* (for Rel-16) are {0, 1} - Candidate values for *pdcch-BlindDetectionSCG-UE2* (for Rel-16) are {0, 1} If the UE reports *pdcch-BlindDetectionCA3-r17* (for Rel-17), - Candidate values for *pdcch-BlindDetectionMCG-UE3* (for Rel-17) are 0 to *pdcch-BlindDetectionCA3-r17* (for Rel-17) - Candidate values for *pdcch-BlindDetectionSCG-UE2* (for Rel-17) are 0 to *pdcch-BlindDetectionCA3-r17* (for Rel-17) - *pdcch-BlindDetectionMCG-UE3* (for Rel-17) + *pdcch-BlindDetectionSCG-UE3* (for Rel-17) >= *pdcch-BlindDetectionCA3-r17* (for Rel-17), Otherwise, - Candidate values for *pdcch-BlindDetectionMCG-UE3* (for Rel-17) are {0, 1} - Candidate values for *pdcch-BlindDetectionSCG-UE3* (for Rel-17) are {0, 1}	BC	No	N/A	N/A

pdcch-BlindDetectionNRDC-r18 Indicates the supported combinations of the number of CCs for monitoring a maximum number of BDs and non-overlapped CCEs per span for MCG and for SCG when configured for NR-DC operation with Rel-16 PDCCH monitoring on all the serving cells. When a UE reports both *pdcch-BlindDetectionMCG-UE-r16 , pdcch-BlindDetectionSCG-UE-r16* and this capability, the value reported in this capability is used if the configured span pattern of any serving cell satisfies *pdcch-MonitoringSpan2-2-r18*. UE indicating support of this feature shall also indicate support of (7,3) or (4,3) span based PDCCH monitoring for *pdcch-Monitoring-r16* and (2,2) span based PDCCH monitoring for *pdcch-MonitoringSpan2-2-r18* with additional restriction(s). If the UE reports *pdcch-BlindDetectionCA2-r16* (for Rel-16), - Candidate values for *pdcch-BlindDetectionMCG-UE-Mixed-r18* (for Rel-16 MCG) is 1 to *pdcch-BlindDetectionCA2-r16*-1. - Candidate values for *pdcch-BlindDetectionSCG-UE-Mixed-r18* (for Rel-16 SCG) is 1 to *pdcch-BlindDetectionCA2-r16*-1. - *pdcch-BlindDetectionMCG-UE-Mixed-r18* + *pdcch-BlindDetectionSCG-UE-Mixed-r18* >= *pdcch-BlindDetectionCA2-r16*. Otherwise, if N_(NR-DC,max,r16)^(DL,cells) is a maximum total number of downlink cells for which the UE is provided monitoringCapabilityConfig-r16 = r16monitoringcapability and the UE is configured on both the MCG and the SCG for NR-DC: - the value of *pdcch-BlindDetectionMCG-UE-Mixed-r18* (for Rel-16 MCG) or of *pdcch-BlindDetectionSCG-UE-Mixed-r18* (for Rel-16 SCG) is 1, - *pdcch-BlindDetectionMCG-UE-Mixed-r18* + *pdcch-BlindDetectionSCG-UE-Mixed-r18* >= N_(NR-DC,max,r16)^(DL,cells). NOTE: If a UE supports *pdcch-MonitoringCA-r18* or *pdcch-MonitoringCA-NonAlignedSpan-r18*, then the capability defined by *pdcch-MonitoringCA-r18* or *pdcch-MonitoringCA-NonAlignedSpan-r18* is applied to this feature.	BC	No	N/A	N/A
pdcch-MonitoringCA-r16 Indicates the number of CCs for monitoring a maximum number of blind detections and non-overlapped CCEs per span when configured with DL CA with Rel-16 PDCCH monitoring capability on all the serving cells. This field also indicates supported span arrangement for CA. UE indicating support of this feature shall also indicate support of *pdcch-Monitoring-r16.* Only one between *pdcch-MonitoringCA-r16* and *pdcch-MonitoringCA-NonAlignedSpan-r16* can be reported by UE.	BC	No	N/A	N/A
pdcch-MonitoringCA-r17 Indicates the number of CCs for monitoring a maximum number of blind detections and non-overlapped CCEs per span when configured with DL CA with Rel-17 PDCCH monitoring capability on all the serving cells. UE indicating support of this feature shall also indicate support of *dl-FR2-2-SCS-480kHz-r17* or *dl-FR2-2-SCS-960kHz-r17.*	BC	No	N/A	N/A

pdcch-MonitoringCA-r18 Indicates whether the UE supports capability on the number of CCs for monitoring a maximum number of BDs and non-overlapped CCEs per span when configured with DL CA with Rel-16 PDCCH monitoring capability on all the serving cells. This capability signalling comprises the following parameters: - *maxNumberOfMonitoringCC-r18* indicates the number of CCs for monitoring a maximum number of BDs and non-overlapped CCEs per span when configured with DL CA with Rel-16 PDCCH monitoring capability on all the serving cells; - *supportedSpanArrangement-r18* indicates the supported span arrangement for CA. Value *alignedOnly* indicates the supported span arrangement for CA is aligned spans only, value *alignedAndNonAligned* indicates the supported span arrangement for CA includes aligned spans and non-aligned spans. When a UE reports both *pdcch-MonitoringCA-r16* and this capability, the value reported in this capability is used if the configured span pattern of any serving cell satisfies *pdcch-MonitoringSpan2-2-r18*. Only one between *pdcch-MonitoringCA-r18* and *pdcch-MonitoringCA-NonAlignedSpan-r18* can be reported by UE. The UE supporting this feature shall also indicate support of *pdcch-Monitoring-r16* for (7,3) or (4,3) span based PDCCH monitoring and *pdcch-MonitoringSpan2-2-r18* for (2,2) span based PDCCH monitoring with additional restriction(s).	BC	No	N/A	N/A
pdcch-MonitoringCA-NonAlignedSpan-r16 Indicates the number of CCs for monitoring a maximum number of blind detections and non-overlapped CCEs per span when configured with DL CA with Rel-16 PDCCH monitoring capability on all the serving cells in the case UE supports aligned span and non-aligned span. In the case of non-aligned span, when the configured number of CCs with Rel-16 PDCCH monitoring is larger than the UE reported value and PDCCH monitoring occasion(s) should be configured only on same symbol(s) every slot. UE indicating support of this feature shall also indicate support of *pdcch-Monitoring-r16*. Only one between *pdcch-MonitoringCA-r16* and *pdcch-MonitoringCA-NonAlignedSpan-r16* can be reported by UE.	BC	No	N/A	N/A
pdcch-MonitoringCA-NonAlignedSpan-r18 Indicates whether the UE supports capability on the number of CCs for monitoring a maximum number of BDs and non-overlapped CCEs per span when configured with DL CA with *pdcch-MonitoringAnyOccasionsWithSpanGap* on all the serving cells with restriction for non-aligned span case. It also indicates whether the UE supports aligned span and non-aligned span. In case of non-aligned span when the configured number of cells with Rel-16 PDCCH monitoring capability is larger than the UE reported value, PDCCH monitoring occasion(s) should be configured only on same symbol(s) every slot The UE supporting this feature shall also indicate support of *pdcch-Monitoring-r16* for (7,3) or (4,3) span based PDCCH monitoring. The UE supporting this feature shall also indicate support of *pdcch-MonitoringSpan2-2-r18* for (2, 2) span based PDCCH monitoring with additional restriction(s). When a UE reports both *pdcch-MonitoringCA-NonAlignedSpan-r16* and capability, the value reported in this capability is used if the configured span pattern of any serving cell satisfies *pdcch-MonitoringSpan2-2-r18*. Only one between *pdcch-MonitoringCA-r18* and *pdcch-MonitoringCA-NonAlignedSpan-r18* can be reported by UE.	BC	No	N/A	N/A

powerAdaptation-CSI-FeedbackAperiodicPerBC-r18 Indicates whether the UE supports power domain adaptation with CSI feedback based on CSI report sub-configuration(s) for aperiodic CSI reporting and single-panel type1 codebook. The UE supports CSI feedback based on CSI report sub-configuration(s), each containing one power offset for aperiodic CSI reporting. This capability signalling comprises the following parameters: - *maxNumberCSI-ResourceAcrossCC-r18* indicates the maximum number of simultaneous NZP-CSI-RS resources in active BWPs across all CCs within a band combination for SD-type1 and/or SD-type2; - *maxNumberPortsAcrossCC-r18* indicates index *N* of the maximum number of total CSI-RS ports in simultaneous NZP-CSI-RS resources in active BWPs across all CCs within a band combination for SD-type1 and/or SD-type2. The maximum number total CSI-RS ports in simultaneous NZP-CSI-RS resources is *N**8, where *N* = {1..32}. NOTE 1: For *maxNumberCSI-ResourceAcrossCC-r18* and *maxNumberPortsAcrossCC-r18*, NZP-CSI-RS resource and CSI-RS ports are counted for reporting settings with and without sub-configurations. NOTE 2: If a UE reports more than one capability from *spatialAdaptation-CSI-FeedbackPerBC-r18, spatialAdaptation-CSI-FeedbackPUSCH-PerBC-r18, spatialAdaptation-CSI-FeedbackAperiodicPerBC-r18, spatialAdaptation-CSI-FeedbackPUCCH-PerBC-r18, powerAdaptation-CSI-FeedbackPerBC-r18, powerAdaptation-CSI-FeedbackPUSCH-PerBC-r18, powerAdaptation-CSI-FeedbackAperiodicPerBC-r18, powerAdaptation-CSI-FeedbackPUCCH-PerBC-r18* and if the UE is configured with CSI report settings with sub-configurations corresponding to a subset of the above reported features, then the supported maximum of NZP-CSI-RS resources/ports across all periodic, semi-persistent, aperiodic CSI report settings with sub-configurations corresponding to all of spatial and power domain adaptations and without sub-configurations is determined by the minimum of the reported values from that subset. NOTE 3: If a UE reports both *spatialAdaptation-CSI-FeedbackAperiodicPerBC-r18* and *powerAdaptation-CSI-FeedbackAperiodicPerBC-r18*, and if the UE is configured with CSI report settings with sub-configurations corresponding to both *spatialAdaptation-CSI-FeedbackAperiodicPerBC-r18* and *powerAdaptation-CSI-FeedbackAperiodicPerBC-r18*, then the supported total number of periodic CSI reporting settings without sub-configurations plus the total number of sub-configurations across periodic CSI report settings with sub-configurations per BWP is determined by the minimum of the reported values from both *spatialAdaptation-CSI-FeedbackAperiodicPerBC-r18* and *powerAdaptation-CSI-FeedbackAperiodicPerBC-r18*. NOTE 4: If CSI report configuration in active BWP of any CC includes report setting(s) with sub-configurations, values reported in this capability for the number of simultaneous NZP-CSI-RS resources and ports across all CCs are used instead of values reported in *csi-RS-IM-ReceptionForFeedbackPerBandComb*. A UE supporting this feature shall also indicate support of *csi-ReportFramework* and *powerAdaptation-CSI-FeedbackAperiodic-r18*.	BC	No	N/A	N/A

powerAdaptation-CSI-FeedbackPerBC-r18 Indicates whether the UE supports power domain adaptation with CSI feedback based on CSI report sub-configuration(s) for periodic CSI reporting and single-panel type1 codebook. The UE supports CSI feedback based on CSI report sub-configuration(s), each containing one power offset for periodic CSI reporting. This capability signalling comprises the following parameters: - *maxNumberCSI-ResourceAcrossCC-r18* indicates the maximum number of simultaneous NZP-CSI-RS resources in active BWPs across all CCs within a band combination for SD-type1 and/or SD-type2; - *maxNumberPortsAcrossCC-r18* indicates index *N* of the maximum number of total CSI-RS ports in simultaneous NZP-CSI-RS resources in active BWPs across all CCs within a band combination for SD-type1 and/or SD-type2. The maximum number total CSI-RS ports in simultaneous NZP-CSI-RS resources is *N**8, where *N* = {1..32}. NOTE 1: For *maxNumberCSI-ResourceAcrossCC-r18* and *maxNumberPortsAcrossCC-r18*, NZP-CSI-RS resource and CSI-RS ports are counted for reporting settings with and without sub-configurations. NOTE 2: If a UE reports more than one capability from *spatialAdaptation-CSI-FeedbackPerBC-r18, spatialAdaptation-CSI-FeedbackPUSCH-PerBC-r18, spatialAdaptation-CSI-FeedbackAperiodicPerBC-r18, spatialAdaptation-CSI-FeedbackPUCCH-PerBC-r18, powerAdaptation-CSI-FeedbackPerBC-r18, powerAdaptation-CSI-FeedbackPUSCH-PerBC-r18, powerAdaptation-CSI-FeedbackAperiodicPerBC-r18, powerAdaptation-CSI-FeedbackPUCCH-PerBC-r18* and if the UE is configured with CSI report settings with sub-configurations corresponding to a subset of the above reported features, then the supported maximum of NZP-CSI-RS resources/ports across all periodic, semi-persistent, aperiodic CSI report settings with sub-configurations corresponding to all of spatial and power domain adaptations and without sub-configurations is determined by the minimum of the reported values from that subset. NOTE 3: If a UE reports both *spatialAdaptation-CSI-FeedbackPerBC-r18* and *powerAdaptation-CSI-FeedbackPerBC-r18*, and if the UE is configured with CSI report settings with sub-configurations corresponding to both *spatialAdaptation-CSI-FeedbackPerBC-r18* and *powerAdaptation-CSI-FeedbackPerBC-r18*, then the supported total number of periodic CSI reporting settings without sub-configurations plus the total number of sub-configurations across periodic CSI report settings with sub-configurations per BWP is determined by the minimum of the reported values from both *spatialAdaptation-CSI-FeedbackPerBC-r18* and *powerAdaptation-CSI-FeedbackPerBC-r18*. NOTE 4: If CSI report configuration in active BWP of any CC includes report setting(s) with sub-configurations, values reported in this capability for the number of simultaneous NZP-CSI-RS resources and ports across all CCs are used instead of values reported in *csi-RS-IM-ReceptionForFeedbackPerBandComb*. A UE supporting this feature shall also indicate support of *csi-ReportFramework* and *powerAdaptation-CSI-Feedback-r18*.	BC	No	N/A	N/A

powerAdaptation-CSI-FeedbackPUCCH-PerBC-r18 Indicates whether the UE supports power domain adaptation with CSI feedback based on CSI report sub-configuration(s) for semi-persistent CSI reporting on PUCCH and single-panel type1 codebook. The UE also supports CSI feedback based on CSI report sub-configuration(s), each containing one power offset for semi-persistent CSI reporting on PUCCH (or piggybacked on PUSCH). This capability signalling comprises the following parameters: - *maxNumberCSI-ResourceAcrossCC-r18* indicates the maximum number of simultaneous NZP-CSI-RS resources in active BWPs across all CCs within a band combination; - *maxNumberPortsAcrossCC-r18* indicates index *N* of the maximum number of total CSI-RS ports in simultaneous NZP-CSI-RS resources in active BWPs across all CCs within a band combination. The maximum number total CSI-RS ports in simultaneous NZP-CSI-RS resources is *N**8, where *N* = {1..32}. NOTE 1: For *maxNumberCSI-ResourceAcrossCC-r18* and *maxNumberPortsAcrossCC-r18*, NZP-CSI-RS resource and CSI-RS ports are counted for reporting settings with and without sub-configurations. NOTE 2: If a UE reports more than one capability from *spatialAdaptation-CSI-FeedbackPerBC-r18, spatialAdaptation-CSI-FeedbackPUSCH-PerBC-r18, spatialAdaptation-CSI-FeedbackAperiodicPerBC-r18, spatialAdaptation-CSI-FeedbackPUCCH-PerBC-r18, powerAdaptation-CSI-FeedbackPerBC-r18, powerAdaptation-CSI-FeedbackPUSCH-PerBC-r18, powerAdaptation-CSI-FeedbackAperiodicPerBC-r18, powerAdaptation-CSI-FeedbackPUCCH-PerBC-r18* and if the UE is configured with CSI report settings with sub-configurations corresponding to a subset of the above reported features, then the supported maximum of NZP-CSI-RS resources/ports across all periodic, semi-persistent, aperiodic CSI report settings with sub-configurations corresponding to all of spatial and power domain adaptations and without sub-configurations is determined by the minimum of the reported values from that subset. NOTE 3: If a UE reports more than one capability from *spatialAdaptation-CSI-FeedbackPUSCH-PerBC-r18*, *spatialAdaptation-CSI-FeedbackPUCCH-PerBC-r18*, *powerAdaptation-CSI-FeedbackPUSCH-PerBC-r18* and *powerAdaptation-CSI-FeedbackPUCCH-PerBC-r18* and if the UE is configured with CSI report settings with sub-configurations corresponding to a subset of the reported features, then the supported total number of semi-persistent CSI reporting settings without sub-configurations plus the total number of sub-configurations across semi-persistent CSI report settings with sub-configurations per BWP is determined by the minimum of the reported values from that subset. NOTE 4: If CSI report configuration in active BWP of any CC includes report setting(s) with sub-configurations, values reported in this capability for the number of simultaneous NZP-CSI-RS resources and ports across all CCs are used instead of values reported in *csi-RS-IM-ReceptionForFeedbackPerBandComb*. A UE supporting this feature shall also indicate support of *csi-ReportFramework*, *sp-CSI-ReportPUCCH* and *powerAdaptation-CSI-FeedbackPUCCH-r18*.	BC	No	N/A	N/A

powerAdaptation-CSI-FeedbackPUSCH-PerBC-r18 Indicates whether the UE supports power domain adaptation with CSI feedback based on CSI report sub-configuration(s) for semi-persistent CSI reporting on PUSCH and single-panel type1 codebook. The UE also supports CSI feedback based on CSI report sub-configuration(s), each containing one power offset for semi-persistent CSI reporting. This capability signalling comprises the following parameters: - *maxNumberCSI-ResourceAcrossCC-r18* indicates the maximum number of simultaneous NZP-CSI-RS resources in active BWPs across all CCs within a band combination; - *maxNumberPortsAcrossCC-r18* indicates index *N* of the maximum number of total CSI-RS ports in simultaneous NZP-CSI-RS resources in active BWPs across all CCs within a band combination. The maximum number total CSI-RS ports in simultaneous NZP-CSI-RS resources is *N**8, where *N* = {1..32}. NOTE 1: For *maxNumberCSI-ResourceAcrossCC-r18* and *maxNumberPortsAcrossCC-r18*, NZP-CSI-RS resource and CSI-RS ports are counted for reporting settings with and without sub-configurations. NOTE 2: If a UE reports more than one capability from *spatialAdaptation-CSI-FeedbackPerBC-r18, spatialAdaptation-CSI-FeedbackPUSCH-PerBC-r18, spatialAdaptation-CSI-FeedbackAperiodicPerBC-r18, spatialAdaptation-CSI-FeedbackPUCCH-PerBC-r18, powerAdaptation-CSI-FeedbackPerBC-r18, powerAdaptation-CSI-FeedbackPUSCH-PerBC-r18, powerAdaptation-CSI-FeedbackAperiodicPerBC-r18, powerAdaptation-CSI-FeedbackPUCCH-PerBC-r18* and if the UE is configured with CSI report settings with sub-configurations corresponding to a subset of the above reported features, then the supported maximum of NZP-CSI-RS resources/ports across all periodic, semi-persistent, aperiodic CSI report settings with sub-configurations corresponding to all of spatial and power domain adaptations and without sub-configurations is determined by the minimum of the reported values from that subset. NOTE 3: If a UE reports more than one capability from *spatialAdaptation-CSI-FeedbackPUSCH-PerBC-r18*, *spatialAdaptation-CSI-FeedbackPUCCH-PerBC-r18*, *powerAdaptation-CSI-FeedbackPUSCH-PerBC-r18* and *powerAdaptation-CSI-FeedbackPUCCH-PerBC-r18* and if the UE is configured with CSI report settings with sub-configurations corresponding to a subset of the reported features, then the supported total number of semi-persistent CSI reporting settings without sub-configurations plus the total number of sub-configurations across semi-persistent CSI report settings with sub-configurations per BWP is determined by the minimum of the reported values from that subset. NOTE 4: If CSI report configuration in active BWP of any CC includes report setting(s) with sub-configurations, values reported in this capability for the number of simultaneous NZP-CSI-RS resources and ports across all CCs are used instead of values reported in *csi-RS-IM-ReceptionForFeedbackPerBandComb*. A UE supporting this feature shall also indicate support of *csi-ReportFramework*, *sp-CSI-ReportPUSCH* and *powerAdaptation-CSI-FeedbackPUSCH-r18*.	BC	No	N/A	N/A
prioSCellPRACH-OverSP-PeriodicSRS-Support-r17 Indicates whether the UE supports RRC configuration *prioSCellPRACH-OverSP-PeriodicSRS* as specified in TS 38.331 [9].	BC	No	N/A	N/A
ptp-Retx-Multicast-r17 Indicates whether the UE supports PTP retransmission for multicast on the same cell as multicast initial transmission. A UE supporting this feature shall also indicate support of *ack-NACK-FeedbackForMulticast-r17*.	BC	No	N/A	N/A
ptp-Retx-SPS-Multicast-r17 Indicates whether the UE supports PTP retransmission associated with CS-RNTI for SPS multicast on the cell same as multicast initial transmission. A UE supporting this feature shall also indicate support of *ack-NACK-FeedbackForSPS-Multicast-r17*.	BC	No	N/A	N/A

pucch-ConfigForSPS-Multicast-r17 Indicates whether the UE supports *SPS-PUCCH-AN-List* for multicast HARQ-ACK feedback of all multicast SPS configuration(s), separate from that of SPS unicast configurations. A UE supporting this feature shall also indicate support of *ack-NACK-FeedbackForSPS-Multicast-r17*.	BC	No	N/A	N/A
qcl-MultiCellDCI-1-3-r18 Indicates whether the UE can be configured with *enabledDefaultBeamForMultiCellScheduling* for default QCL assumption for multi-cell scheduling by DCI format 1_3 for same/different numerologies. When value *both* is reported, the UE supports this capability for same SCS and for different SCS combination(s) (i.e. *lowScheduling-highScheduled*, *highScheduling-lowScheduled*, *both*) reported for *multiCell-PDSCH-DCI-1-3-DiffSCS-r18*. A UE supporting this feature shall also indicate support of at least one of *multiCell-PDSCH-DCI-1-3-SameSCS-r18* and *multiCell-PDSCH-DCI-1-3-DiffSCS-r18*.	BC	No	N/A	N/A
qcl-MultiCellDCI-1-3-Diff-r19 Indicates whether the UE can be configured with *enabledDefaultBeamForMultiCellScheduling* for default QCL assumption for multi-cell scheduling by DCI format 1_3 for same/different numerologies with different SCS and/or different carrier type. When value *both* is reported, the UE supports this capability for same SCS and for different SCS combination(s) reported for *multiCell-PDSCH-DCI-1-3-DiffSCS-DiffCC-r19*. A UE supporting this feature shall also indicate support of *multiCell-PDSCH-DCI-1-3-DiffSCS-Diff-r19*.	BC	No	N/A	N/A
scellDormancyWithinActiveTime-r16 Indicates whether the UE supports SCell dormancy indication received on SPCell with DCI format 0_1/1_1 sent within the active time as defined in clause 10.3 of TS 38.213 [11]. If the UE indicates the support of this, the UE supports one dormant BWP and at least one non-dormant BWP per carrier. To support more than one non-dormant BWP in a carrier, the UE indicates support of *upto4* in *bwp-SameNumerology* or *upto4* in *bwp-DiffNumerology*. One dormant BWP and one non-dormant BWP are UE specific BWPs even for UEs not supporting *bwp-SameNumerology.*	BC	No	N/A	N/A
scellDormancyOutsideActiveTime-r16 Indicates whether the UE supports SCell dormancy indication received on SPCell using DCI format 2_6 sent outside the active time as defined in clause 10.3 of TS 38.213 [11]. A UE supporting this feature shall also indicate support of power saving DRX adaptation using *drx-Adaptation-r16* and shall also support one dormant BWP and at least one non-dormant BWP per carrier. To support more than one non-dormant BWP in a carrier, the UE indicates support of *upto4* in *bwp-SameNumerology* or *upto4* in *bwp-DiffNumerology*. One dormant BWP and one non-dormant BWP are UE specific BWPs even for UEs not supporting *bwp-SameNumerology.*	BC	No	N/A	N/A

semiStaticPUCCH-CellSwitchSingleGroup-r17 Indicates whether the UE supports semi-static PUCCH cell switching for a single PUCCH group only. The capability signalling comprises the following parameters: - *pucch-Group-r17* indicates for which PUCCH group the UE supports semi-static PUCCH cell switching using configured time-domain domain pattern of applicable PUCCH cell / carrier. Value *primaryGroupOnly* indicates that only primary PUCCH group can support PUCCH cell switch, value *secondaryGroupOnly* indicates that only secondary PUCCH group can support PUCCH cell switch, and value *eitherPrimaryOrSecondaryGroup* indicates that either primary or secondary PUCCH group can support PUCCH cell switch. - *pucch-Group-Config-r17* indicates one or multiple of supported carrier type pairs that can support PUCCH cell switch, with *fr1-FR1-NonSharedTDD-r17* indicating the carrier type pair (FR1 licensed TDD, FR1 licensed TDD), *fr2-FR2-NonSharedTDD-r17* indicating the carrier type pair (FR2 licensed TDD, FR2 licensed TDD), and *fr1-FR2-NonSharedTDD-r17* indicating the carrier type pair (FR1 licensed TDD, FR2 licensed TDD). NOTE: This feature applies to cells in the same TAG only. If UE supporting this FG also supports both *diffNumerologyWithinPUCCH-GroupSmallerSCS* and *diffNumerologyWithinPUCCH-GroupLargerSCS* or both *diffNumerologyWithinPUCCH-GroupSmallerSCS-CarrierTypes-r16* and *diffNumerologyWithinPUCCH-GroupLargerSCS-CarrierTypes-r16* or *maxUpTo3Diff-NumerologiesConfigSinglePUCCH-grp-r16* or *maxUpTo4Diff-NumerologiesConfigSinglePUCCH-grp-r16* when UE is not configured with two NR PUCCH groups, the UE supports the cases of both same and different numerologies between switchable cells. Otherwise, the UE supports the case of same numerology between switchable cells.	BC	No	TDD only	N/A
semiStaticPUCCH-CellSwitchTwoGroups-r17 Indicates whether the UE supports semi-static PUCCH cell switching for two PUCCH groups using configured time-domain domain pattern of applicable PUCCH cell / carrier. The capability indicates one or multiple of supported configuration(s) of {primary PUCCH group config, secondary PUCCH group config}. The capability signalling of each primary or secondary PUCCH group configuration indicates one or multiple of carrier type pairs that can support PUCCH cell switch, with *fr1-FR1-NonSharedTDD-r17* indicating the carrier type pair (FR1 licensed TDD, FR1 licensed TDD), *fr2-FR2-NonSharedTDD-r17* indicating the carrier type pair (FR2 licensed TDD, FR2 licensed TDD), and *fr1-FR2-NonSharedTDD-r17* indicating the carrier type pair (FR1 licensed TDD, FR2 licensed TDD). NOTE: This feature applies to cells in the same TAG only. If UE supporting this FG also supports both *diffNumerologyWithinPUCCH-GroupSmallerSCS* and *diffNumerologyWithinPUCCH-GroupLargerSCS* or both *diffNumerologyWithinPUCCH-GroupSmallerSCS-CarrierTypes-r16* and *diffNumerologyWithinPUCCH-GroupLargerSCS-CarrierTypes-r16*, the UE supports the cases of both same and different numerologies between switchable cells. Otherwise, the UE supports the case of same numerology between switchable cells.	BC	No	TDD only	N/A
simultaneousCSI-ReportsAllCC Indicates whether the UE supports CSI report framework and the number of CSI report(s) which the UE can simultaneously process across all CCs, and across MCG and SCG in case of NR-DC. The CSI report comprises periodic, semi-persistent and aperiodic CSI and any latency classes and codebook types. The CSI report in *simultaneousCSI-ReportsAllCC* includes the beam report and CSI report. This parameter may further limit *simultaneousCSI-ReportsPerCC* in *MIMO-ParametersPerBand* and *Phy-ParametersFRX-Diff* for each band in a given band combination.	BC	Yes	N/A	N/A

simul-SRS-Trans-BC-r16 Indicates the number of SRS resources for positioning on a symbol for a given band combination. The UE can include this field only if the UE supports *srs-PosResources-r16*. Otherwise, the UE does not include this field; NOTE 1: For single-band band combinations, it defines the capability for intra-band CA, and for band combinations with at least two bands, it defines the capability for inter-band carrier aggregation. NOTE 2: if the UE does not indicate this capability for a band combination, the UE does not support the feature in this band combination.	BC	No	N/A	N/A
simul-SRS-MIMO-Trans-BC-r16 Indicates the number of SRS resources for positioning and SRS resource for MIMO on a symbol for a given BC. The UE can include this field only if the UE supports *srs-PosResources-r16*. Otherwise, the UE does not include this field. NOTE 1: If UE reports 2 for the candidate value, it means both the number of SRS resource for positioning and SRS resource for MIMO equals to 1. NOTE 2: For single-band band combinations, it defines the capability for intra-band carrier aggregation, and for band combinations with at least two bands, it defines the capability for inter-band carrier aggregation. NOTE 3: if the UE does not indicate this capability for a band combination, the UE does not support the feature in this band combination.	BC	No	N/A	N/A
simultaneousCSI-SubReportsAllCC-r18 Indicates whether the UE supports CSI report framework and the number of CSI report(s) which the UE can simultaneously process across all CCs, and across MCG and SCG in case of NR-DC. The CSI report comprises periodic, semi-persistent and aperiodic CSI and any latency classes and codebook types, and includes the beam report, and CSI report without sub-configurations plus CSI sub-report across CSI reports. This capability may further limit *simultaneousCSI-SubReportsPerCC-r18* in *MIMO-ParametersPerBand* and *Phy-ParametersFRX-Diff* for each band in a given band combination. NOTE 1: UE shall report the value in this capability being equal to or larger than that in *simultaneousCSI-ReportsAllCC*. NOTE 2: UE supporting at least one of *spatialAdaptation-CSI-Feedback-r18, spatialAdaptation-CSI-FeedbackPUSCH-r18, spatialAdaptation-CSI-FeedbackAperiodic-r18, spatialAdaptation-CSI-FeedbackPUCCH-r18, powerAdaptation-CSI-Feedback-r18, powerAdaptation-CSI-FeedbackPUSCH-r18, powerAdaptation-CSI-FeedbackAperiodic-r18,* and *powerAdaptation-CSI-FeedbackPUCCH-r18* shall report this feature. A UE supporting this feature shall also indicate support of *csi-ReportFramework*.	BC	No	N/A	N/A
simultaneousNZP-CSI-RS-r19 Indicates whether the UE supports the simultaneous NZP-CSI-RS resource counting. For simultaneous CSI-RS reception in *csi-RS-IM-ReceptionForFeedback*, Type I single panel codebook, Type I multi-panel codebook, Type II codebook, Type II codebook with port selection, *etype2R1-r16* and *etype2R1-PortSelection-r16*, CSI-RS ports within one periodic/semi-persistent CSI-RS resource, as well as the periodic/semi-persistent CSI-RS resource, are counted one time by the UE, even if the periodic/semi-persistent CSI-RS resource is referred N times by one or more CSI reporting settings not configured with higher layer parameter *csi-ReportSubConfigToAddModList.* A UE supporting this feature shall also indicate support of *csi-RS-IM-ReceptionForFeedback* and at least one of Type I single panel codebook, Type I multi-panel codebook, Type II codebook, Type II codebook with port selection, *etype2R1-r16* or *etype2R1-PortSelection-r16*.	BC	No	N/A	N/A

simultaneousNZP-CSI-RS-NES-r19 Indicates whether the UE supports the simultaneous NZP-CSI-RS resource counting for network energy saving. For simultaneous CSI-RS reception in *spatialAdaptation-CSI-FeedbackPerBC-r18*, *spatialAdaptation-CSI-FeedbackPUSCH-PerBC-r18*, *spatialAdaptation-CSI-FeedbackAperiodicPerBC-r18*, and *spatialAdaptation-CSI-FeedbackPUCCH-PerBC-r18*, *spatialAdaptation-CSI-Feedback-r18*, *spatialAdaptation-CSI-FeedbackPUSCH-r18*, *spatialAdaptation-CSI-FeedbackAperiodic-r18*, and *spatialAdaptation-CSI-FeedbackPUCCH-r18*, and *powerAdaptation-CSI-FeedbackPerBC-r18*, *powerAdaptation-CSI-FeedbackPUSCH-PerBC-r18*, *powerAdaptation-CSI-FeedbackAperiodicPerBC-r18*, *powerAdaptation-CSI-FeedbackPUCCH-PerBC-r18*, *powerAdaptation-CSI-Feedback-r18*, *powerAdaptation-CSI-FeedbackPUSCH-r18*, *powerAdaptation-CSI-FeedbackAperiodic-r18*, *powerAdaptation-CSI-FeedbackPUCCH-r18*, for a periodic/semi-persistent CSI-RS resource referred N times by one or more CSI Reporting Settings with at least one CSI Reporting Setting configured with higher layer *csi-ReportSubConfigToAddModList*, the CSI-RS resource is counted one time by the UE and the CSI-RS ports within that CSI-RS resource, are counted as *P*, where *P* is the number of ports configured by *nrofPorts*. A UE supporting this feature shall also indicate support of *spatialAdaptation-CSI-FeedbackPerBC-r18*, *spatialAdaptation-CSI-FeedbackPUSCH-PerBC-r18*, *spatialAdaptation-CSI-FeedbackAperiodicPerBC-r18*, and *spatialAdaptation-CSI-FeedbackPUCCH-PerBC-r18*, *spatialAdaptation-CSI-Feedback-r18*, *spatialAdaptation-CSI-FeedbackPUSCH-r18*, *spatialAdaptation-CSI-FeedbackAperiodic-r18*, and *spatialAdaptation-CSI-FeedbackPUCCH-r18*, or *powerAdaptation-CSI-FeedbackPerBC-r18*, *powerAdaptation-CSI-FeedbackPUSCH-PerBC-r18*, *powerAdaptation-CSI-FeedbackAperiodicPerBC-r18*, *powerAdaptation-CSI-FeedbackPUCCH-PerBC-r18*, *powerAdaptation-CSI-Feedback-r18*, *powerAdaptation-CSI-FeedbackPUSCH-r18*, *powerAdaptation-CSI-FeedbackAperiodic-r18*, *powerAdaptation-CSI-FeedbackPUCCH-r18*.	BC	No	N/A	N/A
simultaneousRxTxInterBandCA Indicates whether the UE supports simultaneous transmission and reception in TDD-TDD, TDD-FDD and TDD-SDL inter-band NR CA. If this field is included in *ca-ParametersNR-ForDC*, it indicates the UE supports simultaneous transmission and reception between any UL/DL band pair within a cell group and across MCG and SCG in TDD-TDD, TDD-FDD and TDD-SDL inter-band NR-DC. It is mandatory for certain TDD-FDD, TDD-TDD and TDD-SDL band combinations defined in TS 38.101-1 [2], TS 38.101-2 [3] and TS 38.101-3 [4]. This capability does not apply to the following components within TDD-TDD, TDD-FDD and TDD-SDL inter-band NR-CA or NR-DC combinations: - Intra-band NR-CA or NR-DC component - Inter-band NR-CA or NR-DC component where the frequency range of one TDD band is a subset of the frequency range of the other NR TDD band (as specified in TS 38.101-1 [2]).	BC	CY	N/A	N/A
simultaneousRxTxInterBandCAPerBandPair Indicates whether the UE supports simultaneous transmission and reception for each band pair in the band combination containing at least: - TDD-TDD inter-band NR-CA/NR-DC component; - TDD-FDD inter-band NR-CA/NR-DC component; - TDD-SDL inter-band NR-CA/NR-DC component. Encoded as a bitmap with size L * (L – 1) / 2, and bit N (leftmost bit is indexed as bit 0) is set to "1" if the UE supports simultaneous transmission and reception for band pair (x, y), where L is the number of band entries in the band combination, x and y are the indices of the band entry in the band combination (the first band entry is indexed as 0), x < y, and N = x*(2*L – x – 1)/2 + y – x – 1. If this field is included in *ca-ParametersNR-ForDC*, each bit of this field indicates whether the UE supports simultaneous transmission and reception between each band pair, within a cell group and across MCG and SCG. The UE does not include this field if the UE supports simultaneous transmission and reception for all applicable band pairs in the band combination (in which case *simultaneousRxTxInterBandCA* is included) or does not support for any band pair in the band combination. It is mandatory for certain band pairs as specified in TS 38.101-1 [2], TS 38.101-2 [3] and TS 38.101-3 [4]. The UE shall consistently set the bits which correspond to the same band pair.	BC	CY	N/A	N/A

simultaneousRxTxSUL Indicates whether the UE supports simultaneous reception and transmission for a NR band combination including SUL. Mandatory/Optional support depends on band combination and captured in TS 38.101-1 [2].	BC	CY	N/A	N/A
simultaneousRxTxSULPerBandPair Indicates whether the UE supports simultaneous reception and transmission for a NR band combination including SUL for each band pair in the band combination. Encoded in the same manner as *simultaneousRxTxInterBandCAPerBandPair*. The UE does not include this field if the UE supports simultaneous transmission and reception for all applicable band pairs in the band combination (in which case *simultaneousRxTxSUL* is included) or does not support for any band pair in the band combination. It is mandatory for certain band pairs as specified in TS 38.101-1 [2]. The UE shall consistently set the bits which correspond to the same band pair.	BC	CY	N/A	N/A
simultaneousSRS-AssocCSI-RS-AllCC Indicates support of CSI-RS processing framework for SRS and the number of SRS resources that the UE can process simultaneously across all CCs, and across MCG and SCG in case of NR-DC, including periodic, aperiodic and semi-persistent SRS. This parameter may further limit *simultaneousSRS-AssocCSI-RS-PerCC* in *MIMO-ParametersPerBand* and *Phy-ParametersFRX-Diff* for each band in a given band combination.	BC	No	N/A	N/A
simulTX-SRS-AntSwitchingInterBandUL-CA-r16 Indicates whether the UE support simultaneous transmission of SRS on different CCs for inter-band UL CA. The UE indicating support of this feature shall include at least one of the following capabilities: - *supportSRS-xTyR-xLessThanY-r16* indicates support transmission of SRS for xTyR (x<y) based antenna switching and SRS for CB/NCB/BM on different CCs in overlapped symbol(s) for inter-band UL CA. - *supportSRS-xTyR-xEqualToY-r16* indicates support transmission of SRS for xTyR (x=y) based antenna switching and SRS for CB/NCB/BM on different CCs in overlapped symbol(s) for inter-band UL CA. - *supportSRS-AntennaSwitching-r16* Indicates whether the UE support simultaneous transmission of SRS for antenna switching on different CCs in overlapped symbol(s) for inter-band UL CA. NOTE: For simultaneously antenna switching and antenna switching SRS in inter-band CAs with bands whose UL are switched together according to the reported *supportSRS-AntennaSwitching-r16*, the UE expects the same configuration of xTyR across the different CCs and the SRS resources overlapped in time domain from UE perspective are from the same UE antenna ports.	BC	No	N/A	N/A
singlePUCCH-ConfigForMulticast-r17 Indicates whether the UE supports a *PUCCH-Config* for multicast HARQ-ACK feedback, separate from that of unicast configurations. A UE supporting this feature shall also indicate support of *ack-NACK-FeedbackForMulticast-r17* or *nack-OnlyFeedbackForMulticast-r17*. NOTE: With *ack-NACK-FeedbackForMulticast-r17* or *nack-OnlyFeedbackForMulticast-r17* as prerequisite, this feature includes the case of ACK/NACK for multicast or NACK-only mode1 for multicast.	BC	No	N/A	N/A

spatialAdaptation-CSI-FeedbackAperiodicPerBC-r18 Indicates whether the UE supports spatial domain adaptation with CSI feedback based on CSI report sub-configuration(s) for aperiodic CSI reporting and single-panel type1 codebook. This capability signalling comprises the following parameters: - *maxNumberCSI-ResourceAcrossCC-r18* indicates the maximum number of simultaneous NZP-CSI-RS resources in active BWPs across all CCs within a band combination for SD-type1 and/or SD-type2; - *maxNumberPortsAcrossCC-r18* indicates index *N* of the maximum number of total CSI-RS ports in simultaneous NZP-CSI-RS resources in active BWPs across all CCs within a band combination for SD-type1 and/or SD-type2. The maximum number total CSI-RS ports in simultaneous NZP-CSI-RS resources is *N**8, where *N* = {1..32}. NOTE 1: For *maxNumberCSI-ResourceAcrossCC-r18* and *maxNumberPortsAcrossCC-r18*, NZP-CSI-RS resource and CSI-RS ports are counted for reporting settings with and without sub-configurations. NOTE 2: If a UE reports more than one capability from *spatialAdaptation-CSI-FeedbackPerBC-r18, spatialAdaptation-CSI-FeedbackPUSCH-PerBC-r18, spatialAdaptation-CSI-FeedbackAperiodicPerBC-r18, spatialAdaptation-CSI-FeedbackPUCCH-PerBC-r18, powerAdaptation-CSI-FeedbackPerBC-r18, powerAdaptation-CSI-FeedbackPUSCH-PerBC-r18, powerAdaptation-CSI-FeedbackAperiodicPerBC-r18, powerAdaptation-CSI-FeedbackPUCCH-PerBC-r18* and if the UE is configured with CSI report settings with sub-configurations corresponding to a subset of the above reported features, then the supported maximum of NZP-CSI-RS resources/ports across all periodic, semi-persistent, aperiodic CSI report settings with sub-configurations corresponding to all of spatial and power domain adaptations and without sub-configurations is determined by the minimum of the reported values from that subset. NOTE 3: If a UE reports both *spatialAdaptation-CSI-FeedbackAperiodicPerBC-r18* and *powerAdaptation-CSI-FeedbackAperiodicPerBC-r18*, and if the UE is configured with CSI report settings with sub-configurations corresponding to both *spatialAdaptation-CSI-FeedbackAperiodicPerBC-r18* and *powerAdaptation-CSI-FeedbackAperiodicPerBC-r18*, then the supported total number of aperiodic CSI reporting settings without sub-configurations plus the total number of sub-configurations across aperiodic CSI report settings with sub-configurations per BWP is determined by the minimum of the reported values from both *spatialAdaptation-CSI-FeedbackAperiodicPerBC-r18* and *powerAdaptation-CSI-FeedbackAperiodicPerBC-r18*. NOTE 4: If a UE reports *both* for *csiFeedbackType-r18* and if the UE is configured with both CSI report setting(s) with sub-configurations corresponding to SD-type 1 and CSI report setting(s) with sub-configurations corresponding to SD-type 2, the supported total number of NZP-CSI-RS resources/ports for *maxNumberCSI-ResourcePerCC-r18* and *maxNumberTotalCSI-ResourcePerCC-r18* in *spatialAdaptation-CSI-Feedback-r18* and *maxNumberCSI-ResourceAcrossCC* and *maxNumberTotalCSI-ResourceAcrossCC-r18* in *spatialAdaptation-CSI-FeedbackPerBC-r18* is determined by the minimum of the reported values between SD-type 1 and SD-type 2. NOTE 5: If CSI report configuration in active BWP of any CC includes report setting(s) with sub-configurations, values reported in this capability for the number of simultaneous NZP-CSI-RS resources and ports across all CCs are used instead of values reported in *csi-RS-IM-ReceptionForFeedbackPerBandComb*. A UE supporting this feature shall also indicate support of *csi-ReportFramework* and *spatialAdaptation-CSI-FeedbackAperiodic-r18*.	BC	No	N/A	N/A

spatialAdaptation-CSI-FeedbackPerBC-r18 Indicates whether the UE supports spatial domain adaptation with CSI feedback based on CSI report sub-configuration(s) for periodic CSI reporting and single-panel type1 codebook. This capability signalling comprises the following parameters: - *maxNumberCSI-ResourceAcrossCC-r18* indicates the maximum number of simultaneous NZP-CSI-RS resources in active BWPs across all CCs within a band combination for SD-type1 and/or SD-type2; - *maxNumberPortsAcrossCC-r18* indicates index *N* of the maximum number of total CSI-RS ports in simultaneous NZP-CSI-RS resources in active BWPs across all CCs within a band combination for SD-type1 and/or SD-type2. The maximum number total CSI-RS ports in simultaneous NZP-CSI-RS resources is *N**8, where *N* = {1..32}. NOTE 1: For *maxNumberCSI-ResourceAcrossCC-r18* and *maxNumberPortsAcrossCC-r18*, NZP-CSI-RS resource and CSI-RS ports are counted for reporting settings with and without sub-configurations. NOTE 2: If a UE reports more than one capability from *spatialAdaptation-CSI-FeedbackPerBC-r18, spatialAdaptation-CSI-FeedbackPUSCH-PerBC-r18, spatialAdaptation-CSI-FeedbackAperiodicPerBC-r18, spatialAdaptation-CSI-FeedbackPUCCH-PerBC-r18, powerAdaptation-CSI-FeedbackPerBC-r18, powerAdaptation-CSI-FeedbackPUSCH-PerBC-r18, powerAdaptation-CSI-FeedbackAperiodicPerBC-r18, powerAdaptation-CSI-FeedbackPUCCH-PerBC-r18* and if the UE is configured with CSI report settings with sub-configurations corresponding to a subset of the above reported features, then the supported maximum of NZP-CSI-RS resources/ports across all periodic, semi-persistent, aperiodic CSI report settings with sub-configurations corresponding to all of spatial and power domain adaptations and without sub-configurations is determined by the minimum of the reported values from that subset. NOTE 3: If a UE reports both *spatialAdaptation-CSI-FeedbackPerBC-r18* and *powerAdaptation-CSI-FeedbackPerBC-r18*, and if the UE is configured with CSI report settings with sub-configurations corresponding to both *spatialAdaptation-CSI-FeedbackPerBC-r18* and *powerAdaptation-CSI-FeedbackPerBC-r18*, then the supported total number of periodic CSI reporting settings without sub-configurations plus the total number of sub-configurations across periodic CSI report settings with sub-configurations per BWP is determined by the minimum of the reported values from both *spatialAdaptation-CSI-FeedbackPerBC-r18* and *powerAdaptation-CSI-FeedbackPerBC-r18*. NOTE 4: If a UE reports *both* for *csiFeedbackType-r18* and if the UE is configured with both CSI report setting(s) with sub-configurations corresponding to SD-type 1 and CSI report setting(s) with sub-configurations corresponding to SD-type 2, the supported total number of NZP-CSI-RS resources/ports for *maxNumberCSI-ResourcePerCC-r18* and *maxNumberTotalCSI-ResourcePerCC-r18* in *spatialAdaptation-CSI-Feedback-r18* and *maxNumberCSI-ResourceAcrossCC* and *maxNumberTotalCSI-ResourceAcrossCC-r18* in *spatialAdaptation-CSI-FeedbackPerBC-r18* is determined by the minimum of the reported values between SD-type 1 and SD-type 2. NOTE 5: If CSI report configuration in active BWP of any CC includes report setting(s) with sub-configurations, values reported in this capability for the number of simultaneous NZP-CSI-RS resources and ports across all CCs are used instead of values reported in *csi-RS-IM-ReceptionForFeedbackPerBandComb*. A UE supporting this feature shall also indicate support of *csi-ReportFramework* and *spatialAdaptation-CSI-Feedback-r18*.	BC	No	N/A	N/A

spatialAdaptation-CSI-FeedbackPUCCH-PerBC-r18 Indicates whether the UE supports spatial domain adaptation with CSI feedback based on CSI report sub-configuration(s) for semi-persistent CSI reporting on PUCCH (or piggybacked on PUSCH) and single-panel type1 codebook. This capability signalling comprises the following parameters: - *maxNumberCSI-ResourceAcrossCC-r18* indicates the maximum number of simultaneous NZP-CSI-RS resources in active BWPs across all CCs within a band combination; - *maxNumberPortsAcrossCC-r18* indicates index *N* of the maximum number of total CSI-RS ports in simultaneous NZP-CSI-RS resources in active BWPs across all CCs within a band combination. The maximum number total CSI-RS ports in simultaneous NZP-CSI-RS resources is *N**8, where *N* = {1..32}. NOTE 1: For *maxNumberCSI-ResourceAcrossCC-r18* and *maxNumberPortsAcrossCC-r18*, NZP-CSI-RS resource and CSI-RS ports are counted for reporting settings with and without sub-configurations. NOTE 2: If a UE reports more than one capability from *spatialAdaptation-CSI-FeedbackPerBC-r18, spatialAdaptation-CSI-FeedbackPUSCH-PerBC-r18, spatialAdaptation-CSI-FeedbackAperiodicPerBC-r18, spatialAdaptation-CSI-FeedbackPUCCH-PerBC-r18, powerAdaptation-CSI-FeedbackPerBC-r18, powerAdaptation-CSI-FeedbackPUSCH-PerBC-r18, powerAdaptation-CSI-FeedbackAperiodicPerBC-r18, powerAdaptation-CSI-FeedbackPUCCH-PerBC-r18* and if the UE is configured with CSI report settings with sub-configurations corresponding to a subset of the above reported features, then the supported maximum of NZP-CSI-RS resources/ports across all periodic, semi-persistent, aperiodic CSI report settings with sub-configurations corresponding to all of spatial and power domain adaptations and without sub-configurations is determined by the minimum of the reported values from that subset. NOTE 3: If a UE reports more than one capability from *spatialAdaptation-CSI-FeedbackPUSCH-PerBC-r18*, *spatialAdaptation-CSI-FeedbackPUCCH-PerBC-r18*, *powerAdaptation-CSI-FeedbackPUSCH-PerBC-r18* and *powerAdaptation-CSI-FeedbackPUCCH-PerBC-r18* and if the UE is configured with CSI report settings with sub-configurations corresponding to a subset of the reported features, then the supported total number of semi-persistent CSI reporting settings without sub-configurations plus the total number of sub-configurations across semi-persistent CSI report settings with sub-configurations per BWP is determined by the minimum of the reported values from that subset. NOTE 4: If CSI report configuration in active BWP of any CC includes report setting(s) with sub-configurations, values reported in this capability for the number of simultaneous NZP-CSI-RS resources and ports across all CCs are used instead of values reported in *csi-RS-IM-ReceptionForFeedbackPerBandComb*. A UE supporting this feature shall also indicate support of *csi-ReportFramework, sp-CSI-ReportPUCCH* and *spatialAdaptation-CSI-FeedbackPUCCH-r18*.	BC	No	N/A	N/A

spatialAdaptation-CSI-FeedbackPUSCH-PerBC-r18 Indicates whether the UE supports spatial domain adaptation with CSI feedback based on CSI report sub-configuration(s) for semi-persistent CSI reporting on PUSCH and single-panel type1 codebook. This capability signalling comprises the following parameters: - *maxNumberCSI-ResourceAcrossCC-r18* indicates the maximum number of simultaneous NZP-CSI-RS resources in active BWPs across all CCs within a band combination; - *maxNumberPortsAcrossCC-r18* indicates index N of the maximum number of total CSI-RS ports in simultaneous NZP-CSI-RS resources in active BWPs across all CCs within a band combination. The maximum number total CSI-RS ports in simultaneous NZP-CSI-RS resources is *N**8, where *N* = {1..32}. NOTE 1: For *maxNumberCSI-ResourceAcrossCC-r18* and *maxNumberPortsAcrossCC-r18*, NZP-CSI-RS resource and CSI-RS ports are counted for reporting settings with and without sub-configurations. NOTE 2: If a UE reports more than one capability from *spatialAdaptation-CSI-FeedbackPerBC-r18, spatialAdaptation-CSI-FeedbackPUSCH-PerBC-r18, spatialAdaptation-CSI-FeedbackAperiodicPerBC-r18, spatialAdaptation-CSI-FeedbackPUCCH-PerBC-r18, powerAdaptation-CSI-FeedbackPerBC-r18, powerAdaptation-CSI-FeedbackPUSCH-PerBC-r18, powerAdaptation-CSI-FeedbackAperiodicPerBC-r18, powerAdaptation-CSI-FeedbackPUCCH-PerBC-r18* and if the UE is configured with CSI report settings with sub-configurations corresponding to a subset of the above reported features, then the supported maximum of NZP-CSI-RS resources/ports across all periodic, semi-persistent, aperiodic CSI report settings with sub-configurations corresponding to all of spatial and power domain adaptations and without sub-configurations is determined by the minimum of the reported values from that subset. NOTE 3: If a UE reports more than one capability from *spatialAdaptation-CSI-FeedbackPUSCH-PerBC-r18*, *spatialAdaptation-CSI-FeedbackPUCCH-PerBC-r18*, *powerAdaptation-CSI-FeedbackPUSCH-PerBC-r18* and *powerAdaptation-CSI-FeedbackPUCCH-PerBC-r18* and if the UE is configured with CSI report settings with sub-configurations corresponding to a subset of the reported features, then the supported total number of semi-persistent CSI reporting settings without sub-configurations plus the total number of sub-configurations across semi-persistent CSI report settings with sub-configurations per BWP is determined by the minimum of the reported values from that subset. NOTE 4: If CSI report configuration in active BWP of any CC includes report setting(s) with sub-configurations, values reported in this capability for the number of simultaneous NZP-CSI-RS resources and ports across all CCs are used instead of values reported in *csi-RS-IM-ReceptionForFeedbackPerBandComb*. A UE supporting this feature shall also indicate support of *csi-ReportFramework*, *sp-CSI-ReportPUSCH* and *spatialAdaptation-CSI-FeedbackPUSCH-r18*.	BC	No	N/A	N/A
stayOnTargetCC-SRS-CarrierSwitch-r17 Indicates whether the UE supports staying on the target CC when remaining SRS resource set(s) for SRS carrier switching exists. UE indicating support of this feature shall indicate support of *srs-CarrierSwitch*. NOTE 1: When UE supports this capability, if the time period between the SRS resource sets is smaller than the total required RF switching time to the source CC and back to the target CC and a higher priority UL transmission and/or DL reception is not scheduled on the source CC in the time period between the two SRS resources sets, the UE stays in the target CC in the period between the SRS resource sets; otherwise, the UE switches back to the source CC after transmitting each SRS resource set. NOTE 2: If the UE does not indicate this capability, the UE switches back to source CC between the SRS resource sets.	BC	No	N/A	N/A

supportedAggBW-FR1-r17 Indicates the supported maximum aggregated bandwidth in the FR1 NR CA (including NR CA part of (NG)EN-DC and NE-DC) and FR1 NR-DC band combination. It is also applicable to fallback band combinations except for a single CC (i.e. non-CA) case. - *supportedAggBW-FDD-DL/UL-r17* indicates the maximum aggregated bandwidth across FDD DL/UL CCs; - *supportedAggBW-TDD-DL/UL-r17* indicates the maximum aggregated bandwidth across TDD DL/UL CCs; - *supportedAggBW-TotalDL/UL-r17* indicates the maximum aggregated bandwidth across all DL/UL CCs. The field *supportedAggBW-FDD-DL/UL-r17* and *supportedAggBW-TDD-DL/UL-r17* can only be reported in TDD-FDD band combination. If *scalingFactorSCS-r17* is not reported, the reported value represents the maximum supported value for the aggregated bandwidth calculated as follows. $Aggregated\ bandwidth\ (in\ MHz) = \sum_{j=1}^{J} BW^{(j)}$ wherein J is the number of aggregated CCs in the band combination For the j-th CC, $BW^{(j)}$ is the actual CC bandwidth. If *scalingFactorSCS-r17* is reported, the reported value represents the maximum supported value for the effective aggregated bandwidth calculated as follows. $Effective\ aggregated\ bandwidth\ (in\ MHz) = \sum_{j=1}^{J} \left(f^{(j)} \cdot BW^{(j)}\right)$ wherein J is the number of aggregated CCs in the band combination For the j-th CC, $BW^{(j)}$ is the actual CC bandwidth. $f^{(j)}$ is the scaling factor and takes the following values. 2, for CC of 15 kHz SCS 1, for CC of 30 kHz SCS 1/2, for CC of 60 kHz SCS This field is only applicable to Bandwidth Combination Set 5 (BCS5). If the UE reports this capability, the UE shall report *supportedBandwidthDL-v1780* and *supportedBandwidthUL-v1780*.	BC	No	N/A	FR1 only
supportedCSI-RS-ResourceListAlt-r16 Indicates the list of supported CSI-RS resources across all bands in a band combination by referring to *codebookVariantsList*. The following parameters are included in *codebookVariantsList* for each code book type: - *maxNumberTxPortsPerResource* indicates the maximum number of Tx ports in a resource across all bands within a band combination; - *maxNumberResourcesPerBand* indicates the maximum number of resources across all CCs within a band combination, simultaneously; - *totalNumberTxPortsPerBand* indicates the total number of Tx ports across all CCs within a band combination, simultaneously. For each band in a band combination, supported values for these three parameters are determined in conjunction with *supportedCSI-RS-ResourceListAlt* reported in *MIMO-ParametersPerBand*.	BC	No	N/A	N/A

supportedMaxCellsWithoutGapsL1-Meas-r18 Indicates the max number of total cells of serving cells and neighbouring cells across all frequency layers of intra-frequency and inter-frequency without measurement gaps for L1 measurement. All serving cells are counted regardless of whether SSB L1-RSRP measurement on them are configured in *LTM-CSI-ResourceConfig-r18* or not. A UE indicating support for this feature shall also indicate support for *intraFreqL1-MeasConfig-r18* or *interFreqSSB-L1-MeasWithoutGaps-r18*.	BC	No	N/A	N/A
supportedMaxSSB-L1-Meas-r18 Indicates the max number of total SSB resources of serving cells and neighbouring cells across all frequency layers of intra-frequency and inter-frequency without measurement gaps for L1 measurement. All serving cells are counted regardless of whether SSB L1-RSRP measurement on them are configured in *LTM-CSI-ResourceConfig-r18* or not. A UE indicating support for this feature shall also indicate support for *intraFreqL1-MeasConfig-r18* or *interFreqSSB-L1-MeasWithoutGaps-r18*.	BC	No	N/A	N/A
supportedMaxSSB-WithinSlotL1-Meas-r18 Indicates the max number of SSB resources for L1-RSRP measurement that UE can measure within a slot across candidate cells for intra- and inter-frequency without gap L1-RSRP measurement. A UE indicating support for this feature shall also indicate support for *intraFreqL1-MeasConfig-r18* or *interFreqSSB-L1-MeasWithoutGaps-r18*.	BC	No	N/A	N/A
supportedNumberTAG Defines the number of timing advance groups supported by the UE. It is applied to NR CA, NR-DC, (NG)EN-DC/NE-DC and DAPS handover. For (NG)EN-DC/NE-DC, it indicates number of TAGs only for NR CG. The number of TAGs for the LTE MCG is signalled by existing LTE TAG capability signalling. For NR CA/NR-DC band combination, if the band combination comprised of more than one band entry (i.e., inter-band or intra-band non-contiguous band combination), it indicates that different timing advances on different band entries are supported. If absent, the UE supports only one TAG for the NR part. It is mandatory for the UE to support more than one TAG for NR-DC and it is mandatory for the UE to support 2 TAGs for inter-frequency DAPS. For the mixed inter-band and intra-band NR CA/NR-DC band combination, if the network configures more non-contiguous UL serving cells than the number of supported TAG, the UE only supports the configuration where all UL CCs of the same frequency band are configured with the same Timing Advance Group ID.	BC	CY	N/A	N/A
tdcp-ReportPerBC-r18 Indicates whether the UE supports Y=1 delay value for TDCP report and amplitude report. The UE also supports to configure K_{TRS} = 1 TRS resource set. The basic delay value <= D_basic = 1 slot. This capability signalling comprises the following parameters: - *valueX-r18* indicates CPU occupation (O_{CPU}=(Y+1)*X). - *maxNumberActiveResource-r18* indicates the index *N* of the maximum number of simultaneously active CSI-RS resources for TDCP across all CCs within a band combination. The maximum number of simultaneously active CSI-RS resources for TDCP across all CCs within a band combination is *N**2, where *N* = {2..32}. A UE supporting this feature shall also indicate support of *csi-ReportFramework* and *simultaneousCSI-ReportsAllCC.* NOTE: Counting of simultaneously active CSI-RS resources follows existing specification TS 38.214 [12].	BC	No	N/A	N/A
tdcp-ResourcePerBC-r18 Indicates the number of CSI-RS resources for TDCP that the UE supports. This capability signalling comprises the following parameters: - *maxNumberConfigPerCC-r18* indicates the maximum number of configured CSI-RS resources for TDCP per CC. - *maxNumberConfigAcrossCC-r18* indicates the index *N* of maximum number of configured CSI-RS resources for TDCP across all CCs within a band combination. The maximum number of configured CSI-RS resources for TDCP across all CCs within a band combination is *N**2, where *N* = {1..32}. - *maxNumberSimultaneousPerCC-r18* indicates the maximum number of simultaneously active CSI-RS resources for TDCP per CC. A UE supporting this feature shall indicate support of *tdcp-Report-r18*. NOTE: Counting of simultaneously active CSI-RS resources follows existing specification TS 38.214 [12].	BC	No	N/A	N/A

timelineRelax-CJT-CSI-CA-r18 Indicates whether the UE supports timeline relaxation parameter for regular eType-II-CJT CSI, or for port selection FeType-II-CJT CSI. Value *n0* indicates 0, value *n2* indicates Z2. A UE supporting this feature shall also indicate support of *eType2CJT-r18* or *feType2CJT-r18*. NOTE: A UE that supports *eType2CJT-r18* or *feType2CJT-r18* must signal this feature.	BC	CY	N/A	N/A
timelineRelax-CJTC-Dd-eType2CJT-PerBC-r19 Indicates whether the UE supports relaxed timeline for joint triggering of coherent joint transmission calibration delay offset and eType-II CJT, i.e., $D_{relax} = d_{relax.}$ If UE does not support this feature, $D_{relax} = 0$. A UE supporting this feature shall also indicate support of *linked-CJTC-Dd-eType2CJT-JointPerBC-r19*.	BC	No	N/A	N/A
timeRestriction128PortPerBC-r19 Indicates whether the UE supports 4 CSI-RS resources configured within two slots for extended Type-I and Type II codebook for up to 128 ports. A UE supporting this feature shall also indicate support of at least one of *enhType1SP64PortsSchemeA-r19*, *enhType1SP64PortsSchemeB-r19*, *enhType1MP64Ports-r19*, *eType2-64PortExt-r19*, *feType2-64PortExt-r19* and *eType2Doppler-64PortExt-r19*.	BC	No	N/A	N/A
totalCSI-RS-ResourceL1-Meas-r19 Indicates the max number of total CSI-RS resources of serving cells and candidate cells across all CCs for L1 measurement. Both LTM candidate cell(s) and serving cells for CSI-RS based L1-RSRP measurement are counted, regardless of whether CSI-RS based L1-RSRP measurement on serving cell is configured in *LTM-CSI-ResourceConfig-r18* or not. If UE does not support this feature, there's no limitation on the total number of CSI-RS resources of serving cells and neighbouring cells across all CCs for L1 measurement. A UE supporting this feature shall also indicate support of *intraFreqL1-MeasConfigPeriodicCSI-RS-r19*. NOTE: The value of this feature should be not smaller than *maxNumberCSI-RS-Resource* of *beamManagementSSB-CSI-RS*.	BC	No	N/A	N/A
twoPUCCH-Grp-ConfigurationsList-r16 Indicates one or multiple of supported configuration(s) of {primary PUCCH group config, secondary PUCCH group config} for the band combination where for each of the supported configuration the carrier type(s) (FR1-NonSharedTDD, FR1-SharedTDD, FR1-NonSharedFDD, FR2) that can be mapped to a PUCCH group and also the carrier types that can be configured with PUCCH transmission for primary PUCCH group and secondary PUCCH group for NR-CA band combination with 3 or more bands. The capability signalling of each primary or secondary PUCCH group configuration comprises of the following parameters: - *pucch-GroupMapping-r16* indicates the PUCCH group(s) that a carrier type can be mapped to. - pucch-TX-r16 indicates the PUCCH group(s) that a carrier type can be configured for PUCCH transmission NOTE 1: For a band combination with SUL, the SUL band is counted as one of the bands. NOTE 2: For a band combination with SDL, the SDL band is counted as one of the bands. SDL is indicated as 'FR1-NonSharedFDD' carrier type. Per UE capabilities that are TDD only are not applicable to SDL. NOTE 3: When the carrier type of NUL is indicated for PUCCH transmission location, the SUL in the same cell as in the NUL can also be configured for PUCCH transmission. NOTE 4: When the carrier type of NUL is indicated for one PUCCH group config, the SUL in the same cell as in the NUL can also be configured for the PUCCH group. NOTE 5: If UE indicating this field does not support *diffNumerologyAcrossPUCCH-Group-CarrierTypes-r16*, the UE can only be configured with the same SCS across NR PUCCH groups.	BC	No	N/A	N/A

type3EnhHARQ-CB-DCI-1-3-r18 Indicates whether the UE supports feedback of enhanced type 3 HARQ-ACK codebook, triggered by a DCI 1_3, feedback of a dynamically selected enhanced type 3 HARQ-ACK codebook based on triggering information in DCI 1_3 and transmission of enhanced type 3 HARQ-ACK codebook using the first or second PUCCH configuration based on PHY priority indication in the triggering DCI (for a UE supporting two HARQ-ACK codebooks / PUCCH config in *simultaneous-2-1-HARQ-ACK-CB-r18*). This capability signalling comprises the following parameters: - *numberOfCodebook-r18* indicates the number of enhanced type 3 HARQ-ACK codebooks. - *maxNumberPUCCH-Trans-r18* indicates the maximum number of actual PUCCH transmissions for type 3 or enhanced type 3 HARQ-ACK codebook feedback within a slot. The UE only supports feedback of a dynamically selected enhanced type 3 HARQ-ACK codebook based on triggering information in DCI 1_3 if the UE for *numberOfCodebook-r18* supports more than one enhanced type 3 HARQ-ACK codebook to be configured. If the UE also reports *enhancedType3-HARQ-CodebookFeedback-r17*, the same value is reported for *numberOfCodebook-r18* and *maxNumberPUCCH-Trans-r18.* A UE supporting this feature shall also indicate support of at least one of *multiCell-PDSCH-DCI-1-3-SameSCS-r18* and *multiCell-PDSCH-DCI-1-3-DiffSCS-r18*.	BC	No	N/A	N/A
type3EnhHARQ-CB-DCI-1-3-Diff-r19 Indicates whether the UE supports feedback of enhanced type 3 HARQ-ACK codebook, triggered by a DCI 1_3, feedback of a dynamically selected enhanced type 3 HARQ-ACK codebook based on triggering information in DCI 1_3 and transmission of enhanced type 3 HARQ-ACK codebook using the first or second PUCCH configuration based on PHY priority indication in the triggering DCI (for a UE supporting two HARQ-ACK codebooks / PUCCH config in *simultaneous-2-1-HARQ-ACK-CB-Diff-r19*). The UE also indicates the number of enhanced type 3 HARQ-ACK codebooks. A UE supporting this feature shall also indicate support of *multiCell-PDSCH-DCI-1-3-DiffSCS-DiffCC-r19*.	BC	No	N/A	N/A
type3HARQ-CB-DCI-1-3-r18 Indicates whether the UE supports feedback of type 3 HARQ-ACK codebook, triggered by a DCI 1_3 scheduling at least a PDSCH and feedback of type 3 HARQ-ACK codebook, triggered by a DCI 1_3 without scheduling a PDSCH using a reserved FDRA value. A UE supporting this feature shall also indicate support of at least one of *multiCell-PDSCH-DCI-1-3-SameSCS-r18* and *multiCell-PDSCH-DCI-1-3-DiffSCS-r18*.	BC	No	N/A	N/A
type3HARQ-CB-DCI-1-3-Diff-r19 Indicates whether the UE supports feedback of type 3 HARQ-ACK codebook, triggered by a DCI 1_3 scheduling at least a PDSCH and feedback of type 3 HARQ-ACK codebook, triggered by a DCI 1_3 without scheduling a PDSCH using a reserved FDRA value with different SCS and/or different carrier type. Upon triggering, UE reports A/N for all HARQ processes and all CCs in a PUCCH group. A UE supporting this feature shall also indicate support of *multiCell-PDSCH-DCI-1-3-DiffSCS-DiffCC-r19*.	BC	No	N/A	N/A
uplinkTxDC-TwoCarrierReport-r16 Indicates whether the UE supports the uplink Tx Direct Current subcarrier location(s) reporting when configured with uplink CA with two carriers. It is applicable only for (NG)EN-DC/NE-DC and NR CA where the NR has intra-band uplink CA with two uplink carriers.	BC	No	N/A	N/A

4.2.7.5 *FeatureSetDownlink* parameters

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
additionalDMRS-DL-Alt Indicates whether the UE supports the alternative additional DMRS position for co-existence with LTE CRS. It is applied to 15kHz SCS and one additional DMRS case only.	FS	CY	N/A	FR1 only
aperiodicCSI-TimeRelaxation-r18 Indicates whether the UE supports aperiodic CSI report timing relaxation for doppler codebook based on eType-II codebook and feType-II codebook. The capability signalling comprises of the following parameters: - *valueW-r18* indicates aperiodic CSI report timing relaxation, w, for doppler codebook based on Type-II codebook. UE reports *valueW-r18*, independently for each SCS in unit of symbols. *value1* indicates $14*(K_P–1)*d$ symbols, *value2* indicates $14*K_P*d$ symbols, where K_P is according to *scalingfactor-r18* of *eType2Doppler-r18*, or according to *scalingfactor-r18* of *feType2Doppler-r18* and d =4 (minimum periodicity of periodic CSI-RS). - *timeRelaxation-r18* indicates aperiodic CSI report timing relaxation for doppler codebook based on Type-II codebook. For *vectorLengthDD-r18* = 1: 1) For AP CSI-RS: $(Z,Z') = (Z_2 + 14*(K–1)*m, Z'_2)$; 2) For P/SP CSI-RS: $(Z,Z') = (Z_2 + w, Z'_2)$. For *vectorLengthDD-r18* > 1 and *cap1* in *timeRelaxation-r18*: 1) For AP CSI-RS: $(Z,Z') = (Z_2 + 14*(K–1)*m, Z'_2)$; 2) For P/SP CSI-RS: $(Z,Z') = (Z_2 + w, Z'_2)$. For *vectorLengthDD-r18* > 1 and *cap2* in *timeRelaxation-r18*: 1) For AP CSI-RS: $(Z,Z') = (Z_2 + 14*(K–1)*m + Z'_2, 2Z'_2)$; 2) For P/SP CSI-RS: $(Z,Z') = (Z_2 + w + Z'_2, 2Z'_2)$. Z_2/Z'_2 are defined in Table 5.4-2 in TS 38.214 [12]. K = {4,8,12}, is the number of AP CSI-RS resources for the CMR in a CSI report setting. M = {1,2}, is the offset between two adjacent AP CSI-RS resources for the CMR in slots. A UE supporting this feature shall also indicate support of at least one of *eType2Doppler-r18* or *feType2Doppler-r18*. NOTE: A UE that supports *eType2Doppler-r18* or *feType2Doppler-r18* must signal this feature.	FS	CY	N/A	N/A

bwpOperationMeasWithoutInterrupt-r18 Indicates whether the UE supports RLM/BM/BFD and gapless L3 intra-frequency measurements based on CD-SSB outside active BWP without interruptions. For the UE that is capable of this feature, the bandwidth of UE-specific RRC configured BWP need not include bandwidth of the CORESET#0 (if CORESET#0 is present) and CD-SSB for PCell; the bandwidth of UE-specific RRC configured BWP need not include bandwidth of the CORESET#0 (if CORESET#0 is present) and SSB indicated by *absoluteFrequencySSB* (either CD-SSB or NCD-SSB) for PSCell (if configured); and the bandwidth of the UE-specific RRC configured BWP need not include CD-SSB for SCell (if configured). CD-SSB outside active DL BWP but within the bandwidth of the corresponding carrier(s) to be measured can be used as the QCL source for other reference signal. UE performs L3 intra-frequency measurements without gaps based on CD-SSB, where the CD-SSB is outside the active DL BWP but is within the bandwidth of the corresponding carrier(s) to be measured. NOTE 1: The CD-SSB is still within the bandwidth of the carrier configured by *SCS-SpecificCarrier* of *downlinkChannelBW-PerSCS-List* in *ServingCellConfig*. NOTE 2: If a UE is configured with more than one UE-specific DL BWP configurations, the CD-SSB is within the bandwidth of at least one of the UE-specific DL BWP configurations. NOTE 3: Void. NOTE 4: If a UE additionally indicates support of *NeedForGap* or *NeedForGapNCSG* and/or *NeedForInterruption*, the UE shall report no gap and no interruption/no NCSG for intra-frequency measurement. This capability is not applicable to RedCap or eRedCap UEs.	FS	No	N/A	N/A
cbgPDSCH-ProcessingType1-DifferentTB-PerSlot-r16 Defines whether the UE capable of processing time capability 1 supports CBG based reception with one or with up to two or with up to four or with up to seven unicast PDSCHs per slot per CC.	FS	No	N/A	N/A
cbgPDSCH-ProcessingType2-DifferentTB-PerSlot-r16 Defines whether the UE capable of processing time capability 2 supports CBG based reception with one or with up to two or with up to four or with up to seven unicast PDSCHs per slot per CC.	FS	No	N/A	N/A
crossCarrierSchedulingProcessing-DiffSCS-r16 Indicates the UE cross carrier scheduling processing capability for DL carrier aggregation processing up to X unicast DCI scheduling for DL per scheduled CC. X is based on pair of (scheduling CC SCS, scheduled CC SCS) where a pair of (15,120), (15,60), (30,120) kHz SCS can have X = {1,2,4} while a pair of (15,30), (30,60), (60,120) kHz SCS can have X = {2}, and X applies per slot of scheduling CC.	FS	No	N/A	N/A
csi-RS-MeasSCellWithoutSSB Defines whether the UE can perform CSI-RSRP and CSI-RSRQ measurement as specified in TS 38.215 [13], where CSI-RS resource is configured for a cell that does not transmit SS/PBCH block. A UE that supports this feature shall also support scellWithoutSSB.	FS	No	N/A	N/A
dl-MCS-TableAlt-DynamicIndication Indicates whether the UE supports dynamic indication of MCS table for PDSCH.	FS	No	N/A	N/A
dmrs-MultiTRP-AdditionRows-r18 Indicates whether the UE supports additional row(s) for antenna ports (0,2,3) for DL DMRS ports for single-DCI based M-TRP. A UE supporting this feature shall also indicate support of *dmrs-MultiTRP-SingleDCI-r18*.	FS	No	N/A	N/A
dmrs-MultiTRP-MultiDCI-r18 Indicates whether the UE supports Rel-18 DL DMRS with multi-DCI based M-TRP PDSCH operation. A UE supporting this feature shall also indicate support of *pdsch-TypeA-DMRS-r18* or *pdsch-TypeB-DMRS*-r18.	FS	No	N/A	N/A
dmrs-MultiTRP-SingleDCI-r18 Indicates whether the UE supports Rel-18 DL DMRS with single DCI based M-TRP. A UE supporting this feature shall also indicate support of *pdsch-TypeA-DMRS-r18* or *pdsch-TypeB-DMRS*-r18.	FS	No	N/A	N/A

dynamicMulticastPCell-r17 Indicates whether the UE supports dynamic scheduling for multicast for PCell comprised of the following functional components: - Supports group-common PDCCH/PDSCH for multicast with CRC scrambled by G-RNTI for PCell; - Supports CFR configuration for multicast; - Supports CORESET and common search space configuration for multicast; - Supports DCI format 4_1 with CRC scrambled with G-RNTI for multicast; - Supports inter-slot TDM between group-common PDSCH for multicast and other PDSCHs in different slots; - Supports {2, 4, 8} times semi-static slot-level repetition for group-common PDSCH for multicast; - Supports long DRX cycle for MBS multicast reception as specified in TS 38.321 [8]. NOTE: One G-RNTI per UE is supported for multicast reception.	FS	No	N/A	N/A
dynamicSwitchingA-r18 Indicates whether the UE supports dynamic switching between single-TRP and PDSCH SFN scheme A by TCI selection field in DCI formats 1_1 and 1_2. The UE supporting this feature shall also indicate support of *tci-SelectionDCI-r18* and *sfn-SchemeA-DynamicSwitching-r17*.	FS	No	N/A	N/A
dynamicSwitchingB-r18 Indicates whether the UE supports dynamic switching between single-TRP and PDSCH SFN scheme B by TCI selection field in DCI formats 1_1 and 1_2. The UE supporting this feature shall also indicate support of *tci-SelectionDCI-r18* and *sfn-SchemeB-DynamicSwitching-r17*.	FS	No	N/A	N/A
featureSetListPerDownlinkCC Indicates which features the UE supports on the individual DL carriers of the feature set (and hence of a band entry that refer to the feature set) by *FeatureSetDownlinkPerCC-Id*. The order of the elements in this list is not relevant, i.e., the network may configure any of the carriers in accordance with any of the *FeatureSetDownlinkPerCC-Id* in this list. A fallback per CC feature set resulting from the reported feature set per DL CC is not signalled but the UE shall support it.	FS	N/A	N/A	N/A
interCellCFRA-r19 Indicates whether the UE supports PDCCH ordered sent by one TRP triggers RACH procedure towards a different TRP based on CFRA for inter-cell without CORESETPoolIndex. A UE supporting this feature shall also indicate support of *twoTA-InterCellBM-r19*.	FS	N/A	N/A	N/A
intraBandFreqSeparationDL, intraBandFreqSeparationDL-v1620 Indicates DL frequency separation class the UE supports, which indicates a maximum frequency separation between lower edge of lowest CC and upper edge of highest CC in a frequency band, for intra-band non-contiguous CA. The UE sets the same value in the FeatureSetDownlink of each band entry within a band. The values mhzX correspond to the values XMHz defined in TS 38.101-2 [3]. It is mandatory to report for UE which supports DL intra-band non-contiguous CA in FR2. If the UE sets the field *intraBandFreqSeparationDL-v1620* it shall set *intraBandFreqSeparationDL* (without suffix) to the nearest smaller value.	FS	CY	N/A	FR2 only
intraBandFreqSeparationDL-Only-r16 Indicates whether the UE supports frequency separation class of DL only extension. If present, the field extends the maximum frequency separation between the lower edge of lowest CC and the upper edge of highest CC in a frequency band that the UE supports according to *intraBandFreqSeparationDL*.The frequency range extension is either above or below the frequency range indicated by *intraBandFreqSeparationDL* and extends it in contiguous manner with no frequency gap, and the network may configure contiguous or non-contiguous downlink serving cells in that extended range. The UE sets the same value in the FeatureSetDownlink of each band entry within a band. The values mhzX correspond to the values XMHz defined in TS 38.101-2 [3]. The sum of *intraBandFreqSeparationDL* and *intraBandFreqSeparationDL-Only* shall not exceed 2400 MHz. If the UE sets this field, the sum of *intraBandFreqSeparationDL* and *intraBandFreqSeparationDL-Only* shall be larger than 1400 MHz. A UE supporting this feature shall also support *intraBandFreqSeparationDL*.	FS	No	N/A	FR2 only

intraFreqDAPS-r16 Indicates whether UE supports intra-frequency DAPS handover, e.g. support of simultaneous DL reception of PDCCH and PDSCH from source and target cell. A UE indicating this capability shall also support intra-frequency synchronous DAPS handover, single UL transmission and cancelling UL transmission to the source cell for intra-frequency DAPS handover. The capability signalling comprises of the following parameters: - *intraFreqAsyncDAPS-r16* indicates whether the UE supports asynchronous DAPS handover. - *intraFreqDiffSCS-DAPS-r16* indicates whether the UE supports different SCSs in source PCell and intra-frequency target PCell in DAPS handover. The UE only includes this field if different SCSs can be supported in both UL and DL. If absent, the UE does not support either UL or DL SCS being different in DAPS handover.	FS	No	N/A	N/A
lpwus-FreqResourceOutsideBWP-r19 Indicates whether the UE supports LP-WUS frequency resource outside active DL BWP for LP-WUS operation in CONNECTED mode. A UE supporting this feature shall also indicate support of *lpwus-OOK-Connected-r19* or *lpwus-OFDM-Connected-r19*.	FS	No	N/A	N/A
lpwus-OFDM-Connected-r19 Indicates whether the UE supports LP-WUS operation in CONNECTED mode based on OFDM overlaid sequence(s), including - Support of LP-WUS frequency resource within active DL BWP. In case LP-WUS frequency resource is outside the active BWP, UE performs legacy C-DRX operation; - Support of all M values {1, 2, 4} for FR1; - Support of M values {1, 2} for 60 kHz SCS for FR2, M value 1 for 120 kHz SCS FR2. The capability signalling comprises of the following parameters: - *supportedProc-r19* indicates the supported procedure(s). Value '*both*' indicates the support of both Option 1-1 and Option 1-2; - *minimumTimeGap-r19* indicates the minimum time gap between LP-WUS reception and UE to start PDCCH monitoring in CONNECTED mode; - *maxNumCodepointsPerMO-r19* indicates the maximum number of codepoints to be checked by UE per MO.	FS	No	N/A	N/A
lpwus-OOK-Connected-r19 Indicates whether the UE supports LP-WUS operation in CONNECTED mode based on OOK signalling, including - Support of LP-WUS frequency resource within active DL BWP. In case LP-WUS frequency resource is outside the active BWP, UE performs legacy C-DRX operation; - Support of all M values {1, 2, 4} for FR1; - Support of M values {1, 2} for 60 kHz SCS for FR2, M value 1 for 120 kHz SCS FR2. The capability signalling comprises of the following parameters: - *supportedProc-r19* indicates the supported procedure(s). Value '*both*' indicates the support of both Option 1-1 and Option 1-2; - *minimumTimeGap-r19* indicates the minimum time gap between LP-WUS reception and UE to start PDCCH monitoring in CONNECTED mode; - *maxNumCodepointsPerMO-r19* indicates the maximum number of codepoints to be checked by UE per MO.	FS	No	N/A	N/A
mappingTypeA-1SymbolFL-DMRS-Addition2Symbol-r18 Indicates whether the UE supports 1 symbol FL DMRS and 2 additional DMRS symbols for one port for scheduling of mapping type A. A UE supporting this feature shall also indicate support of *pdsch-TypeA-DMRS-r18*.	FS	No	N/A	N/A
maxNumberDMRS-AcrossAllDL-DCI-r18 Indicates the maximum number of configured DMRS types for PDSCH across all DL DCI formats per cell. A UE supporting this feature shall also indicate support of *supportedDMRS-TypeDL* and *pdsch-DMRS-Type-r18*. If a UE does not support this feature, the maximum number of configured DMRS types for PDSCH across all DL DCI formats per cell is defined as the total number of different DMRS types reported by *supportedDMRS-TypeDL* and/or *pdsch-DMRS-Type-r18*.	FS	No	N/A	N/A

mTRP-PDCCH-Repetition-r17 Indicates the support of intra-slot PDCCH repetition based on two linked SS sets associated with corresponding CORESETs. This feature also includes following parameters: - *numBD-twoPDCCH-r17* indicates the number of BDs for the two PDCCH candidates. - *maxNumOverlaps-r17* indicates the maximum number of overlaps when one of the linked PDCCH candidates uses the same set of CCEs as an individual (unlinked) PDCCH candidate per scheduled component carrier per slot. NOTE 1: UE supports PDCCH repetition for the following (basic) PDCCH monitoring capability: For type 1 CSS with dedicated RRC configuration, type 3 CSS, and UE-SS, the monitoring occasion is within the first 3 OFDM symbols of a slot. NOTE 2: For *maxNumOverlaps-r17*, each unique pair of overlaps is counted as one. NOTE 3: This feature does not include supporting two QCL-TypeD in time-domain overlapping CORESETs in FR2.	FS	No	N/A	N/A
mTRP-PDCCH-Case2-1SpanGap-r17 Indicates the support of PDCCH repetition for PDCCH monitoring of any occasions with span gap as defined in *pdcch-MonitoringAnyOccasionsWithSpanGap* for each SCS with the following parameters: - *supportedMode-r17* indicates supported mode of PDCCH repetition. - *limitX-PerCC-r17*: limit (X) per CC. - *limitX-AcrossCC-r17*: limit (X) per across all CCs. The limit (X) is the total number of linked candidates of which the first candidate is received and the second one has not been received at any given span, where "received" and "not been received" is with respect to the end of the corresponding span of PDCCH candidate. It is indicated as a total count assuming count 1 for AL=1; 2 for AL=2; 4 for AL=4 or 8 or 16. The UE indicates *limitX-PerCC-r17* and *limitX-AcrossCC-r17* if *supportedMode-r17* is set to *inter-span* or *both*. A candidate value "*nolimit*" does not imply BD limit can be exceeded. The UE indicating support of this feature shall also indicate support of *pdcch-MonitoringAnyOccasionsWithSpanGap* and *mTRP-PDCCH-Repetition-r17*.	FS	No	N/A	N/A
mTRP-PDCCH-legacyMonitoring-r17, mTRP-PDCCH-legacyMonitoring-r18 Indicates the support of PDCCH repetition with Rel-16 PDCCH monitoring capability as defined in *pdcch-Monitoring-r16* for 15kHz and 30kHz SCS with the following parameters: - *supportedMode-r17* indicates the supported mode of PDCCH repetition. - *limitX-PerCC-r17* indicates the limit (X) per CC. - *limitX-AcrossCC-r17* indicates the limit (X) per across all CCs within a band. The limit (X) is the total number of linked candidates of which the first candidate is received and the second one has not been received at any given span, where "received" and "not been received" is with respect to the end of the corresponding span of PDCCH candidate. It is indicated as a total count assuming count 1 for AL=1; 2 for AL=2; 4 for AL=4 or 8 or 16. The UE indicates *limitX-PerCC-r17* and *limitX-AcrossCC-r17* if *supportedMode-r17* is set to *inter-span* or *both*. A candidate value "*nolimit*" does not imply BD limit can be exceeded. The UE indicating support of this feature shall also indicate support of *pdcch-Monitoring-r16* and *mTRP-PDCCH-Repetition-r17*. The UE indicating support of *mTRP-PDCCH-legacyMonitoring-r18* shall also indicate support of *pdcch-MonitoringSpan2-2-r18*.	FS	No	N/A	N/A
mTRP-PDCCH-multiDCI-multiTRP-r17 Indicates the support of simultaneous configuration of PDCCH repetition and multi-DCI based multi-TRP. Two linked PDCCH candidates are not expected to be associated with different CORESETPoolIndex values The UE indicating support of this feature shall also indicate support of *multiDCI-MultiTRP-r16* and *mTRP-PDCCH-Repetition-r17*.	FS	No	N/A	N/A

offsetSRS-CB-PUSCH-Ant-Switch-fr1-r16 Indicates whether UE requires minimum of 19 symbols offset between aperiodic SRS triggering and transmission for SRS for codebook based PUSCH and antenna switching. UE indicating support of this shall indicate support of *supportedSRS-Resources.* The UE is only allowed to set this field for a band with associated *FeatureSetUplinkId* set to 0 and when *srs-CarrierSwitch* is supported on the band.	FS	No	N/A	FR1 only
offsetSRS-CB-PUSCH-PDCCH-MonitorAnyOccWithGap-fr1-r16 Indicates whether UE requires minimum of 19 symbols offset between aperiodic SRS triggering and transmission for SRS for codebook based PUSCH and antenna switching for the case of PDCCH search space monitoring occasions in any symbol of the slot with minimum time separation of two OFDM symbols for 15 kHz, four OFDM symbols for 30 kHz, seven OFDM symbols for 60 kHz with NCP, and 14OFDM symbols for 120kHz between two consecutive transmissions of PDCCH scrambled with C-RNTI, MCS-C-RNTI, or CS-RNTI for Type 1-PDCCH common search space configured by dedicated RRC signalling, for a Type 3-PDCCH common search space, or for a UE-specific search space, with the capability of supporting at least 44, 36, 22, and 20 blind decodes in a slot for 15 kHz, 30 kHz, 60kHz, and 120 kHz subcarrier spacing values respectively. UE indicating support of this shall indicate support of *pdcch-MonitoringAnyOccasions* with value *withDCI-Gap* and *supportedSRS-Resources.* The UE is only allowed to set this field for a band with associated *FeatureSetUplinkId* set to 0 and when *srs-CarrierSwitch* is supported on the band.	FS	No	N/A	FR1 only
offsetSRS-CB-PUSCH-PDCCH-MonitorAnyOccWithoutGap-fr1-r16 Indicates whether UE requires minimum of 19 symbols offset between aperiodic SRS triggering and transmission for the case of PDCCH search space monitoring occasions in any symbol of the slot for Type 1-PDCCH common search space configured by dedicated RRC signalling, for a Type 3-PDCCH common search space, or for a UE-specific search space with the capability of supporting at least 44, 36, 22, and 20 blind decodes in a slot for 15 kHz, 30 kHz, 60kHz, and 120 kHz subcarrier spacing values respectively. UE indicating support of this shall indicate support of *supportedSRS-Resources.* The UE is only allowed to set this field for a band with associated *FeatureSetUplinkId* set to 0 and when *srs-CarrierSwitch* is supported on the band.	FS	No	N/A	FR1 only
offsetSRS-CB-PUSCH-PDCCH-MonitorAnyOccWithSpanGap-fr1-r16 Indicates whether UE requires minimum of 19 symbols offset between aperiodic SRS triggering and transmission for the case of PDCCH search space monitoring occasions in any symbol of the slot with minimum time separation between two consecutive transmissions of PDCCH with span up to two OFDM symbols for two OFDM symbols or span up to three OFDM symbols for four and seven OFDM symbols. Value set1 indicates the supported value set (X,Y) is (7,3), value set2 indicates the supported value set (X,Y) is (4,3) and (7,3) and value set 3 indicates the supported value set (X,Y) is (2,2), (4,3) and (7,3). UE indicating support of this shall indicate support of *supportedSRS-Resources*. The UE is only allowed to set this field for a band with associated *FeatureSetUplinkId* set to 0 and when *srs-CarrierSwitch* is supported on the band.	FS	No	N/A	FR1 only
offsetSRS-CB-PUSCH-PDCCH-MonitorSingleOcc-fr1-r16 Indicates whether UE requires minimum of 19 symbols offset between aperiodic SRS triggering and transmission for SRS for codebook based PUSCH and antenna switching for the case of PDCCH monitoring on any span of up to 3 consecutive OFDM symbols of a slot. UE indicating support of this shall indicate support of *supportedSRS-Resources.* The UE is only allowed to set this field for a band with associated *FeatureSetUplinkId* set to 0 and when *srs-CarrierSwitch* is supported on the band.	FS	No	N/A	FR1 only
oneFL-DMRS-ThreeAdditionalDMRS-DL Defines whether the UE supports DM-RS pattern for DL transmission with 1 symbol front-loaded DM-RS with three additional DM-RS symbols.	FS	No	N/A	N/A
oneFL-DMRS-TwoAdditionalDMRS-DL Defines support of DM-RS pattern for DL transmission with 1 symbol front-loaded DM-RS with 2 additional DM-RS symbols and more than 1 antenna ports.	FS	Yes	N/A	N/A

pdcch-Monitoring-r16 Indicates whether the UE supports PDCCH search space monitoring occasions in any symbol of the slot with minimum time separation between two consecutive transmissions of PDCCH with span up to two OFDM symbols for two OFDM symbols or span up to three OFDM symbols for four and seven OFDM symbols. The different value can be reported for PDSCH processing type 1 and PDSCH processing type 2, respectively. For each sub-carrier spacing, the leading / leftmost bit (bit 0) corresponds to the supported value set (X,Y) of (7,3). The next bit (bit 1) corresponds to the supported value set (X,Y) of (4,3). The rightmost bit (bit 2) corresponds to the supported value set (X,Y) of (2,2).	FS	No	N/A	N/A
pdcch-MonitoringAnyOccasions Defines the supported PDCCH search space monitoring occasions. withoutDCI-gap indicates whether the UE supports PDCCH search space monitoring occasions in any symbol of the slot for Type 1-PDCCH common search space configured by dedicated RRC signalling, for a Type 3-PDCCH common search space, or for a UE-specific search space with the capability of supporting at least 44, 36, 22, and 20 blind decodes in a slot for 15 kHz, 30 kHz, 60kHz, and 120 kHz subcarrier spacing values respectively. withDCI-gap indicates whether the UE supports PDCCH search space monitoring occasions in any symbol of the slot with minimum time separation of two OFDM symbols for 15 kHz, four OFDM symbols for 30 kHz, seven OFDM symbols for 60 kHz with NCP, and 14OFDM symbols for 120kHz between two consecutive transmissions of PDCCH scrambled with C-RNTI, MCS-C-RNTI, or CS-RNTI for Type 1-PDCCH common search space configured by dedicated RRC signalling, for a Type 3-PDCCH common search space, or for a UE-specific search space, with the capability of supporting at least 44, 36, 22, and 20 blind decodes in a slot for 15 kHz, 30 kHz, 60kHz, and 120 kHz subcarrier spacing values respectively.	FS	No	N/A	N/A
pdcch-MonitoringAnyOccasionsWithSpanGap Indicates whether the UE supports PDCCH search space monitoring occasions in any symbol of the slot with minimum time separation between two consecutive transmissions of PDCCH with span up to two OFDM symbols for two OFDM symbols or span up to three OFDM symbols for four and seven OFDM symbols. Value set1 indicates the supported value set (X,Y) is (7,3), value set2 indicates the supported value set (X,Y) is (4,3) and (7,3) and value set 3 indicates the supported value set (X,Y) is (2,2), (4,3) and (7,3).	FS	No	N/A	N/A
pdcch-MonitoringMixed-r16 Indicates support of Rel-15 monitoring capability and *pdcch-Monitoring-r16* on different serving cells.	FS	No	N/A	N/A
pdcch-MonitoringMixed-r18 Indicates whether the UE support Rel-15 monitoring capability and *pdcch-Monitoring-r16* monitoring capability on different serving cells. The UE supporting this feature shall also indicate support of *pdcch-Monitoring-r16* for (7,3) or (4,3) span based PDCCH monitoring. The UE supporting this feature shall also indicate support of *pdcch-MonitoringSpan2-2-r18* for (2, 2) span based PDCCH monitoring with additional restriction(s). When a UE reports both *pdcch-MonitoringMixed-r16* and this capability, the value reported in this capability is used if the configured span pattern of any serving cell satisfies *pdcch-MonitoringSpan2-2-r18*.	FS	No	N/A	N/A
pdcch-MonitoringSpan2-2-r18 Indicates support of (2, 2) span-based PDCCH monitoring with the additional restriction that there is at least one OFDM symbol gap between two PDCCH monitoring occasions. When a UE reports both *pdcch-Monitoring-r16* and this capability, the union of supported span patterns in *pdcch-Monitoring-r16* and this capability establishes the multiple combinations (X,Y) used to determine per-span BD/CCE limit as described in Clause 10 of TS 38.213 [11].	FS	No	N/A	N/A

pdcch-RACH-AffectedBands-TargetBandList-r18 Indicates whether interruption may occur on DL slot(s) on serving cells due to PDCCH-ordered RACH transmission towards target bands, as specified in TS 38.133 [5], clause 8.2.2.2.20. The band entry of this feature set corresponds to the band of the serving cell(s) that may be affected during PDCCH-ordered RACH transmission toward target band. Each entry in the list corresponds to a target band for RACH transmission. The target bands only consist of the NR bands indicated in *appliedFreqBandListFilter*. They are listed in the same order as in *appliedFreqBandListFilter* and the first NR band entry correspond to the first entry on *appliedFreqBandListFilter* and so on. For those bands indicated in *appliedFreqBandListFilter* where the UE does not support PDCCH-ordered RACH towards target bands for LTM, it is up to UE implementation to select *noInterruption* or *interruption* for that element and this value is ignored, as UE does not report the support for the corresponding band in the capability *rach-EarlyTA-Measurement-r18*. A UE supporting this feature shall also indicate support of *rach-EarlyTA-Measurement-r18*.	FS	No	N/A	N/A
pdcch-RACH-PrepTime-TargetBandList-r18 Indicates the RF/BB preparation time for PDCCH ordered RACH of which the resources are not fully contained in any of UE's configured UL BWP(s) of active serving cells. If absent, the UE does not support PDCCH ordered RACH towards any target band if the PRACH bandwidth is outside of any configured UL BWP, as specified in TS 38.133 [5], clause 6.2.2C.2 . Each entry in the list corresponds to a target band for RACH transmission. If an entry is set to *notSupported*, the UE does not support PDCCH ordered RACH towards that target band if the PRACH bandwidth is outside of any configured UL BWP. The target bands only consist of the NR bands indicated in *appliedFreqBandListFilter*. They are listed in the same order as in *appliedFreqBandListFilter* and the first NR band entry correspond to the first entry on *appliedFreqBandListFilter* and so on. For the case where the PRACH bandwidth of target band is inside of the configured UL BWP, this capability is not applicable, and the RF/BB preparation time is according to TS 38.133 [5], clause 6.2.2C.2. A UE supporting this feature shall also indicate support of *rach-EarlyTA-Measurement-r18*. A UE that sets *pdcch-RACH-SwitchingTime-TargetBandList* to a value different from *notSupported* for a target band also sets *pdcch-RACH-PrepTime-TargetBandList* to a value different from *notSupported* for that target band.	FS	No	N/A	N/A
pdcch-RACH-Switching-TargetBandTimeList-r18 Indicates the interruption length (Y ms) due to RF re-tuning for PDCCH ordered RACH of which the resources are not fully contained in any of UE's configured UL BWP(s) of active serving cells, if absent, the UE does not support PDCCH ordered RACH towards any target band if the PRACH bandwidth is outside of any configured UL BWP, as specified in TS 38.133 [5], clause 8.2.2.2.20. Each entry in the list corresponds to a target band for RACH transmission. If an entry is set to *notSupported*, the UE does not support PDCCH ordered RACH towards that target band if the PRACH bandwidth is outside of any configured UL BWP. The target bands only consist of the NR bands indicated in *appliedFreqBandListFilter*. They are listed in the same order as in *appliedFreqBandListFilter* and the first NR band entry correspond to the first entry on *appliedFreqBandListFilter* and so on. For the case where the PRACH bandwidth of target band is inside of the configured UL BWP, this capability is not applicable, and the interruption length (Y ms) due to RF re-tuning is according to TS 38.133 [5], clause 8.2.2.2.20. A UE supporting this feature shall also indicate support of *rach-EarlyTA-Measurement-r18*. A UE that sets *pdcch-RACH-PrepTime-TargetBandList* to a value different from *notSupported* for a target band also sets *pdcch-RACH-SwitchingTime-TargetBandList* to a value different from *notSupported* for that target band.	FS	No	N/A	N/A

pdsch-1PortDL-PTRS-r18 Indicates whether the UE supports 1 port DL PTRS for enhanced DMRS ports for PDSCH with rank 1-8. A UE supporting this feature shall also indicate support of *pdsch-TypeA-DMRS-r18*.	FS	No	N/A	N/A
pdsch-2PortDL-PTRS-r18 Indicates whether the UE supports 2 port DL PTRS for enhanced DMRS ports for PDSCH with rank 1-8. A UE supporting this feature shall also indicate support of *pdsch-TypeA-DMRS-r18* or *pdsch-TypeB-DMRS-r18*.	FS	No	N/A	N/A
pdsch-1SymbolFL-DMRS-Addition2Symbol-r18 Indicates whether the UE supports 1 symbol FL DMRS and 2 additional DMRS symbols for more than one port for enhanced DMRS ports for PDSCH. A UE supporting this feature shall also indicate support of *pdsch-TypeA-DMRS-r18* and *mappingTypeA-1SymbolFL-DMRS-Addition2Symbol-r18*.	FS	No	N/A	N/A
pdsch-1SymbolFL-DMRS-Addition3Symbol-r18 Indicates whether the UE supports 1 symbol FL DMRS and 3 additional DMRS symbols for enhanced DMRS ports for PDSCH. A UE supporting this feature shall also indicate support of *pdsch-TypeA-DMRS-r18*.	FS	No	N/A	N/A
pdsch-2SymbolFL-DMRS-r18 Indicates whether the UE supports 2 symbols FL-DMRS for enhanced DMRS ports for PDSCH. A UE supporting this feature shall also indicate support of *pdsch-TypeA-DMRS-r18*.	FS	No	N/A	N/A
pdsch-2SymbolFL-DMRS-Addition2Symbol-r18 Indicates whether the UE supports 2-symbol FL DMRS + one additional 2-symbols DMRS for enhanced DMRS ports for PDSCH. A UE supporting this feature shall also indicate support of *pdsch-TypeA-DMRS-r18*.	FS	No	N/A	N/A
pdsch-AlternativeDMRS-Coexistence-r18 Indicates whether the UE supports alternative additional DMRS position for co-existence with LTE CRS for enhanced DMRS ports for PDSCH. A UE supporting this feature shall also indicate support of *pdsch-TypeA-DMRS-r18* and *rateMatchingLTE-CRS.*	FS	No	N/A	N/A
pdsch-DMRS-Type-r18 Indicates whether the UE supports DMRS type for enhanced DMRS ports for PDSCH. A UE supporting this feature shall also indicate support of *pdsch-TypeA-DMRS-r18*. NOTE: A UE supporting one of *pdsch-TypeA-DMRS-r18* and *pdsch-TypeB-DMRS-r18* must signal this feature.	FS	CY	N/A	N/A
pdsch-ProcessingType1-DifferentTB-PerSlot Defines whether the UE capable of processing time capability 1 supports reception of up to two, four or seven unicast PDSCHs for several transport blocks with PDSCH scrambled using C-RNTI, TC-RNTI, MCS-C-RNTI or CS-RNTI in one serving cell within the same slot per CC that are multiplexed in time domain only. NOTE: PDSCH(s) for Msg.4 is included.	FS	No	N/A	N/A
pdsch-ProcessingType2 Indicates whether the UE supports PDSCH processing capability 2. The UE supports it only if all serving cells are self-scheduled and if all serving cells in one band on which the network configured processingType2 use the same subcarrier spacing. This capability signalling comprises the following parameters for each sub-carrier spacing supported by the UE. - *fallback* indicates whether the UE supports PDSCH processing capability 2 when the number of configured carriers is larger than *numberOfCarriers* for a reported value of *differentTB-PerSlot*. If *fallback* = 'sc', UE supports capability 2 processing time on lowest cell index among the configured carriers in the band where the value is reported, if *fallback* = 'cap1-only', UE supports only capability 1, in the band where the value is reported; - *differentTB-PerSlot* indicates whether the UE supports processing type 2 for 1, 2, 4 and/or 7 unicast PDSCHs for different transport blocks per slot per CC; and if so, it indicates up to which number of CA serving cells the UE supports that number of unicast PDSCHs for different TBs. The UE shall include at least one of *numberOfCarriers* for 1, 2, 4 or 7 transport blocks per slot in this field if *pdsch-ProcessingType2* is indicated.	FS	No	N/A	FR1 only

pdsch-ProcessingType2-Limited Indicates whether the UE supports PDSCH processing capability 2 with scheduling limitation for SCS 30kHz. This capability signalling comprises the following parameter. - *differentTB-PerSlot-SCS-30kHz* indicates the number of different TBs per slot. The UE supports this limited processing capability 2 only if: 1) One carrier is configured in the band, independent of the number of carriers configured in the other bands; 2) The maximum bandwidth of PDSCH is 136 PRBs; 3) N1 based on Table 5.3-2 of TS 38.214 [12] for SCS 30 kHz.	FS	No	N/A	FR1 only
pdsch-ReceptionSchemeA-r18 Indicates whether the UE supports reception of PDSCH without the scheduling restriction for Rel-18 eType1 DMRS ports for PDSCH with fdmSchemeA. A UE supporting this feature shall also indicate support of *pdsch-TypeA-DMRS-r18* or *pdsch-TypeB-DMRS-r18*.	FS	No	N/A	N/A
pdsch-ReceptionSchemeB-r18 Indicates whether the UE supports reception of PDSCH without the scheduling restriction for Rel-18 eType1 DMRS ports for PDSCH with fdmSchemeB. A UE supporting this feature shall also indicate support of *pdsch-TypeA-DMRS-r18* or *pdsch-TypeB-DMRS-r18*.	FS	No	N/A	N/A
pdsch-ReceptionWithoutSchedulingRestriction-r18 Indicates whether the UE supports reception of PDSCH without the scheduling restriction for eType1 DMRS ports. A UE supporting this feature shall also indicate support of *pdsch-TypeA-DMRS-r18*. NOTE: If this feature is not supported, UE expects that gNB shall apply at least the following scheduling restriction for PDSCH for FD-OCC 4 in eType 1 DMRS: 1) The number of consecutively scheduled PRBs for PDSCH is even; 2) The number of PRBs offset of scheduled PDSCH from point A (common resource block 0) is even.	FS	No	N/A	N/A
pdsch-SeparationWithGap Indicates whether the UE supports separation of two unicast PDSCHs with a gap, applicable to Sub-carrier spacings of 30 kHz and 60 kHz only. For any two consecutive slots n and n+1, if there are more than 1 unicast PDSCH in either slot, the minimum time separation between starting time of any two unicast PDSCHs within the duration of these slots is 4 OFDM symbols for 30kHz and 7 OFDM symbols for 60kHz.	FS	No	N/A	N/A
pdsch-TypeA-DMRS-r18 Indicates whether the UE supports basic feature of Rel-18 enhanced DMRS ports for PDSCH for scheduling of mapping type A, including 1 symbol FL DMRS without additional symbol(s) and 1 symbol FL DMRS and 1 additional DMRS symbol.	FS	No	N/A	N/A
pdsch-TypeB-DMRS-r18 Indicates whether the UE supports basic feature of Rel-18 enhanced DMRS ports for PDSCH for scheduling of mapping type B, including 1 symbol FL DMRS without additional symbol(s) and 1 symbol FL DMRS and 1 additional DMRS symbol.	FS	No	N/A	N/A
prs-AsSpatialRelationRS-For-SRS-r17 Indicates whether the UE supports PRS as spatial relation RS for SRS. A UE supporting this feature shall also indicate support of *rtt-BasedPDC-PRS-r17*.	FS	No	N/A	FR2 only
rtt-BasedPDC-CSI-RS-ForTracking-r17 Indicates whether the UE supports RTT-based propagation delay compensation for time synchronization of the Uu interface based on CSI-RS for tracking and SRS. A UE supporting this feature shall also indicate support of *csi-RS-ForTracking* and *supportedSRS-Resources*.	FS	No	N/A	N/A

rtt-BasedPDC-PRS-r17 Indicates whether the UE supports RTT-based Propagation delay compensation for time synchronization of the Uu interface based on DL PRS and SRS. The capability signalling comprises the following parameters: - *maxNumberPRS-Resource-r17* indicates the maximum number of DL PRS Resources in DL PRS Resource Set for PDC, with value n16, n32, and n64 only applicable to FR2 bands. - *maxNumberPRS-ResourceProcessedPerSlot-r17* indicates the maximum number of DL PRS resources that UE can process in a slot. A UE supporting this feature shall also indicate support of *supportedSRS-Resources*.	FS	No	N/A	N/A
scalingFactor Indicates the scaling factor to be applied to the serving cell in the max data rate calculation when *mcs-Table-r17* and *mcs-TableDCI-1-2-r17* are not configured for the serving cell as defined in 4.1.2. Value f0p4 indicates the scaling factor 0.4, f0p75 indicates 0.75, and so on. If absent, the scaling factor 1 is applied to the band in the max data rate calculation.	FS	No	N/A	N/A
scalingFactor-1024QAM-FR1-r17 Indicates the scaling factor to be applied to the serving cell in the max data rate calculation when *mcs-Table-r17* or *mcs-TableDCI-1-2-r17* is configured for the serving cell as defined in 4.1.2 when support of 1024-QAM for PDSCH is signalled for the band. Value f0p4 indicates the scaling factor 0.4, f0p75 indicates 0.75, and so on. If absent, the scaling factor 1 is applied to the band in the max data rate calculation. UE indicating support of this feature shall also indicate support of *pdsch-1024QAM-FR1-r17* or *pdsch-1024QAM-2MIMO-FR1-r17* to the band.	FS	No	N/A	FR1 only
scellWithoutSSB Defines whether the UE supports configuration of SCell that does not transmit SS/PBCH block for intra-band CA. This is conditionally mandatory with capability signalling for intra-band CA.	FS	CY	N/A	N/A
scellWithoutSSB-InterBandCA-r18 Indicates whether the UE supports SCell without SS/PBCH block for inter-band CA. For each band within the band combination, UE indicates if it supports the inter-band SSB-less SCell operation with *supportOfSingleGroup* or *supportOfMultipleGroups*: - For *supportOfSingleGroup*, the band indicated as '*referenceBand*' can be configured as the reference band for all other band(s) indicated as '*scellWithoutSSB*'. The band indicated as '*both*' can be configured as either a reference band or an SSB-less band. If the UE indicates "both" for any band, the UE shall not indicate '*referenceBand*' or '*scellWithoutSSB*' in any other band in the band combination. - For *supportOfMultipleGroups*, the band indicated as '*referenceBand1*' can be configured as the reference band for all other band(s) indicated as '*scellWithoutSSB1*', and the band indicated as '*referenceBand2*' can be configured as the reference band for all other band(s) indicated as '*scellWithoutSSB2*'. If the field *scellWithoutSSB-InterBandCA-r18* is absent for a band, this band is not involved in the inter-band SSB-less SCell operation. If the inter-band SSB-less SCell operation is supported between two bands, it is understood that there is no direction between the two bands, which means that the network can configure either band as the reference band and the other band as the SSB-less band.	FS	No	N/A	FR1 only
searchSpaceSharingCA-DL Defines whether the UE supports DL PDCCH search space sharing for carrier aggregation operation.	FS	No	N/A	N/A
sfn-SchemeA-r17 Indicates whether the UE supports SFN scheme A for PDCCH scheduling SFN Scheme A PDSCH.	FS	No	N/A	N/A
sfn-SchemeA-DynamicSwitching-r17 Indicates whether the UE supports dynamic switching between single-TRP and PDSCH SFN scheme A by TCI state field in DCI formats 1_1 and 1_2. The UE supporting this feature shall indicate *sfn-SchemeA-r17* or *sfn-SchemeA-PDSCH-only-r17*.	FS	No	N/A	N/A

sfn-SchemeA-PDCCH-only-r17 Indicates whether the UE supports SFN scheme A for PDCCH scheduling single TRP for PDSCH.	FS	No	N/A	N/A
sfn-SchemeA-PDSCH-only-r17 Indicates whether the UE supports SFN scheme A for PDSCH scheduled by single TRP PDCCH.	FS	No	N/A	N/A
sfn-SchemeB-r17 Indicates whether the UE supports SFN scheme B for PDCCH scheduling SFN Scheme B PDSCH.	FS	No	N/A	N/A
sfn-SchemeB-DynamicSwitching-r17 Indicates whether the UE supports dynamic switching between single-TRP and PDSCH SFN scheme B by TCI state field in DCI formats 1_1 and 1_2. The UE supporting this feature shall indicate *sfn-schemeB-r17* or *sfn-schemeB-PDSCH-only-r17.*	FS	No	N/A	N/A
sfn-SchemeB-PDSCH-only-r17 Indicates whether the UE supports SFN scheme B for PDSCH scheduled by single TRP PDCCH.	FS	No	N/A	N/A
simulDMRS-PDSCH-r18 Indicates whether the UE supports Rel-18 DMRS and PDSCH processing capability 2 simultaneously. Additional processing relaxation d_3 independently for each SCS in unit of symbols is reported. A UE supporting this feature shall also indicate support of *pdsch-TypeA-DMRS-r18, pdsch-TypeB-DMRS-r18*, *pdsch-ProcessingType2* and *pdsch-ProcessingType2-Limited.* NOTE: PDSCH processing additional processing relaxation d_3 follows *pdsch-ProcessingType2* for UE PDSCH processing capability #2, *pdsch-ProcessingType2-Limited*, *pdsch-ProcessingType2* up to 2/4/7 unicast PDSCHs per slot per CC for different TBs for UE processing time capability #2.	FS	No	N/A	N/A
singleDCI-SDM-scheme-r16 Indicates whether the UE supports single DCI based spatial division multiplexing scheme.	FS	No	N/A	N/A
sps-Multicast-r17 Indicates whether the UE supports SPS group-common PDSCH for multicast on PCell, comprised of the following functional components: - Supports one SPS group-common PDSCH configuration for multicast; - Supports {2, 4, 8} times semi-static slot-level repetition for SPS group-common PDSCH; - Supports group-common PDCCH/PDSCH with CRC scrambled by G-CS-RNTI(s) for multicast; - Supports DCI format 4_1 with CRC scrambled with G-CS-RNTI for multicast; - Supports ACK/NACK-based HARQ-ACK feedback for SPS release associated with G-CS-RNTI. A UE supporting this feature shall also indicate support of *dynamicMulticastPCell-r17*. NOTE: One G-CS-RNTI per UE is supported for multicast reception.	FS	No	N/A	N/A

srs-AntennaSwitching2SP-1Periodic-r17 Indicates whether the UE supports maximum 2 SP SRS resource sets and maximum 1 periodic SRS resource set for antenna switching. The UE indicating support of this shall indicate support of *supportedSRS-Resources.* NOTE: - Applies for all supported xTyR where y<=8. - For xTyR where y>4, if UE does not support this feature, UE supports maximum one SRS resource set for periodic SRS and maximum one SRS resource set for semi-persistent SRS. - For xTyR where y<=4, if UE does not support this feature, UE follows Rel-15 on the number of resource sets for periodic and semi-persistent SRS. The two SP-SRS resource sets are not activated at the same time. The UE is only allowed to set this field for a band with associated *FeatureSetUplinkId* set to 0 and when *srs-CarrierSwitch* is supported on the band.	FS	No	N/A	N/A
srs-AntennaSwitching3T3R2SP-1Periodic-r19 Indicates whether the UE supports maximum 2 SP SRS resource sets and maximum 1 periodic SRS resource set for 3T3R antenna switching. If UE does not support this feature, the UE only supports maximum one SRS resource set for periodic SRS and maximum one SRS resource set for semi-persistent SRS for 3T3R. A UE supporting this feature shall also indicate support of *srs-AntennaSwitching3T3R-r19*. NOTE : The two SP-SRS resource sets are not activated at the same time. The UE is only allowed to set this field for a band with associated *FeatureSetUplinkId* set to 0 and when *srs-CarrierSwitch* is supported on the band.	FS	No	N/A	N/A
srs-AntennaSwitching3T6R2SP-1Periodic-r19 Indicates whether the UE supports maximum 2 SP SRS resource sets and maximum 1 periodic SRS resource set for 3T6R antenna switching. If UE does not support this feature, the UE only supports maximum one SRS resource set for periodic SRS and maximum one SRS resource set for semi-persistent SRS for 3T6R. A UE supporting this feature shall also indicate support of *srs-AntennaSwitching3T6R-r19*. NOTE : The two SP-SRS resource sets are not activated at the same time. The UE is only allowed to set this field for a band with associated *FeatureSetUplinkId* set to 0 and when *srs-CarrierSwitch* is supported on the band.	FS	No	N/A	N/A
srs-AntennaSwitching8T8R2SP-1Periodic-r18 Indicates whether the UE supports maximum 2 SP SRS resource sets and maximum 1 periodic SRS resource set for 8T8R antenna switching. A UE supporting this feature shall also indicate support of *srs-AntennaSwitching8T8R-r18*. NOTE 1: If UE does not support this feature, support maximum one SRS resource set for periodic SRS and maximum one SRS resource set for semi-persistent SRS. NOTE 2: The two SP-SRS resource sets are not activated at the same time. The UE is only allowed to set this field for a band with associated *FeatureSetUplinkId* set to 0 and when *srs-CarrierSwitch* is supported on the band.	FS	No	N/A	N/A
srs-ExtensionAperiodicSRS-r17 Indicates whether the UE supports 4 aperiodic SRS resource sets for 1T4R and 2 aperiodic resource sets for 1T2R/2T4R. The UE indicating support of this shall indicate support of *srs-TxSwitch* and *supportedSRS-Resources.* The UE is only allowed to set this field for a band with associated *FeatureSetUplinkId* set to 0 and when *srs-CarrierSwitch* is supported on the band.	FS	No	N/A	N/A

srs-OneAP-SRS-r17 Indicates whether the UE supports 1 aperiodic SRS resource sets for 1T4R. The UE indicating support of this feature shall also indicate the support of *srs-StartAnyOFDM-Symbol-r16* and *srs-TxSwitch.* The UE is only allowed to set this field for a band with associated *FeatureSetUplinkId* set to 0 and when *srs-CarrierSwitch* is supported on the band.	FS	No	N/A	N/A
srs-PortGrouping-r19 Indicates whether the UE supports SRS port grouping. A UE supporting this feature shall also indicate the support of *srs-AntennaSwitchingBeyond4RX-r17*. NOTE: If a UE supports this feature, the UE supports the corresponding antenna switching configurations and port groupings.	FS	No	N/A	N/A
supportedSRS-Resources Defines support of SRS resources for SRS carrier switching for a band without associated FeatureSetuplink. The capability signalling comprising indication of: - *maxNumberAperiodicSRS-PerBWP* indicates supported maximum number of aperiodic SRS resources that can be configured for the UE per each BWP - *maxNumberAperiodicSRS-PerBWP-PerSlot* indicates supported maximum number of aperiodic SRS resources per slot in the BWP - *maxNumberPeriodicSRS-PerBWP* indicates supported maximum number of periodic SRS resources per BWP - *maxNumberPeriodicSRS-PerBWP-PerSlot* indicates supported maximum number of periodic SRS resources per slot in the BWP - *maxNumberSemiPersistentSRS-PerBWP* indicate supported maximum number of semi-persistent SRS resources that can be configured for the UE per each BWP - *maxNumberSemiPersistentSRS-PerBWP-PerSlot* indicates supported maximum number of semi-persistent SRS resources per slot in the BWP - *maxNumberSRS-Ports-PerResource* indicates supported maximum number of SRS antenna port per each SRS resource If the UE indicates the support of srs-CarrierSwitch for this band and this field is absent, the UE supports one periodic, one aperiodic, no semi-persistent SRS resources per BWP per slot and one SRS antenna port per SRS resource.	FS	FD	N/A	N/A
timeDurationForQCL, timeDurationForQCL-v1710 Defines minimum number of OFDM symbols required by the UE to perform PDCCH reception and applying spatial QCL information received in DCI for PDSCH processing as described in TS 38.214 [12] clause 5.1.5. The number of OFDM symbols is measured from the end of the last symbol of the PDCCH reception to the start of the first symbol of the PDSCH reception. UE shall indicate one value of the minimum number of OFDM symbols per each subcarrier spacing of 60kHz, 120kHz, 480kHz and 960kHz.	FS	Yes	N/A	FR2 only
twoFL-DMRS-TwoAdditionalDMRS-DL Defines whether the UE supports DM-RS pattern for DL transmission with 2 symbols front-loaded DM-RS with one additional 2 symbols DM-RS.	FS	No	N/A	N/A
twoTA-InterCellBM-r19 Indicates whether the UE supports two TAs without the restriction of multi-DCI based multi-TRP operation for inter-cell beam management. The UE supporting this feature shall also indicate the support of *unifiedJointTCI-InterCell-r17*.	FS	No	N/A	N/A
twoTA-IntraCellBM-r19 Indicates whether the UE supports two TAs without the restriction of multi-DCI based multi-TRP operation for intra-cell beam management. The UE supporting this feature shall also indicate the support of *unifiedJointTCI-r17*.	FS	No	N/A	N/A
twoTA-IntraCellMultiTRP-r19 Indicates whether the UE supports two TAs without the restriction of multi-DCI based multi-TRP operation for sDCI based intra-cell multi-TRP operation. A UE supporting this feature shall also indicate support of *tci-JointTCI-UpdateSingleActiveTCI-PerCC-r18*.	FS	No	N/A	N/A

twoTA-RxTimeDiff-r19 Indicates whether the UE supports the RX timing difference between the two DL reference timings is larger than CP length for two TAs without restriction of multi-DCI based multi-TRP. A UE supporting this feature shall also indicate support of *twoTA-IntraCellBM-r19* or *twoTA-InterCellBM-r19*.	FS	No	N/A	N/A
type1-3-CSS Defines whether the UE is able to receive PDCCH in FR2 in a Type1-PDCCH common search space configured by dedicated RRC signalling, in a Type3-PDCCH common search space or a UE-specific search space if those are associated with a CORESET with a duration of 3 symbols.	FS	Yes	N/A	FR2 only
ue-SpecificUL-DL-Assignment Indicates whether the UE supports dynamic determination of UL and DL link direction and slot format based on Layer 1 scheduling DCI and higher layer configured parameter *TDD-UL-DL-ConfigDedicated* as specified in TS 38.213 [11]. This capability is not applicable to NCR-MT.	FS	No	N/A	N/A
zeroSlotOffsetAperiodicSRS Indicates whether the UE supports 0 slot offset between aperiodic SRS triggering and transmission, for SRS for CB PUSCH and antenna switching on FR1. The UE is only allowed to set this field for a band with associated *FeatureSetUplinkId* set to 0 and when *srs-CarrierSwitch* is supported on the band.	FS	No	N/A	N/A

4.2.7.6 *FeatureSetDownlinkPerCC* parameters

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
broadcastSCell-r17 Indicates whether the UE supports MBS reception via broadcast in RRC_CONNECTED, on one frequency indicated in an *MBSInterestIndication* message, when an SCell is configured and activated on that frequency, as specified in TS 38.331 [9]. NOTE: The UE is not required to receive MBS via broadcast on PCell and SCell simultaneously	FSPC	No	No	No
broadcastNonServingCell-r18 Indicates whether the UE supports simultaneous MBS broadcast reception on a non-serving cell on this CC and unicast/multicast reception on other CCs within the same band combination in RRC_CONNECTED.	FSPC	No	N/A	N/A
channelBW-90mhz Indicates whether the UE supports the channel bandwidth of 90 MHz. For FR1, the UE shall indicate support according to TS 38.101-1 [2], Table 5.3.5-1.	FSPC	CY	N/A	FR1 only
dci-BroadcastWith16Repetitions-r17 Indicates whether the UE supports up to 16 times dynamic slot-level repetition for broadcast MTCH.	FSPC	No	No	No
dynamicMulticastSCell-r17 Indicates whether the UE supports to receive group-common PDCCH/PDSCH with CRC scrambled by G-RNTI for SCell on one frequency, when an SCell is configured and activated on that frequency, as specified in TS 38.331 [9]. A UE supporting this feature shall also indicate support of *dynamicMulticastPCell-r17*. NOTE: UE is not expected to be configured simultaneously with more than one component carrier for multicast reception.	FSPC	No	N/A	N/A
fdm-BroadcastUnicast-r17 Indicates whether the UE supports overlapping PDSCH reception that one unicast PDSCH and one group-common PDSCH for broadcast in RRC CONNECTED in a slot are partially or fully overlapping in time domain and non-overlapping in frequency domain. A UE supporting this feature shall also support broadcast reception as specified in clause 5.10.	FSPC	No	N/A	N/A
fdm-MulticastUnicast-r17 Indicates whether the UE supports overlapping PDSCH reception that one dynamically scheduled unicast PDSCH and one dynamically scheduled group-common PDSCH for multicast in RRC CONNECTED in a slot are partially or fully overlapping in time domain and non-overlapping in frequency domain. A UE supporting this feature shall also indicate support of *dynamicMulticastPCell-r17*, or at least one of {*ack-NACK-FeedbackForSPS-Multicast-r17*, *nack-OnlyFeedbackForSPS-Multicast-r17*}. NOTE: The UE supporting this feature is not required to support FDMed SPS.	FSPC	No	N/A	N/A

intraSlotTDM-UnicastGroupCommonPDSCH-r17 Indicates whether the UE supports Intra-slot TDM-ed unicast PDSCH and group-common PDSCH. The value indicates that for any two consecutive slots n and n+1, if there are more than 1 broadcast/multicast/unicast PDSCH in either slot, whether to require the minimum time separation (4 OFDM symbols for 30kHz and 7 OFDM symbols for 60kHz) between starting time of any two broadcast/multicast/unicast PDSCHs within the duration of these slots. This feature includes the following functional components: - Supports TDM between one unicast PDSCH and one group-common PDSCH in a slot; - Support TDM between M (M>1) TDMed unicast PDSCHs and one group-common PDSCH in a slot per CC; - Support TDM among N (N>1) group-common PDSCHs in a slot per CC; - Support TDM between K (K>1) TDMed unicast PDSCHs and L (L>1) TDMed group-common PDSCHs in a slot per CC; - The UE maximum number of TDMed PDSCH receptions capability in a slot per CC is kept based on *pdsch-ProcessingType1-DifferentTB-PerSlot*; - Up to one broadcast PDSCH is supported in a slot. A UE supporting this feature shall support broadcast reception as specified in clause 5.10 and/or indicate support of *dynamicMulticastPCell-r17*, and shall indicate support of *pdsch-ProcessingType1-DifferentTB-PerSlot*. NOTE1: Group-common PDSCH(s) are counted as unicast PDSCH(s). NOTE2: The max number of (M+1), N, (K+L) are determined based on the numbers reported by *pdsch-ProcessingType1-DifferentTB-PerSlot*.	FSPC	No	N/A	N/A
maxModulationOrderForMulticastDataRateCalculation-r17 Defines the maximum modulation order used for maximum data rate calculation for multicast PDSCH in RRC_CONNECTED. - For FR1, up to 1024QAM is supported as maximum modulation order used for maximum data rate calculation for multicast PDSCH, with candidate values {qam256, qam1024}. - For FR2, up to 256QAM is supported as maximum modulation order used for maximum data rate calculation for multicast PDSCH, with candidate values {qam64, qam256}. A UE supporting this feature shall also indicate support of *dynamicMulticastPCell-r17*.	FSPC	No	N/A	N/A
maxNumberMIMO-LayersPDSCH, maxNumberMIMO-LayersPDSCH-v1900 Defines the maximum number of spatial multiplexing layer(s) supported by the UE for DL reception. For single CC standalone NR, it is mandatory with capability signalling to support at least 4 MIMO layers in the bands where 4Rx is specified as mandatory for the given UE and at least 2 MIMO layers in FR2 (except for FR1-NTN and FR2-NTN). If *supportOf2RxXR* is indicated, for single CC standalone NR, it is mandatory with capability signalling to support 2 MIMO layers in the bands specified in Table 7.3.2-2b in TS 38.101-1 [2]. If absent, the UE does not support MIMO on this carrier. The *maxNumberMIMO-LayersPDSCH-v1900* is only included for FWA UE as defined in TS 38.101-1 [2]. The UE supporting *maxNumberMIMO-LayersPDSCH-v1900* shall also indicate support of *maxNumberMIMO-LayersPDSCH* for the corresponding component carrier. When *maxNumberMIMO-LayersPDSCH* and *maxNumberMIMO-LayersPDSCH-v1900* are reported together for a component carrier, the network which is able to decode *maxNumberMIMO-LayersPDSCH-v1900* ignores *maxNumberMIMO-LayersPDSCH*. For the bands where *pdsch-1024QAM-2MIMO-FR1-r17* is indicated, MIMO layers for 1024 QAM is the smaller value between 2 and *maxNumberMIMO-LayersPDSCH.*	FSPC	CY	N/A	N/A

maxNumberMIMO-LayersMulticastPDSCH-r17 Defines the maximum number of spatial multiplexing layer(s) supported by the UE for multicast PDSCH. If not reported, UE supports 1 MIMO layer only for multicast PDSCH. A UE supporting this feature shall also indicate support of *dynamicMulticastPCell-r17*. NOTE: If the UE supports up to 8 layers, the UE supports second TB (TB2).	FSPC	No	N/A	N/A
multiDCI-InterCellMultiTRP-TwoTA-r18 Indicates whether the UE supports two TA enhancement for multi-DCI based inter-cell Multi-TRP operation by indicating the maximum number {1,2} of *n-TimingAdvanceOffset* value per serving cell. A UE supporting this feature shall also indicate support of *mTRP-inter-Cell-r17* and *tci-JointTCI-UpdateSingleActiveTCI-PerCC-PerCORESET-r18*. NOTE: If a UE does not report *maxNumberTAG-AcrossCC-r18*, *supportedNumberTAG* is applied.	FSPC	No	N/A	N/A
multiDCI-IntraCellMultiTRP-TwoTA-r18 Indicates whether the UE supports two TA enhancement for multi-DCI based intra-cell Multi-TRP operation. A UE supporting this feature shall also indicate support of *multiDCI-MultiTRP-r16.* NOTE: If a UE does not report *maxNumberTAG-AcrossCC-r18*, *supportedNumberTAG* is applied.	FSPC	No	N/A	N/A
multiDCI-MultiTRP-r16 Indicates whether the UE supports multi-DCI based multi-TRP PDSCH/PUSCH operation and support of fully/partially overlapping PDSCHs in time and non-overlapping in frequency. This capability applies only to BWPs where two values of *coresetPoolIndex* are configured. The capability signalling contains the following: - *maxNumberCORESET-r16* indicates maximum number of CORESETs configured per BWP per cell in addition to CORESET 0 for multi-DCI based multi-TRP PDSCH/PUSCH operation. - *maxNumberCORESETPerPoolIndex-r16* indicates maximum number of CORESETs configured per *coresetPoolIndex* per BWP per cell in addition to CORESET 0 for multi-DCI based multi-TRP PDSCH/PUSCH operation. - *maxNumberUnicastPDSCH-PerPool-r16* indicates maximum number of unicast PDSCHs per *coresetPoolIndex* per slot. NOTE 1: A UE may assume that its maximum receive timing difference between the DL transmissions from two TRPs is within a Cyclic Prefix. NOTE 2: Processing capability 2 is not supported in any CC if at least one CC is configured with two values of *coresetPoolIndex*. NOTE 3: If UE reports value N1 for *maxNumberCORESET-r16*, that means UE supports up to min (N1+1, 5) CORESETs in total (including CORESET#0) if there is CORESET#0, and supports maximal N1 CORESETs if there is no CORESET#0. NOTE 4: If UE reports value N2 for *maxNumberCORESETPerPoolIndex-r16*, that means UE supports up to min (N2+1, 3) CORESETs in total (including CORESET#0) for a TRP if there is CORESET#0, and supports maximal N2 CORESETs for another TRP if there is no CORESET#0. NOTE 5: For the multi-DCI based multi-TRP PUSCH operation, the maximum number of unicast PUSCHs that UE can support per slot is based on *pusch-ProcessingType1-DifferentTB-PerSlot*, and it is counted across both *coresetPoolIndex* of TRPs.	FSPC	No	N/A	N/A
multiDCI-MultiTRP-CORESET-Monitoring-r18 Indicates whether the UE supports determining two QCL-TypeD for time-domain overlapping CORESETs in the same CC or for intra-band CA associated with coresetPoolIndex value 0 and 1. The UE supporting this feature shall also indicate support of *multiDCI-MultiTRP-r16*.	FSPC	No	N/A	FR2 only
rxTimingDiff-r18 Indicates whether the UE supports the Rx timing difference between the two DL reference timings is larger than CP length.	FSPC	No	N/A	N/A

schedulingMeasurementRelaxation-r18 Indicates whether the UE supports simultaneous reception of CSI-RS for layer 1 measurement and PDSCH with different QCL Type-D on overlapping OFDM symbols and simultaneous layer 1 measurement of CSI-RS overlapping with another CSI-RS with different QCL Type-D on overlapping OFDM symbol(s). A UE supporting this feature shall also indicate support of *simultaneousReceptionDiffTypeD-r16*, *mTRP-GroupBasedL1-RSRP-r17,* and at least one of *multiDCI-MultiTRP-r16, singleDCI-SDM-scheme-r16, supportFDM-SchemeA-r16 and supportFDM-SchemeB-r16*. NOTE: It can be supported for PC3 only.	FSPC	No	TDD only	FR2-1 only
sps-MulticastSCell-r17 Indicates whether the UE supports one SPS group-common PDSCH configuration for multicast for SCell, comprised of the following functional components: - Supports one SPS group-common PDSCH configuration for multicast for SCell; - Supports {2, 4, 8} times semi-static slot-level repetition for SPS group-common PDSCH for SCell; - Supports group-common PDCCH/PDSCH with CRC scrambled by G-CS-RNTI(s) for multicast; - Supports DCI format 4_1 with CRC scrambled with G-CS-RNTI for multicast; - Supports ACK/NACK-based HARQ-ACK feedback for SPS release associated with G-CS-RNTI. A UE supporting this feature shall also indicate support of *sps-Multicast-r17* and *dynamicMulticastSCell-r17*.	FSPC	No	N/A	N/A
sps-MulticastSCellMultiConfig-r17 Indicates whether the UE supports up to 8 SPS group-common PDSCH configurations per CFR for multicast for SCell. The value indicates the maximum number of activated SPS group-common PDSCH configurations per CFR for multicast for SCell. The total number of SPS configurations for both multicast and unicast is no larger than 8 in a BWP of a serving cell. The total number of SPS configurations for both multicast and unicast in a cell group is no larger than 32. A UE supporting this feature shall also indicate support of *sps-MulticastSCell-r17*.	FSPC	No	N/A	N/A
support32-DL-HARQ-ProcessTN-r19 Indicates whether the UE supports 32 HARQ processes in DL for TN in FR1 and FR2-1.	FSPC	No	N/A	N/A

supportedBandwidthDL, supportedBandwidthDL-v1710, supportedBandwidthDL-v1780, supportedBandwidthDL-v1840, supportedBandwidthDL-v1900 Indicates maximum DL channel bandwidth supported for a given SCS that UE supports within a single CC (and in case of DAPS handover for the source or target cell), which is defined in Table 5.3.5-1 in TS 38.101-1 [2] / TS 38.101-5 [34] for FR1 and Table 5.3.5-1 in TS 38.101-2 [3] / Table 5.3.5-2 in TS 38.101-5 [34] for FR2. For FR1, all the bandwidths listed in TS 38.101-1 [2] / TS 38.101-5 [34], Table 5.3.5-1 for each band shall be mandatory with a single CC unless indicated optional. For FR2 (except for FR2-NTN), the set of mandatory CBW is 50, 100, 200 MHz. For FR2-NTN, the set of mandatory CBW is 50, 100 MHz. When this field is included in a band combination with a single band entry and a single CC entry (i.e. non-CA band combination), the UE shall indicate the maximum channel bandwidth for the band according to TS 38.101-1 [2], TS 38.101-2 [3], and TS 38.101-5 [34]. For FR2, *supportedBandwidthDL-v1710* is included if the maximum DL channel bandwidth supported by the UE within a single CC is greater than 400MHz. When the *supportedBandwidthDL* and the *supportedBandwidthDL-v1710* are reported together for a CC, the network which is able to decode the *supportedBandwidthDL-v1710* ignores the *supportedBandwidthDL*. When the *supportedBandwidthDL* and the *supportedBandwidthDL-v1840* are reported together for a CC, the network which is able to decode the *supportedBandwidthDL-v1840* ignores the *supportedBandwidthDL*. The UE may report a *supportedBandwidthDL* wider than the *channelBWs-DL*; this *supportedBandwidthDL* may not be included in the Table 5.3.5-1 of TS 38.101-1 [2] / TS 38.101-2[3] / TS 38.101-5 [34] and Table 5.3.5-2 of TS 38.101-5 [34] for the case that the UE is unable to report the actual supported bandwidth according to the Table 5.3.5-1 of TS 38.101-1 [2] / TS 38.101-2 [3] / TS 38.101-5 [34] and Table 5.3.5-2 of TS 38.101-5 [34]. For each band, (e)RedCap UEs shall indicate its maximum channel bandwidth, which is the maximum of those channel bandwidths that are less than or equal to 20 MHz for FR1 and less than or equal to 100 Mhz for FR2, taking restrictions in TS 38.101-1 [2] and TS 38.101-2 [3] into consideration. The *supportedBandwidthDL-v1780* is only applicable to Bandwidth Combination Set 5 (BCS5) of FR1 NR CA (including NR CA part of (NG)EN-DC and NE-DC) and FR1 NR-DC. If the UE reports *supportedAggBW-FR1-r17*, the UE shall report *supportedBandwidthDL-v1780*. NOTE: See the note in the field decription of *channelBWs-DL* for the determination of supported DL channel bandwidth.	FSPC	CY	N/A	N/A

supportedCRS-InterfMitigation-r17 Indicates whether the UE supports CRS interference mitigation (CRS-IM) in both DSS and non-DSS scenarios with overlapping spectrum for LTE and NR, which is defined in TS 38.101-4 [18]. The capability signalling contains the following: - *crs-IM-DSS-15kHzSCS-r17* indicates whether the UE supports neighbouring LTE cell CRS-IM in DSS scenario with NR 15 kHz SCS. UE can indicate support of this capability on the CC(s) in a band only if the UE indicates support of *rateMatchingLTE-CRS* on that band. - *crs-IM-nonDSS-15kHzSCS-r17* indicates whether the UE supports neighbouring LTE cell CRS-IM in non-DSS and 15 kHz NR SCS scenario, without the assistance of network signalling on LTE channel bandwidth. - *crs-IM-nonDSS-NWA-15kHzSCS-r17* indicates whether the UE supports neighbouring LTE cell CRS-IM in non-DSS and 15 kHz NR SCS scenario, with the assistance of network signalling on LTE channel bandwidth. - *crs-IM-nonDSS-30kHzSCS-r17* indicates whether the UE supports neighbouring LTE cell CRS-IM in non-DSS and 30 kHz NR SCS scenario, without the assistance of network signalling on LTE channel bandwidth. - crs-*IM-nonDSS-NWA-30kHzSCS-r17* indicates whether the UE supports neighbouring LTE cell CRS-IM in non-DSS and 30 kHz NR SCS scenario, with the assistance of network signalling on LTE channel bandwidth. For the UE supporting the capability of *crs-IM-DSS-15kHzSCS-r17*, the UE can perform CRS-IM without the assistant configuration information of neighbour LTE cells when *RateMatchPatternLTE-CRS* is configured for the serving cell, and if *lte-NeighCellsCRS-Assumptions-r17* is not configured. For the UE supporting the capability of *crs-IM-nonDSS-15kHzSCS-r17*, the UE can perform CRS-IM without the assistant configuration information of neighbour LTE cells with 15 kHz SCS when *RateMatchPatternLTE-CRS* is not configured for the serving cell, and if *MeasObjectEUTRA* is configured, the configured measurement gaps overlap with neighbour LTE cell PBCH position and *lte-NeighCellsCRS-Assumptions-r17* is not configured. For the UE supporting the capabilities of *crs-IM-nonDSS-30kHzSCS-r17*, the UE can perform CRS-IM without the assistant configuration information of neighbour LTE cells with 30 kHz SCS when *RateMatchPatternLTE-CRS* is not configured for the serving cell, and if *MeasObjectEUTRA* is configured, the configured measurement gaps overlap with neighbour LTE cell PBCH position and *lte-NeighCellsCRS-Assumptions-r17* is not configured. NOTE 1: In the DSS scenario, serving and neighbouring cells are both operating with dynamic spectrum sharing (DSS) of NR and LTE. NOTE 2: In the non-DSS scenario, serving cell is operating in NR, and neighbouring cells are operating in LTE.	FSPC	No	No	FR1 only
supportedMinBandwidthDL-r17, supportedMinBandwidthDL-v1840, supportedMinBandwidthDL-v1900 Indicates minimum DL channel bandwidth supported for a given SCS that UE supports within a single CC (and in case of intra-frequency DAPS handover for the source and target cells), which is defined in Table 5.3.5-1 in TS 38.101-1 [2] for FR1 and Table 5.3.5-1 in TS 38.101-2 [3] for FR2. This parameter is only applicable to the Bandwidth Combination Set 5 (BCS5). The UE shall indicate this parameter for at least one CC of a BCS5 band combination. This field does not restrict the bandwidths configured for a single CC (i.e. non-CA case).	FSPC	CY	N/A	N/A

supportedModulationOrderDL Indicates the maximum supported modulation order to be applied for downlink in the carrier in the max data rate calculation as defined in 4.1.2. If included, the network may use a modulation order on this serving cell which is higher than the value indicated in this field as long as UE supports the modulation of higher value for downlink. If not included: - for FR1, the network uses the modulation order signalled per band i.e. *pdsch-1024QAM-FR1-r17* or *pdsch-1024QAM-2MIMO-FR1-r17* when *pdsch-1024QAM-FR1-r17* or *pdsch-1024QAM-2MIMO-FR1-r17* is signalled for the band, otherwise the network uses the modulation order signalled in *pdsch-256QAM-FR1*. The network uses the modulation order 64QAM if *pdsch-256QAM-FR1* is not signalled for the band for (e)RedCap UE, IAB-MT, or NCR-MT. - for FR2, the network uses the modulation order signalled per band i.e. *pdsch-256QAM-FR2* if signalled. If not signalled in a given band, the network shall use the modulation order 64QAM. In all the cases, it shall be ensured that the data rate does not exceed the max data rate (*DataRate*) and max data rate per CC (*DataRateCC*) according to TS 38.214 [12].	FSPC	No	N/A	N/A
supportedSubCarrierSpacingDL Defines the supported sub-carrier spacing for DL by the UE, as defined in clause 4.2-1 of TS 38.211 [6], indicating the UE supports simultaneous reception with same or different numerologies in CA. Support of simultaneous reception with same numerology for intra-band NR CA including both contiguous and non-contiguous is mandatory with capability in both FR1 and FR2. Support of simultaneous reception with two different numerologies between FR1 band(s) and FR2 band(s) in DL is mandatory with capability if UE supports inter-band NR CA including both FR1 band(s) and FR2 band(s). Optional for other cases. Support of simultaneous reception of with different numerologies in CA for other cases is optional.	FSPC	CY	N/A	N/A
supportFDM-SchemeB-r16 Indicates whether UE supports single DCI based FDMSchemeB.	FSPC	No	N/A	N/A

4.2.7.7 *FeatureSetUplink* parameters

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
additionalTime-CB-8TxPUSCH-r18 Indicates whether the UE supports 8Tx PUSCH additional timeline for codebook based 8TxPUSCH. A UE supporting this feature shall also indicate support of *codebook-8TxBasic-r18*. NOTE: UE reports the processing capability independently for each SCS in unit of symbols, where SCS is the minimum between SCS of the scheduling DCI and SCS of the scheduled PUSCH. This capability is reported by UE only when UE reports {5,6,7,8} as the maximum number of PUSCH MIMO layers.	FS	No	N/A	N/A
additionalTime-NonCB-8TxPUSCH-r18 Indicates whether the UE supports 8Tx PUSCH additional timeline for non-codebook based 8TxPUSCH. A UE supporting this feature shall also indicate support of *nonCodebook-8TxPUSCH-r18*. NOTE: UE reports the processing capability independently for each SCS in unit of symbols, where SCS is the minimum between SCS of the scheduling DCI and SCS of the scheduled PUSCH. This capability is reported by UE only when UE reports {5,6,7,8} as the maximum number of PUSCH MIMO layers.	FS	No	N/A	N/A
scalingFactor Indicates the scaling factor to be applied to the band in the max data rate calculation as defined in 4.1.2. Value f0p4 indicates the scaling factor 0.4, f0p75 indicates 0.75, and so on. If absent, the scaling factor 1 is applied to the band in the max data rate calculation.	FS	No	N/A	N/A
cbgPUSCH-ProcessingType1-DifferentTB-PerSlot-r16 Defines whether the UE capable of processing time capability 1 supports CBG based transmission with one or with up to two or with up to four or with up to seven unicast PUSCHs per slot per CC.	FS	No	N/A	N/A
cbgPUSCH-ProcessingType2-DifferentTB-PerSlot-r16 Defines whether the UE capable of processing time capability 2 supports CBG based transmission with one or with up to two or with up to four or with up to seven unicast PUSCHs per slot per CC.	FS	No	N/A	N/A
crossCarrierSchedulingProcessing-DiffSCS-r16 Indicates the UE cross carrier scheduling processing capability for UL carrier aggregation processing up to X unicast DCI scheduling for UL per scheduled CC. X is based on pair of (scheduling CC SCS, scheduled CC SCS) where a pair of (15,120), (15,60), (30,120) kHz SCS can have X = {1,2,4} while a pair of (15,30), (30,60), (60,120) kHz SCS can have X = {2}, and X applies per slot of scheduling CC.	FS	No	N/A	N/A
dynamicSwitchSUL Indicates whether the UE supports supplemental uplink with dynamic switch (DCI based selection of PUSCH carrier). The UE supports this among a carrier on a band X and a band Y if it sets this capability parameter for both band X and band Y.	FS	No	N/A	N/A
extendedDC-LocationReport-r17 Indicates whether the UE supports extended DC location reporting (based on indicated default DC location) for at least 2 UL CCs in one band. A UE that supports this feature also supports extended DC location reporting for 1 UL CC in one band.	FS	No	N/A	N/A
featureSetListPerUplinkCC Indicates which features the UE supports on the individual UL carriers of the feature set (and hence of a band entry that refer to the feature set) by *FeatureSetUplinkPerCC-Id*. The order of the elements in this list is not relevant, i.e., the network may configure any of the carriers in accordance with any of the *FeatureSetUplinkPerCC-Id* in this list. A fallback per CC feature set resulting from the reported feature set per UL CC is not signalled but the UE shall support it.	FS	N/A	N/A	N/A
interSubslotFreqHopping-PUCCH-r17 Indicates whether the UE supports inter-subslot frequency hopping for PUCCH repetitions comprised of the following functional components: - Inter-subslot frequency hopping for PUCCH repetition operation of PUCCH Formats 0, 1, 2, 3 and 4 for 7OS slot-based PUCCH configurations; - Inter-subslot frequency hopping for PUCCH repetition operation of PUCCH Format 0 and Format 2 for 2OS slot-based PUCCH configurations. The UE indicating support of this feature shall also indicate the support of *pucch-Repetition-F0-1-2-3-4-RRC-Config-r17*.	FS	No	N/A	N/A

intraBandFreqSeparationUL, intraBandFreqSeparationUL-v1620 Indicates UL frequency separation class the UE supports, which indicates a maximum frequency separation between lower edge of lowest CC and upper edge of highest CC in a frequency band, for intra-band non-contiguous CA. The UE sets the same value in the FeatureSetUplink of each band entry within a band. The values mhzX corresponds to the values XMHz defined in TS 38.101-2 [3]. It is mandatory to report for UE which supports UL non-contiguous CA in FR2. If the UE sets the field *intraBandFreqSeparationUL-v1620* it shall set *intraBandFreqSeparationUL* (without suffix) to the nearest smaller value.	FS	CY	N/A	FR2 only
intraFreqDAPS-UL-r16 Indicates whether UE supports enhanced uplink capabilities for intra-frequency DAPS handover. The UE only includes this capability signalling if *intraFreqDAPS-r16* is included in the *FeatureSetDownlink* for the same *FeatureSet*. The capability signalling comprises of the following parameter: - *intraFreqTwoTAGs-DAPS-r16* indicates whether the UE supports different timing advance groups in source PCell and intra-frequency target PCell. It is mandatory with capability signalling.	FS	No	N/A	N/A
maxDelayValueBeyondD-Basic-r18 Indicates whether the UE supports maximum delay value larger than D_basic =1 slot. Value *sl2* denotes 2 slots, value *sl3* denotes 3 slots, value *sl4* denotes 4 slots, value *sl5* denotes 5 slots, value *sl6* denotes 6 slots, value *sl10* denotes 10 slots. A UE supporting this feature shall also indicate support of *tdcp-Report-r18*. NOTE: 10 slots is only applicable for SCS >= 30 kHz, and 6 slots is maximum for SCS = 15 kHz.	FS	No	N/A	N/A
maxNumberTDCP-PerBWP-r18 Indicates the maximum number of *CSI-ReportConfig* with *reportQuantity* configured as "*tdcp*", configured with *resourcesForChannelMeasurement* linked to a same BWP ID. A UE supporting this feature shall also indicate support of *tdcp-Report-r18*.	FS	No	N/A	N/A
maxNumberTRS-ResourceSet-r18 Indicates the maximum number of TRS resource sets in a single CSI-RS resource setting. A UE supporting this feature shall also indicate support of *tdcp-Report-r18*.	FS	No	N/A	N/A
mTRP-PUCCH-IntraSlot-r17 Indicates whether the UE supports PUCCH repetition scheme 3 (intra-slot repetition) with sequential mapping for repetitions larger than 2 and cyclic mapping for 2 repetitions by indicating the supported PUCCH formats for this scheme. The UE indicating this feature shall also support up to two PUCCH power control parameter sets/spatial relation info per PUCCH resource. Power control parameter sets feature is applicable to FR1 only (without spatial relation info) and spatial relation info is applicable to FR2 only.	FS	No	N/A	N/A
mTRP-PUSCH-TypeA-CB-r17 Indicates the support of multi-TRP PUSCH repetition based on codebook with PUSCH repetition type A. The value indicates the supported number of SRS resources in one SRS resource set. This feature includes the following features: - sequential mapping for repetitions larger than 2. - cyclic mapping for 2 repetitions. - two SRS resource sets with usage set to 'codebook'. The UE indicating support of this feature shall also indicate the support of *mimo-CB-PUSCH.* If the value of supported number of SRS resources is 4 then the UE shall also indicate support of *ul-FullPwrMode2-MaxSRS-ResInSet* set to n4*.*	FS	No	N/A	N/A
mTRP-PUSCH-TypeA-CB-3Port-r19 Indicates whether the UE supports codebook-based multi-TRP PUSCH repetition for 3-antenna-port PUSCH transmission with type A. The value indicates the supported number of SRS resources in one SRS resource set. This feature includes the following features: - sequential mapping for repetitions larger than 2. - cyclic mapping for 2 repetitions. - two SRS resource sets with usage set to 'codebook'. A UE supporting this feature shall also indicate support of *codebook-3TxPUSCH-SingleTRP-r19*.	FS	No	N/A	N/A

mTRP-PUSCH-RepetitionTypeA-r17 Indicates whether the UE supports multi-TRP PUSCH repetition for non-codebook based PUSCH repetition type A with sequential mapping for repetitions larger than 2 and cyclic mapping for 2 repetitions by indicating the supported number of SRS resources in one SRS resource set. The UE indicating this feature shall also support two SRS resource sets with usage set to 'nonCodebook'. The UE indicating this feature shall indicate support of *maxNumberMIMO-LayersNonCB-PUSCH* and *mimo-NonCB-PUSCH.*	FS	No	N/A	N/A
mTRP-PUSCH-RepetitionTypeA-3Port-r19 Indicates whether the UE supports non-codebook based multi-TRP PUSCH repetition for 3-antenna-port PUSCH transmission with type A with sequential mapping for repetitions larger than 2 and cyclic mapping for 2 repetitions by indicating the supported number of SRS resources in one SRS resource set. The UE indicating this feature shall also support two SRS resource sets with usage set to 'nonCodebook'. The UE indicating this feature shall also indicate support of *nonCodebook-3TxPUSCH-SingleTRP-r19*.	FS	No	N/A	N/A
multiPUCCH-r16 Indicates whether the UE supports more than one PUCCH for HARQ-ACK transmission within a slot. This field includes the following parameters: - *sub-SlotConfig-NCP-r16* indicates the sub-slot configuration for NCP; - *sub-SlotConfig-ECP-r16* indicates the sub-slot configuration for ECP. For NCP, the value *set1* denotes 7-symbol*2, and *set2* denotes 2-symbol*7 and 7-symbol*2. For ECP, the value *set1* denotes 6-symbol*2, and *set2* denotes 2-symbol*6 and 6-symbol*2.	FS	No	N/A	N/A
mux-SR-HARQ-ACK-r16 Indicates whether the UE supports SR/HARQ-ACK multiplexing once per subslot using a PUCCH (or HARQ-ACK piggybacked on a PUSCH) when SR/HARQ-ACK are supposed to be sent with different starting symbols in a subslot.	FS	No	N/A	N/A
nonCodebook-CSI-RS-SRS-Enh-r19 Indicates whether the UE supports association between {48, 64, 128} CSI-RS ports and SRS resource set for non-codebook-based PUSCH. A UE supporting this feature shall also indicate support of *maxNumberMIMO-LayersNonCB-PUSCH*, *mimo-NonCB-PUSCH* and *nonCodebook-CSI-RS-SRS-PerBC-Enh-r19*.	FS	No	N/A	N/A
offsetSRS-CB-PUSCH-Ant-Switch-fr1-r16 Indicates whether UE requires minimum of 19 symbols offset between aperiodic SRS triggering and transmission for SRS for codebook based PUSCH and antenna switching. UE indicating support of this shall indicate support of *supportedSRS-Resources.*	FS	No	N/A	FR1 only
offsetSRS-CB-PUSCH-PDCCH-MonitorSingleOcc-fr1-r16 Indicates whether UE requires minimum of 19 symbols offset between aperiodic SRS triggering and transmission for SRS for codebook based PUSCH and antenna switching for the case of PDCCH monitoring on any span of up to 3 consecutive OFDM symbols of a slot. UE indicating support of this shall indicate support of *supportedSRS-Resources.*	FS	No	N/A	FR1 only
offsetSRS-CB-PUSCH-PDCCH-MonitorAnyOccWithoutGap-fr1-r16 Indicates whether UE requires minimum of 19 symbols offset between aperiodic SRS triggering and transmission for the case of PDCCH search space monitoring occasions in any symbol of the slot for Type 1-PDCCH common search space configured by dedicated RRC signalling, for a Type 3-PDCCH common search space, or for a UE-specific search space with the capability of supporting at least 44, 36, 22, and 20 blind decodes in a slot for 15 kHz, 30 kHz, 60kHz, and 120 kHz subcarrier spacing values respectively. UE indicating support of this shall indicate support of *supportedSRS-Resources.*	FS	No	N/A	FR1 only

offsetSRS-CB-PUSCH-PDCCH-MonitorAnyOccWithGap-fr1-r16 Indicates whether UE requires minimum of 19 symbols offset between aperiodic SRS triggering and transmission for SRS for codebook based PUSCH and antenna switching for the case of PDCCH search space monitoring occasions in any symbol of the slot with minimum time separation of two OFDM symbols for 15 kHz, four OFDM symbols for 30 kHz, seven OFDM symbols for 60 kHz with NCP, and 14OFDM symbols for 120kHz between two consecutive transmissions of PDCCH scrambled with C-RNTI, MCS-C-RNTI, or CS-RNTI for Type 1-PDCCH common search space configured by dedicated RRC signalling, for a Type 3-PDCCH common search space, or for a UE-specific search space, with the capability of supporting at least 44, 36, 22, and 20 blind decodes in a slot for 15 kHz, 30 kHz, 60kHz, and 120 kHz subcarrier spacing values respectively. UE indicating support of this shall indicate support of *pdcch-MonitoringAnyOccasions* with value *withDCI-Gap* and *supportedSRS-Resources.*	FS	No	N/A	FR1 only
offsetSRS-CB-PUSCH-PDCCH-MonitorAnyOccWithSpanGap-fr1-r16 Indicates whether UE requires minimum of 19 symbols offset between aperiodic SRS triggering and transmission for the case of PDCCH search space monitoring occasions in any symbol of the slot with minimum time separation between two consecutive transmissions of PDCCH with span up to two OFDM symbols for two OFDM symbols or span up to three OFDM symbols for four and seven OFDM symbols. Value set1 indicates the supported value set (X,Y) is (7,3), value set2 indicates the supported value set (X,Y) is (4,3) and (7,3) and value set 3 indicates the supported value set (X,Y) is (2,2), (4,3) and (7,3). UE indicating support of this shall indicate support of *supportedSRS-Resources*.	FS	No	N/A	FR1 only
pa-PhaseDiscontinuityImpacts Indicates incapability motivated by impacts of PA phase discontinuity with overlapping transmissions with non-aligned starting or ending times or hop boundaries across carriers for intra-band (NG)EN-DC/NE-DC, intra-band CA and FDM based ULSUP. This capability applies to: - Intra-band (NG)EN-DC/NE-DC combination without additional inter-band NR and LTE CA component; - Intra-band (NG)EN-DC/NE-DC combination supporting both UL and DL intra-band (NG)EN-DC/NE-DC parts with additional inter-band NR/LTE CA component; - Inter-band (NG)EN-DC/NE-DC combination, where the frequency range of the E-UTRA band is a subset of the frequency range of the NR band (as specified in Table 5.5B.4.1-1 of TS 38.101-3 [4]). If this capability is included in an "Intra-band (NG)EN-DC/NE-DC combination supporting both UL and DL intra-band (NG)EN-DC/NE-DC parts with additional inter-band NR/LTE CA component", this capability applies to the intra-band (NG)EN-DC/NE-DC BC part.	FS	No	N/A	N/A
partialCancellationPUCCH-PUSCH-PRACH-TX-r16 Indicates whether UE supports the partial cancellation of the configured PUCCH or PUSCH or PRACH transmission in set of symbols of a slot due to: - Detection of a DCI format 2_0 with a slot format value other than 255 that indicates a slot format with a subset of symbols from the set of symbols as downlink or flexible; - DCI format 2_0 being configured but not detected, when either a subset of symbols from the set of symbols are indicated as flexible by *tdd-UL-DL-ConfigurationCommon*, and *tdd-UL-DL-ConfigurationDedicated* if provided, or *tdd-UL-DL-ConfigurationCommon* and *tdd-UL-DL-ConfigurationDedicated* are not provided to the UE; - Detection of a DCI format 1_0, DCI format 1_1, DCI format 1_2 or DCI format 0_1 and DCI format 0_2 indicating to the UE to receive CSI-RS or PDSCH in a subset of symbols from the set of symbols.	FS	No	N/A	N/A
phaseReportMoreThanOne-r18 Indicates whether the UE supports phase report for Y>=1. A UE supporting this feature shall also indicate support of *tdcp-Report-r18*.	FS	No	N/A	N/A

phy-PrioritizationHighPriorityDG-LowPriorityCG-r17 Indicates whether the UE supports PHY prioritization of overlapping high-priority DG-PUSCH and low-priority CG-PUSCH comprised of the following functional components: - PHY prioritization of overlapping high-priority dynamic grant PUSCH and low-priority configured grant PUSCH on a BWP of a serving cell; - Configuration of PHY priority level for CG PUSCH, and dynamic indication of priority level for dynamic PUSCH with a single DCI format. The capability signalling comprises the following parameters: - *pusch-PreparationLowPriority-r17* indicates additional number of symbols (d1) needed beyond the PUSCH preparation time for cancelling a low priority UL transmission; - *additionalCancellationTime-r17* indicates additional number of symbols (d3) needed on top of Rel-16 cancellation time (which results N2+d1+d3 in total cancellation time); - *maxNumberCarriers-r17* indicates maximum number of supported carriers on the band across a set of contiguous carriers for the reported FS of that band. The value sym0 denotes 0 symbol, sym1 denotes one symbol, and so on.	FS	No	N/A	N/A
phy-PrioritizationLowPriorityDG-HighPriorityCG-r17 Indicates whether the UE supports PHY prioritization of overlapping low-priority DG-PUSCH and high-priority CG-PUSCH comprised of the following functional components: - PHY prioritization for the case where low-priority DG-PUSCH collides with high-priority CG-PUSCH; - Configuration of PHY priority level for CG PUSCH, and dynamic indication of priority level for dynamic PUSCH with a single DCI format. The value indicates maximum number of supported carriers on the band across a set of contiguous carriers for the reported FS of that band.	FS	No	N/A	N/A
posSRS-BWA-AffectedBandList-r18 Indicates which other bands in the band combination are affected due to the need of a guard period. UE indicating support of this shall indicate support one of *posSRS-BWA-IndependentCA-RRC-Connected-r18* and *posSRS-BWA-RRC-Inactive-r18*. NOTE 1: Guard period is needed before and after the aggregated SRS transmissions when SRS resource is configured within a CC without PUSCH/PUCCH is linked for aggregation with an SRS resource configured within an UL active BWP of a UL communication CC. NOTE 2: UE may indicate no other bands in the band combination are affected by the SRS switch, in which case, only the band with the aggregated SRS transmissions is affected.	FS	No	N/A	N/A

posSRS-BWA-IndependentCA-RRC-Connected-r18 Indicates whether the UE supports positioning SRS bandwidth aggregation independent from UL communication CA in RRC_CONNECTED and the support of the same SRS power reduction across aggregated carriers. The capability signalling comprises the following parameters: - *numOfCarriersIntraBandContiguous-r18* indicates the number of supported aggregated carriers in intra band contiguous carriers, which is supported and reported by UE. - *maximumAggregatedBW-TwoCarriersFR1-r18* indicates the maximum aggregated SRS bandwidth in MHz for two aggregated carriers for FR1, which is supported and reported by UE. - *maximumAggregatedBW-TwoCarriersFR2-r18* indicates the maximum aggregated SRS bandwidth in MHz for two aggregated carriers for FR2, which is supported and reported by UE. - *maximumAggregatedBW-ThreeCarriersFR1-r18* indicates the maximum aggregated SRS bandwidth in MHz for three aggregated carriers for FR1, which is supported and reported by UE. - *maximumAggregatedBW-ThreeCarriersFR2-r18* indicates the maximum aggregated SRS bandwidth in MHz for three aggregated carriers for FR2, which is supported and reported by UE. - *maximumAggregatedResourceSet-r18* indicates the max number of aggregated SRS resource sets for positioning supported by UE for SRS bandwidth aggregation, which is supported and reported by UE. - *maximumAggregatedResourcePeriodic-r18* indicates the maximum number of aggregated periodic SRS resources for bandwidth aggregation, which is supported and reported by UE. - *maximumAggregatedResourceAperiodic-r18* indicates the maximum number of aggregated aperiodic SRS resources for bandwidth aggregation, which is supported and reported by UE. - *maximumAggregatedResourceSemi-r18* indicates the maximum number of aggregated semi-persistent SRS resources for bandwidth aggregation, which is supported and reported by UE. - *maximumAggregatedResourcePeriodicPerSlot-r18* indicates the maximum number of aggregated periodic SRS resources for bandwidth aggregation per slot, which is supported and reported by UE. - *maximumAggregatedResourceAperiodicPerSlot-r18* indicates the maximum number of aggregated aperiodic SRS resources for bandwidth aggregation per slot, which is supported and reported by UE. - *maximumAggregatedResourceSemiPerSlot-r18* indicates the maximum number of aggregated semi-persistent SRS resources for bandwidth aggregation per slot, which is supported and reported by UE. - *guardPeriod-r18* indicates the guard period in microseconds before and after aggregated SRS transmission. - *powerClassForTwoAggregatedCarriers-r18* indicates the power class of supported two aggregated carriers in intra band contiguous carriers. - *powerClassForThreeAggregatedCarriers-r18* indicates the power class of supported three aggregated carriers in intra band contiguous carriers. UE indicating support of this feature shall indicate the support of *SRS-AllPosResources-r16*. NOTE 1: The UE supports the simultaneous transmission in a coherent manner of 2 or 3 SRS resources in 2 or 3 intra-band contiguous CCs. NOTE 2: Each two or three linked SRS resources are counted as 1 resource NOTE 3: Void.	FS	No	N/A	N/A

NOTE 4:	Guard period is needed before and after the aggregated SRS transmissions when SRS resource is configured within a CC without PUSCH/PUCCH is linked for aggregation with an SRS resource configured within an UL active BWP of a UL communication CC.				
NOTE 5:	For a given band, independent of the band combination, the UE must signal the same guard period.				
NOTE 6:	The power class is only applicable for FR1 bands.				

posSRS-BWA-RRC-Connected-r18 Indicates whether the UE supports positioning SRS bandwidth aggregation in RRC_CONNECTED and the support of the same SRS power reduction across aggregated carriers. The capability signalling comprises the following parameters: - *numOfCarriersIntraBandContiguous-r18* indicates the number of supported aggregated carriers in intra band contiguous carriers, which is supported and reported by UE. - *maximumAggregatedBW-TwoCarriers-FR1-r18* indicates the maximum aggregated SRS bandwidth in MHz for two aggregated carriers for FR1, which is supported and reported by UE. - *maximumAggregatedBW-TwoCarriers-FR2-r18* indicates the maximum aggregated SRS bandwidth in MHz for two aggregated carriers for FR2, which is supported and reported by UE. - *maximumAggregatedBW-ThreeCarriers-FR1-r18* indicates the maximum aggregated SRS bandwidth in MHz for three aggregated carriers for FR1, which is supported and reported by UE. - *maximumAggregatedBW-ThreeCarriers-FR2-r18* indicates the maximum aggregated SRS bandwidth in MHz for three aggregated carriers for FR2, which is supported and reported by UE. - *maximumAggregatedResourceSet-r18* indicates the max number of aggregated SRS resource sets for positioning supported by UE for SRS bandwidth aggregation, which is supported and reported by UE. - *maximumAggregatedResourcePeriodic-r18* indicates the maximum number of aggregated periodic SRS resources for bandwidth aggregation, which is supported and reported by UE. - *maximumAggregatedResourceAperiodic-r18* indicates the maximum number of aggregated aperiodic SRS resources for bandwidth aggregation, which is supported and reported by UE. - *maximumAggregatedResourceSemi-r18* indicates the maximum number of aggregated semi-persistent SRS resources for bandwidth aggregation, which is supported and reported by UE. - *maximumAggregatedResourcePeriodicPerSlot-r18* indicates the maximum number of aggregated periodic SRS resources for bandwidth aggregation per slot, which is supported and reported by UE. - *maximumAggregatedResourceAperiodicPerSlot-r18* indicates the maximum number of aggregated aperiodic SRS resources for bandwidth aggregation per slot, which is supported and reported by UE. - *maximumAggregatedResourceSemiPerSlot-r18* indicates the maximum number of aggregated semi-persistent SRS resources for bandwidth aggregation per slot, which is supported and reported by UE. UE indicating support of this feature shall indicate the support of *SRS-AllPosResources-r16* and *supportedBandCombinationList.* NOTE 1: The UE supports the simultaneous transmission in a coherent manner of 2 or 3 SRS resources in 2 or 3 intra-band contiguous CCs. NOTE 2: Each two or three linked SRS resources are counted as 1 resource NOTE 3: A UE that supports *SRS-PosResourceAP-r16* must signal a non-zero value for *maximumAggregatedResourceAperiodic-r18* and *maximumAggregatedResourceAperiodicPerSlot-r18*; NOTE 4: Void. NOTE 5: For *numOfCarriersIntraBandContiguous-r18*, it shall be less than or equal to the maximum number of the component carrier associated with *ca-BandwidthClassUL-NR* in TS 38.331 [9]. NOTE 6: For maximum aggregated UL SRS bandwidth, it shall be less than or equal to the maximum aggregated transmission bandwidth associated with *ca-BandwidthClassUL-NR* in TS 38.331 [9]. Additionally, it shall be less than or equal to the maximum aggregated bandwidth for the	FS	No	N/A	N/A

supported CA configuration in Table 5.5A.1-1 in TS 38.101-1 [2] for FR1 bands or Table 5.5A.1-1 in TS 38.101-2 [3] for FR2 bands for the band where aggregated SRS CCs is configured.				
powerBoosting-pi2BPSK-QPSK-r18 Indicates whether the UE supports power boosting for DFT-s-OFDM pi/2 BPSK and QPSK without modified spectrum flatness requirement for PC3 and PC2 MPR reduction, when applicable as defined in 6.2 of TS 38.101-1 [2]. The power boosting is only enabled when signalled via *powerBoostPi2BPSK-r18* for BPSK and *powerBoostQPSK-r18* for QPSK. A UE supporting this feature shall also indicate the support of *pusch-HalfPi-BPSK* and *pucch-F3-4-HalfPi-BPSK.* This capability can be supported in any or all scenarios below: - Case 1: FR1 single band with single uplink CC configured in the band where power boosting capability is indicated in this band. - Case 2: FR1 DL CA with a single uplink CC configured in a band where power boosting capability is indicated. The power boosting feature can be configured in this FR1 NR band. - Case 3: FR1 inter-band UL CA/DC, where a single CC is configured in the uplink bands where power boosting capability is indicated. The power boosting feature can be configured only in one of the bands where capability is indicated. - Case 4: FR1+FR2 UL CA, FR1+FR2 DC, where a single CC is configured in the uplink bands where power boosting capability is indicated. The power boosting feature can be configured in the FR1 NR band.	FS	No	N/A	FR1 only
powerBoosting-pi2BPSK-QPSK-Modified-r18 Indicates whether the UE supports power boosting for DFT-s-OFDM pi/2 BPSK and QPSK with modified spectrum flatness requirement for PC3 and PC2 MPR reduction, when applicable as defined in 6.2 of TS 38.101-1 [2]. The power boosting is only enabled when signalled via *powerBoostPi2BPSK-r18* for BPSK and *powerBoostQPSK-r18* for QPSK. A UE supporting this feature shall also indicate the support of *pusch-HalfPi-BPSK* and *pucch-F3-4-HalfPi-BPSK.* This capability can be supported in any or all scenarios below: - Case 1: FR1 single band with single uplink CC configured in the band where power boosting capability is indicated in this band. - Case 2: FR1 DL CA with a single uplink CC configured in a band where power boosting capability is indicated. The power boosting feature can be configured in this FR1 NR band. - Case 3: FR1 inter-band UL CA/DC, where a single CC is configured in the uplink bands where power boosting capability is indicated. The power boosting feature can be configured only in one of the bands where capability is indicated. - Case 4: FR1+FR2 UL CA, FR1+FR2 DC, where a single CC is configured in the uplink bands where power boosting capability is indicated. The power boosting feature can be configured in the FR1 NR band.	FS	No	N/A	FR1 only
pucch-Repetition-F0-1-2-3-4-DynamicIndication-r17 Indicates whether the UE supports repetitions for PUCCH format 0, 1, 2, 3 and 4 over multiple PUCCH subslots based on dynamic repetition indication. The UE indicating support of this feature shall also indicate the support of *pucch-Repetition-F0-1-2-3-4-RRC-Config-r17.* NOTE: Dynamic PUCCH repetition factor indication is only supported for HARQ-ACK.	FS	No	N/A	N/A
pucch-Repetition-F0-1-2-3-4-RRC-Config-r17 Indicates whether the UE supports repetitions for PUCCH format 0, 1, 2, 3 and 4 over multiple PUCCH subslots with RRC configured repetition factor K = 2, 4, 8. A UE supporting this feature shall also indicate support of *pucch-Repetition-F1-3-4* and *multiPUCCH-r16.* NOTE: The support of this feature does not imply an increase of the maximum number of PUCCHs per slot that is supported by the UE.	FS	No	N/A	N/A
pucch-SingleDCI-STx2P-SFN-r18 Indicates whether the UE supports single-DCI based STx2P SFN scheme for PUCCH and the supported PUCCH formats for STx2P SFN scheme.	FS	No	N/A	FR2 only

pusch-DMRS8Tx-r18 Indicates whether the UE supports DMRS port configuration for PUSCH with 8Tx for Rel-15 and Rel-18. Value *rel15* indicates the UE supports Rel-15 DMRS. Value *both* indicates the UE supports Rel-15 DMRS and Rel-18 DMRS. NOTE: A UE supporting 8Tx must support this feature.	FS	CY	N/A	N/A
pusch-DMRS-TypeEnh-r18 Indicates the DMRS type for Rel-18 enhanced DMRS ports for PUSCH. This capability signalling comprises the following parameters: - *dmrs-Type-r18* indicates the DMRS type for Rel-18 enhanced DMRS ports for PUSCH. Value *etype1* indicates the UE supports eType1 DMRS type. Value *both* indicates the UE supports both eType1 and eType2 DMRS type. - *pusch-TypeA-DMRS-r18* comprises of the following parameters: - *dmrs-TypeA-r18* indicates whether the UE supports enhanced DMRS ports for PUSCH for scheduling mapping of type A for enhanced DMRS ports, including support of 1 symbol FL DMRS without additional symbol(s), support of 1 symbol FL DMRS and 1 additional DMRS symbols and support of 1 symbol FL DMRS and 2 additional DMRS symbols for one port. - *pusch-2SymbolFL-DMRS-r18* indicates whether the UE supports 2 symbols FL-DMRS for enhanced DMRS ports for PUSCH. - *pusch-2SymbolFL-DMRS-Addition2Symbol-r18* indicates whether the UE supports 2-symbol FL DMRS + one additional 2-symbols DMRS for enhanced DMRS ports for PUSCH. - *pusch-1SymbolFL-DMRS-Addition3Symbol-r18* indicates whether the UE supports 1 symbol FL DMRS and 3 additional DMRS symbols for enhanced DMRS ports for PUSCH. - *pusch-1SymbolFL-DMRS-BeyondOnePort-r18* indicates whether the UE supports 1 symbol FL DMRS and 2 additional DMRS symbols for more than one port for enhanced DMRS ports for PUSCH. NOTE: Void - *pusch-TypeB-DMRS-r18* indicates whether the UE supports basic feature of Rel-18 enhanced DMRS ports for PUSCH for scheduling mapping of type B for Rel-18 enhanced DMRS ports, including support of 1 symbol FL DMRS without additional symbol(s) and support of 1 symbol FL DMRS and 1 additional DMRS symbol. - *pusch-rank-1-4-1Port-r18* indicates whether the UE supports 1 port UL PTRS for Rel-18 enhanced DMRS ports for PUSCH with rank 1-4. A UE supporting this feature shall indicate support of at least one of *dmrs-TypeA-r18* and *pusch-TypeB-DMRS-r18.* - *pusch-rank-5-8-1Port-r18* indicates whether the UE supports 1 port UL PTRS for Rel-18 enhanced DMRS ports for PUSCH with rank 5-8. A UE supporting this feature shall indicate support of at least one of *dmrs-TypeA-r18* and *pusch-TypeB-DMRS-r18*. - *pusch-rank-1-4-2Port-r18* indicates whether the UE supports 2 port UL PTRS for Rel-18 enhanced DMRS ports for PUSCH with rank 1-4. A UE supporting this feature shall indicate support of at least one of *dmrs-TypeA-r18* and *pusch-TypeB-DMRS-r18*. - *pusch-rank-5-8-2Port-r18* indicates whether the UE supports 2 port UL PTRS for Rel-18 enhanced DMRS ports for PUSCH with rank 5-8. A UE supporting this feature shall indicate support of at least one of *dmrs-TypeA-r18* and *pusch-TypeB-DMRS-r18*.	FS	CY	N/A	N/A
pusch-ProcessingType1-DifferentTB-PerSlot Indicates whether the UE capable of processing time capability 1 supports transmission of up to two, four or seven unicast PUSCHs for several transport blocks in one serving cell within the same slot per CC that are multiplexed in time domain only.	FS	No	N/A	N/A

pusch-ProcessingType2 Indicates whether the UE supports PUSCH processing capability 2. The UE supports it only if all serving cells are self-scheduled and if all serving cells in one band on which the network configured processingType2 use the same subcarrier spacing. This capability signalling comprises the following parameters for each sub-carrier spacing supported by the UE. - *fallback* indicates whether the UE supports PUSCH processing capability 2 when the number of configured carriers is larger than *numberOfCarriers* for a reported value of *differentTB-PerSlot*. If *fallback* = 'sc', UE supports capability 2 processing time on lowest cell index among the configured carriers in the band where the value is reported, if *fallback* = 'cap1-only', UE supports only capability 1, in the band where the value is reported; - *differentTB-PerSlot* indicates whether the UE supports processing type 2 for 1, 2, 4 and/or 7 unicast PUSCHs for different transport blocks per slot per CC; and if so, it indicates up to which number of CA serving cells the UE supports that number of unicast PUSCHs for different TBs. The UE shall include at least one of *numberOfCarriers* for 1, 2, 4 or 7 transport blocks per slot in this field if *pusch-ProcessingType2* is indicated.	FS	No	N/A	FR1 only
pusch-RepetitionTypeB-r16, pusch-RepetitionTypeB-v16d0 Indicates whether the UE supports PUSCH repetition type B, as specified in 6.1.2 of TS 38.214 [12]. The *maxNumberPUSCH-Tx-r16* in *pusch-RepetitionTypeB-r16* indicates the supported maximum number of PUSCH transmissions within a slot for all TB(s) for processing capability 1 if *pusch-ProcessingType2* is not included, or for both processing capability 1 and processing capability 2 if *pusch-ProcessingType2* is included. The *maxNumberPUSCH-Tx-Cap1-r16* and *maxNumberPUSCH-Tx-Cap2-r16* in *pusch-RepetitionTypeB-v16d0* are for processing capability 1 and processing capability 2 separately, which are only included when different values are supported for the processing capabilities. The *maxNumberPUSCH-Tx-r16* will be ignored by the network if the *pusch-RepetitionTypeB-v16d0* is included.	FS	No	N/A	N/A
pusch-SeparationWithGap Indicates whether the UE supports separation of two unicast PUSCHs with a gap, applicable to Sub-carrier spacings of 15 kHz, 30 kHz and 60 kHz only. For any two consecutive slots n and n+1, if there are more than 1 unicast PUSCH in either slot, the minimum time separation between starting time of any two unicast PUSCHs within the duration of these slots is 2 OFDM symbols for 15kHz, 4 OFDM symbols for 30kHz and 7 OFDM symbols for 60kHz.	FS	No	N/A	N/A
rach-EarlyTA-BandList-r18 Indicates whether the UE supports simultaneous transmission to handle the overlap between UL transmission on serving cell(s) and PRACH on candidate cell(s). A UE supporting this feature shall also indicate support of *rach-EarlyTA-Measurement-r18*. Each source-target pair indicates the band pair between the band under UE's current band combination and the target band for RACH transmission. The target bands only consist of the NR bands indicated in *appliedFreqBandListFilter*. They are listed in the same order as in *appliedFreqBandListFilter* and the first NR band entry correspond to the first entry on *appliedFreqBandListFilter* and so on.	FS	No	N/A	N/A
searchSpaceSharingCA-UL Defines whether the UE supports UL PDCCH search space sharing for carrier aggregation operation.	FS	No	N/A	N/A
semiStaticHARQ-ACK-CodebookSub-SlotPUCCH-r17 Indicates whether the UE supports Semi-static (Type 1) HARQ-ACK codebook for sub-slot based PUCCH configuration. A UE supporting this feature shall also indicate support of *semiStaticHARQ-ACK-Codebook* and *multiPUCCH-r16*.	FS	No	N/A	N/A

simultaneous-2-1-HARQ-ACK-CB-r18 Indicates whether the UE supports two HARQ-ACK codebooks with different priorities to be simultaneously constructed with the restriction up to one sub-slot based HARQ-ACK codebook. This capability also indicates support of separate PUCCH configuration for different HARQ-ACK codebooks, 2-level priority of HARQ-ACK for dynamically scheduled PDSCH and SPS PDSCH, a DCI format 1_3 scheduling PDSCH with different HARQ-ACK priorities when only DCI format 0_3/1_3 is configured per BWP, separate configuration of parameters *pdsch-HARQ-ACK-Codebook*, *uci-OnPUSCH* and *codeBlockGroupTransmission* for different HARQ-ACK codebooks, maximum number of actual PUCCH transmissions for HARQ-ACK within a slot and intra-UE multiplexing/prioritization of UL overlapping channels/signals with two priority levels for HARQ-ACK. The supported maximum number of actual PUCCH transmissions for HARQ-ACK within a slot is indicated by *sub-SlotConfig-NCP-r16* for NCP for 2-symbol*7 sub-slot configuration, and *sub-SlotConfig-ECP-r16* for ECP for 2-symbol*6 sub-slot configuration. For *sub-SlotConfig-NCP-r16* and *sub-SlotConfig-ECP-r16*, if a UE also supports *twoHARQ-ACK-Codebook-type1-r16*, the UE reports the same values as in *twoHARQ-ACK-Codebook-type1-r16*. If a UE reports both *multiPUCCH-r16* and this capability, it can support two slot-based HARQ-ACK codebooks, and one slot-based and one-sub-slot-based HARQ-ACK codebooks. If a UE reports this capability but not *multiPUCCH-r16*, it can only support two slot-based HARQ-ACK codebooks. The number of PUCCHs for CSI reporting per slot is not impacted compared with Rel-15 by introducing the new HARQ-ACK CBs. *simultaneous-2-1-HARQ-ACK-CB-r18* is applied to the sub-slot HARQ-ACK codebook and only 1 actual PUCCH transmission for HARQ-ACK within a slot for slot-based HARQ-ACK codebook is assumed. It is indicated for 2-symbol*7 sub-slot configuration. For 7-symbol*2 sub-slot configuration, the value of *simultaneous-2-1-HARQ-ACK-CB-r18* is {2} for both NCP and ECP cases. The value indicated in *simultaneous-2-1-HARQ-ACK-CB-r18* has no meaning for "slot-based + slot based". A UE supporting this feature shall also indicate support of at least one of *multiCell-PDSCH-DCI-1-3-SameSCS-r18* and *multiCell-PDSCH-DCI-1-3-DiffSCS-r18*.	FS	No	N/A	N/A

simultaneous-2-1-HARQ-ACK-CB-Diff-r19 Indicates whether the UE supports two HARQ-ACK codebooks with different priorities to be simultaneously constructed with the restriction up to one sub-slot based HARQ-ACK codebook with different SCS and/or different carrier type. This capability also indicates support of separate PUCCH configuration for different HARQ-ACK codebooks, 2-level priority of HARQ-ACK for dynamically scheduled PDSCH and SPS PDSCH, a DCI format 1_3 scheduling PDSCH with different HARQ-ACK priorities when only DCI format 0_3/1_3 is configured per BWP, separate configuration of parameters *pdsch-HARQ-ACK-Codebook*, *uci-OnPUSCH* and *codeBlockGroupTransmission* for different HARQ-ACK codebooks, maximum number of actual PUCCH transmissions for HARQ-ACK within a slot and intra-UE multiplexing/prioritization of UL overlapping channels/signals with two priority levels for HARQ-ACK. The supported maximum number of actual PUCCH transmissions for HARQ-ACK within a slot is indicated by *sub-SlotConfig-NCP-r16* for NCP for 2-symbol*7 sub-slot configuration, and *sub-SlotConfig-ECP-r16* for ECP for 2-symbol*6 sub-slot configuration. For *sub-SlotConfig-NCP-r16* and *sub-SlotConfig-ECP-r16*, if a UE also supports *twoHARQ-ACK-Codebook-type1-r16*, the UE reports the same values as in *twoHARQ-ACK-Codebook-type1-r16*. If a UE reports both *multiPUCCH-r16* and this capability, it can support two slot-based HARQ-ACK codebooks, and one slot-based and one-sub-slot-based HARQ-ACK codebooks. If a UE reports this capability but not *multiPUCCH-r16*, it can only support two slot-based HARQ-ACK codebooks. The number of PUCCHs for CSI reporting per slot is not impacted compared with Rel-15 by introducing the new HARQ-ACK CBs. *simultaneous-2-1-HARQ-ACK-CB-Diff-r19* is applied to the sub-slot HARQ-ACK codebook and only 1 actual PUCCH transmission for HARQ-ACK within a slot for slot-based HARQ-ACK codebook is assumed. It is indicated for 2-symbol*7 sub-slot configuration. For 7-symbol*2 sub-slot configuration, the value of *simultaneous-2-1-HARQ-ACK-CB-Diff-r19* is {2} for both NCP and ECP cases. The value indicated in *simultaneous-2-1-HARQ-ACK-CB-Diff-r19* has no meaning for "slot-based + slot based". A UE supporting this feature shall also indicate support of *multiCell-PDSCH-DCI-1-3-DiffSCS-DiffCC-r19*.	FS	No	N/A	N/A

simultaneous-2-2-HARQ-ACK-CB-r18 Indicates whether the UE supports two subslot based HARQ-ACK codebooks with different priorities to be simultaneously constructed. This capability also indicates support of separate PUCCH configuration for different HARQ-ACK codebooks, 2-level priority of HARQ-ACK for dynamically scheduled PDSCH and SPS PDSCH, a DCI format 1_3 scheduling PDSCH with different HARQ-ACK priorities when only DCI format 0_3/1_3 is configured in USS per BWP, separate configuration of parameters *pdsch-HARQ-ACK-Codebook*, *uci-OnPUSCH* and *codeBlockGroupTransmission* for different HARQ-ACK codebooks, and maximum number of actual PUCCH transmissions for HARQ-ACK within a slot. The supported maximum number of actual PUCCH transmissions for HARQ-ACK within a slot is indicated by *sub-SlotConfig-NCP-r16* for NCP for 2-symbol*7 sub-slot configuration, and *sub-SlotConfig-ECP-r16* for ECP for 2-symbol*6 sub-slot configuration. For *sub-SlotConfig-NCP-r16* and *sub-SlotConfig-ECP-r16*, if a UE also supports *twoHARQ-ACK-Codebook-type2-r16*, the UE reports the same values as in *twoHARQ-ACK-Codebook-type2-r16*. The number of PUCCHs for CSI reporting per slot is not impacted compared with Rel-15 by introducing the new HARQ-ACK CBs. *simultaneous-2-2-HARQ-ACK-CB-r18* is applied to the two sub-slot HARQ-ACK codebooks, respectively. *simultaneous-2-2-HARQ-ACK-CB-r18* is reported for 2-symbol*7 sub-slot configuration. For 7-symbol*2 sub-slot configuration, the value of *simultaneous-2-2-HARQ-ACK-CB-r18* is {2} for both NCP and ECP cases. A UE supporting this feature shall also indicate support of *multiPUCCH-r16* and *simultaneous-2-1-HARQ-ACK-CB-r18*.	FS	No	N/A	N/A
simultaneous-2-2-HARQ-ACK-CB-Diff-r19 Indicates whether the UE supports two subslot based HARQ-ACK codebooks with different priorities to be simultaneously constructed. This capability also indicates support of separate PUCCH configuration for different HARQ-ACK codebooks, 2-level priority of HARQ-ACK for dynamically scheduled PDSCH and SPS PDSCH, a DCI format 1_3 scheduling PDSCH with different HARQ-ACK priorities when only DCI format 0_3/1_3 is configured in USS per BWP, separate configuration of parameters *pdsch-HARQ-ACK-Codebook*, *uci-OnPUSCH* and *codeBlockGroupTransmission* for different HARQ-ACK codebooks, and maximum number of actual PUCCH transmissions for HARQ-ACK within a slot. The supported maximum number of actual PUCCH transmissions for HARQ-ACK within a slot is indicated by *sub-SlotConfig-NCP-r16* for NCP for 2-symbol*7 sub-slot configuration, and *sub-SlotConfig-ECP-r16* for ECP for 2-symbol*6 sub-slot configuration. For *sub-SlotConfig-NCP-r16* and *sub-SlotConfig-ECP-r16*, if a UE also supports *twoHARQ-ACK-Codebook-type2-r16*, the UE reports the same values as in *twoHARQ-ACK-Codebook-type2-r16*. The number of PUCCHs for CSI reporting per slot is not impacted compared with Rel-15 by introducing the new HARQ-ACK CBs. *simultaneous-2-2-HARQ-ACK-CB-Diff-r19* is applied to the two sub-slot HARQ-ACK codebooks, respectively. *simultaneous-2-2-HARQ-ACK-CB-Diff-r19* is reported for 2-symbol*7 sub-slot configuration. For 7-symbol*2 sub-slot configuration, the value of *simultaneous-2-2-HARQ-ACK-CB-r18* is {2} for both NCP and ECP cases. A UE supporting this feature shall also indicate support of *multiPUCCH-r16* and *simultaneous-2-1-HARQ-ACK-CB-Diff-r19*.	FS	No	N/A	N/A
simultaneousTxSUL-NonSUL Indicates whether the UE supports simultaneous transmission of SRS on an SUL/non-SUL carrier and PUSCH/PUCCH/SRS on the other UL carrier in the same cell. The UE supports simultaneous transmission on an SUL band X and a Non-SUL band Y if it sets this capability parameter for both band X and band Y.	FS	No	N/A	N/A

srs-AntennaSwitching2SP-1Periodic-r17 Indicates whether the UE supports maximum 2 SP SRS resource sets and maximum 1 periodic SRS resource set for antenna switching. The UE indicating support of this shall indicate support of *supportedSRS-Resources.* NOTE: - Applies for all supported xTyR where y<=8; - For xTyR where y>4, if UE does not support this feature, UE supports maximum one SRS resource set for periodic SRS and maximum one SRS resource set for semi-persistent SRS; - For xTyR where y<=4, if UE does not support this feature, UE follows Rel-15 on the number of resource sets for periodic and semi-persistent SRS. The two SP-SRS resource sets are not activated at the same time.	FS	No	N/A	N/A
srs-AntennaSwitching3T3R2SP-1Periodic-r19 Indicates whether the UE supports maximum 2 SP SRS resource sets and maximum 1 periodic SRS resource set for 3T3R antenna switching. If UE does not support this feature, the UE only supports maximum one SRS resource set for periodic SRS and maximum one SRS resource set for semi-persistent SRS for 3T3R. A UE supporting this feature shall also indicate support of *srs-AntennaSwitching3T3R-r19*. NOTE : The two SP-SRS resource sets are not activated at the same time.	FS	No	N/A	N/A
srs-AntennaSwitching3T6R2SP-1Periodic-r19 Indicates whether the UE supports maximum 2 SP SRS resource sets and maximum 1 periodic SRS resource set for 3T6R antenna switching. If UE does not support this feature, the UE only supports maximum one SRS resource set for periodic SRS and maximum one SRS resource set for semi-persistent SRS for 3T6R is supported. A UE supporting this feature shall also indicate support of *srs-AntennaSwitching3T6R-r19*. NOTE : The two SP-SRS resource sets are not activated at the same time.	FS	No	N/A	N/A
srs-AntennaSwitching8T8R2SP-1Periodic-r18 Indicates whether the UE supports maximum 2 SP SRS resource sets and maximum 1 periodic SRS resource set for 8T8R antenna switching. A UE supporting this feature shall also indicate support of *srs-AntennaSwitching8T8R-r18*. NOTE 1: If UE does not support this feature, support maximum one SRS resource set for periodic SRS and maximum one SRS resource set for semi-persistent SRS. NOTE 2: The two SP-SRS resource sets are not activated at the same time. The UE is only allowed to set this field for a band with associated *FeatureSetUplinkId* set to 0 and when *srs-CarrierSwitch* is supported on the band.	FS	No	N/A	N/A
srs-ExtensionAperiodicSRS-r17 Indicates whether the UE supports 4 aperiodic SRS resource sets for 1T4R and 2 aperiodic resource sets for 1T2R/2T4R. The UE indicating support of this shall indicate support of *srs-TxSwitch* and *supportedSRS-Resources.*	FS	No	N/A	N/A
srs-OneAP-SRS-r17 Indicates whether the UE supports 1 aperiodic SRS resource sets for 1T4R. The UE indicating support of this feature shall also indicate the support of *srs-StartAnyOFDM-Symbol-r16* and *srs-TxSwitch.*	FS	No	N/A	N/A

srs-PosResources-r16 Indicates support of SRS for positioning. UE supporting this feature should also support open loop power control for positioning SRS based on SSB from the serving cell. The capability signalling comprises the following parameters: - *maxNumberSRS-PosResourceSetPerBWP-r16* Indicates the max number of SRS Resource Sets for positioning supported by UE per BWP*;* - *maxNumberSRS-PosResourcesPerBWP-r16* indicates the max number of SRS resources for positioning supported by UE per BWP, including periodic, semi-persistent, and aperiodic SRS; - *maxNumberSRS-ResourcesPerBWP-PerSlot-r16* indicates the max number of SRS resources configured by *SRS-Resource* and *SRS-PosResource-r16* supported by UE per BWP, including periodic, semi-persistent, and aperiodic SRS; - *maxNumberPeriodicSRS-PosResourcesPerBWP-r16* indicates the max number of periodic SRS resources for positioning supported by UE per BWP; - *maxNumberPeriodicSRS-PosResourcesPerBWP-PerSlot-r16* indicates the max number of periodic SRS resources for positioning supported by UE per BWP per slot.	FS	No	N/A	N/A
srs-PosResourceAP-r16 Indicates support of aperiodic SRS for positioning. The UE can include this field only if the UE supports *srs-PosResources-r16*. Otherwise, the UE does not include this field. The capability signalling comprises the following parameters: - *maxNumberAP-SRS-PosResourcesPerBWP-r16* indicates the max number of aperiodic SRS resources for positioning supported by UE per BWP; - *maxNumberAP-SRS-PosResourcesPerBWP-PerSlot-r16* indicates the max number of aperiodic SRS resources for positioning supported by UE per BWP per slot.	FS	No	N/A	N/A
srs-PosResourceSP-r16 Indicates support of semi-persistent SRS for positioning. The UE can include this field only if the UE supports *srs-PosResources-r16*. Otherwise, the UE does not include this field. The capability signalling comprises the following parameters: - *maxNumberSP-SRS-PosResourcesPerBWP-r16* indicates the max number of semi-persistent SRS resources for positioning supported by UE per BWP; - *maxNumberSP-SRS-PosResourcesPerBWP-PerSlot-r16* indicates the max number of semi-persistent SRS resources for positioning supported by UE per BWP per slot	FS	No	N/A	N/A

supportedSRS-Resources Defines support of SRS resources. The capability signalling comprising indication of: - *maxNumberAperiodicSRS-PerBWP* indicates supported maximum number of aperiodic SRS resources that can be configured for the UE per each BWP - *maxNumberAperiodicSRS-PerBWP-PerSlot* indicates supported maximum number of aperiodic SRS resources per slot in the BWP - *maxNumberPeriodicSRS-PerBWP* indicates supported maximum number of periodic SRS resources per BWP - *maxNumberPeriodicSRS-PerBWP-PerSlot* indicates supported maximum number of periodic SRS resources per slot in the BWP - *maxNumberSemiPersistentSRS-PerBWP* indicate supported maximum number of semi-persistent SRS resources that can be configured for the UE per each BWP - *maxNumberSemiPersistentSRS-PerBWP-PerSlot* indicates supported maximum number of semi-persistent SRS resources per slot in the BWP - *maxNumberSRS-Ports-PerResource* indicates supported maximum number of SRS antenna port per each SRS resource. If this field is not included, the UE supports one periodic, one aperiodic, no semi-persistent SRS resources per BWP and one periodic, one aperiodic, no semi-persistent SRS resources per BWP per slot and one SRS antenna port per SRS resource.	FS	FD	N/A	N/A
tdcp-NumberDelayValue-r18 Indicates whether the UE supports number Y>1 of delay values for which TDCP is reported. A UE supporting this feature shall also indicate support of *tdcp-Report-r18*.	FS	No	N/A	N/A
threePortsPTRS-PUSCH-r19 Indicates the number of supported PTRS ports for 3-antenna-port PUSCH transmission. A UE supporting this feature shall also indicate support of *nonCodebook-3TxPUSCH-SingleTRP-r19* or *codebook-3TxPUSCH-SingleTRP-r19*.	FS	No	N/A	N/A

twoHARQ-ACK-Codebook-type1-r16 Indicates whether the UE supports two HARQ-ACK codebooks with up to one subslot based HARQ-ACK codebook (i.e. slot-based + slot-based, or slot-based + subslot based) simultaneously constructed for supporting HARQ-ACK codebooks with different priorities at a UE. The capability signalling comprises the following parameters: - *sub-SlotConfig-NCP-r16* indicates the maximum number of actual PUCCH transmissions for HARQ-ACK within a slot for NCP with 2-symbol*7 sub-slot configuration; - *sub-SlotConfig-ECP-r16* indicates the maximum number of actual PUCCH transmissions for HARQ-ACK within a slot for ECP with 2-symbol*6 sub-slot configuration; For the 7-symbol*2 sub-slot configuration of NCP or the 6-symbol*2 sub-slot configuration of ECP, the value of the maximum number of actual PUCCH transmissions for HARQ-ACK within a slot is {2}. NOTE 1: If the UE indicates support of this feature and is simultaneously configured with two slot-based HARQ-ACK codebooks: - whether the UE supports two PUCCH of format 0 or 2 in consecutive symbols in the same slot for each HARQ-ACK codebook is subject to the capability reported by *twoPUCCH-F0-2-ConsecSymbols*. - whether the UE supports one PUCCH format 0 or 2 and one PUCCH format 1, 3 or 4 in the same slot for each HARQ-ACK codebook is subject to the capability reported by *onePUCCH-LongAndShortFormat*. - whether the UE supports two PUCCH transmissions in the same slot for each HARQ-ACK codebook not covered by *twoPUCCH-F0-2-ConsecSymbols* and *onePUCCH-LongAndShortFormat* is subject to the capability reported by *twoPUCCH-AnyOthersInSlot*. NOTE 2: If a UE reports both *multiPUCCH-r16* and *twoHARQ-ACK-Codebook-type1-r16*, it can support two slot-based HARQ-ACK codebooks, and one slot-based and one-sub-slot-based HARQ-ACK codebooks. If a UE reports *twoHARQ-ACK-Codebook-type1-r16* but does not report *multiPUCCH-r16*, it can only support two slot-based HARQ-ACK codebooks.	FS	No	N/A	N/A
twoHARQ-ACK-Codebook-type2-r16 Indicates whether the UE supports two subslot based HARQ-ACK codebooks simultaneously constructed for supporting HARQ-ACK codebooks with different priorities at a UE. The capability signalling comprises the following parameters: - *sub-SlotConfig-NCP-r16* indicates the maximum number of actual PUCCH transmissions for HARQ-ACK within a slot for NCP with 2-symbol*7 sub-slot configuration; - *sub-SlotConfig-ECP-r16* indicates the maximum number of actual PUCCH transmissions for HARQ-ACK within a slot for ECP with 2-symbol*6 sub-slot configuration; For the 7-symbol*2 sub-slot configuration of NCP or the 6-symbol*2 sub-slot configuration of ECP, the value of the maximum number of actual PUCCH transmissions for HARQ-ACK within a slot is {2}.	FS	No	N/A	N/A
twoPUCCH-Group Indicates whether two PUCCH group in CA with a same numerology across CCs for data and control channel [at a given time] is supported by the UE. For NR CA, two PUCCH group is supported with the same numerology across NR carriers for data and control channel at a given time. For (NG)EN-DC/NE-DC, two PUCCH group is supported with the same numerology across NR carriers for data and control channel at a given time, wherein an NR PUCCH group is configured in FR1 and another NR PUCCH group is configured in FR2. The UE supports two PUCCH groups with PUCCH on a band X and a band Y if it sets this capability parameter for both band X and band Y.	FS	No	N/A	N/A
twoPUCCH-Type1-r16 Indicates whether the UE supports two PUCCH of format 0 or 2 in the same subslot for a single 7*2-symbol subslot based HARQ-ACK codebook.	FS	No	N/A	N/A
twoPUCCH-Type2-r16 Indicates whether the UE supports two PUCCH of format 0 or 2 in consecutive symbols in the same subslot for a single 2*7-symbol subslot based HARQ-ACK codebook.	FS	No	N/A	N/A

twoPUCCH-Type3-r16 Indicates whether the UE supports one PUCCH format 0 or 2 and one PUCCH format 1, 3 or 4 in the same subslot for a single 2*7-symbol HARQ-ACK codebook.	FS	No	N/A	N/A
twoPUCCH-Type4-r16 Indicates whether the UE supports two PUCCH transmissions in the same subslot for a single 2*7-symbol HARQ-ACK codebook which are not covered by *twoPUCCH-Type2-r16* and *twoPUCCH-Type3-r16*.	FS	No	N/A	N/A
twoPUCCH-Type5-r16 Indicates whether the UE supports two PUCCH of format 0 or 2 for two HARQ-ACK codebooks with one 7*2-symbol subslot based HARQ-ACK codebook and one slot based HARQ-ACK codebook.	FS	No	N/A	N/A
twoPUCCH-Type6-r16 Indicates whether the UE supports two PUCCH of format 0 or 2 in consecutive symbols in the same subslot for two HARQ-ACK codebooks with one 2*7-symbol subslot based HARQ-ACK codebook and one slot based HARQ-ACK codebook.	FS	No	N/A	N/A
twoPUCCH-Type7-r16 Indicates whether the UE supports two PUCCH of format 0 or 2 in consecutive symbols in the same subslot for two subslot based HARQ-ACK codebooks.	FS	No	N/A	N/A
twoPUCCH-Type8-r16 Indicates whether the UE supports one PUCCH format 0 or 2 and one PUCCH format 1, 3 or 4 in the same subslot for two HARQ-ACK codebooks with one 2*7-symbol subslot based HARQ-ACK codebook and one slot based HARQ-ACK codebook.	FS	No	N/A	N/A
twoPUCCH-Type9-r16 Indicates whether the UE supports one PUCCH format 0 or 2 and one PUCCH format 1, 3 or 4 in the same subslot for two subslot based HARQ-ACK codebooks.	FS	No	N/A	N/A
twoPUCCH-Type10-r16 Indicates whether the UE supports two PUCCH transmissions in the same subslot for two HARQ-ACK codebooks with one 2*7-symbol subslot and one slot based HARQ-ACK codebook which are not covered by *twoPUCCH-Type6-r16* and *twoPUCCH-Type8-r16*.	FS	No	N/A	N/A
twoPUCCH-Type11-r16 Indicates whether the UE supports two PUCCH transmissions in the same subslot for two subslot based HARQ-ACK codebooks which are not covered by *twoPUCCH-Type7-r16* and *twoPUCCH-Type9-r16*.	FS	No	N/A	N/A
txDiversity2Tx-r18 Indicates whether the UE supports 2Tx Tx diversity for the band configured. This capability is applicable for both single band (non-CA) case and CA case.	FS	No	N/A	FR1 only
txDiversity4Tx-r18 Indicates whether the UE supports 4Tx Tx diversity for the band configured. This capability is applicable for both single band (non-CA) case and CA case.	FS	No	N/A	FR1 only
tx-Support-UL-GapFR2-r17 Indicates whether the UE supports UL transmission in FR2 bands within an FR2 UL gap when the FR2 UL gap is activated in inter-band UL CA. The UE which indicates support for *tx-Support-UL-GapFR2-r17* shall also indicate support for *ul-GapFR2-r17* in an FR2 band.	FS	No	No	FR2 only
ue-PowerClassPerBandPerBC-r17, ue-PowerClassPerBandPerBC-v1820 Indicates the UE power class per band per band combination. NOTE: Void.	FS	No	N/A	FR1 only
ul-CancellationCrossCarrier-r16 Indicates whether the UE supports UL cancellation scheme for cross-carrier comprised of the following functional components: - Supports group common DCI (i.e. DCI format 2_4) for cancellation indication on a different DL CC than that scheduling PUSCH or SRS; - UL cancellation for PUSCH. Cancellation is applied to each PUSCH repetition individually in case of PUSCH repetitions; - UL cancellation for SRS symbols that overlap with the cancelled symbols.	FS	No	N/A	N/A

ul-CancellationSelfCarrier-r16 Indicates whether the UE supports UL cancellation scheme for self-carrier comprised of the following functional components: - Supports group common DCI (i.e. DCI format 2_4) for cancellation indication on the same DL CC as that scheduling PUSCH or SRS; - UL cancellation for PUSCH. Cancellation is applied to each PUSCH repetition individually in case of PUSCH repetitions; - UL cancellation for SRS symbols that overlap with the cancelled symbols.	FS	No	N/A	N/A
ul-DMRS-SingleDCI-M-TRP-r18 Indicates whether the UE supports UL DMRS with Single-DCI based M-TRP. A UE supporting this feature shall also indicate support of *dmrs-TypeA-r18* or *pusch-TypeB-DMRS-r18*.	FS	No	N/A	N/A
ul-DMRS-M-DCI-M-TRP-r18 Indicates whether the UE supports UL DMRS with M-DCI based M-TRP. A UE supporting this feature shall also indicate support of *dmrs-TypeA-r18* or *pusch-TypeB-DMRS-r18*.	FS	No	N/A	N/A
ul-FullPwrMode-3Port-r19 Indicates whether the UE supports full-power Mode 0 for codebook-based for 3 Tx operation. A UE supporting this feature shall also indicate support of *codebook-3TxPUSCH-SingleTRP-r19*. NOTE: If a UE does not support this feature, Rel-15 power scaling procedures apply.	FS	No	N/A	N/A
ul-FullPwrMode-r16 Indicates the UE support of UL full power transmission mode of *fullpower* as specified in clause 7.1 of TS 38.213 [11]. If the UE indicates this capability the UE also indicates the support of codebook based PUSCH MIMO transmission using *mimo-CB-PUSCH* and the support of PUSCH codebook coherency subset using *pusch-TransCoherence.*	FS	No	N/A	N/A
ul-FullPwrMode1-r16 Indicates the UE support of UL full power transmission mode of *fullpowerMode1*. If the UE indicates this capability the UE also indicates the support of codebook based PUSCH MIMO transmission using *mimo-CB-PUSCH* and the support of PUSCH codebook coherency subset using *pusch-TransCoherence.*	FS	No	N/A	N/A
ul-FullPwrMode2-MaxSRS-ResInSet-r16 Indicates the UE support of the maximum number of SRS resources in one SRS resource set with usage set to 'codebook' for uplink full power Mode 2 operation. If the UE indicates this capability the UE also indicates the support of codebook based PUSCH MIMO transmission using *mimo-CB-PUSCH* and the support of PUSCH codebook coherency subset using *pusch-TransCoherence.* A UE supports this feature shall support at least full power operation with single port.	FS	No	N/A	N/A
ul-FullPwrMode2-SRSConfig-diffNumSRSPorts-r16 Indicates the UE supported SRS configuration with different number of antenna ports per SRS resource for uplink full power Mode 2 operation. The possible different number of antenna ports that can be configured for a SRS resource are as follow: - value *p1-2* means that each SRS resource can be configured with 1 port or 2 ports - value *p1-4* means that each SRS resource can be configured with 1 port or 4 ports - value *p1-2-4* means that each SRS resource can be configured with 1 port or 2 ports or 4 ports UE indicates support of this feature shall also indicate support of *ul-FullPwrMode2-MaxSRS-ResInSet.* NOTE: The values *p1-2*, *p1-4* or *p1-2-4* can be used if *ul-FullPwrMode2-MaxSRS-ResInSet* is reported as *n2* or *n4*.	FS	No	N/A	N/A

ul-FullPwrMode2-TPMIGroup-r16 Indicates the UE supported TPMI group(s) which delivers full power. The capability signalling comprises the following values: - *twoPorts-r16* indicates a 2-bit bitmap, where the leading / leftmost bit (bit 0) corresponds to {TPMI index = 0}. The next bit (bit 1) corresponds to {TPMI index = 1} and the TPMI index is as specified in Table 6.3.1.5-1 of TS 38.211 [6] - *fourPortsNonCoherent-r16* indicates the TPMI groups {G0-3} - *fourPortsPartialCoherent-r16* indicates the TPMI groups {G0-6} UE indicates support of this feature shall also indicate support of *ul-FullPwrMode2-MaxSRS-ResInSet.* Definition of G0~G6 can be found in the table below: ID: TPMI groups G0: $\frac{1}{2}\begin{bmatrix}1\\0\\0\\0\end{bmatrix}$, G1: $\frac{1}{2}\begin{bmatrix}1\\0\\0\\0\end{bmatrix},\frac{1}{2}\begin{bmatrix}0\\0\\1\\0\end{bmatrix},\frac{1}{2}\begin{bmatrix}1&0\\0&0\\0&1\\0&0\end{bmatrix},$ G2: $\frac{1}{2}\begin{bmatrix}1\\0\\0\\0\end{bmatrix},\frac{1}{2}\begin{bmatrix}0\\1\\0\\0\end{bmatrix},\frac{1}{2}\begin{bmatrix}0\\0\\1\\0\end{bmatrix},\frac{1}{2}\begin{bmatrix}1&0\\0&0\\0&1\\0&0\end{bmatrix},\frac{1}{2}\begin{bmatrix}1&0\\0&1\\0&0\\0&0\end{bmatrix},\frac{1}{2}\begin{bmatrix}0&0\\1&0\\0&1\\0&0\end{bmatrix},\frac{1}{2}\begin{bmatrix}1&0&0\\0&1&0\\0&0&1\\0&0&0\end{bmatrix}$ G3: $\frac{1}{2}\begin{bmatrix}1&0\\0&0\\0&1\\0&0\end{bmatrix},\frac{1}{2}\begin{bmatrix}1&0\\0&1\\0&0\\0&0\end{bmatrix},\frac{1}{2}\begin{bmatrix}0&0\\1&0\\0&1\\0&0\end{bmatrix},\frac{1}{2}\begin{bmatrix}1&0&0\\0&1&0\\0&0&1\\0&0&0\end{bmatrix}$ G4: $\frac{1}{2}\begin{bmatrix}1\\0\\1\\0\end{bmatrix},\frac{1}{2}\begin{bmatrix}1\\0\\-1\\0\end{bmatrix},\frac{1}{2}\begin{bmatrix}1\\0\\j\\0\end{bmatrix},\frac{1}{2}\begin{bmatrix}1\\0\\-j\\0\end{bmatrix},\frac{1}{2}\begin{bmatrix}1&0\\0&0\\0&1\\0&0\end{bmatrix}$ G5: $\frac{1}{2}\begin{bmatrix}1\\0\\1\\0\end{bmatrix},\frac{1}{2}\begin{bmatrix}1\\0\\-1\\0\end{bmatrix},\frac{1}{2}\begin{bmatrix}1\\0\\j\\0\end{bmatrix},\frac{1}{2}\begin{bmatrix}1\\0\\-j\\0\end{bmatrix}\frac{1}{2}\begin{bmatrix}1&0\\0&0\\0&1\\0&0\end{bmatrix},\frac{1}{2}\begin{bmatrix}1&0\\0&1\\0&0\\0&0\end{bmatrix},\frac{1}{2}\begin{bmatrix}0&0\\1&0\\0&1\\0&0\end{bmatrix},\frac{1}{2}\begin{bmatrix}1&0&0\\0&1&0\\0&0&1\\0&0&0\end{bmatrix}$ G6: $\frac{1}{2}\begin{bmatrix}1\\0\\1\\0\end{bmatrix},\frac{1}{2}\begin{bmatrix}1\\0\\-1\\0\end{bmatrix},\frac{1}{2}\begin{bmatrix}1\\0\\j\\0\end{bmatrix},\frac{1}{2}\begin{bmatrix}1\\0\\-j\\0\end{bmatrix},\frac{1}{2}\begin{bmatrix}0\\1\\0\\1\end{bmatrix},\frac{1}{2}\begin{bmatrix}0\\1\\0\\-1\end{bmatrix},\frac{1}{2}\begin{bmatrix}0\\1\\0\\j\end{bmatrix},\frac{1}{2}\begin{bmatrix}0\\1\\0\\-j\end{bmatrix}$ $\frac{1}{2}\begin{bmatrix}1&0\\0&1\\0&0\\0&0\end{bmatrix},\frac{1}{2}\begin{bmatrix}1&0\\0&0\\0&1\\0&0\end{bmatrix},\frac{1}{2}\begin{bmatrix}1&0\\0&0\\0&0\\0&1\end{bmatrix},\frac{1}{2}\begin{bmatrix}0&0\\1&0\\0&1\\0&0\end{bmatrix},\frac{1}{2}\begin{bmatrix}0&0\\1&0\\0&0\\0&1\end{bmatrix},\frac{1}{2}\begin{bmatrix}0&0\\0&0\\1&0\\0&1\end{bmatrix},\frac{1}{2}\begin{bmatrix}1&0&0\\0&1&0\\0&0&1\\0&0&0\end{bmatrix}$ NOTE 1: When a full coherent UE operates in mode 2, it reports TPMIs the same as a partial-coherent UE. NOTE 2: For 4 port partial-coherent or full-coherent UE, UE can report: 2-port {2-bit bitmap} and one of 4-port non-coherent {G0~G3} and one of 4-port partial-coherent {G0~G6} For 4 port non-coherent UE, UE can report: 2-port {2-bit bitmap} and one of 4-port non-coherent {G0~G3} For 2 port UE, UE can report: 2-port {2-bit bitmap} NOTE 3: A UE that supports this feature must report at least one of the values.	FS	No	N/A	N/A

ul-IntraUE-Mux-r16 Indicates whether the UE supports intra-UE multiplexing/prioritization of overlapping PUCCH/PUCCH and PUCCH/PUSCH with two priority levels in the physical layer. This field includes the following parameters: - *pusch-PreparationLowPriority-r16* indicates the additional number of symbols needed beyond the PUSCH preparation time for cancelling a low priority UL transmission; - *pusch-PreparationHighPriority-r16* indicates the additional number of the preparation time needed for the high priority UL transmission that cancels a low priority UL transmission. The value *sym0* denotes 0 symbol, *sym1* denotes one symbol, and so on.	FS	No	N/A	N/A
ul-IntraUE-MuxEnh-r18 Indicates whether the UE supports intra-UE multiplexing/prioritization of overlapping PUCCH/PUCCH and PUCCH/PUSCH with two priority levels in physical layer for DCI format 1_3/0_3, including - Configuration of PHY priority level for CG PUSCH and SR, and dynamic indication of priority level for dynamic PUSCH with a single DCI format 0_3 - Multiplexing/prioritization between UL channels/signals with the same PHY priority level - Prioritization between UL channels/signals with different PHY priority levels. The capability signalling comprises the following parameters: - *pusch-PreparationLowPriority-r18* indicates the additional number of symbols needed beyond the PUSCH preparation time for cancelling a low priority UL transmission. The UE reports the same value as *pusch-PreparationLowPriority-r16* if the UE also supports *ul-IntraUE-Mux-r16*; - *pusch-PreparationHighPriority-r18* indicates the additional number of symbols of the preparation time needed for the high priority UL transmission that cancels a low priority UL transmission. The UE reports the same value as *pusch-PreparationHighPriority-r16* if the UE also supports *ul-IntraUE-Mux-r16*. The value *sym0* denotes 0 symbol, *sym1* denotes one symbol, and so on. A UE supporting this feature shall also indicate support of at least one of *multiCell-PDSCH-DCI-1-3-SameSCS-r18*, *multiCell-PDSCH-DCI-1-3-DiffSCS-r18*, *multiCell-PUSCH-DCI-0-3-SameSCS-r18*, and *multiCell-PUSCH-DCI-0-3-DiffSCS-r18*.	FS	No	N/A	N/A
ul-IntraUE-MuxEnh-Diff-r19 Indicates whether the UE supports intra-UE multiplexing/prioritization of overlapping PUCCH/PUCCH and PUCCH/PUSCH with two priority levels in physical layer for DCI format 1_3/0_3, including - Configuration of PHY priority level for CG PUSCH and SR, and dynamic indication of priority level for dynamic PUSCH with a single DCI format 0_3 - Multiplexing/prioritization between UL channels/signals with the same PHY priority level - Prioritization between UL channels/signals with different PHY priority levels. The capability signalling comprises the following parameters: - *pusch-PreparationLowPriority-r19* indicates the additional number of symbols needed beyond the PUSCH preparation time for cancelling a low priority UL transmission. The UE reports the same value as *pusch-PreparationLowPriority-r16* if the UE also supports *ul-IntraUE-Mux-r16*; - *pusch-PreparationHighPriority-r19* indicates the additional number of symbols of the preparation time needed for the high priority UL transmission that cancels a low priority UL transmission. The UE reports the same value as *pusch-PreparationHighPriority-r16* if the UE also supports *ul-IntraUE-Mux-r16*. The value *sym0* denotes 0 symbol, *sym1* denotes one symbol, and so on. A UE supporting this feature shall also indicate support of at least one of *multiCell-PDSCH-DCI-1-3-DiffSCS-DiffCC-r19* and *multiCell-PUSCH-DCI-0-3-DiffSCS-DiffCC-r19*.	FS	No	N/A	N/A

ul-MCS-TableAlt-DynamicIndication Indicates whether the UE supports dynamic indication of MCS table using MCS-C-RNTI for PUSCH.	FS	No	N/A	N/A
zeroSlotOffsetAperiodicSRS Indicates whether the UE supports 0 slot offset between aperiodic SRS triggering and transmission, for SRS for CB PUSCH and antenna switching on FR1.	FS	No	N/A	N/A

4.2.7.8 *FeatureSetUplinkPerCC* parameters

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
cgb-2CW-PUSCH-r18 Indicates whether the UE supports CBG based transmission for 2 CWs PUSCH. A UE supporting this feature shall also indicate support of *nonCodebook-8TxPUSCH-r18* or *codebook-8TxBasic-r18*.	FSPC	No	N/A	N/A
channelBW-90mhz Indicates whether the UE supports the channel bandwidth of 90 MHz. For FR1, the UE shall indicate support according to TS 38.101-1 [2], Table 5.3.5-1.	FSPC	CY	N/A	FR1 only
codebook-3PortPUSCH-TypeB-r19 Indicates whether the UE supports codebook based mTRP PUSCH repetition for 3-antenna-port PUSCH transmission with type B. The value indicates the supported number of SRS resources in one SRS resource set. This feature includes the following features: - sequential mapping for repetitions larger than 2. - cyclic mapping for 2 repetitions. - two SRS resource sets with usage set to 'codebook'. A UE supporting this feature shall also indicate support of *codebook-3TxPUSCH-SingleTRP-r19* and *pusch-RepetitionTypeB-r16*.	FSPC	No	N/A	N/A
codebook-3TxPUSCH-SingleTRP-r19 Indicates whether the UE supports codebook based PUSCH transmission for 3TX for single TRP. This capability signalling comprises the following parameters: - *maxNumberPUSCH-MIMO-Layer-r19* indicates the maximum number of PUSCH MIMO layers for codebook-based PUSCH; - *maxNumberSRS-Resource-r19* indicates the maximum number of 4-port SRS resources per SRS resource set with usage set to 'codebook' for codebook-based 3Tx PUSCH. The UE supports codebook-based PUSCH transmission with port 1003 disabled when 4 port SRS resources with port 1003 disabled are configured to the UE. NOTE: When 4 port SRS resources with port 1003 disabled are configured to the UE, the number of ports supported by UE for transmission in an SRS resource is 3.	FSPC	No	N/A	N/A

codebookParameter8TxPUSCH-r18
Indicates whether the UE supports codebook-based 8Tx PUSCH.
 	
The basic features of 8Tx PUSCH codebook are included in *codebook-8TxBasic-r18*. This capability signalling comprises the following parameters:
- *maxNumberPUSCH-MIMO-Layer-r18* defines the maximum number of PUSCH MIMO layers for codebook based PUSCH;
- *maxNumberSRS-Resource-r18* defines the maximum number of 8 port SRS resources per SRS resource set with usage set to '*codebook*' for codebook-based 8Tx PUSCH;
- *srs-8TxPorts-r18* defines SRS 8 Tx ports codebook. Value '*noTDM'* indicates noTDM. Value '*both*' indicates TDM and noTDM. This parameter only applies to *codebook2-8TxPUSCH-r18*, *codebook3-8TxPUSCH-r18*, and *codebook4-8TxPUSCH-r18*.
 	
A UE that supports *codebook-8TxBasic-r18* must support of at least one of *codebook1-8TxPUSCH-r18*, *codebook2-8TxPUSCH-r18*, *codebook3-8TxPUSCH-r18*, and *codebook4-8TxPUSCH-r18*.
 	
- *codebook1-8TxPUSCH-r18* comprises the following parameters:
  - *codebookN1N4-r18* indicates whether the UE supports (N1, N2) codebook-based 8Tx PUSCH codebook1. Value *ng1n4n1* corresponds to (4,1) codebook, value *ng1n2n2* corresponds to (2,2) codebook, value *both* corresponds to both codebooks;
  - *srs-8TxPorts-r18* defines SRS 8 Tx ports codebook1 codebook. Value '*noTDM*' indicates noTDM. Value '*both*' indicates TDM and noTDM.
- *codebook2-8TxPUSCH-r18* indicates whether the UE supports codebook-based 8Tx PUSCH codebook2;
- *codebook3-8TxPUSCH-r18* indicates whether the UE supports codebook-based 8Tx PUSCH codebook3;
- *codebook4-8TxPUSCH-r18* indicates whether the UE supports codebook-based 8Tx PUSCH codebook4.
 	
The UE optionally indicates *ul-FullPwrTransMode0-r18* to indicate whether the UE supports UL full power transmission mode of fullpower when UE is capable of 8 Tx codebook based PUSCH operation.
 	
The UE optionally indicates *ul-FullPwrTransMode1-r18* to indicate whether the UE supports UL full power transmission mode of fullpowerMode1 when UE is capable of 8 Tx codebook based PUSCH operation.
 	
The UE optionally indicates *ul-FullPwrTransMode2-r18* to indicate whether the UE supports UL full power transmission mode of fullpowerMode2 when UE is capable of 8 Tx codebook based PUSCH operation. The UE indicates the maximum number of SRS resources in one SRS resource set with usage set to '*codebook*' for 8Tx codebook based PUSCH for Mode 2.
 	
NOTE 1: A UE that supports *ul-FullPwrTransMode2-r18* supports at least full power operation with single port.
 	
The UE optionally indicates *ul-SRS-TransMode2-r18* to indicate whether the UE supports SRS configurations with different number of antenna ports per SRS resource for Mode 2. The UE indicates a 3-bit bitmap, where the leading / leftmost bit (bit 0) corresponds to whether SRS resource can be configured with 1 port. The next bit (bit 1) corresponds to whether SRS resource can be configured with 2 ports. The rightmost bit (bit 2) corresponds to whether SRS resource can be configured with 4 ports.
 	
A UE supporting *ul-SRS-TransMode2-r18* shall also indicate support of *ul-FullPwrTransMode2*.
 	
NOTE 2: An SRS resource set supported by the UE for uplink full power Mode 2 must contain at least an 8 port SRS resource.
NOTE 3: Any of the above values of *ul-SRS-TransMode2-r18* can be used if *ul-FullPwrTransMode2-r18* is reported as value *n2* or *n4*.
	FSPC	No	N/A	N/A

The UE optionally indicates *tpmi-FullPwrCodebook2-r18* to indicate which TPMI group(s) delivers full power when UE is capable of and configured with 8 Tx codebook based PUSCH operation with codebook2. Value *first* indicates the TPMI group corresponding to only the antenna port group 0. Value *second* indicates the TPMI group corresponding to only the antenna port group 1. Antenna port group is defined in Table 6.3.1.5-8 of TS 38.211 [6]. A UE supporting *tpmi-FullPwrCodebook2-r18* shall also indicate support of *ul-FullPwrTransMode2*.				
maxNumberMIMO-LayersNonCB-PUSCH Defines supported maximum number of MIMO layers at the UE for PUSCH transmission using non-codebook precoding. A UE supporting non-codebook based PUSCH transmission shall indicate support of *maxNumberMIMO-LayersNonCB-PUSCH* and *mimo-NonCB-PUSCH* together.	FSPC	No	N/A	N/A
mimo-CB-PUSCH Indicates whether the UE supports codebook based PUSCH MIMO Transmission. If supported, it includes 2 parameters as follows: - *maxNumberMIMO-LayersCB-PUSCH* defines supported maximum number of MIMO layers at the UE for PUSCH transmission with codebook precoding. - *maxNumberSRS-ResourcePerSet* defines the maximum number of SRS resources per SRS resource set configured for codebook based transmission to the UE. A UE indicating support of this feature shall also indicate support of *pusch-TransCoherence*.	FSPC	No	N/A	N/A
mimo-NonCB-PUSCH Indicates whether the UE supports non-codebook based PUSCH MIMO Transmission. If supported, it includes 2 parameters as follows: - *maxNumberSimultaneousSRS-ResourceTx* defines the maximum number of simultaneous transmitted SRS resources at one symbol for non-codebook based transmission to the UE. - *maxNumberSRS-ResourcePerSet* defines the maximum number of SRS resources per SRS resource set configured for non-codebook based transmission to the UE.	FSPC	No	N/A	N/A
mTRP-PUSCH-RepetitionTypeB-r17 Indicates whether the UE supports multi-TRP PUSCH repetition for non-codebook based PUSCH repetition type B with sequential mapping for repetitions larger than 2 and cyclic mapping for 2 repetitions by indicating the supported number of SRS resources in one SRS resource set. The UE shall also support two SRS resource sets with usage set to 'nonCodebook'. The UE indicating support of this feature shall also indicate support of *maxNumberMIMO-LayersNonCB-PUSCH*, *mimo-NonCB-PUSCH* and *pusch-RepetitionTypeB-r16*.	FSPC	No	N/A	N/A
mTRP-PUSCH-RepetitionTypeB-3Port-r19 Indicates whether the UE supports non-codebook based multi-TRP PUSCH repetition for 3-antenna-port PUSCH transmission with type B. The value indicates the supported number of SRS resources in one SRS resource set. This feature includes the following features: - sequential mapping for repetitions larger than 2. - cyclic mapping for 2 repetitions. - two SRS resource sets with usage set to 'nonCodebook'. A UE supporting this feature shall also indicate support of *nonCodebook-3TxPUSCH-SingleTRP-r19* and *pusch-RepetitionTypeB-r16*.	FSPC	No	N/A	N/A
mTRP-PUSCH-TypeB-CB-r17 Indicates the support of multi-TRP PUSCH repetition based on codebook with PUSCH repetition type B. The value indicates the number of SRS resources in one SRS resource set. This feature includes the following features: - sequential mapping for repetitions larger than 2. - cyclic mapping for 2 repetitions. - two SRS resource sets with usage set to 'codebook'. The UE indicating support of this feature shall also indicate the support of *mimo-CB-PUSCH and pusch-RepetitionTypeB-r16.*	FSPC	No	N/A	N/A

nonCodebook-3TxPUSCH-SingleTRP-r19 Indicates whether the UE supports non-codebook based PUSCH transmission for 3TX for single TRP. This capability signalling comprises the following parameters: - *maxNumberLayer-r19* indicates the maximal number of supported layers of non-codebook transmission scheme. - *maxNumberSRS-Resource-r19* indicates the maximum number of SRS resource per set, where SRS set use is configured as for non-codebook transmission. - *maxNumberSimultaneousSRS-r19* indicates the maximum number of simultaneous transmitted SRS resources at one symbol.	FSPC	No	N/A	N/A
nonCodebook-8TxPUSCH-r18 Indicates whether the UE supports basic features for Non-Codebook-based 8Tx PUSCH. This capability signalling comprises the following parameters: - *maxNumberPUSCH-MIMO-Layer-r18* indicates the maximum number PUSCH MIMO layers for non-codebook based PUSCH; - *maxNumberSRS-Resource-r18* indicates the maximum number of SRS resources per SRS resource set with usage set to '*nonCodebook*'; - *maxNumberSimultaneousSRS-r18* indicates the maximum number of simultaneous transmitted SRS resources at one symbol.	FSPC	No	N/A	N/A
nonCodebook-CSI-RS-SRS-r18 Indicates whether the UE supports association between NZP-CSI-RS and SRS resource set via RRC parameter "*SRS-ResourceSet*" for noncodebook 8Tx PUSCH operation. A UE supporting this feature shall also indicate support of *nonCodebook-8TxPUSCH-r18* and *nonCodebook-CSI-RS-SRS-PerBC-r18*.	FSPC	No	N/A	N/A
pusch-CB-SingleDCI-STx2P-SDM-r18 Indicates whether the UE supports 1) Dynamic switching by DCI 0_1/0_2 between single-DCI STx2P SDM and sTRP for PUSCH codebook; 2) 1 PTRS port for single-DCI based STx2P SDM scheme for PUSCH codebook. 3) Support of two SRS resource sets with usage set to '*codebook*'. The feature also comprises following parameters: - *maxNumberSRS-ResourcePerSet-r18* indicates the maximum number of SRS resources in one SRS resource set. If value 4 is reported, UE also reports value 4 in *ul-FullPwrMode2-MaxSRS-ResInSet;* - *maxNumberLayerPerPanel-r18* indicates the maximum number of layers of each panel for Single-DCI STx2P with SDM; - *maxNumberNZP-PUSCH-PortsPerSet-r18* indicates the max number of NZP PUSCH ports associated with one SRS resource set. If a row of the TPMI consists of all 0's, the corresponding PUSCH port is not counted; - *maxNumberSRS-AntennaPortsPerSet-r18* indicates the maximum number of SRS antenna ports for each SRS resource in each SRS resource set. A UE indicating support of this feature shall also indicate support of *mimo-CB-PUSCH.*	FSPC	No	N/A	FR2 only
pusch-CB-SingleDCI-STx2P-SFN-r18 Indicates whether the UE supports 1) Dynamic switching by DCI 0_1/0_2 between single-DCI STx2P SFN and sTRP; 2) 1 PTRS port for single-DCI based STx2P SFN scheme for PUSCH codebook; 3) Support of two SRS resource sets with usage set to '*codebook*'. The feature also comprises following parameters: - *maxNumberSRS-ResourcePerSet-r18* indicates the maximum number of SRS resources in one SRS resource set. If value 4 is reported, UE also reports value 4 in *ul-FullPwrMode2-MaxSRS-ResInSet;* - *maxNumberLayerPerSet-r18* indicates the maximum number of MIMO layers of each SRS resource set for CB PUSCH with SFN scheme; - *maxNumberSRS-AntennaPortsPerSet-r18* indicates the maximum number of SRS antenna ports for each SRS resource in each SRS resource set; - *maxNumberNZP-PUSCH-PortsPerSet-r18* indicates the max number of NZP PUSCH ports associated with one SRS resource set. If a row of the TPMI consists of all 0's, the corresponding PUSCH port is not counted. A UE indicating support of this feature shall also indicate support of *mimo-CB-PUSCH.*	FSPC	No	N/A	FR2 only

pusch-NonCB-SingleDCI-STx2P-SDM-r18 Indicates whether the UE supports: 1) Dynamic switching by DCI 0_1/0_2 between single-DCI STx2P SDM and sTRP for PUSCH noncodebook; 2) 1 PTRS port for single-DCI based STx2P SDM scheme for PUSCH noncodebook; 3) Support of two SRS resource sets with usage set to '*noncodebook*'. The feature also comprises following parameters: - *maxNumberSRS-ResourcePerSet-r18* indicates the maximum number of SRS resources in one SRS resource set*;* - *maxNumberLayerPerPanel-r18* indicates the maximum number of layers of each panel for Single-DCI STx2P with SDM; - *maxNumberSimulSRS-OneResourcePerSet-r18* indicates the maximum number of simultaneous transmitted SRS resources from one SRS resource set in one symbol; - *maxNumberSimulSRS-TwoResourcePerSet-r18* indicates the maximum number of simultaneous transmitted SRS resources from two SRS resource sets in one symbol. A UE indicating support of this feature shall also indicate support of *maxNumberMIMO-LayersNonCB-PUSCH* and *mimo-NonCB-PUSCH.*	FSPC	No	N/A	FR2 only
pusch-NonCB-SingleDCI-STx2P-SFN-r18 Indicates whether the UE supports: 1) Dynamic switching by DCI 0_1/0_2 between single-DCI STx2P SFN and sTRP, 2) 1 PTRS port for single-DCI based STx2P SFN scheme for PUSCH noncodebook, 3) Support of two SRS resource sets with usage set to 'noncodebook'. The feature also comprises following parameters: - *maxNumberSRS-ResourcePerSet-r18* indicates the maximum number of SRS resources in one SRS resource set; - *maxNumberLayerPerSet-r18* indicates the maximum number of MIMO layers of each SRS resource set for NCB PUSCH with SFN scheme; - *maxNumberSimulSRS-OneResourcePerSet-r18* indicates the maximum number of simultaneous transmitted SRS resources from one SRS resource set in one symbol; - *maxNumberSimulSRS-TwoResourcePerSet-r18* indicates the maximum number of simultaneous transmitted SRS resources from two SRS resource sets in one symbol. A UE indicating support of this feature shall also indicate support of *maxNumberMIMO-LayersNonCB-PUSCH* and *mimo-NonCB-PUSCH.*	FSPC	No	N/A	FR2 only
support32-UL-HARQ-ProcessTN-r19 Indicates whether the UE supports 32 HARQ processes in UL for TN in FR1 and FR2-1.	FSPC	No	N/A	N/A

supportedBandwidthUL, supportedBandwidthUL-v1710, supportedBandwidthUL-v1780, supportedBandwidthUL-v1840, supportedBandwidthUL-v1900 Indicates maximum UL channel bandwidth supported for a given SCS that UE supports within a single CC (and in case of DAPS handover for the source or target cell), which is defined in Table 5.3.5-1 in TS 38.101-1 [2] / TS 38.101-5 [34] for FR1 and Table 5.3.5-1 in TS 38.101-2 [3] / Table 5.3.5-2 in TS 38.101-5 [34] for FR2. For FR1, all the bandwidths listed in TS 38.101-1 [2] / TS 38.101-5 [34], Table 5.3.5-1 for each band shall be mandatory with a single CC unless indicated optional. For FR2 (except for FR2-NTN), the set of mandatory CBW is 50, 100, 200 MHz. For FR2-NTN, the set of mandatory CBW is 50, 100 MHz. When this field is included in a band combination with a single band entry and a single CC entry (i.e. non-CA band combination), the UE shall indicate the maximum channel bandwidth for the band according to TS 38.101-1 [2], TS 38.101-2 [3], and TS 38.101-5 [34]. For FR2, *supportedBandwidthUL-v1710* is included if the maximum UL channel bandwidth supported by the UE within a single CC is greater than 400MHz. When the *supportedBandwidthUL* and the *supportedBandwidthUL-v1710* are reported together for a CC, the network which is able to decode the *supportedBandwidthUL-v1710* ignores the *supportedBandwidthUL*. When the *supportedBandwidthUL* and the *supportedBandwidthUL-v1840* are reported together for a CC, the network which is able to decode the *supportedBandwidthUL-v1840* ignores the *supportedBandwidthUL*. The UE may report a *supportedBandwidthUL* wider than the *channelBWs-UL*; this *supportedBandwidthUL* may not be included in the Table 5.3.5-1 of TS 38.101-1 [2] / TS 38.101-2 [3] / TS 38.101-5 [34] and Table 5.3.5-2 of TS 38.101-5 [34], for the case that the UE is unable to report the actual supported bandwidth according to the Table 5.3.5-1 of TS 38.101-1 [2] / TS 38.101-2 [3] / TS 38.101-5 [34] and Table 5.3.5-2 of TS 38.101-5 [34]. For each band, (e)RedCap UEs shall indicate its maximum channel bandwidth, which is the maximum of those channel bandwidths that are less than or equal to 20 MHz for FR1 and less than or equal to 100 Mhz for FR2, taking restrictions in TS 38.101-1 [2] and TS 38.101-2 [3] into consideration. The *supportedBandwidthUL-v1780* is only applicable to Bandwidth Combination Set 5 (BCS5) of FR1 NR CA (including NR CA part of (NG)EN-DC and NE-DC) and FR1 NR-DC. If the UE reports *supportedAggBW-FR1-r17*, the UE shall report *supportedBandwidthUL-v1780*. NOTE: See the note in the field decription of *channelBWs-UL* for the determination of supported UL channel bandwidth.	FSPC	CY	N/A	N/A
supportedMinBandwidthUL-r17, supportedMinBandwidthUL-v1840, supportedMinBandwidthUL-v1900 Indicates minimum UL channel bandwidth supported for a given SCS that UE supports within a single CC (and in case of intra-frequency DAPS handover for the source and target cells), which is defined in Table 5.3.5-1 in TS 38.101-1 [2] for FR1 and Table 5.3.5-1 in TS 38.101-2 [3] for FR2. This parameter is only applicable to the Bandwidth Combination Set 5 (BCS5). The UE shall indicate this parameter for at least one CC of a BCS5 band combination. This field does not restrict the bandwidths configured for a single CC (i.e. non-CA case).	FSPC	CY	N/A	N/A
supportedModulationOrderUL Indicates the maximum supported modulation order to be applied for uplink in the carrier in the max data rate calculation as defined in 4.1.2. If included, the network may use a modulation order on this serving cell which is higher than the value indicated in this field as long as UE supports the modulation of higher value for uplink. If not included, - for FR1 and FR2, the network uses the modulation order signalled per band i.e. *pusch-256QAM* if signalled. If not signalled in a given band, the network shall use the modulation order 64QAM. In all the cases, it shall be ensured that the data rate does not exceed the max data rate (*DataRate*) and max data rate per CC (*DataRateCC*) according to TS 38.214 [12].	FSPC	No	N/A	N/A

supportedSubCarrierSpacingUL Defines the supported sub-carrier spacing for UL by the UE, as defined in 4.2-1 of TS 38.211 [6], indicating the UE supports simultaneous transmission with same or different numerologies in CA, or indicating the UE supports different numerologies on NR UL and SUL within one cell. Support of simultaneous transmissions with same numerology for intra-band NR CA including both contiguous and non-contiguous is mandatory with capability in both FR1 and FR2. Support of simultaneous transmission with two different numerologies between FR1 band(s) and FR2 band(s) in UL is mandatory with capability if UE supports inter-band NR CA including both FR1 band(s) and FR2 band(s). Support of simultaneous transmission with different numerologies in CA for other cases is optional.	FSPC	CY	N/A	N/A
twoPUSCH-CB-MultiDCI-STx2P-AdditionalTime-r18 Indicates whether the UE supports additional timeline to process multiple TBs for codebook multi-DCI based STx2P PUSCH+PUSCH for DG+DG. A UE supporting this feature shall also indicate support of *twoPUSCH-CB-MultiDCI-STx2P-DG-DG-r18*. NOTE: This feature can also be applied for CG+DG if UE can support *twoPUSCH-CB-MultiDCI-STx2P-CG-DG-r18*.	FSPC	No	N/A	FR2 only
twoPUSCH-CB-MultiDCI-STx2P-DG-DG-r18 Indicates whether the UE supports multi-DCI based STx2P PUSCH+PUSCH for codebook-based PUSCH with fully overlapping PUSCHs in time and non-overlapping in frequency and two SRS resource sets with usage set to '*codebook*' associated with two *coresetPoolIndex* values***.*** - *maxNumberSRS-ResourcePerSet-r18* indicates the maximum number of SRS resources in one SRS resource set. If value *n4* is reported, the UE also reports value *n4* in *ul-FullPwrMode2-MaxSRS-ResInSet-r16*; - *maxNumberLayerOverlapping-r18* indicates the maximum number of layers of each PUSCH of PUSCH+PUSCH overlapping in time domain; - *maxNumberNZP-PUSCH-Overlapping-r18* indicates the maximum number of NZP PUSCH ports for each PUSCH of PUSCH+PUSCH overlapping in time domain. If a row of the TPMI consists of all 0's, the corresponding PUSCH port is not counted; - *maxNumberPUSCH-PerCORESET-PerSlot-r18* indicates the maximum number of PUSCHs per *CORESETPoolIndex* per slot; - *maxNumberTotalLayerOverlapping-r18* indicates the maximum total number of layers across two overlapping PUSCH; - *maxNumberSRS-AntennaPortsPerSet-r18* indicates the maximum number of SRS antenna ports for each SRS resource in each SRS resource set. A UE supporting this feature shall also indicate support of *mimo-CB-PUSCH.* NOTE: Processing support of two SRS resource sets with usage set to '*codebook*' associated with two *coresetPoolIndex* values is not supported in any CC if at least one CC is configured with two values of *CORESETPoolIndex*.	FSPC	No	N/A	FR2 only
twoPUSCH-MultiDCI-STx2P-OutOfOrder-r18 Indicates whether the UE supports out-of-order operation for multi-DCI based STx2P PUSCH+PUSCH. A UE supporting this feature shall also indicate support of *twoPUSCH-CB-MultiDCI-STx2P-DG-DG-r18* or *twoPUSCH-NonCB-MultiDCI-STx2P-DG-DG-r18.*	FSPC	No	N/A	FR2 only
twoPUSCH-MultiDCI-STx2P-TwoTA-r18 Indicates whether the UE supports two TAs for multi-DCI STx2P PUSCH+PUSCH. A UE supporting this feature shall also indicate support of *multiDCI-IntraCellMultiTRP-TwoTA-r18*, *multiDCI-InterCellMultiTRP-TwoTA-r18*, *twoPUSCH-CB-MultiDCI-STx2P-DG-DG-r18* or *twoPUSCH-NonCB-MultiDCI-STx2P-DG-DG-r18*. NOTE: A UE that supports this feature can transmit PUSCH in two consecutive slots using different TA without reducing the later slot.	FSPC	No	N/A	N/A
twoPUSCH-NonCB-MultiDCI-STx2P-AdditionalTime-r18 Indicates whether the UE supports additional timeline to process multiple TBs for non-codebook multi-DCI based STx2P PUSCH+PUSCH for DG+DG. A UE supporting this feature shall also indicate support of *twoPUSCH-NonCB-MultiDCI-STx2P-DG-DG-r18*. NOTE: This feature can also be applied for CG+DG if UE can support *twoPUSCH-NonCB-MultiDCI-STx2P-CG-DG-r18*.	FSPC	No	N/A	FR2 only

twoPUSCH-NonCB-MultiDCI-STx2P-DG-DG-r18 Indicates whether the UE supports multi-DCI based STx2P PUSCH+PUSCH for noncodebook-based PUSCH with fully overlapping PUSCHs in time and non-overlapping in frequency and two SRS resource sets with usage set to '*noncodebook*' associated with two *coresetPoolIndex* values. - *maxNumberSRS-ResourcePerSet-r18* indicates the maximum number of SRS resources in one SRS resource set; - *maxNumberLayerOverlapping-r18* indicates the maximum number of layers of each PUSCH of PUSCH+PUSCH overlapping in time domain; - *maxNumberSimulSRS-ResourcePerSet-r18* indicates the maximum number of simultaneously transmitted SRS resources in one symbol per SRS resource set; - *maxNumberPUSCH-PerCORESET-PerSlot-r18* indicates the maximum number of PUSCHs per *CORESETPoolIndex* per slot; - *maxNumberTotalLayerOverlapping-r18* indicates the maximum total number of layers across two overlapping PUSCH. A UE supporting this feature shall also indicate support of *maxNumberMIMO-LayersNonCB-PUSCH* and *mimo-NonCB-PUSCH.* NOTE: Processing support of two SRS resource sets with usage set to '*codebook*' associated with two *coresetPoolIndex* values is not supported in any CC if at least one CC is configured with two values of *CORESETPoolIndex*.	FSPC	No	N/A	FR2 only

4.2.7.9 *MRDC-Parameters*

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
asyncIntraBandENDC Indicates whether the UE supports asynchronous FDD-FDD intra-band (NG)EN-DC and asynchronous FDD-FDD inter-band (NG)EN-DC/NE-DC where the frequency range of the E-UTRA band is a subset of the frequency range of the NR band, with MRTD and MTTD as specified in clause 7.5 and 7.6 of TS 38.133 [5]. If asynchronous FDD-FDD intra-band (NG)EN-DC is not supported, the UE supports only synchronous FDD-FDD intra-band (NG)EN-DC. For FDD-FDD inter-band (NG)EN-DC/NE-DC combination where the frequency range of the E-UTRA band is a subset of the frequency range of the NR band, if this capability is not supported, the MRTD and MTTD requirements indicated by *interBandMRDC-WithOverlapDL-Bands-r16* apply. This capability applies to: - Intra-band (NG)EN-DC combination without additional inter-band NR and LTE CA component; - Intra-band (NG)EN-DC combination supporting both UL and DL intra-band (NG)EN-DC parts with additional inter-band NR/LTE CA component; - Intra-band (NG)EN-DC combination without supporting UL in both the bands of the intra-band (NG)EN-DC UL part; - Inter-band (NG)EN-DC/NE-DC combination, where the frequency range of the E-UTRA band is a subset of the frequency range of the NR band (as specified in Table 5.5B.4.1-1 of TS 38.101-3 [4]). If this capability is included in an "Intra-band (NG)EN-DC combination supporting both UL and DL intra-band (NG)EN-DC parts with additional inter-band NR/LTE CA component" or in an "Intra-band (NG)EN-DC combination without supporting UL in both the bands of the intra-band (NG)EN-DC UL part", this capability applies to the intra-band (NG)EN-DC BC part.	BC	No	FDD only	FR1 only
condPSCellAdditionENDC-r17 Indicates whether the UE supports conditional PSCell addition in EN-DC. The UE supporting this feature shall also support 2 trigger events for same execution condition in conditional PSCell addition in EN-DC.	BC	No	N/A	N/A
dualPA-Architecture For an intra-band band combination, this field indicates the support of dual PAs. If absent in an intra-band band combination, the UE supports single PA for all the ULs in the intra-band band combination. For other band combinations, this field is not applicable. This capability applies to: - Intra-band (NG)EN-DC/NE-DC combination without additional inter-band NR and LTE CA component; - Intra-band (NG)EN-DC/NE-DC combination supporting both UL and DL intra-band (NG)EN-DC/NE-DC parts with additional inter-band NR/LTE CA component; - Inter-band (NG)EN-DC/NE-DC combination, where the frequency range of the E-UTRA band is a subset of the frequency range of the NR band (as specified in Table 5.5B.4.1-1 of TS 38.101-3 [4]). If this capability is included in an "Intra-band (NG)EN-DC/NE-DC combination supporting both UL and DL intra-band (NG)EN-DC/NE-DC parts with additional inter-band NR/LTE CA component", this capability applies to the intra-band (NG)EN-DC/NE-DC BC part.	BC	No	N/A	N/A
dynamicPowerSharingENDC Indicates whether the UE supports dynamic (NG)EN-DC power sharing between NR FR1 carriers and the LTE carriers. If the UE supports this capability the UE supports the dynamic power sharing behaviour as specified in clause 7 of TS 38.213 [11]. In this release of the specification, the UE supporting (NG)EN-DC shall set this field to *supported.*	BC	Yes	N/A	FR1 only
dynamicPowerSharingNEDC Indicates whether the UE supports dynamic NE-DC power sharing between NR FR1 carriers and the LTE carriers. If the UE supports this capability, the UE supports the dynamic power sharing behavior as specified in clause 7 of TS 38.213 [11].	BC	Yes	N/A	FR1 only

higherPowerLimitMRDC-r17 Indicates whether UE supports increase in maximum output power above the power class indication for inter-band UL (NG)EN-DC band combinations as defined in clause 6.2B of TS 38.101-3 [4].	BC	No	N/A	FR1 only
intraBandENDC-NominalSpacing-r18 Indicates whether the UE supports intra-band non-contiguous (NG)EN-DC with nominal channel spacing as defined in clause 5.4B.1 in the TS 38.101-3[4]. If the band combination supports intra-band (NG)EN-DC only in DL, this field indicates the DL capability. If the band combination supports intra-band (NG)EN-DC in DL and UL, the field indicates the common capability for both DL and UL. The UE indicating support of this field shall indicate support of "non-contiguous" in *intrabandENDC-Support* and shall not indicate *intrabandENDC-Support-UL*.	BC	No	N/A	N/A
intraBandENDC-Support Indicates whether the UE supports intra-band (NG)EN-DC with only non-contiguous spectrum, or with both contiguous and non-contiguous spectrum for the (NG)EN-DC combination as specified in TS 38.101-3 [4]. If the UE does not include this field for an intra-band (NG)EN-DC combination, the UE only supports the contiguous spectrum for all the intra-band (NG)EN-DC component(s) in the inter-band (NG)EN-DC band combination. If *intrabandENDC-Support-UL* is absent and the band combination supports intra-band (NG)EN-DC only in DL, this field indicates the DL capability. If *intrabandENDC-Support-UL* is absent and the band combination supports intra-band (NG)EN-DC in DL and UL, this field indicates the common capability for both DL and UL. If *intrabandENDC-Support-UL* is included, *intraBandENDC-Support* indicates the DL capability. For the inter-band (NG)EN-DC band combination with multiple intra-band (NG)EN-DC components as defined in clause 5.5B in the TS 38.101-3 [4]: - This field is applicable only if the UE supports the same spectrum contiguity capability in DL for all the intra-band (NG)EN-DC components. - If the UE supports different spectrum contiguity capabilities for the intra-band (NG)EN-DC components, the UE shall not include this field.	BC	No	N/A	N/A
intrabandENDC-Support-UL Indicates whether the UE supports intra-band (NG)EN-DC in UL with only non-contiguous spectrum, or with both contiguous and non-contiguous spectrum for the intra-band (NG)EN-DC combination as specified in TS 38.101-3 [4]. The UE includes this field only if the UE supports different UL and DL capabilities for the intra-band (NG)EN-DC band combination. When 'both' is indicated in *intrabandENDC-Support* and in *intraBandENDC-Support-UL*, the UE supports the following three cases of intra-band (NG)EN-DC: contiguous DL/contiguous UL, non-contiguous DL/non-contiguous UL, contiguous DL/non-contiguous UL. For the inter-band (NG)EN-DC band combination with multiple intra-band (NG)EN-DC components as defined in clause 5.5B in the TS 38.101-3 [4]: - This field is applicable only if the UE supports the same spectrum contiguity capability in UL for all the intra-band (NG)EN-DC components. - If the UE supports different spectrum contiguity capabilities in UL for the intra-band (NG)EN-DC components, the UE shall not include this field.	BC	No	N/A	N/A
intrabandENDC-Support-UL-v1790 Indicates whether the UE supports intra-band (NG)EN-DC in UL with only non-contiguous spectrum, or with both contiguous and non-contiguous spectrum for the corresponding intra-band (NG)EN-DC component within the inter-band (NG)EN-DC band combination with multiple intra-band (NG)EN-DC components as defined in clause 5.5B in the TS 38.101-3 [4]. The UE includes this field only if the UE supports different UL and DL capabilities for the corresponding intra-band (NG)EN-DC component. When 'both' is indicated in *intrabandENDC-Support-v1790* and in *intraBandENDC-Support-UL-v1790*, the UE supports the following three cases of intra-band (NG)EN-DC: contiguous DL/contiguous UL, non-contiguous DL/non-contiguous UL, contiguous DL/non-contiguous UL for the corresponding intra-band (NG)EN-DC component.	BC	No	N/A	N/A

intrabandENDC-Support-v1790 Indicates whether the UE supports only non-contiguous spectrum, or with both contiguous and non-contiguous spectrum for the corresponding intra-band (NG)EN-DC component within the inter-band (NG)EN-DC band combination with multiple intra-band (NG)EN-DC components as defined in clause 5.5B in the TS 38.101-3 [4]. If the UE does not include this field, the UE only supports the contiguous spectrum for the corresponding intra-band (NG)EN-DC component. If *intrabandENDC-Support-UL-v1790* is absent for the corresponding intra-band (NG)EN-DC component and the corresponding intra-band (NG)EN-DC component supports DL only, this field indicates the DL capability for the corresponding intra-band (NG)EN-DC component. If *intrabandENDC-Support-UL-v1790* is absent for the corresponding intra-band (NG)EN-DC component and the corresponding intra-band (NG)EN-DC component supports DL and UL, this field indicates the common capability for both DL and UL for the corresponding intra-band (NG)EN-DC component. If *intrabandENDC-Support-UL-v1790* is included for the corresponding intra-band (NG)EN-DC component, *intraBandENDC-Support-v1790* indicates the DL capability for the corresponding intra-band (NG)EN-DC component.	BC	No	N/A	N/A
interBandContiguousMRDC Indicates for an inter-band (NG)EN-DC/NE-DC combination, where the frequency range of the E-UTRA band is a subset of the frequency range of the NR band (as specified in Table 5.5B.4.1-1 of TS 38.101-3 [4]), that the UE supports intra-band contiguous (NG)EN-DC/NE-DC requirements (see TS 38.101-3 [4]). If the field is absent for such an inter-band (NG)EN-DC/NE-DC combination, the UE supports intra-band non-contiguous (NG)EN-DC/NE-DC requirements.	BC	CY	N/A	N/A
interBandMRDC-WithOverlapDL-Bands-r16 Indicates whether the UE supports FDD-FDD or TDD-TDD inter-band (NG)EN-DC/NE-DC operation with overlapping or partially overlapping DL bands with an (NG)EN-DC MTTD/MRTD according to clause 7.5.2/7.6.2 in TS 38.133 [5] and NE-DC MTTD/MRTD according to clause 7.5.5/7.6.5 in TS 38.133 [5] and inter-band RF requirements (i.e. Type 2 UE). If the capability is not reported, the UE supports FDD-FDD or TDD-TDD inter-band operation with overlapping or partially overlapping DL bands with (NG)EN-DC/NE-DC MTTD/MRTD according to clause 7.5.3/7.6.3 in TS 38.133 [5] and intra-band RF requirements (i.e. Type 1 UE).	BC	No	N/A	FR1 only
interBandMRDC-WithOverlapDL-Bands-r19 Indicates whether the UE supports TDD-TDD inter-band (NG)EN-DC operation with overlapping or partially overlapping DL bands with an (NG)EN-DC MTTD/MRTD according to Table 7.5.2.1-1/Table 7.6.2.1-1 in TS 38.133 [5] and inter-band UE RF requirements for inter-band EN-DC including 7.10B in TS38.101-3 [4] (i.e., Type 4 UE). Type 4 supported UE shall also meet Type 1 UE requirements which are TDD-TDD inter-band operation with overlapping or partially overlapping DL bands with (NG)EN-DC MTTD/MRTD according to Table 7.6.3 in TS 38.133 [5] and inter-band UE RF requirements excluding 7.10B in TS38.101-3 [4] (i.e., Type 1 UE). If the capability is not reported, the UE supports the Type 1 UE requirements. A UE supporting this feature shall also indicate support of *requirementTypeIndication-r18.* A UE supporting this feature shall also support network controlled indication of MTTD/MRTD and RF requirements by *nonCollocatedTypeMRDC-v1900* for inter-band non-collocated MRDC, as defined in TS 38.331 [9]. The UE is allowed to indicate this capability for the band combination with more than 1 NR CC on the corresponding NR band (i.e. the NR band that overlaps with EUTRA band), but this capability is only applicable to the fallback band combination with only single CC on that NR band.	BC	No	N/A	FR1 only
maxUplinkDutyCycle-interBandENDC-FDD-TDD-PC2-r16 Indicates the maximum percentage of symbols during a certain evaluation period that can be scheduled for NR uplink transmission and EUTRA FDD uplink transmission so as to ensure compliance with applicable electromagnetic energy absorption requirements provided by regulatory bodies. This field is only applicable for inter-band FDD+TDD EN-DC power class 2 UE as specified in TS 38.101-3 [4]. This capability signalling comprises of *maxUplinkDutyCycle-FDD-TDD-EN-DC1* and *maxUplinkDutyCycle-FDD-TDD-EN-DC2* which indicate the maxUplinkDutyCycle capability of NR band corresponding to different LTE reference configurations as described in TS 38.101-3 [4], clause 6.2B.1.3. Value n30 corresponds to 30%, value n40 corresponds to 40% and so on.	BC	No	N/A	FR1 only

maxUplinkDutyCycle-interBandENDC-TDD-PC2-r16 Indicates the maximum percentage of symbols during a certain evaluation period that can be scheduled for NR uplink transmission under different EUTRA TDD uplink-downlink configurations so as to ensure compliance with applicable electromagnetic energy absorption requirements provided by regulatory bodies. This field is only applicable for inter-band TDD+TDD EN-DC power class 2 UE as specified in TS 38.101-3 [4]. If the field is absent, 30% for NR uplink transmission shall be applied to all EUTRA TDD uplink-downlink configurations. If *eutra-TDD-Configx* is absent, 30% for NR uplink transmission shall be applied to the corresponding EUTRA TDD uplink-downlink configuration. Value n20 corresponds to 20%, value n40 corresponds to 40% and so on.	BC	No	TDD only	FR1 only
scg-ActivationDeactivationENDC-r17 Indicates whether the UE supports activation (with or without RACH) and deactivation on SCG in EN-DC, upon SCG addition and upon reconfiguration of the SCG, as specified in TS 38.331 [9]. A UE supporting this feature shall indicate support of EN-DC as specified in TS 36.331 [17]. For the UE supporting this feature, it is mandatory to report *maxNumberCSI-RS-BFD* and *maxNumberSSB-BFD* for all NR bands of this band combination where the UE supports SpCell.	BC	No	N/A	N/A
scg-ActivationDeactivationResumeENDC-r17 Indicates whether the UE supports activation (with or without RACH) and deactivation on SCG in EN-DC, upon reception of an *RRCReconfiguration* included in an *RRCConnectionResume* message, as specified in TS 38.331 [9] and TS 36.331 [17], A UE supporting this feature shall indicate support of EN-DC and support of *resumeWithSCG-Config-r16* as specified in TS 36.331 [17]. For the UE supporting this feature, it is mandatory to report *maxNumberCSI-RS-BFD* and *maxNumberSSB-BFD* for all NR bands of this band combination where the UE supports SpCell.	BC	No	N/A	N/A
simultaneousRxTxInterBandENDC Indicates whether the UE supports simultaneous transmission and reception in TDD-TDD, TDD-FDD and TDD-SDL inter-band (NG)EN-DC/NE-DC. It is mandatory for certain TDD-FDD, TDD-TDD and TDD-SDL band combinations defined in TS 38.101-3 [4]. This capability does not apply to the following components within TDD-TDD, TDD-FDD and TDD-SDL inter-band (NG)EN-DC/NE-DC combination: - Intra-band (NG)EN-DC/NE-DC component - Inter-band (NG)EN-DC/NE-DC component where the frequency range of the E-UTRA band is a subset of the frequency range of the NR band (as specified in Table 5.5B.4.1-1 of TS 38.101-3 [4]).	BC	CY	N/A	N/A
simultaneousRxTxInterBandENDCPerBandPair Indicates whether the UE supports simultaneous transmission and reception for each band pair in the band combination containing at least: - TDD-TDD inter-band (NG)EN-DC/NE-DC component; - TDD-FDD inter-band (NG)EN-DC/NE-DC component; - TDD-SDL inter-band (NG)EN-DC/NE-DC component. Encoded in the same manner as *simultaneousRxTxInterBandCAPerBandPair*. The UE does not include this field if the UE supports simultaneous transmission and reception for all applicable band pairs in the band combination (in which case *simultaneousRxTxInterBandENDC* is included) or does not support for any band pair in the band combination. It is mandatory for certain band pairs as specified in TS 38.101-3 [4]. The UE shall consistently set the bits which correspond to the same band pair. Each bit of the capability only applies to TDD-TDD, TDD-FDD and TDD-SDL Inter-band (NG)EN-DC/NE-DC band pairs, except for the band pairs where the frequency range of the E-UTRA band is a subset of the frequency range of the NR band (as specified in Table 5.5B.4.1-1 of TS 38.101-3 [4]).	BC	CY	N/A	N/A
singleUL-HARQ-offsetTDD-PCell-r16 Indicate support of HARQ offset for single UL transmission in synchronous (NG)EN-DC with LTE TDD PCell. UE indicates support of this feature shall indicate support of *tdm-restrictionTDD-endc-r16.*	BC	No	N/A	N/A

singleUL-Transmission Indicates that the UE does not support simultaneous UL transmissions as defined in TS 38.101-3 [4]. The UE may only include this field for certain band combinations defined in TS 38.101-3 [4]. If included for a particular band combination, the field applies to all fallback band combinations of this band combination that are defined in TS 38.101-3 [4] as being allowed to include this field and does not apply to any other fallback band combinations defined in TS 38.101-3 [4]. The UE shall include this field for band combinations containing a band pair for which single UL transmission is the only specified operation mode in TS 38.101-3 [4] and if the UE supports UL on both bands. Otherwise, this feature is optional.	BC	FD	N/A	N/A
spCellPlacement Indicates whether the UE supports a SpCell on FR1-FDD, FR1-TDD and/or FR2-TDD depending on which additional SCells of other frequency range(s) / duplex mode(s) are configured. It is applicable to SCG of (NG)EN-DC and MCG of NE-DC, where UL is configured on more than one of FR1-FDD, FR1-TDD and FR2-TDD in a cell group. If not included, the UE supports SpCell on any serving cell with UL in supported band combinations.	UE	No	N/A	N/A
tdm-Pattern Indicates whether the UE supports the *tdm-PatternConfig* for *single UL-transmission* associated functionality, as specified in TS 36.331 [17]. Support is conditionally mandatory in (NG)EN-DC for UEs that do not support dynamicPowerSharingENDC and for UEs that indicate single UL transmission for any (NG)EN-DC BC. Support is conditionally mandatory in NE-DC for UEs that do not support dynamicPowerSharingNEDC and for UEs that indicate single UL transmission for any NE-DC BC. The feature is optional otherwise.	BC	CY	N/A	FR1 only
tdm-restrictionDualTX-FDD-endc-r16 Indicates whether the UE supports TDM restriction to LTE FDD PCell in (NG)EN-DC for dual UL transmission operation when *tdm-PatternConfig2-R16* is configured, as specified in TS 36.331 [17]. UE indicates support this feature shall also indicate support of *tdm-Pattern*.	BC	No	N/A	FR1 only
tdm-restrictionFDD-endc-r16 Indicates whether the UE supports TDM restriction to LTE FDD PCell for single UL-transmission associated functionality when *tdm-PatternConfig2-R16* is configured, as specified in TS 36.331 [17]. This is applicable for FDD (NG)EN-DC. UE indicates support this feature shall also indicate support of *tdm-Pattern*.	BC	No	N/A	FR1 only
tdm-restrictionTDD-endc-r16 Indicates whether the UE supports TDM restriction to LTE TDD PCell for single UL-transmission associated functionality when *tdm-PatternConfig2-R16* is configured, as specified in TS 36.331 [17]. This is applicable for synchronous TDD-TDD (NG)EN-DC.	BC	No	N/A	FR1 only
ul-SharingEUTRA-NR Indicates whether the UE supports (NG)EN-DC/NE-DC with EUTRA-NR coexistence in UL sharing via TDM only, FDM only, or both TDM and FDM from UE perspective as specified in TS 38.101-3 [4].	BC	No	N/A	FR1 only
ul-SwitchingTimeEUTRA-NR Indicates support of switching type between LTE UL and NR UL for (NG)EN-DC/NE-DC with LTE-NR coexistence in UL sharing from UE perspective as defined in clause 6.3B of TS 38.101-3 [4]. It is mandatory to report switching time type 1 or type 2 if UE reports *ul-SharingEUTRA-NR* is *tdm* or *both*.	BC	CY	N/A	FR1 only

ul-TimingAlignmentEUTRA-NR Indicates whether to apply the same UL timing between NR and LTE for dynamic power sharing capable UE operating in a synchronous intra-band contiguous (NG)EN-DC. If this field is absent, UE shall be capable of handling a timing difference up to applicable MTTD requirements when operating in a synchronous intra-band contiguous (NG)EN-DC network, as specified in TS 38.133 [5]. This capability applies to: - Intra-band contiguous (NG)EN-DC combination without additional inter-band NR and LTE CA component; - Intra-band contiguous (NG)EN-DC combination supporting both UL and DL intra-band (NG)EN-DC parts with additional inter-band NR/LTE CA component; - Inter-band (NG)EN-DC combination, where the frequency range of the E-UTRA band is a subset of the frequency range of the NR band (as specified in Table 5.5B.4.1-1 of TS 38.101-3 [4]). If this capability is included in an "Intra-band contiguous (NG)EN-DC combination supporting both UL and DL intra-band (NG)EN-DC parts with additional inter-band NR/LTE CA component", this capability applies to the intra-band (NG)EN-DC BC part.	BC	No	N/A	N/A

4.2.7.10 *Phy-Parameters*

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
absoluteTPC-Command Indicates whether the UE supports absolute TPC command mode.	UE	No	No	Yes
additionalSR-Periodicities-r18 Indicates whether the UE supports the following SR periodicities in the *periodicityAndOffset* parameter as specified in TS 38.331 [9]. The capability signalling comprises the following parameters: - Value *scs-30kHz-r18* indicates the support of 5slots for 30 kHz SCS - Value *scs-120kHz-r18* indicates the support of 5slots and 10slots for 120 kHz SCS	UE	No	No	No
advReceiver-MU-MIMO-r18 Indicates whether the UE supports R-ML (reduced complexity ML) receivers with enhanced inter-user interference suppression, for MU-MIMO up to *maxNumberMIMO-LayersPDSCH* layers across target and co-scheduled UEs with 2RX and 4RX antennas, when co-scheduled UE(s)' modulation order is explicitly signalled by DCI index 1-5 in Table 7.3.1.2.2-12 of TS 38.212 [10]. NOTE: UE supports R-ML on MU-MIMO on single carrier operation. UE optionally supports R-ML on MU-MIMO on one or more carriers in CA, NE-DC, NR-DC and EN-DC operation. A UE supporting this feature shall also support SU-MIMO Interference Mitigation advanced receiver in clause 5.	UE	No	No	FR1 only
aggregationFactorSPS-DL-r16 Indicates whether the UE supports configurable PDSCH aggregation factor ({1, 2, 4, 8}) per DL SPS configuration. The UE can include this feature only if the UE indicates support of *downlinkSPS*.	UE	No	No	Yes
almostContiguousCP-OFDM-UL Indicates whether the UE supports almost contiguous UL CP-OFDM transmissions as defined in clause 6.2 of TS 38.101-1 [2].	UE	No	No	Yes
bwp-SwitchingDelay Defines whether the UE supports DCI and timer based active BWP switching delay type1 or type2 specified in clause 8.6.2 of TS 38.133 [5]. It is mandatory to report type 1 or type 2 when *bwp-SameNumerology* or *bwp-DiffNumerology* is supported on at least one band. This capability is not applicable to IAB-MT. This capability is optional for NCR-MT.	UE	CY	No	No
bwp-SwitchingMultiCCs-r16 Indicates whether the UE supports incremental delay for DCI and timer based active BWP switching on multiple CCs simultaneously as specified in TS 38.133 [5]. The capability signalling comprises of the following: - *type1-r16* indicates the delay value for type 1 BWP switching delay and has values of {100us, 200us} - *type2-r16* indicates the delay value for type 2 BWP switching delay and has values of {200us, 400us, 800us, 1000us} The UE indicating support of this feature shall also support *bwp-SwitchingDelay*, *bwp-SameNumerology* and/or *bwp-DiffNumerology*.	UE	No	No	No
bwp-SwitchingMultiDormancyCCs-r16 Indicates whether the UE supports incremental delay for BWP switch processing on additional SCells in DCI based simultaneous dormant BWP switching on multiple SCells as specified in TS 38.133 [5]. The capability signalling comprises of the following: - *type1-r16* indicates the delay value for type 1 BWP switching delay and has values of {100us, 200us} - *type2-r16* indicates the delay value for type 2 BWP switching delay and has values of {200us, 400us, 800us, 1000us} The UE indicating support of this feature shall also support *scellDormancyWithinActiveTime-r16* or *scellDormancyOutsideActiveTime-r16*.	UE	No	No	No

bwp-SwitchingMultiDormancyCC-DCI-0-3-And-1-3-r18 Indicates whether the UE supports incremental delay for BWP switch processing on additional SCells in DCI based simultaneous dormant BWP switching on multiple SCells while DCI format 0_3/1_3 is used as specified in TS 38.133 [5]. The capability signalling comprises the following parameters: - *type1-r18* indicates the delay value for type 1 BWP switching delay and has values of {100µs, 200µs} - *type2-r18* indicates the delay value for type 2 BWP switching delay and has values of {200µs, 400µs, 800µs, 1000µs} A UE supporting this feature shall also indicate support of *scellDormancyWithinActiveTime-DCI-0-3-And-1-3-r18*.	UE	No	No	No
cbg-FlushIndication-DL Indicates whether the UE supports CBG-based (re)transmission for DL using CBG flushing out information (CBGFI) as specified in TS 38.214 [12].	UE	No	No	No
cbg-TransIndication-DL Indicates whether the UE supports CBG-based (re)transmission for DL using CBG transmission information (CBGTI) as specified in TS 38.214 [12].	UE	No	No	No
cbg-TransIndication-UL Indicates whether the UE supports both in-order and out-of-order CBG-based (re)transmission for UL using CBG transmission information (CBGTI) as specified in TS 38.214 [12].	UE	No	No	No
cbg-TransInOrderPUSCH-UL-r16 Indicates whether the UE supports CBG-based re-transmission(s) of a TB using CBG transmission information (CBGTI) as specified in TS 38.214 [12] in the following two cases (both are considered as in-order CBG-based retransmission(s)): 1. if the initial PUSCH transmission was not cancelled due to gNB scheduling/indication/configuration; and 2. if the initial PUSCH transmission was cancelled due to gNB scheduling/indication/configuration and the following condition is satisfied: the UE is scheduled for a re-transmission of a CBG #N in a given TB when CBG #N-1 has been transmitted before or is scheduled in the same UL grant that includes CBG#N.	UE	No	No	No
cg-TimeDomainAllocationExtension-r17 Indicates whether UE supports the *timeDomainAllocation-v1710* configured in *rrc-ConfiguredUplinkGrant* to indicate 16 or more entries in PUSCH TDRA table. This field is only applicable if the UE supports both *pusch-RepetitionTypeB-r16* and either *configuredUL-GrantType1* or *configuredUL-GrantType1-v1650.*	UE	No	No	No
cli-RSSI-FDM-DL-r16 Indicates whether serving cell DL signal/channel (e.g. PDSCH/PDCCH) and CLI-RSSI FDMed reception is supported as specified in TS 38.215 [13].	UE	No	TDD only	Yes
cli-SRS-RSRP-FDM-DL-r16 Indicates whether serving cell DL signal/channel (e.g. PDSCH/PDCCH) and SRS-RSRP FDMed reception is supported as specified in TS 38.215 [13].	UE	No	TDD only	Yes
codebookVariantsList-r16 Indicates the list of *SupportedCSI-RS-Resource* applicable to the codebook types supported by the UE.	UE	No	No	No
configurableType-1A-FieldsForDCI-0-3-And-1-3-r18 Indicates whether the UE supports Type-1A for 'Antenna port(s)' field for DCI format 1_3 and Type-1A for 'Antenna port(s)', 'Precoding information and number of layers' and 'SRS resource indicator' fields for DCI format 0_3. A UE supporting this feature shall also indicate support of at least one of *multiCell-PDSCH-DCI-1-3-SameSCS-r18*, *multiCell-PDSCH-DCI-1-3-DiffSCS-r18, multiCell-PUSCH-DCI-0-3-SameSCS-r18* or *multiCell-PUSCH-DCI-0-3-DiffSCS-r18*.	UE	No	No	No
configurableType-1A-FieldsForDCI-0-3-And-1-3-Diff-r19 Indicates whether the UE supports Type-1A for 'Antenna port(s)' field for DCI format 1_3 and Type-1A for 'Antenna port(s)', 'Precoding information and number of layers' and 'SRS resource indicator' fields for DCI format 0_3 with different SCS and/or different carrier type. A UE supporting this feature shall also indicate support of at least one of *multiCell-PDSCH-DCI-1-3-DiffSCS-DiffCC-r19* and *multiCell-PUSCH-DCI-0-3-DiffSCS-DiffCC-r19*.	UE	No	No	No
configuredUL-GrantType1 Indicates whether the UE supports Type 1 PUSCH transmissions with configured grant as specified in TS 38.214 [12] with UL-TWG-repK value of one. This applies only to non-shared spectrum channel access. For shared spectrum channel access, *configuredUL-GrantType1-r16* applies.	UE	No	No	No

configuredUL-GrantType2 Indicates whether the UE supports Type 2 PUSCH transmissions with configured grant as specified in TS 38.214 [12] with UL-TWG-repK value of one. This applies only to non-shared spectrum channel access. For shared spectrum channel access, *configuredUL-GrantType2-r16* applies.	UE	No	No	No
cqi-4-BitsSubbandTN-NonSharedSpectrumChAccess-r17 Indicates whether the UE supports subband CQI reporting with 4 bits per subband for TN and non-shared spectrum channel access. In this release, the same value shall be indicated for the frequency ranges.	UE	No	No	Yes
cqi-TableAlt Indicates whether UE supports the CQI table with target BLER of 10^-5.	UE	No	No	Yes
cri-RI-CQI-WithoutNon-PMI-PortInd-r16 Indicates whether UE supports *CSI-ReportConfig* with the *reportQuantity* set to '*cri-RI-CQI*' and the *non-PMI-PortIndication* is not configured. UE indicating support of this feature shall also indicate support of *csi-ReportFramework*.	UE	No	No	Yes
crossSlotScheduling-r16 Indicates whether UE supports dynamic indication of applicable minimum scheduling restriction by DCI format 0_1 and 1_1, and the minimum scheduling offset for PDSCH and aperiodic CSI-RS triggering offset (K0), and PUSCH (K2), and the extended value range for aperiodic CSI-RS triggering offset. Support of this feature is reported for licensed and unlicensed bands, respectively. When this field is reported, either of *non-SharedSpectrumChAccess-r16* or *sharedSpectrumChAccess-r16* shall be reported, at least.	UE	No	No	No
csi-ReportFramework See *csi-ReportFramework* in 4.2.7.2. For a band combination comprised of FR1 and FR2 bands, this parameter, if present, limits the corresponding parameter in *MIMO-ParametersPerBand*.	UE	Yes	No	N/A
csi-ReportFrameworkExt-r16 See *csi-ReportFramework* in 4.2.7.2. For a band combination comprised of FR1 and FR2 bands, this parameter, if present, limits the corresponding parameter in *MIMO-ParametersPerBand*.	UE	No	No	N/A
csi-ReportWithoutCQI Indicates whether UE supports CSI reporting with report quantity set to 'CRI/RI/i1' as defined in clause 5.2.1.4 of TS 38.214 [12].	UE	No	No	Yes
csi-ReportWithoutPMI Indicates whether UE supports CSI reporting with report quantity set to 'CRI/RI/CQI' as defined in clause 5.2.1.4 of TS 38.214 [12].	UE	No	No	Yes
csi-RS-CFRA-ForHO Indicates whether the UE can perform reconfiguration with sync using a contention free random access with 4-step RA type on PRACH resources that are associated with CSI-RS resources of the target cell. This applies only to non-shared spectrum channel access. For shared spectrum channel access, *csi-RS-CFRA-ForHO-r16* applies.	UE	No	No	No
csi-RS-IM-ReceptionForFeedback See *csi-RS-IM-ReceptionForFeedback* in 4.2.7.2. For a band combination comprised of FR1 and FR2 bands, this parameter, if present, limits the corresponding parameter in *MIMO-ParametersPerBand*.	UE	Yes	No	N/A
csi-RS-ProcFrameworkForSRS See *csi-RS-ProcFrameworkForSRS* in 4.2.7.2. For a band combination comprised of FR1 and FR2 bands, this parameter, if present, limits the corresponding parameter in *MIMO-ParametersPerBand*.	UE	No	No	N/A
csi-TriggerStateNon-ActiveBWP-r16 Indicates whether the UE supports CSI trigger states containing non-active BWP.	UE	No	No	No
dci-DL-PriorityIndicator-r16 Indicates whether the UE supports the priority indicator field configured in DCI formats 1_1 and 1_2 in a BWP when configured to monitor both DCI formats 1_1 and 1_2 in the BWP.	UE	No	No	No
dci-Format1-2And0-2-r16 Indicates whether the UE supports monitoring DCI format 1_2 for DL scheduling and monitoring DCI format 0_2 for UL scheduling.	UE	No	No	No
dci-UL-PriorityIndicator-r16 Indicates whether the UE supports the priority indicator field configured in DCI formats 0_1 and 0_2 in a BWP when configured to monitor both DCI formats 0_1 and 0_2 in the BWP. A UE supporting this feature shall also support *ul-IntraUE-Mux-r16* and *dci-Format1-2And0-2-r16*.	UE	No	No	No

defaultSpatialRelationPathlossRS-r16 Indicates the UE support of default spatial relation and pathloss reference RS for dedicated PUCCH/SRS and PUSCH. The UE indicating support of this also indicates the capabilities of supported SRS resources and maximum supported spatial relations for the supported FR2 bands using *supportedSRS-Resources* and *maxNumberConfiguredSpatialRelations.*	UE	No	No	FR2 only
deltaPowerClassReporting-r18 Indicates whether the UE supports $\Delta P_{PowerClass}$ /$\Delta P_{PowerClass,\ CA}$/$\Delta P_{PowerClass,\ EN\text{-}DC}$/$\Delta P_{PowerClass,\ NR\text{-}DC}$ reporting which is triggered upon uplink duty cycle exceedance or upon return to the power class after the duty cycle exceedance, as specified in TS 38.101-1 [2] and TS 38.101-3 [4]. Value *type1* indicates the UE can only report $\Delta P_{PowerClass}$ for non-CA operation, value *type2* indicates the UE can report $\Delta P_{PowerClass}$ for non-CA operation, and the UE can also report $\Delta P_{PowerClass}$/ $\Delta P_{PowerClass,CA}$/$\Delta P_{PowerClass,EN\text{-}DC}$/$\Delta P_{PowerClass,NR\text{-}DC}$ for CA operation.	UE	No	No	FR1 only
dl-64QAM-MCS-TableAlt Indicates whether the UE supports the alternative 64QAM MCS table for PDSCH.	UE	No	No	Yes
dl-SchedulingOffset-PDSCH-TypeA Indicates whether the UE supports DL scheduling slot offset (K0) greater than 0 for PDSCH mapping type A.	UE	Yes	Yes	Yes
dl-SchedulingOffset-PDSCH-TypeB Indicates whether the UE supports DL scheduling slot offset (K0) greater than 0 for PDSCH mapping type B.	UE	Yes	Yes	Yes
downlinkSPS Indicates whether the UE supports PDSCH reception based on semi-persistent scheduling. One SPS configuration is supported per cell group. This applies only to non-shared spectrum channel access. For shared spectrum channel access, *downlinkSPS-r16* applies.	UE	No	No	No
dynamicBetaOffsetInd-HARQ-ACK-CSI Indicates whether the UE supports indicating beta-offset (UCI repetition factor onto PUSCH) for HARQ-ACK and/or CSI via DCI among the RRC configured beta-offsets.	UE	No	No	No
dynamicHARQ-ACK-Codebook Indicates whether the UE supports HARQ-ACK codebook dynamically constructed by DCI(s). This field shall be set to *supported*.	UE	Yes	No	No
dynamicHARQ-ACK-CodeB-CBG-Retx-DL Indicates whether the UE supports HARQ-ACK codebook size for CBG-based (re)transmission based on the DAI-based solution as specified in TS 38.213 [11].	UE	No	No	No
dynamicIndicationSchedulingRestriction-r18 Indicates whether the UE supports dynamic indication of applicable minimum scheduling restriction by DCI format 0_3 and 1_3, minimum scheduling offset K0 configuration for PDSCH and aperiodic CSI-RS triggering offset, minimum scheduling offset K2 configuration for PUSCH and extended value range for aperiodic CSI-RS triggering offset. A UE supporting this feature shall also indicate support of at least one of *multiCell-PDSCH-DCI-1-3-SameSCS-r18, multiCell-PDSCH-DCI-1-3-DiffSCS-r18, multiCell-PUSCH-DCI-0-3-SameSCS-r18* and *multiCell-PUSCH-DCI-0-3-DiffSCS-r18.*	UE	No	No	No
dynamicIndicationSchedulingRestrictionDiff-r19 Indicates whether the UE supports dynamic indication of applicable minimum scheduling restriction by DCI format 0_3 and 1_3, minimum scheduling offset K0 configuration for PDSCH and aperiodic CSI-RS triggering offset, minimum scheduling offset K2 configuration for PUSCH and extended value range for aperiodic CSI-RS triggering offset with different SCS and/or different carrier type. A UE supporting this feature shall also indicate support of at least one of *multiCell-PDSCH-DCI-1-3-DiffSCS-DiffCC-r19* and *multiCell-PUSCH-DCI-0-3-DiffSCS-DiffCC-r19.*	UE	No	No	No
dynamicPRB-BundlingDL Indicates whether UE supports DCI-based indication of the PRG size for PDSCH reception.	UE	No	No	No
dynamicSFI Indicates whether the UE supports monitoring for DCI format 2_0 and determination of slot formats via DCI format 2_0. This applies only to non-shared spectrum channel access. For shared spectrum channel access, *dynamicSFI-r16* applies. This capability is not applicable to NCR-MT.	UE	No	Yes	Yes

dynamicSwitchRA-Type0-1-PDSCH Indicates whether the UE supports dynamic switching between resource allocation Types 0 and 1 for PDSCH as specified in TS 38.212 [10].	UE	No	No	No
dynamicSwitchRA-Type0-1-PUSCH Indicates whether the UE supports dynamic switching between resource allocation Types 0 and 1 for PUSCH as specified in TS 38.212 [10].	UE	No	No	No
enhancedPowerControl-r16 For DG-PUSCH, one bit (separately from SRI) in UL grant is used to indicate the P0 value if SRI is present in the UL grant, and 1 or 2 bits is used to indicate the P0 value if SRI is not present in the UL grant.	UE	No	No	Yes
extendedCG-Periodicities-r16 Indicates that the UE supports extended periodicities for CG Type 1 (if the UE indicates *configuredUL-GrantType1* or *configuredUL-GrantType1-v1650* capability) or CG Type 2 (if the UE indicates *configuredUL-GrantType2* or *configuredUL-GrantType2-v1650* capability) as specified by *periodicityExt-r16* field of IE *ConfiguredGrantConfig* in TS 38.331 [9].	UE	No	No	No
extendedSPS-Periodicities-r16 Indicates that the UE supports extended periodicities for downlink SPS as specified by *periodicityExt-r16* field of IE *SPS-Config* in TS 38.331 [9].	UE	No	No	No
fdd-PCellUL-TX-AllUL-Subframe-r16 Indicates whether the UE configured with *tdm-patternConfig-r16* can be semi-statically configured with LTE UL transmissions in all UL subframes not limited to the reference tdm-pattern (only for type 1 UE) in case of LTE FDD PCell. UE indicating support can configure its LTE FDD PCell with this feature on the band combination which indicates support of either *tdm-restrictionFDD-endc-r16* or *tdm-restrictionDualTX-FDD-endc-r16*.	UE	No	FDD only	FR1 only
fdra-Type-1-Gty-2-4-8-16-RBs-RIV-DCI-1-3-And-0-3-r18 Indicates whether the UE supports FDRA Type 1 granularity of 2, 4, 8, or 16 consecutive RBs based RIV for DCI format 0_3 and FDRA Type 1 granularity of 2, 4, 8, or 16 consecutive RBs based RIV for DCI format 1_3. A UE supporting this feature shall also indicate support of at least one of *multiCell-PDSCH-DCI-1-3-SameSCS-r18*, *multiCell-PDSCH-DCI-1-3-DiffSCS-r18*, *multiCell-PUSCH-DCI-0-3-SameSCS-r18* or *multiCell-PUSCH-DCI-0-3-DiffSCS-r18*.	UE	No	No	No
fdra-Type-1-Gty-2-4-8-16-RBs-RIV-DCI-1-3-And-0-3-Diff-r19 Indicates whether the UE supports FDRA Type 1 granularity of 2, 4, 8, or 16 consecutive RBs based RIV for DCI format 0_3 and FDRA Type 1 granularity of 2, 4, 8, or 16 consecutive RBs based RIV for DCI format 1_3 with different SCS and/or different carrier type. A UE supporting this feature shall also indicate support of at least one of *multiCell-PDSCH-DCI-1-3-DiffSCS-DiffCC-r19* and *multiCell-PUSCH-DCI-0-3-DiffSCS-DiffCC-r19*.	UE	No	No	No
harqACK-CB-SpatialBundlingPUCCH-Group-r16 Indicates whether the UE supports HARQ-ACK codebook type and HARQ-ACK spatial bundling configuration per PUCCH group as specified in TS 38.213 [11]. If the UE indicates support of this, it also supports two NR PUCCH groups with same numerology by setting *twoPUCCH-Group* to *supported.*	UE	No	No	No
harqACK-separateMultiDCI-MultiTRP-r16 Indicates whether the UE support of separate HARQ-ACK. The capability signalling of this feature includes the following: - *maxNumberLongPUCCHs-r16* indicates maximum number of long PUCCHs within a slot for separate HARQ-Ack The UE that indicates support of this feature shall support *multiDCI-MultiTRP-r16.*	UE	No	No	No
harqACK-jointMultiDCI-MultiTRP-r16 Indicates whether the UE support of joint HARQ-ACK. The UE that indicates support of this feature shall support *multiDCI-MultiTRP-r16.*	UE	No	No	No
k1-RangeExtensionATG-r18 Indicates whether the UE supports extended K1 value range of (0..31) for unpaired spectrum. The UE indicating support of this feature shall also indicate support of *airToGroundNetwork-r18*. NOTE: This capability is applicable only for bands defined in Clause 5.2J in TS 38.101-1 [2].	UE	No	TDD only	FR1 only
pucch-F0-2WithoutFH Indicates whether the UE supports transmission of a PUCCH format 0 or 2 without frequency hopping. When included, the UE does not support PUCCH formats 0 and 2 without frequency hopping. When not included, the UE supports the PUCCH formats 0 and 2 without frequency hopping.	UE	Yes	No	Yes

pucch-F1-3-4WithoutFH Indicates whether the UE supports transmission of a PUCCH format 1, 3 or 4 without frequency hopping. When included, the UE does not support PUCCH formats 1, 3 and 4 without frequency hopping. When not included, the UE supports the PUCCH formats 1, 3 and 4 without frequency hopping.	UE	Yes	No	Yes
interleavingVRB-ToPRB-PDSCH Indicates whether the UE supports receiving PDSCH with interleaved VRB-to-PRB mapping as specified in TS 38.211 [6].	UE	Yes	No	No
interSlotFreqHopping-PUSCH Indicates whether the UE supports inter-slot frequency hopping for PUSCH transmissions.	UE	No	No	No
intraSlotFreqHopping-PUSCH Indicates whether the UE supports intra-slot frequency hopping for PUSCH transmission, except for PUSCH scheduled by PDCCH in the Type1-PDCCH common search space before RRC connection establishment.	UE	Yes	No	Yes
jointPowerSpatialAdaptation-r18 Indicates whether the UE supports joint operation of power domain and spatial domain adaptation. A UE supporting this feature shall also indicate one of the following capabilities: {*spatialAdaptation-CSI-Feedback-r18* and *powerAdaptation-CSI-Feedback-r18*}, or {*spatialAdaptation-CSI-FeedbackPUSCH-r18* and *powerAdaptation-CSI-FeedbackPUSCH-r18*}, or {*spatialAdaptation-CSI-FeedbackPUCCH-r18* and *powerAdaptation-CSI-FeedbackPUCCH-r18*}, or {*spatialAdaptation-CSI-FeedbackAperiodic-r18* and *powerAdaptation-CSI-FeedbackAperiodic-r18*}.	UE	No	No	No
maxHARQ-ProcessNumberATG-r18 Indicates the maximal supported HARQ process numbers for UL and for DL respectively. For each value of *maxHARQ-ProcessNumberATG-r18*, value u16d32 indicates the maximal supported HARQ process number is 16 for UL and 32 for DL, value u32d16 indicates the maximal supported HARQ process number is 32 for UL and 16 for DL, value u32d32 indicates the maximal supported HARQ process number is 32 for UL and 32 for DL. The UE indicating support of this feature shall also indicate support of *airToGroundNetwork-r18*. NOTE: This capability is applicable only for bands defined in Clause 5.2J in TS 38.101-1 [2].	UE	No	No	FR1 only
maxLayersMIMO-Adaptation-r16 Indicates whether the UE supports the network configuration of *maxMIMO-Layers* per DL BWP. If the UE supports this feature, the UE needs to report *maxLayersMIMO-Indication*.	UE	No	No	Yes
maxLayersMIMO-Indication Indicates whether the UE supports the network configuration of *maxMIMO-Layers* as specified in TS 38.331 [9].	UE	Yes	No	No
maxNumberPathlossRS-update-r16 Indicates the maximum number of configured pathloss reference RSs for PUSCH/PUCCH/SRS by RRC that the UE can support for MAC-CE based pathloss reference RS update.	UE	No	No	No
maxNumberSearchSpaces Indicates whether the UE supports up to 10 search spaces in an SCell per BWP.	UE	No	No	No
maxNumberSRS-PosPathLossEstimateAllServingCells-r16 Indicates the maximum number of pathloss estimates that the UE can simultaneously maintain for all the SRS resource sets for positioning across all cells in addition to the up to four pathloss estimates that the UE maintains per serving cell for the PUSCH/PUCCH/SRS transmissions. The UE shall include this field if the UE supports any of *olpc-SRS-PosBasedOnPRS-Serving-r16, olpc-SRS-PosBasedOnSSB-Neigh-r16* and *olpc-SRS-PosBasedOnPRS-Neigh-r16.* Otherwise, the UE does not include this field;	UE	No	No	No
maxNumberSRS-PosSpatialRelationsAllServingCells-r16 Indicates the maximum number of maintained spatial relations for all the SRS resource sets for positioning across all serving cells in addition to the spatial relations maintained spatial relations per serving cell for the PUSCH/PUCCH/SRS transmissions. It is only applied for FR2. The UE can include this field only if the UE supports any of *spatialRelation-SRS-PosBasedOnSSB-Serving-r16*, *spatialRelation-SRS-PosBasedOnCSI-RS-Serving-r16*, *spatialRelation-SRS-PosBasedOnPRS-Serving-r16*, *spatialRelation-SRS-PosBasedOnSSB-Neigh-r16* or *spatialRelation-SRS-PosBasedOnPRS-Neigh-r16*. Otherwise, the UE does not include this field;	UE	No	No	FR2 only

maxTotalResourcesForAcrossFreqRanges-r16 Indicates the maximum total number of SSB/CSI-RS/CSI-IM resources for beam management, pathloss measurement, BFD, RLM and new beam identification across frequency ranges (both FR1 and FR2) that the UE supports. The capability signalling includes the following: - *maxNumberResWithinSlotAcrossCC-AcrossFR-r16* indicates maximum total number of SSB/CSI-RS/CSI-IM resources configured to measure within a slot across all CCs across all frequency ranges for any of L1-RSRP measurement, L1-SINR measurement, pathloss measurement, BFD, RLM and new beam identification. - *maxNumberResAcrossCC-AcrossFR-r16* indicates maximum total number of SSB/CSI-RS/CSI-IM resources configured across all CCs across all frequency ranges for any of L1-RSRP measurement, L1-SINR measurement, pathloss measurement, BFD, RLM and new beam identification. gNB takes into conjunction of this feature and the features *maxTotalResourcesForOneFreqRange-r16**,** beamManagementSSB-CSI-RS, maxNumberCSI-RS-BFD, maxNumberSSB-BFD* and *maxNumberCSI-RS-SSB-CBD* when configuring SSB/CSI-RS/CSI-IM resources for beam management, pathloss measurement, BFD, RLM and new beam identification across frequency ranges. The signalled values apply to the shortest slot duration defined in any FR(s) that are supported by the UE. NOTE 1: The "configured to measure" RS is counted within the duration of a reference slot in which the corresponding reference signals are transmitted. NOTE 2: Regarding the "configured to measure" RS counting - (basic usage 1): If one resource is used for one or multiple of BFD/RLM, it is counted as one. - (basic usage 2): If one resource is used for one or multiple of New Beam Identification/PL-RS/L1-RSRP, add 1. - L1-RSRP measurement includes cases associated with reports with *reportQuantity* set to '*ssb-Index-RSRP*', '*cri-RSRP*' or with *reportQuantity* set to '*none*' and *CSI-RS-ResourceSet* with *trs-Info* not configured. - If one resource is used for L1-SINR in addition to basic usage 1 & 2, add N if referred N times by one or more CSI Reporting settings with *reportQuantity-r16* = '*ssb-Index-SINR-r16*' or '*cri-SINR-r16*'.	UE	No	No	No

maxTotalResourcesForOneFreqRange-r16 Indicates the maximum total number of SSB/CSI-RS/CSI-IM resources for beam management, pathloss measurement, BFD, RLM and new beam identification for one frequency range that the UE supports. The capability signalling includes the following: - *maxNumberResWithinSlotAcrossCC-OneFR-r16* indicates maximum total number of SSB/CSI-RS/CSI-IM resources configured to measure within a slot across all CCs in one frequency range for any of L1-RSRP measurement, L1-SINR measurement, pathloss measurement, BFD, RLM and new beam identification - *maxNumberResAcrossCC-OneFR-r16* indicates maximum total number of SSB/CSI-RS/CSI-IM resources configured across all CCs in one frequency range for any of L1-RSRP measurement, L1-SINR measurement, pathloss measurement, BFD, RLM and new beam identification. gNB takes into conjunction of this feature and the features *beamManagementSSB-CSI-RS, maxNumberCSI-RS-BFD, maxNumberSSB-BFD* and *maxNumberCSI-RS-SSB-CBD* when configuring SSB/CSI-RS/CSI-IM resources for beam management, pathloss measurement, BFD, RLM and new beam identification across one frequency range. NOTE 1: The reference slot duration is the shortest slot duration defined for the reported FR supported by the UE. NOTE 2: For RS configured for new beam identification, they are always counted regardless of beam failure event. NOTE 3: The *maxNumberResWithinSlotAcrossCC-AcrossFR-r16* only counts those in active BWP but the *maxNumberResAcrossCC-AcrossFR-r16* counts all configured including both active and inactive BWP. NOTE 4: The "configured to measure" RS is counted within the duration of a reference slot in which the corresponding reference signals are transmitted. NOTE 5: Regarding the "configured to measure" RS counting - (basic usage 1): If one resource is used for one or multiple of BFD/RLM, it is counted as one. - (basic usage 2): If one resource is used for one or multiple of New Beam Identification/PL-RS/L1-RSRP, add 1. - L1-RSRP measurement includes cases associated with reports with *reportQuantity* set to '*ssb-Index-RSRP*', '*cri-RSRP*' or with *reportQuantity* set to '*none*' and *CSI-RS-ResourceSet* with *trs-Info* not configured. - If one resource is used for L1-SINR in addition to basic usage 1 & 2, add N if referred N times by one or more CSI Reporting settings with *reportQuantity-r16* = '*ssb-Index-SINR-r16*' or '*cri-SINR-r16*'.	UE	No	No	Yes
monitoringDCI-SameSearchSpace-r16 Indicates whether the UE supports monitoring both DCI format 0_1/1_1 and DCI format 0_2/1_2 in the same search space. If the UE supports this feature, the UE needs to report *dci-Format1-2And0-2-r16*.	UE	No	No	No
mTRP-PDCCH-singleSpan-r17 Indicates the support of PDCCH repetition for PDCCH monitoring with a single span of three contiguous OFDM symbols that is within the first four OFDM symbols in a slot. It is applicable to 15kHz SCS only. The UE indicating support of this feature shall also indicate support of *pdcch-MonitoringSingleSpanFirst4Sym-r16* and *mTRP-PDCCH-Repetition-r17*.	UE	No	No	FR1 only
multiPDSCH-PerSlotType1-CB-Support-r17 Indicates whether the UE supports RRC configuration *multiPDSCH-PerSlotType1-CB-r17* as specified in TS 38.331 [9].	UE	No	No	No
multipleCORESET Indicates whether the UE supports configuration of up to two PDCCH CORESETs per BWP in addition to the CORESET with CORESET-ID 0 in the BWP. If this is not supported, the UE supports one PDCCH CORESET per BWP in addition to the CORESET with CORESET-ID 0 in the BWP. It is mandatory with capability signalling for FR2 and optional for FR1.	UE	CY	No	Yes

multipleCORESET-RedCap-r17 Indicates whether the (e)RedCap UE supports configuration of up to three PDCCH CORESETs in the RedCap specific initial DL BWP when it does not contain CD-SSB and CORESET#0. If this is not supported, the field description of *multipleCORESET* applies to the RedCap-specific initial BWP. The (e)RedCap UE reporting this capability shall also report *multipleCORESET.*	UE	No	No	Yes
multiPUSCH-DCI-0-1-r18 Indicates whether the UE supports multi-PUSCHs type 2 configured grant release by DCI format 0_1. A UE supporting this feature shall indicate support of *configuredUL-GrantType2*. A UE supporting this feature and *dci-Format1-2And0-2-r16* (DCI format 0_2/1_2) shall also support *type2-CG-ReleaseDCI-0-2-r16* (Type 2 configured grant release by DCI format 0_2).	UE	No	No	No
multiPUSCH-DCI-0-2-r18 Indicates whether the UE supports multi-PUSCHs type 2 configured grant release by DCI format 0_2. A UE supporting this feature shall indicate support of *configuredUL-GrantType2* and *type2-CG-ReleaseDCI-0-1-r16*.	UE	No	No	No
multiRxPreferenceIndication-r18 Indicates whether the UE supports providing multi-Rx operation preference for FR2, as defined in TS 38.331 [9]. NOTE: It is only supported for power class 3.	UE	No	TDD only	FR2-1 only
mux-HARQ-ACK-PUSCH-DiffSymbol Indicates whether the UE supports HARQ-ACK piggyback on a PUSCH with/without aperiodic CSI once per slot when the starting OFDM symbol of the PUSCH is different from the starting OFDM symbols of the PUCCH resource that HARQ-ACK would have been transmitted on. This applies only to non-shared spectrum channel access. For shared spectrum channel access, *mux-HARQ-ACK-PUSCH-DiffSymbol-r16* applies.	UE	Yes	No	Yes
mux-HARQ-ACK-withoutPUCCH-onPUSCH-r16 Indicates that the UE is implemented according to the definition in TS 38.213 [11] for multiplexing HARQ-ACK in a PUSCH in a PUCCH slot when the UE has no HARQ-ACK for any DL activity to transmit, but it receives UL grant(s) with UL-TDAI field indicating HARQ-ACK multiplexing on a PUSCH, and it transmits multiple PUSCHs in the PUCCH slot. In this release of the specification, the UE shall include this field.	UE	Yes	No	No
mux-MultipleGroupCtrlCH-Overlap Indicates whether the UE supports more than one group of overlapping PUCCHs and PUSCHs per slot per PUCCH cell group for control multiplexing.	UE	No	No	Yes
mux-SR-HARQ-ACK-CSI-PUCCH-MultiPerSlot Indicates whether the UE supports multiplexing SR, HARQ-ACK and CSI on a PUCCH or piggybacking on a PUSCH more than once per slot when SR, HARQ-ACK and CSI are supposed to be sent with the same or different starting symbol in a slot. This applies only to non-shared spectrum channel access. For shared spectrum channel access, *mux-SR-HARQ-ACK-CSI-PUCCH-MultiPerSlot-r16* applies.	UE	No	No	Yes
mux-SR-HARQ-ACK-CSI-PUCCH-OncePerSlot *sameSymbol* indicates the UE supports multiplexing SR, HARQ-ACK and CSI on a PUCCH or piggybacking on a PUSCH once per slot, when SR, HARQ-ACK and CSI are supposed to be sent with the same starting symbols on the PUCCH resources in a slot. *diffSymbol* indicates the UE supports multiplexing SR, HARQ-ACK and CSI on a PUCCH or piggybacking on a PUSCH once per slot, when SR, HARQ-ACK and CSI are supposed to be sent with the different starting symbols in a slot. The UE is mandated to support the multiplexing and piggybacking features indicated by *sameSymbol* while the UE is optional to support the multiplexing and piggybacking features indicated by *diffSymbol*. If the UE indicates *sameSymbol* in this field and does not support *mux-HARQ-ACK-PUSCH-DiffSymbol*, the UE supports HARQ-ACK/CSI piggyback on PUSCH once per slot, when the starting OFDM symbol of the PUSCH is the same as the starting OFDM symbols of the PUCCH resource(s) that would have been transmitted on. If the UE indicates *sameSymbol* in this field and supports *mux-HARQ-ACK-PUSCH-DiffSymbol*, the UE supports HARQ-ACK/CSI piggyback on PUSCH once per slot for which case the starting OFDM symbol of the PUSCH is the different from the starting OFDM symbols of the PUCCH resource(s) that would have been transmitted on. This applies only to non-shared spectrum channel access. For shared spectrum channel access, *mux-SR-HARQ-ACK-CSI-PUCCH-OncePerSlot-r16* applies.	UE	FD	No	Yes

mux-SR-HARQ-ACK-PUCCH Indicates whether the UE supports multiplexing SR and HARQ-ACK on a PUCCH or piggybacking on a PUSCH once per slot, when SR and HARQ-ACK are supposed to be sent with the different starting symbols in a slot. This applies only to non-shared spectrum channel access. For shared spectrum channel access, *mux-SR-HARQ-ACK-PUCCH-r16* applies.	UE	No	No	Yes
newBeamIdentifications2PortCSI-RS-r16 Indicates whether the UE supports 2 port CSI-RS for new beam identification with the same resource counting as in *maxTotalResourcesForOneFreqRange-r16* and *maxTotalResourcesForAcrossFreqRanges-r16*.	UE	No	No	No
nominalRBG-SizeOfConfig-3-FDRA-Type-0-DCI-0-3-r18 Indicates whether the UE supports nominal RBG size of Configuration 3 for FDRA type 0 for DCI format 0_3. A UE supporting this feature shall also indicate support of at least one of *multiCell-PUSCH-DCI-0-3-SameSCS-r18* or *multiCell-PUSCH-DCI-0-3-DiffSCS-r18*.	UE	No	No	No
nominalRBG-SizeOfConfig-3-FDRA-Type-0-DCI-0-3-Diff-r19 Indicates whether the UE supports nominal RBG size of Configuration 3 for FDRA type 0 for DCI format 0_3 with different SCS and/or different carrier type. A UE supporting this feature shall also indicate support of *multiCell-PUSCH-DCI-0-3-DiffSCS-DiffCC-r19*.	UE	No	No	No
nominalRBG-SizeOfConfig-3-FDRA-Type-0-DCI-1-3-r18 Indicates whether the UE supports nominal RBG size of Configuration 3 for FDRA type 0 for DCI format 1_3. A UE supporting this feature shall also indicate support of at least one of *multiCell-PDSCH-DCI-1-3-SameSCS-r18* or *multiCell-PDSCH-DCI-1-3-DiffSCS-r18*	UE	No	No	No
nominalRBG-SizeOfConfig-3-FDRA-Type-0-DCI-1-3-Diff-r19 Indicates whether the UE supports nominal RBG size of Configuration 3 for FDRA type 0 for DCI format 1_3 with different SCS and/or different carrier type. A UE supporting this feature shall also indicate support of *multiCell-PDSCH-DCI-1-3-DiffSCS-DiffCC-r19*.	UE	No	No	No
ntn-ERedCap-FR1-r19 Indicates whether the UE supports (e)RedCap UE with FR1-NTN. A UE supporting this feature shall also indicate support of *nonTerrestrialNetwork-r17*, and one of *supportOfRedCap-r17* and *supportOfERedCap-r18*.	UE	No	No	FR1 Only
nzp-CSI-RS-IntefMgmt Indicates whether the UE supports interference measurements using NZP CSI-RS.	UE	No	No	No
oneFL-DMRS-ThreeAdditionalDMRS-UL Defines whether the UE supports DM-RS pattern for UL transmission with 1 symbol front-loaded DM-RS with three additional DM-RS symbols.	UE	No	No	Yes
oneFL-DMRS-TwoAdditionalDMRS-UL Defines support of DM-RS pattern for UL transmission with 1 symbol front-loaded DM-RS with 2 additional DM-RS symbols and more than 1 antenna ports.	UE	Yes	No	Yes
onePortsPTRS Defines whether UE supports PT-RS with 1 antenna port in DL reception and/or UL transmission. It is mandatory with UE capability signalling for FR2 and optional for FR1. The left most in the bitmap corresponds to DL reception and the right most bit in the bitmap corresponds to UL transmission.	UE	CY	No	Yes
onePUCCH-LongAndShortFormat Indicates whether the UE supports transmission of one long PUCCH format and one short PUCCH format in TDM in the same slot.	UE	No	No	Yes
pathlossEstimation2PortCSI-RS-r16 Indicates whether the UE supports 2 port CSI-RS for pathloss estimation with the same resource counting as in *maxTotalResourcesForOneFreqRange-r16* and *maxTotalResourcesForAcrossFreqRanges-r16*.	UE	No	No	No
pathlossRS-UpdateForType1CG-PUSCH-r18 Indicates whether the UE supports configuration of *enablePL-RS-UpdateForType1CG-PUSCH-r18* as specified in TS 38.331 [9]. A UE supporting this feature shall also support *configuredUL-GrantType1* and *maxNumberPathlossRS-Update-r16*.	UE	No	No	No
pCell-FR2 Indicates whether the UE supports PCell operation on FR2.	UE	Yes	No	FR2 only
pdcch-MonitoringSingleOccasion Indicates whether the UE supports receiving PDCCH in a search space configured to be monitored within a single span of any three contiguous OFDM symbols in a slot with the capability of supporting at least 44 blind decodes in a slot for 15 kHz subcarrier spacing.	UE	No	No	FR1 only

pdcch-BlindDetectionCA Indicates PDCCH blind decoding capabilities supported by the UE for CA with more than 4 CCs as specified in TS 38.213 [11]. The field value is from 4 to 16. NOTE: FR1-FR2 differentiation is not allowed in this release, although the capability signalling is supported for FR1-FR2 differentiation.	UE	No	No	No
pdcch-BlindDetectionMCG-UE Indicates PDCCH blind decoding capabilities supported for MCG when in NR-DC. The field value is from 1 to 15. The UE sets the value in accordance with the constraints specified in TS 38.213 [11]. Additionally, if the UE does not report *pdcch-BlindDetectionCA*, and if X is the maximum number of CCs supported by the UE across all NR-DC band combinations then there is at least one parameter pair (X1, X2) such that X1 + X2 = X and the UE supports at least one NR-DC band combination with X1 CCs in MCG and X2 CCs in SCG and for which X1 <= *pdcch-BlindDetectionMCG-UE* and X2 <= *pdcch-BlindDetectionSCG-UE*.	UE	No	No	Yes
pdcch-BlindDetectionSCG-UE Indicates PDCCH blind decoding capabilities supported for SCG when in NR-DC. The field value is from 1 to 15. The UE sets the value in accordance with the constraints specified in TS 38.213 [11]. Additionally, if the UE does not report *pdcch-BlindDetectionCA*, and if X is the maximum number of CCs supported by the UE across all NR-DC band combinations then there is at least one parameter pair (X1, X2) such that X1 + X2 = X and the UE supports at least one NR-DC band combination with X1 CCs in MCG and X2 CCs in SCG and for which X1 <= *pdcch-BlindDetectionMCG-UE* and X2 <= *pdcch-BlindDetectionSCG-UE*.	UE	No	No	Yes
pdcch-MonitoringAnyOccasionsWithSpanGapCrossCarrierSch-r16 Indicates how the UE supports *pdcch-MonitoringAnyOccasionsWithSpanGap* in case of cross-carrier scheduling with different SCSs in the scheduling cell and the scheduled cell. Value 'mode2' indicates *pdcch-MonitoringAnyOccasionsWithSpanGap* is supported for the band of the scheduling/triggering/indicating cell. Value 'mode3' indicates *pdcch-MonitoringAnyOccasionsWithSpanGap* is supported in both the band of the scheduled/triggered/indicated cell and the band of the scheduling/triggering/indicating cell. UE indicating support of these feature indicates support of *pdcch-MonitoringAnyOccasionsWithSpanGap* and *crossCarrierSchedulingDL-DiffSCS-r16*. NOTE: For *pdcch-MonitoringAnyOccasionsWithSpanGap*, the supported set (set1, set2 or set 3) for cross-carrier scheduling with the different SCSs in the scheduling cell and the scheduled cell is still based on the indicated value for the band of the scheduling cell.	UE	No	No	No
pdcch-MonitoringSingleSpanFirst4Sym-r16 Indicates whether the UE supports receiving PDCCH in a search space configured to be monitored within a single span of any three contiguous OFDM symbols that are within the first four OFDM symbols in a slot with the capability of supporting at least 44 blind decodes in a slot for 15 kHz subcarrier spacing.	UE	No	No	FR1 only
pdsch-256QAM-FR1 Indicates whether the UE supports 256QAM modulation scheme for PDSCH for FR1 as defined in 7.3.1.2 of TS 38.211 [6]. It is optional for (e)RedCap UEs, IAB-MT, and NCR-MT, and mandatory with capability signalling for other UEs.	UE	CY	No	FR1 only
pdsch-MappingTypeA Indicates whether the UE supports receiving PDSCH using PDSCH mapping type A with less than seven symbols. This field shall be set to *supported*.	UE	Yes	No	No
pdsch-MappingTypeB Indicates whether the UE supports receiving PDSCH using PDSCH mapping type B.	UE	Yes	No	No
pdsch-RepetitionMultiSlots Indicates whether the UE supports receiving PDSCH scheduled by DCI format 1_1 when configured with *pdsch-AggregationFactor* > 1, as defined in 5.1.2.1 of TS 38.214 [12]. This applies only to non-shared spectrum channel access. For shared spectrum channel access, *pdsch-RepetitionMultiSlots-r16* applies.	UE	No	No	No

pdsch-RE-MappingFR1-PerSymbol/pdsch-RE-MappingFR1-PerSlot Indicates the maximum number of supported PDSCH Resource Element (RE) mapping patterns for FR1, each described as a resource (including NZP/ZP CSI-RS, CRS, CORESET and SSB) or bitmap. The number of patterns coinciding in a symbol in a CC and in a slot in a CC are limited by the respective capability parameters. Value n10 means 10 RE mapping patterns and n16 means 16 RE mapping patterns, and so on. The UE shall set the fields *pdsch-RE-MappingFR1-PerSymbol* and *pdsch-RE-MappingFR1-PerSlo*t to at least n10 and n16, respectively. In the exceptional case that the UE does not include the fields, the network may anyway assume that the UE supports the required minimum values.	UE	Yes	No	FR1 only
pdsch-RE-MappingFR2-PerSymbol/pdsch-RE-MappingFR2-PerSlot Indicates the maximum number of supported PDSCH Resource Element (RE) mapping patterns for FR2, each described as a resource (including NZP/ZP CSI-RS, CORESET and SSB) or bitmap. The number of patterns coinciding in a symbol in a CC and in a slot in a CC are limited by the respective capability parameters. Value n6 means 6 RE mapping patterns and n16 means 16 RE mapping patterns, and so on. The UE shall set the fields *pdsch-RE-MappingFR2-PerSymbol* and *pdsch-RE-MappingFR2-PerSlo*t to at least n6 and n16, respectively. In the exceptional case that the UE does not include the fields, the network may anyway assume that the UE supports the required minimum values.	UE	Yes	No	FR2 only
precoderGranularityCORESET Indicates whether the UE supports receiving PDCCH in CORESETs configured with CORESET-precoder-granularity equal to the size of the CORESET in the frequency domain as specified in TS 38.211 [6].	UE	No	No	No
pre-EmptIndication-DL Indicates whether the UE supports interrupted transmission indication for PDSCH reception based on reception of DCI format 2_1 as defined in TS 38.213 [11]. This applies only to non-shared spectrum channel access. For shared spectrum channel access, *pre-EmptIndication-DL-r16* applies.	UE	No	No	No
priorityIndicationDL-r18 Indicates whether the UE supports priority indicator field configured in DCI formats 1_3 and (1_1 or 1_2) in a BWP when configured to monitor both DCI formats 1_3 and (1_1 or 1_2) in the BWP. A UE supporting this feature shall also indicate support of *simultaneous-2-1-HARQ-ACK-CB-r18*.	UE	No	No	No
priorityIndicationDL-Diff-r19 Indicates whether the UE supports priority indicator field configured in DCI formats 1_3 and (1_1 or 1_2) in a BWP when configured to monitor both DCI formats 1_3 and (1_1 or 1_2) in the BWP with different SCS and/or different carrier type. A UE supporting this feature shall also indicate support of *simultaneous-2-1-HARQ-ACK-CB-Diff-r19*.	UE	No	No	No
priorityIndicationOneSlotHARQ-r18 Indicates whether the UE supports transmission of type 3 HARQ-ACK codebook using the first or second PUCCH configuration based on PHY priority indication in the triggering DCI format 1_3. A UE supporting this feature shall also indicate support of *type3HARQ-CB-DCI-1-3-r18* and *simultaneous-2-1-HARQ-ACK-CB-r18*.	UE	No	No	No
priorityIndicationOneSlotHARQ-Diff-r19 Indicates whether the UE supports transmission of type 3 HARQ-ACK codebook using the first or second PUCCH configuration based on PHY priority indication in the triggering DCI format 1_3 with different SCS and/or different carrier type. A UE supporting this feature shall also indicate support of *type3HARQ-CB-DCI-1-3-Diff-r19* and *simultaneous-2-1-HARQ-ACK-CB-Diff-r19*.	UE	No	No	No
priorityIndicationUL-r18 Indicates whether the UE supports priority indicator field configured in DCI formats 0_3 and (0_1 or 0_2) in a BWP when configured to monitor both DCI formats 0_3 and (0_1 or 0_2) in the BWP. A UE supporting this feature shall also indicate support of *ul-IntraUE-MuxEnh-r18*.	UE	No	No	No
priorityIndicationUL-Diff-r19 Indicates whether the UE supports priority indicator field configured in DCI formats 0_3 and (0_1 or 0_2) in a BWP when configured to monitor both DCI formats 0_3 and (0_1 or 0_2) in the BWP with different SCS and/or different carrier type. A UE supporting this feature shall also indicate support of *ul-IntraUE-MuxEnh-Diff-r19*.	UE	No	No	No
pucch-F2-WithFH Indicates whether the UE supports transmission of a PUCCH format 2 (2 OFDM symbols in total) with frequency hopping in a slot. This field shall be set to *supported*.	UE	Yes	No	Yes

pucch-F3-WithFH Indicates whether the UE supports transmission of a PUCCH format 3 (4~14 OFDM symbols in total) with frequency hopping in a slot. This field shall be set to *supported*.	UE	Yes	No	Yes
pucch-F3-4-HalfPi-BPSK Indicates whether the UE supports pi/2-BPSK for PUCCH format 3/4 as defined in 6.3.2.6 of TS 38.211 [6]. It is mandatory with capability signalling for FR1 and FR2. This capability is not applicable to IAB-MT.	UE	Yes	No	Yes
pucch-F4-WithFH Indicates whether the UE supports transmission of a PUCCH format 4 (4~14 OFDM symbols in total) with frequency hopping in a slot.	UE	Yes	No	Yes
pusch-Repetition-CG-SDT-r17 Indicates whether the UE supports PUSCH repetitions for CG-SDT, as defined in TS 38.214 [12]. A UE supporting this feature shall also indicate the support of *type1-PUSCH-RepetitionMultiSlots* or *pusch-RepetitionTypeB-r16*. When UE indicates *type1-PUSCH-RepetitionMultiSlots* and *pusch-Repetition-CG-SDT-r17*, the UE supports PUSCH repetition for type A. When UE indicates *pusch-RepetitionTypeB-r16* and *pusch-Repetition-CG-SDT-r17*, UE supports PUSCH repetition for type B. For MO-SDT, a UE can include this feature only if the UE indicates the support of *cg-SDT-r17*. For MT-SDT, a UE can include this feature only if the UE indicates the support of *mt-CG-SDT-r18* and *mt-SDT-r18*/*mt-SDT-NTN-r18*.	UE	No	No	No
pusch-RepetitionMultiSlots Indicates whether the UE supports transmitting PUSCH scheduled by DCI format 0_1 when configured with *pusch-AggregationFactor* > 1, as defined in clause 6.1.2.1 of TS 38.214 [12]. This applies only to non-shared spectrum channel access. For shared spectrum channel access, *pusch-RepetitionMultiSlots-r16* applies.	UE	Yes	No	No
pucch-Repetition-F1-3-4 Indicates whether the UE supports transmission of a PUCCH format 1 or 3 or 4 over multiple slots with the repetition factor 2, 4 or 8. This applies only to non-shared spectrum channel access. For shared spectrum channel access, *pucch-Repetition-F1-3-4-r16* applies.	UE	Yes	No	No
pusch-HalfPi-BPSK Indicates whether the UE supports pi/2-BPSK modulation scheme for PUSCH as defined in 6.3.1.2 of TS 38.211 [6]. It is mandatory with capability signalling for FR1 and FR2. This capability is not applicable to IAB-MT.	UE	Yes	No	Yes
pusch-LBRM Indicates whether the UE supports limited buffer rate matching in UL as specified in TS 38.212 [10].	UE	No	No	Yes
pusch-RepetitionTypeA-r16 Indicates whether the UE supports the dynamic indication of the number of repetitions for PUSCH transmission as specified in TS 38.214 [12], clause 6.1.2.1. Support of this field is reported for shared spectrum channel access and non-shared spectrum channel access, respectively. UE indicating support of this feature shall support of at least one of *type2-PUSCH-RepetitionMultiSlots* and *pusch-RepetitionMultiSlots* for shared spectrum and non-shared spectrum respectively.	UE	No	No	No
ra-Type0-PUSCH Indicates whether the UE supports resource allocation Type 0 for PUSCH as specified in TS 38.214 [12].	UE	No	No	No
rateMatchingCtrlResrcSetDynamic Indicates whether the UE supports dynamic rate matching for DL control resource set.	UE	Yes	No	No
rateMatchingResrcSetDynamic Indicates whether the UE supports receiving PDSCH with resource mapping that excludes the REs corresponding to resource sets configured with RB-symbol level granularity indicated by *bitmaps* (see *patternType* in *RateMatchPattern* in TS 38.331[9]) based on dynamic indication in the scheduling DCI as specified in TS 38.214 [12].	UE	No	No	No
rateMatchingResrcSetSemi-Static Indicates whether the UE supports receiving PDSCH with resource mapping that excludes the REs corresponding to resource sets configured with RB-symbol level granularity indicated by *bitmaps* and *controlResourceSet* (see *patternType* in *RateMatchPattern* in TS 38.331[9]) following the semi-static configuration as specified in TS 38.214 [12].	UE	Yes	No	No

scs-60kHz Indicates whether the UE supports 60kHz subcarrier spacing for data channel in FR1 as defined in clause 4.2-1 of TS 38.211 [6]. This capability is not applicable to eRedCap UEs.	UE	No	No	FR1 only
semiOpenLoopCSI Indicates whether UE supports CSI reporting with report quantity set to 'CRI/RI/i1/CQI ' as defined in clause 5.2.1.4 of TS 38.214 [12].	UE	No	No	Yes
semiStaticHARQ-ACK-Codebook Indicates whether the UE supports HARQ-ACK codebook constructed by semi-static configuration.	UE	Yes	No	No
simultaneousTCI-ActMultipleCC-r16 Indicates the UE support of simultaneous TCI state activation across multiple CCs. If the UE indicates support of this for a FR, the UE shall support this on the supported bands of the indicated FR where the UE reports the support of TCI-states for PDSCH using *tci-StatePDSCH.*	UE	No	No	Yes
simultaneousSpatialRelationMultipleCC-r16 Indicates the UE support of simultaneous spatial relation across multiple CCs for aperiodic and semi-persistent SRS. The UE indicating support of this also indicates the capabilities of maximum and active supported spatial relations for the supported FR2 bands using *maxNumberConfiguredSpatialRelations* and *maxNumberActiveSpatialRelations.*	UE	No	No	FR2 only
slotBasedDynamicPUCCH-Rep-r17 Indicates whether the UE supports both slot based dynamic PUCCH repetition and slot based dynamic repetition indication for PUCCH formats 0/1/2/3/4. UE indicating support of this feature shall also indicate support of *pucch-Repetition-F1-3-4* or *pucch-Repetition-F0-2-r17.*	UE	No	No	No
spatialBundlingHARQ-ACK Indicates whether the UE supports spatial bundling of HARQ-ACK bits carried on PUCCH or PUSCH per PUCCH group. With spatial bundling, two HARQ-ACK bits for a DL MIMO data is bundled into a single bit by logical "AND" operation.	UE	Yes	No	No
spatialRelationUpdateAP-SRS-r16 Indicates the UE support of spatial relation update for AP-SRS using MAC CE. The UE indicating support of this also indicates the capabilities of supported SRS resources and maximum supported spatial relations for the supported FR2 bands using *supportedSRS-Resources* and *maxNumberConfiguredSpatialRelations.*	UE	No	No	FR2 only
spCellPlacement Indicates whether the UE supports a SpCell on FR1-FDD, FR1-TDD and/or FR2-TDD depending on which additional SCells of other frequency range(s) / duplex mode(s) are configured. It is applicable to NR SA and NR-DC (both MCG and SCG), where UL is configured on more than one of FR1-FDD, FR1-TDD and FR2-TDD in a cell group. If not included, the UE supports SpCell on any serving cell with UL in supported band combinations.	UE	No	No	No
sps-HARQ-ACK-Deferral-r17 Indicates whether the UE supports SPS HARQ-ACK deferral in case of TDD collision comprised of the following functional components: - Identify HARQ-ACK bits of active SPS configurations for deferral in the initial PUCCH slot; - Determination of the target PUCCH slot for SPS HARQ-ACK deferral; - Multiplexing and transmission of deferred SPS HARQ-ACK information in the target PUCCH slot; - Handling of the collision for the same HARQ process due to deferred SPS HARQ-ACK. Support of this feature is reported for licensed and unlicensed bands, respectively. When this field is reported, either of *non-SharedSpectrumChAccess-r17* or *sharedSpectrumChAccess-r17* shall be reported, at least. A UE supporting this feature shall also indicate support of *downlinkSPS*.	UE	No	TDD only	No
sp-CSI-IM Indicates whether the UE supports semi-persistent CSI-IM.	UE	No	No	Yes
sp-CSI-ReportPUCCH Indicates whether UE supports semi-persistent CSI reporting using PUCCH formats 2, 3 and 4. This applies only to non-shared spectrum channel access. For shared spectrum channel access, *sp-CSI-ReportPUCCH-r16* applies.	UE	No	No	No
sp-CSI-ReportPUSCH Indicates whether UE supports semi-persistent CSI reporting using PUSCH. This applies only to non-shared spectrum channel access. For shared spectrum channel access, *sp-CSI-ReportPUSCH-r16* applies.	UE	No	No	No

sp-CSI-RS Indicates whether the UE supports semi-persistent CSI-RS.	UE	Yes	No	Yes
sps-ReleaseDCI-1-1-r16 Indicates whether the UE supports SPS release by DCI format 1_1. If the UE supports this feature, the UE needs to report *downlinkSPS*.	UE	No	No	No
sps-ReleaseDCI-1-2-r16 Indicates whether the UE supports SPS release by DCI format 1_2. If the UE supports this feature, the UE needs to report *downlinkSPS* and *dci-Format1-2And0-2-r16*.	UE	No	No	No
srs-AdditionalRepetition-r17 Indicates support of the value "n3" for *repetitionFactor-r17*. The UE indicating support of this feature shall also indicate support of *srs-increasedRepetition-r17*.	UE	No	No	No
srs-PeriodicityAndOffsetExt-r16 Indicates whether the UE supports the periodicity of semi-persistent and periodic SRS with 128, 256, 512, and 20480 slots.	UE	No	No	No
support5MHz-ChannelBW-20PRB-CORESET0-r18 Indicates whether the UE supports short RACH preamble formats with 15kHz SCS, and long PRACH formats with 1.25kHz SCS, and the reception of 20 PRB CORESET0. This feature is supported for 15 kHz SCS only (except for the PRACH formats with 1.25kHz SCS). This feature is only applicable when an associated SS/PBCH block is located in band n100 at GSCN 41638 of Table 5.4.3.1-3 in TS 38.101-1 [2]. This feature is not applicable to UEs indicating *supportOfRedCap-r17* or *supportOfERedCap-r18*. NOTE: The UE supporting this feature supports configuration of 20 PRB BWP operation.	UE	No	FDD only	FR1 only
support12PRB-CORESET0-GSCN-41637-r18 Indicates whether the UE supports reception of 12 PRB CORESET0 with an associated SS/PBCH block located at GSCN 41637. A UE supporting this feature shall also indicate support of *support3MHz-ChannelBW-Symmetric-r18*. This feature is supported for 15 kHz SCS only (except for the PRACH formats with 1.25kHz SCS). This feature is only applicable when an associated SS/PBCH block is located in band n100 at GSCN 41637 of Table 5.4.3.1-3 in TS 38.101-1 [2]. NOTE: The UE supporting this FG supports configuration of 12 PRB BWP operation. This feature is not applicable to UEs indicating *supportOfRedCap-r17* or *supportOfERedCap-r18*.	UE	No	FDD only	FR1 only
supportedActivatedPRS-ProcessingWindow-r17 Indicates the number of supported activated PRS processing windows across all active DL BWPs. The UE can include this field only if the UE supports one of *prs-ProcessingWindowType1A-r17*, *prs-ProcessingWindowType1B-r17* or *prs-ProcessingWindowType2-r17*. Otherwise, the UE does not include this field.	UE	No	No	No
supportedDMRS-TypeDL Defines supported DM-RS configuration types at the UE for DL reception. Type 1 is mandatory with capability signalling. Type 2 is optional. If this field is not included, Type 1 is supported.	UE	FD	No	Yes
supportedDMRS-TypeUL Defines supported DM-RS configuration types at the UE for UL transmission. Support of both type 1 and type 2 is mandatory with capability signalling. If this field is not included, Type 1 is supported.	UE	FD	No	Yes
supportRepetitionZeroOffsetRV-r16 Indicates whether UE supports the value 0 for the parameter *sequenceOffsetforRV*. The UE indicating support of this capability shall also indicate support of *supportInter-slotTDM-r16* with *maxNumberTCI-states-r16* set to 2 for at least one band.	UE	No	No	No

supportRetx-Diff-CoresetPool-Multi-DCI-TRP-r16 Indicates that retransmission scheduled by a different *CORESETPoolIndex* for multi-DCI multi-TRP is not supported. For multi-DCI multi-TRP operation, if this feature is reported, UE does not support retransmission scheduled by PDCCH received in a different *CORESETPoolIndex* compared to the *CORESETPoolIndex* of the initial transmission, i.e., the UE is not expected to receive, for the same HARQ process ID, DCI from a different *CORESETPoolIndex* that schedules the retransmission, i.e., NDI not flipped. This applies to both PDSCH and PUSCH retransmissions. UE indicating support of this feature shall indicate support of *multiDCI-MultiTRP-r16.*	UE	No	No	No
ta-BasedPDC-TN-NonSharedSpectrumChAccess-r17 Indicates whether the UE supports propagation delay compensation based on Rel-15 TA procedure for TN and non-shared spectrum channel access.	UE	No	No	No
targetSMTC-SCG-r16 Indicates the support of configuration of SMTC of target SCG cell with field *targetCellSMTC-SCG*.	UE	No	No	No
tdd-MultiDL-UL-SwitchPerSlot Indicates whether the UE supports more than one switch points in a slot for actual DL/UL transmission(s).	UE	No	TDD only	Yes
tdd-PCellUL-TX-AllUL-Subframe-r16 Indicates whether the UE configured with *tdm-patternConfig-r16* can be semi-statically configured with LTE UL transmissions in all UL subframes not limited to the reference tdm-pattern (only for type 1 UE) in case of TDD PCell. UE indicating support can configure LTE TDD PCell with this feature on the band combination which indicates support of *tdm-restrictionTDD-endc-r16*.	UE	No	TDD only	FR1 only
tpc-PUCCH-RNTI Indicates whether the UE supports group DCI message based on TPC-PUCCH-RNTI for TPC commands for PUCCH.	UE	No	No	Yes
tpc-PUSCH-RNTI Indicates whether the UE supports group DCI message based on TPC-PUSCH-RNTI for TPC commands for PUSCH.	UE	No	No	Yes
tpc-SRS-RNTI Indicates whether the UE supports group DCI message based on TPC-SRS-RNTI for TPC commands for SRS.	UE	No	No	Yes
twoDifferentTPC-Loop-PUCCH Indicates whether the UE supports two different TPC loops for PUCCH closed loop power control.	UE	Yes	Yes	Yes
twoDifferentTPC-Loop-PUSCH Indicates whether the UE supports two different TPC loops for PUSCH closed loop power control.	UE	Yes	Yes	Yes
twoFL-DMRS Defines whether the UE supports DM-RS pattern for DL reception and/or UL transmission with 2 symbols front-loaded DM-RS without additional DM-RS symbols. The left most in the bitmap corresponds to DL reception and the right most bit in the bitmap corresponds to UL transmission.	UE	Yes	No	Yes
twoFL-DMRS-TwoAdditionalDMRS-UL Defines whether the UE supports DM-RS pattern for UL transmission with 2 symbols front-loaded DM-RS with one additional 2 symbols DM-RS.	UE	Yes	No	Yes
twoPUCCH-AnyOthersInSlot Indicates whether the UE supports transmission of two PUCCH formats in TDM in the same slot, which are not covered by *twoPUCCH-F0-2-ConsecSymbols* and *onePUCCH-LongAndShortFormat*.	UE	No	No	Yes
twoPUCCH-F0-2-ConsecSymbols Indicates whether the UE supports transmission of two PUCCHs of format 0 or 2 in consecutive symbols in a slot.	UE	No	Yes	Yes

twoStepRACH-r16 Indicates whether the UE supports the following basic structure and procedure of 2-step RACH: - Fallback procedures from 2-step RA type to 4-step RA type; - MSGA PRACH resource and format determination; - MSGA PUSCH configuration; - Validation and transmission of MSGA PRACH and PUSCH; - Mapping between preamble of MSGA PRACH and PUSCH occasion with DMRS resource of MSGA PUSCH; - MSGB monitoring and decoding; - PUCCH transmission for HARQ-ACK feedback to a MSGB; - Power control for MSGA PRACH, MSGA PUSCH and PUCCH carrying HARQ-ACK feedback to MSGB. - Reconfiguration with sync using a contention free random access with 2-step RA type on MSGA PRACH and PUSCH resources that are associated with SSB resources of the target cell.	UE	No	No	No
twoTCI-Act-servingCellInCC-List-r16 Indicates whether the UE supports receiving the Enhanced TCI States Activation/Deactivation for UE-specific PDSCH MAC CE (as specified in TS 38.321 [8] clause 6.1.3.24) indicating a serving cell configured as part of *simultaneousTCI-UpdateList1* or *simultaneousTCI-UpdateList2* as specified in TS 38.331 [9]. If the UE indicates support of *simultaneousTCI-ActMultipleCC-r16* for a FR and support of at least one of *singleDCI-SDM-scheme-r16*, *supportFDM-SchemeA-r16*, *supportFDM-SchemeB-r16*, *supportTDM-SchemeA-r16* or *supportInter-slotTDM-r16* for at least one band or component carrier of this FR, the UE shall indicate support of *twoTCI-Act-servingCellInCC-List-r16* for this FR.	UE	CY	No	Yes
type1-HARQ-ACK-Codebook-r16 Indicates whether the UE supports Type 1 HARQ-ACK codebook for TDRA using the starting symbol of the PDCCH monitoring occasion in which the DL assignment is detected as the reference of the SLIV. If the UE supports this feature, the UE needs to report *dci-Format1-2And0-2-r16*. Support for FR1/FR2 is differentiated from the viewpoint of the scheduled carrier.	UE	No	No	Yes
type1-PUSCH-RepetitionMultiSlots Indicates whether the UE supports Type 1 PUSCH transmissions with configured grant as specified in TS 38.214 [12] with UL-TWG-repK value equal to 2, 4, or 8 with a single repetition of the transport block within each slot, and redundancy version pattern as indicated by UL-TWG-RV-rep. A UE supporting this feature shall also support Type 1 PUSCH transmissions with configured grant as specified in TS 38.214 [12] with UL-TWG-repK value of one. This applies only to non-shared spectrum channel access. For shared spectrum channel access, *type1-PUSCH-RepetitionMultiSlots-r16* applies.	UE	No	No	No
type2-CG-ReleaseDCI-0-1-r16 Indicates whether the UE supports type 2 configured grant release by DCI format 0_1. If the UE supports this feature, the UE needs to report *configuredUL-GrantType2* or *configuredUL-GrantType2-v1650*.	UE	No	No	No
type2-CG-ReleaseDCI-0-2-r16 Indicates whether the UE supports type 2 configured grant release by DCI format 0_2. If the UE supports this feature, the UE needs to report *configuredUL-GrantType2* or *configuredUL-GrantType2-v1650* and *dci-Format1-2And0-2-r16*.	UE	No	No	No
type2-HARQ-ACK-Codebook-r16 Indicates whether the UE supports Type 2 HARQ-ACK codebook when HARQ-ACK feedback in a codebook corresponds to more than one unicast DL DCI for same scheduled cell in a monitoring occasion of a scheduling cell using the PDSCH starting time in addition to the existing monitoring occasion and Cell index to order the HARQ-ACK feedback.	UE	No	No	No

type2-PUSCH-RepetitionMultiSlots Indicates whether the UE supports Type 2 PUSCH transmissions with configured grant as specified in TS 38.214 [12] with UL-TWG-repK value equal to 2, 4, or 8 with a single repetition of the transport block within each slot, and redundancy version pattern as indicated by UL-TWG-RV-rep. A UE supporting this feature shall also support Type 2 PUSCH transmissions with configured grant as specified in TS 38.214 [12] with UL-TWG-repK value of one. This applies only to non-shared spectrum channel access. For shared spectrum channel access, *type2-PUSCH-RepetitionMultiSlots-r16* applies.	UE	No	No	No
type2-SP-CSI-Feedback-LongPUCCH Indicates whether UE supports Type II CSI semi-persistent CSI reporting over PUCCH Formats 3 and 4 as defined in clause 5.2.4 of TS 38.214 [12].	UE	No	No	No
uci-CodeBlockSegmentation Indicates whether the UE supports segmenting UCI into multiple code blocks depending on the payload size.	UE	Yes	No	Yes
ul-64QAM-MCS-TableAlt Indicates whether the UE supports the alternative 64QAM MCS table for PUSCH with and without transform precoding respectively.	UE	No	No	Yes
ul-SchedulingOffset Indicates whether the UE supports UL scheduling slot offset (K2) greater than 12.	UE	Yes	Yes	Yes
unifiedJointTCI-commonUpdate-r17 Indicates the maximum number of configured CC lists per cell group for common multi-CC TCI state ID update and activation. The UE indicating support of this feature shall also indicate support of *unifiedJointTCI-commonMultiCC-r17* or *unifiedSeparateTCI-commonMultiCC-r17*.	UE	No	No	No
uplinkPreCompensationATG-r18 Indicates whether the UE supports the uplink time and frequency pre-compensation and timing relationship enhancements comprised of the following functional components: - Support of UE specific TA calculation based on its position and the serving ATG base station reference location. - For TA update in RRC_CONNECTED state, support of combination of both open (i.e. UE autonomous TA estimation) and closed (i.e., received TA commands) control loops - Support of pre-compensation of the calculated TA in its uplink transmissions - Support of frequency pre-compensation to counter shift the Doppler experienced. - Support of determining timing of the scheduling of PUSCH, PUCCH and PDCCH ordered PRACH, CSI reference resource, transmission of aperiodic SRS activation of TA command, first PUSCH transmission in CG Type 2 with cell-specific K_offset if indicated - Support of receiving ATG base station reference location and cell- specific K_offset in system information Support of this feature is mandatory for UE supporting *airToGroundNetwork-r18*. NOTE: This capability is applicable only for bands defined in Clause 5.2J in TS 38.101-1 [2].	UE	CY	No	FR1 only
uplinkTA-ReportingATG-r18 Indicates whether the UE supports reporting of information related to TA pre-compensation as specified in TS 38.321 [8]. The UE indicating support of this feature shall also indicate support of *uplinkPreCompensationATG-r18*. NOTE: This capability is applicable only for bands defined in Clause 5.2J in TS 38.101-1 [2].	UE	No	No	FR1 only

4.2.7.11 Other PHY parameters

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
appliedFreqBandListFilter Mirrors the *FreqBandList* that the NW provided in the capability enquiry, if any. The UE filtered the band combinations in the *supportedBandCombinationList* in accordance with this *appliedFreqBandListFilter*.	UE	No	No	No
cjtc-DdReportHighAccuracy-r19 Indicates whether the UE supports high accuracy reporting for CJTC delay offset reporting as defined in TS 38.133 [5] clause 10. A UE supporting this feature shall also indicate support of at least one of *cjtc-DdReport-r19* for at least one band and *cjtc-DdReportPerBC-r19* for at least one BC.	UE	No	No	FR1 only
cjtc-FO-ReportHighAccuracy-r19 Indicates whether the UE supports high accuracy reporting for CJTC frequency offset reporting as defined in TS 38.133 [5] clause 10. A UE supporting this feature shall also indicate support of at least one of *cjtc-FO-Report-r19* for at least one band and *cjtc-FO-ReportPerBC-r19* for at least one BC.	UE	No	No	FR1 only
downlinkSetEUTRA Indicates the features that the UE supports on the DL carriers corresponding to one EUTRA band entry in a band combination by FeatureSetEUTRA-DownlinkId. The FeatureSetEUTRA-DownlinkId = 0 means that the UE does not support a EUTRA DL carrier in this band of a band combination.	Band	N/A	N/A	N/A
downlinkSetNR Indicates the features that the UE supports on the DL carriers corresponding to one NR band entry in a band combination by FeatureSetDownlinkId. The FeatureSetDownlinkId = 0 means that the UE does not support a DL carrier in this band of a band combination. A fallback per band feature set resulting from the reported DL feature set that has fallback per CC feature set is not signalled but the UE shall support it.	Band	N/A	N/A	N/A
extendedBand-n77-r16 This field is only applicable for UEs that indicate support for band n77. If present, the UE supports the restriction to 3450 - 3550 MHz and 3700 - 3980 MHz ranges of band n77 in the USA as specified in Note 12 of Table 5.2-1 in TS 38.101-1 [2]. If absent, the UE supports only restriction to the 3700 - 3980 MHz range of band n77 in the USA. A UE that indicates this field shall also support NS value 55 as specified in TS 38.101-1 [2]. A UE supporting NS value 55 shall indicate this field.	UE	No	No	No
extendedBand-n77-2-r17 This field is only applicable for UEs that indicate support for band n77. If present, the UE supports the restriction to 3450 - 3650 MHz and 3650 - 3980 ranges of band n77 in Canada as specified in Note 12 of Table 5.2-1 in TS 38.101-1 [2]. If absent, the UE supports only restriction to the 3450 - 3650 MHz range of band n77 in Canada. A UE that indicates this field shall also support NS value 57 as specified in TS 38.101-1 [2]. A UE supporting NS value 57 shall indicate this field.	UE	No	No	No
featureSetCombinations Pools of feature sets that the UE supports on the NR or MR-DC band combinations.	UE	N/A	No	No
featureSets Pools of downlink and uplink features sets as well as a pool of FeatureSetCombination elements. A FeatureSetCombination refers to the IDs of the feature set(s) that the UE supports in that FeatureSetCombination. The BandCombination entries in the BandCombinationList then indicate the ID of the FeatureSetCombination that the UE supports for that band combination.	UE	N/A	No	No
naics-Capability-List Indicates that UE in MR-DC supports NAICS as defined in TS 36.331 [17].	UE	No	No	No
receivedFilters Contains all filters requested with UE-CapabilityRequestFilterNR from version 15.6.0 onwards.	UE	No	No	No

supportedBandCombinationList Defines the supported NR and/or MR-DC band combinations by the UE. For each band combination the UE identifies the associated feature set combination by featureSetCombinations index referring to featureSetCombination. A fallback band combination resulting from the reported CA and MR-DC band combination is not signalled but the UE shall support it. For intra-band non-contiguous CA band combinations, the UE only includes one band combination, and exclude the others for which the presence of uplink CA bandwidth class in the band combination entry is different. One band combination entry can also indicate support of any other possible permutations in the presence of uplink CA bandwidth class where a paired downlink CA bandwidth class is the same or where the number of UL CCs is smaller than the one of paired DL CCs expressed by the CA bandwidth class, as specified in TS 36.306 [15]. For these band combinations not included in the capability, the supported feature set is the same as the ones for the band combination included in the UE capability.	UE	Yes	No	No
supportedBandCombinationListNEDC-Only Defines the supported NE-DC only type of band combinations by the UE.	UE	No	No	No
supportedBandCombinationList-UplinkTxSwitch-r16 Defines the NR inter-band UL CA, SUL and/or EN-DC band combinations where UE supports dynamic UL Tx switching. UE only includes this field if requested by the network. All fallback band combinations resulting from the reported band combination, which include at least one band pair supporting dynamic UL Tx switching as indicated in *ULTxSwitchingBandPair*, shall be supported by the UE.	UE	No	No	No
supportedBandListNR Includes the supported NR bands as defined in TS 38.101-1 [2], TS 38.101-2 [3], and TS 38.101-5 [34].	UE	Yes	No	No
uplinkSetEUTRA Indicates the features that the UE supports on the UL carriers corresponding to one EUTRA band entry in a band combination by FeatureSetEUTRA-UplinkId. The FeatureSetUplinkId = 0 means that the UE does not support a UL carrier in this band of a band combination.	Band	N/A	N/A	N/A
uplinkSetNR Indicates the features that the UE supports on the UL carriers corresponding to one NR band entry in a band combination by FeatureSetUplinkId. The FeatureSetUplinkId = 0 means that the UE does not support a UL carrier in this band of a band combination. A fallback per band feature set resulting from the reported UL feature set that has fallback per CC feature set is not signalled but the UE shall support it.	Band	N/A	N/A	N/A

4.2.7.12 *NRDC-Parameters*

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
asyncNRDC-r16 Indicates whether the UE supports asynchronous NR-DC with MRTD and MTTD as specified in clause 7.5 and 7.6 of TS 38.133 [5]. If the band combination is comprised of a single band entry for more than two carriers, the UE shall support any permutations of carriers to CGs. If the band combination is comprised of at least two band entries, the carriers corresponding to a band entry shall belong to only one cell group. If the band combination includes both FR1 and FR2 bands, a UE indicating this capability shall support asynchronous NR-DC configuration where all serving cells of the MCG are in FR1 and all serving cells of the SCG are in FR2.	BC	No	No	No
condPSCellAdditionNRDC-r17 Indicates whether the UE supports conditional PSCell addition in NR-DC. The UE supporting this feature shall also support 2 trigger events for same execution condition in conditional PSCell addition in NR-DC.	BC	No	No	No
intraFR-NR-DC-PwrSharingMode1-r16 Indicates whether the UE supports intra-FR NR-DC with semi-static power sharing mode1 between MCG and SCG cells of same frequency range as defined in TS 38.213 [11]. If this field is absent, the UE does not support intra-FR NR-DC. In case MCG and SCG have cells in different frequency ranges, this field indicates the support of power sharing only between MCG and SCG cells with UL in FR1.	BC	No	No	FR1 only
intraFR-NR-DC-PwrSharingMode2-r16 Indicates whether the UE supports semi-static power sharing mode2 between MCG and SCG cells of same frequency range for synchronous intra-FR NR-DC as defined in TS 38.213 [11]. The UE indicating the support of this also indicates the support of *intraFR-NR-DC-PwrSharingMode1-r16.* In case MCG and SCG have cells in different frequency ranges, this field indicates the support of power sharing only between MCG and SCG cells with UL in FR1.	BC	No	No	FR1 only
intraFR-NR-DC-DynamicPwrSharing-r16 Indicates the UE support of dynamic power sharing for intra-FR NR-DC between MCG and SCG cells of same frequency range with long or short offset as specified in TS 38.213 [11]. The UE indicating the support of this also indicates the support of *intraFR-NR-DC-PwrSharingMode1-r16.* In case MCG and SCG have cells in different frequency ranges, this field indicates the support of power sharing only between MCG and SCG cells with UL in FR1.	BC	No	No	FR1 only
scg-ActivationDeactivationNRDC-r17 Indicates whether the UE supports activation (with or without RACH) and deactivation on SCG in NR-DC, upon SCG addition and upon reconfiguration of the SCG, as specified in TS 38.331 [9]. A UE supporting this feature shall indicate support of NR-DC as specified in TS 38.331 [9]. For the UE supporting this feature, it is mandatory to report *maxNumberCSI-RS-BFD* and *maxNumberSSB-BFD* for all NR bands of this band combination where the UE supports SpCell.	BC	No	No	No
scg-ActivationDeactivationResumeNRDC-r17 Indicates whether the UE supports activation (with or without RACH) and deactivation on SCG in NR-DC, upon reception of an *RRCReconfiguration* included in an *RRCResume* message, as specified in TS 38.331 [9]. A UE supporting this feature shall indicate support of NR-DC and of *resumeWithSCG-Config-r16* as specified in TS 38.331 [9]. For the UE supporting this feature, it is mandatory to report *maxNumberCSI-RS-BFD* and *maxNumberSSB-BFD* for all NR bands of this band combination where the UE supports SpCell.	BC	No	No	No
sfn-SyncNRDC Indicates the UE supports NR-DC only with SFN and frame synchronization between PCell and PSCell. If not included by the UE supporting NR-DC, the UE supports NR-DC with slot-level synchronization without condition on SFN and frame synchronization. In this release of the specification, the UE shall not report this UE capability.	UE	No	No	No

supportedCellGrouping-r16 Indicates which NR-DC cell groupings the UE supports for the given NR-DC band combination, i.e., mapping of serving cells to MCG and SCG, and the operation mode (synchronous or asynchronous), as requested by the network via *requestedCellGrouping-r16*. The bitmap reported in this field refers to the cell grouping IDs that the network requested in *requestedCellGrouping-r16*. The first (leftmost) bit corresponds to ID#0 (i.e. the first element in *requestedCellGrouping-r16*), the second bit corresponds to ID#1 (i.e. the second element in *requestedCellGrouping-r16*) and so on. NOTE: Irrespective of the indicated *supportedCellGrouping-r16*, the UE shall also support NR-DC where all FR1 serving cells are in the MCG and all FR2 serving cells are in the SCG, as described in *ca-ParametersNRDC*.	BC	No	No	No

4.2.7.13 *CarrierAggregationVariant*

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
fr1fdd-FR1TDD-CA-SpCellOnFR1FDD Indicates whether the UE supports an FR1 FDD SpCell (and possibly SCells) when configured with an FR1 TDD SCell.	UE	No	No	No
fr1fdd-FR1TDD-CA-SpCellOnFR1TDD Indicates whether the UE supports an FR1 TDD SpCell (and possibly SCells) when configured with an FR1 FDD SCell.	UE	No	No	No
fr1fdd-FR1TDD-FR2TDD-CA-SpCellOnFR1FDD Indicates whether the UE supports an FR1 FDD SpCell (and possibly SCells) when configured with an FR1 TDD SCell and an FR2 TDD SCell.	UE	No	No	No
fr1fdd-FR1TDD-FR2TDD-CA-SpCellOnFR1TDD Indicates whether the UE supports an FR1 TDD SpCell (and possibly SCells) when configured with an FR1 FDD SCell and an FR2 TDD SCell.	UE	No	No	No
fr1fdd-FR1TDD-FR2TDD-CA-SpCellOnFR2TDD Indicates whether the UE supports an FR2 TDD SpCell (and possibly SCells) when configured with an FR1 FDD SCell and an FR1 TDD SCell.	UE	No	No	No
fr1fdd-FR2TDD-CA-SpCellOnFR1FDD Indicates whether the UE supports an FR1 FDD SpCell (and possibly SCells) when configured with an FR2 TDD SCell.	UE	No	No	No
fr1fdd-FR2TDD-CA-SpCellOnFR2TDD Indicates whether the UE supports an FR2 TDD SpCell (and possibly SCells) when configured with an FR1 FDD SCell.	UE	No	No	No
fr1tdd-FR2TDD-CA-SpCellOnFR1TDD Indicates whether the UE supports an FR1 TDD SpCell (and possibly SCells) when configured with an FR2 TDD SCell.	UE	No	No	No
fr1tdd-FR2TDD-CA-SpCellOnFR2TDD Indicates whether the UE supports an FR2 TDD SpCell (and possibly SCells) when configured with an FR1 TDD SCell.	UE	No	No	No

4.2.7.14 *Phy-ParametersSharedSpectrumChAccess*

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
configuredUL-GrantType1-r16 Indicates whether the UE supports Type 1 PUSCH transmissions with configured grant as specified in TS 38.214 [12] with UL-TWG-repK value of one in shared spectrum channel access.	UE	No	No	No
configuredUL-GrantType2-r16 Indicates whether the UE supports Type 2 PUSCH transmissions with configured grant as specified in TS 38.214 [12] with UL-TWG-repK value of one in shared spectrum channel access.	UE	No	No	No
downlinkSPS-r16 Indicates whether the UE supports PDSCH reception based on semi-persistent scheduling. One SPS configuration is supported per cell group in shared spectrum channel access.	UE	No	No	No
dynamicSFI-r16 Indicates whether the UE supports monitoring for DCI format 2_0 and determination of slot formats via DCI format 2_0 in shared spectrum channel access.	UE	No	No	No
mux-HARQ-ACK-PUSCH-DiffSymbol-r16 Indicates whether the UE supports HARQ-ACK piggyback on a PUSCH with/without aperiodic CSI once per slot when the starting OFDM symbol of the PUSCH is different from the starting OFDM symbols of the PUCCH resource that HARQ-ACK would have been transmitted on in shared spectrum channel access. This feature is mandatory if UE supports any of the deployment scenarios A.2, B, C, D and E in Annex B.3 of TS 38.300 [28].	UE	CY	No	No
mux-SR-HARQ-ACK-CSI-PUCCH-MultiPerSlot-r16 Indicates whether the UE supports multiplexing SR, HARQ-ACK and CSI on a PUCCH or piggybacking on a PUSCH more than once per slot when SR, HARQ-ACK and CSI are supposed to be sent with the same or different starting symbol in a slot in shared spectrum channel access.	UE	No	No	No
mux-SR-HARQ-ACK-CSI-PUCCH-OncePerSlot-r16 *sameSymbol* indicates the UE supports multiplexing SR, HARQ-ACK and CSI on a PUCCH or piggybacking on a PUSCH once per slot, when SR, HARQ-ACK and CSI are supposed to be sent with the same starting symbols on the PUCCH resources in a slot. *diffSymbol* indicates the UE supports multiplexing SR, HARQ-ACK and CSI on a PUCCH or piggybacking on a PUSCH once per slot, when SR, HARQ-ACK and CSI are supposed to be sent with the different starting symbols in a slot in shared spectrum channel access. If the UE indicates *sameSymbol* in this field and does not support *mux-HARQ-ACK-PUSCH-DiffSymbol-r16*, the UE supports HARQ-ACK/CSI piggyback on PUSCH once per slot, when the starting OFDM symbol of the PUSCH is the same as the starting OFDM symbols of the PUCCH resource(s) that would have been transmitted on. If the UE indicates *sameSymbol* in this field and supports *mux-HARQ-ACK-PUSCH-DiffSymbol-r16*, the UE supports HARQ-ACK/CSI piggyback on PUSCH once per slot for which case the starting OFDM symbol of the PUSCH is the different from the starting OFDM symbols of the PUCCH resource(s) that would have been transmitted on. The UE is mandated to support the multiplexing and piggybacking features indicated by *sameSymbol* for *mux-SR-HARQ-ACK-CSI-PUCCH-OncePerSlot-r16* if UE supports any of the deployment scenarios A.2, B, C, D and E in Annex B.3 of TS 38.300 [28].	UE	CY	No	No
mux-SR-HARQ-ACK-PUCCH-r16 Indicates whether the UE supports multiplexing SR and HARQ-ACK on a PUCCH or piggybacking on a PUSCH once per slot, when SR and HARQ-ACK are supposed to be sent with the different starting symbols in a slot in shared spectrum channel access.	UE	No	No	No
pdsch-RepetitionMultiSlots-r16 Indicates whether the UE supports receiving PDSCH scheduled by DCI format 1_1 when configured with *pdsch-AggregationFactor* > 1, as defined in 5.1.2.1 of TS 38.214 [12] in shared spectrum channel access.	UE	No	No	No
pre-EmptIndication-DL-r16 Indicates whether the UE supports interrupted transmission indication for PDSCH reception based on reception of DCI format 2_1 as defined in TS 38.213 [11] in shared spectrum channel access.	UE	No	No	No

pusch-RepetitionMultiSlots-r16 Indicates whether the UE supports transmitting PUSCH scheduled by DCI format 0_1 when configured with *pusch-AggregationFactor* > 1, as defined in clause 6.1.2.1 of TS 38.214 [12] in shared spectrum channel access. This feature is mandatory if UE supports any of the deployment scenarios A.2, B, C, D and E in Annex B.3 of TS 38.300 [28].	UE	CY	No	No
pucch-Repetition-F1-3-4-r16 Indicates whether the UE supports transmission of a PUCCH format 1 or 3 or 4 over multiple slots with the repetition factor 2, 4 or 8 in shared spectrum channel access. This feature is mandatory if UE supports any of the deployment scenarios A.2(whenever PUCCH is supported on shared spectrum channel access cell), B, C, D and E in Annex B.3 of TS 38.300 [28].	UE	CY	No	No
sp-CSI-ReportPUCCH-r16 Indicates whether UE supports semi-persistent CSI reporting using PUCCH formats 2, 3 and 4 in shared spectrum channel access.	UE	No	No	No
sp-CSI-ReportPUSCH-r16 Indicates whether UE supports semi-persistent CSI reporting using PUSCH in shared spectrum channel access.	UE	No	No	No
ss-SINR-Meas-r16 Indicates whether the UE can perform SS-SINR measurement in shared spectrum channel access as specified in TS 38.215 [13].	UE	No	No	No
type1-PUSCH-RepetitionMultiSlots-r16 Indicates whether the UE supports Type 1 PUSCH transmissions with configured grant in shared spectrum channel access as specified in TS 38.214 [12] with UL-TWG-repK value equal to 2, 4, or 8 with a single repetition of the transport block within each slot, and redundancy version pattern as indicated by UL-TWG-RV-rep. A UE supporting this feature shall also support Type 1 PUSCH transmissions with configured grant as specified in TS 38.214 [12] with UL-TWG-repK value of one.	UE	No	No	No
type2-PUSCH-RepetitionMultiSlots-r16 Indicates whether the UE supports Type 2 PUSCH transmissions with configured grant in shared spectrum channel access as specified in TS 38.214 [12] with UL-TWG-repK value equal to 2, 4, or 8 with a single repetition of the transport block within each slot, and redundancy version pattern as indicated by UL-TWG-RV-rep. A UE supporting this feature shall also support Type 2 PUSCH transmissions with configured grant as specified in TS 38.214 [12] with UL-TWG-repK value of one.	UE	No	No	No

4.2.8 Void

4.2.9 *MeasAndMobParameters*

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
bestCellChangeReport-r18 Indicates whether the UE supports the sending of the measurement report if the measured first best cell changed as specified in TS 38.331 [9].	UE	No	No	No
cellIndividualOffsetPerMeasEvent-r18 Indicates whether the UE supports the configuration of a cell individual offset per measurement event within *reportConfigNR* or *reportConfigInterRAT* as specified in TS 38.331 [9].	UE	No	No	No
cli-RSSI-Meas-r16 Indicates whether the UE can perform CLI RSSI measurements as specified in TS 38.215 [13] and supports periodical reporting and measurement event triggering as specified in TS 38.331 [9]. If the UE supports this feature, the UE needs to report *maxNumberCLI-RSSI-r16*. If this parameter is indicated for FR1 and FR2 differently, each indication corresponds to the frequency range of measurement resources to be measured.	UE	No	TDD only	Yes
cli-SRS-RSRP-Meas-r16 Indicates whether the UE can perform SRS RSRP measurements as specified in TS 38.215 [13] and supports periodical reporting and measurement event triggering based on SRS-RSRP as specified in TS 38.331 [9]. If the UE supports this feature, the UE needs to report *maxNumberCLI-SRS-RSRP-r16* and *maxNumberPerSlotCLI-SRS-RSRP-r16*. If this parameter is indicated for FR1 and FR2 differently, each indication corresponds to the frequency range of measurement resources to be measured.	UE	No	TDD only	Yes
cltm-EarlyTA-Indication-r19 Indicates whether the UE supports early TA MAC CE reception for CLTM by indicating the maximum number of TA values that the UE can store. A UE supporting this feature shall also indicate support of at least one of *cltm-ExecutionConditionL3-r19* or *cltm-ExecutionConditionL1-r19* and support of *rach-EarlyTA-Measurement-r18* for at least one band.	UE	No	No	No
cltm-ExecutionConditionL1-r19 Indicates whether the UE supports the evaluation of LTM conditions evaluation based on L1 measurements. The UE supporting this feature shall also indicate support of *ltm-MCG-IntraFreq-r18* for at least one band. A UE supporting this feature shall also indicate support of *intraFreqL1-MeasConfig-r18* for at least one band combination.	UE	No	No	No
cltm-ExecutionConditionL3-r19 Indicates whether the UE supports the evaluation of LTM conditions evaluation based on L3 measurements, by indicating the maximum number of trigger events for the same execution condition. A UE supporting this feature shall also indicate support of *ltm-MCG-IntraFreq-r18* for at least one band.	UE	No	No	No
concurrentMeasCRS-InsideBWP-EUTRA-r18 Indicates whether the UE supports concurrent inter-RAT measurement on EUTRAN cell in non-DSS and PDCCH or PDSCH reception from the serving cell with a different numerology. A UE supporting this feature shall also indicate support of *eutra-NoGapMeasurementInsideBWP-r18* or *eutra-NoGapMeasurementOutsideBWP-r18*.	UE	No	No	FR1 only
concurrentMeasGap-r17 Indicates whether the UE supports the concurrent measurements gaps as specified in TS 38.133 [5]. The capability signalling comprises the following parameters: - *concurrentPerUE-OnlyMeasGap-r17* indicates whether the UE supports more than 1 per-UE measurement gap configurations (i.e. gap combination configuration id = 2 as specified in TS 38.133 [5]), or - *concurrentPerUE-PerFRCombMeasGap-r17* indicates whether the UE supports all concurrent gap combination configurations as specified in TS 38.133 [5] including support of more than 1 per-UE measurement gap configurations. For UE capable of Rel-15 per-FR gap (*independentGapConfig*), this field indicates whether the UE supports more than 1 per-FR gap measurement gap configurations in an FR, or simultaneous 1 per UE measurement gap plus 1 per-FR measurement gap configurations in an FR, or more than 1 per-UE measurement gap configurations (i.e. gap combination configuration id = 2 as specified in TS 38.133 [5]).	UE	No	No	No

concurrentMeasGapEUTRA-r17 Indicates whether the UE support the configurations of E-UTRAN measurement objectives associated with more than 1 concurrent measurement gaps as specified in TS 38.133 [5]. The UE indicating support of this feature shall also indicate support of *concurrentMeasGap-r17*.	UE	No	No	No
concurrentMeasGapsNCSG-r18 Indicates whether the UE supports multiple per-UE (or per-FR) measurement gap patterns with at least one per-UE (or per-FR) NCSG as specified in TS 38.133 [5]. A UE supporting this feature shall also indicate support of *nr-NeedForGapNCSG-Reporting-r17* and *concurrentMeasGap-r17.*	UE	No	No	No
concurrentMeasGapsPreMG-r18 Indicates whether the UE supports multiple per-UE (or per-FR) measurement gap patterns with at least one per-UE (or per-FR) Pre-MG as specified in TS 38.133 [5]. A UE supporting this feature shall also indicate support of *concurrentMeasGap-r17* and one of *preconfiguredNW-ControlledMeasGap-r17* and *preconfiguredUE-AutonomousMeasGap-r17*.	UE	No	No	No
condHandoverFDD-TDD-r16 Indicates whether the UE supports conditional handover between FDD and TDD cells. The parameter can only be set if *condHandover-r16* is set for both FDD and TDD. The UE that indicates support of this feature shall also indicate support of *handoverFDD-TDD*.	UE	No	No	No
condHandoverFR1-FR2-r16 Indicates whether the UE supports conditional handover HO between FR1 and FR2. The parameter can only be set if *condHandover-r16* is set for both FR1 and FR2. The UE that indicates support of this feature shall also indicate support of *handoverFR1-FR2*.	UE	No	No	No
condHandoverWithSCG-NRDC-r17 Indicates whether the UE supports conditional handover with NR SCG configuration for NR-DC. The UE indicating support of this feature shall also indicate the support of *condHandover-r16* and support of at least one NR-DC band combination.	UE	No	No	No
csi-RS-RLM Indicates whether the UE can perform radio link monitoring procedure based on measurement of CSI-RS as specified in TS 38.213 [11] and TS 38.133 [5]. If the UE supports this feature, the UE needs to report *maxNumberResource-CSI-RS-RLM*. This applies only to non-shared spectrum channel access. For shared spectrum channel access, *csi-RS-RLM-r16* applies.	UE	Yes	No	Yes
csi-RSRP-AndRSRQ-MeasWithSSB Indicates whether the UE can perform CSI-RSRP and CSI-RSRQ measurement as specified in TS 38.215 [13], where CSI-RS resource is configured with an associated SS/PBCH. If this parameter is indicated for FR1 and FR2 differently, each indication corresponds to the frequency range of measured target cell. If the UE supports this feature, the UE needs to report *maxNumberCSI-RS-RRM-RS-SINR*. This applies only to non-shared spectrum channel access. For shared spectrum channel access, *csi-RS-RLM-r16* applies.	UE	No	No	Yes
csi-RSRP-AndRSRQ-MeasWithoutSSB Indicates whether the UE can perform CSI-RSRP and CSI-RSRQ measurement as specified in TS 38.215 [13], where CSI-RS resource is configured for a cell that transmits SS/PBCH block and without an associated SS/PBCH block. If this parameter is indicated for FR1 and FR2 differently, each indication corresponds to the frequency range of measured target cell. If the UE supports this feature, the UE needs to report *maxNumberCSI-RS-RRM-RS-SINR*. This applies only to non-shared spectrum channel access. For shared spectrum channel access, *csi-RSRP-AndRSRQ-MeasWithoutSSB-r16* applies.	UE	No	No	Yes
csi-SINR-Meas Indicates whether the UE can perform CSI-SINR measurements based on configured CSI-RS resources as specified in TS 38.215 [13]. If this parameter is indicated for FR1 and FR2 differently, each indication corresponding to the frequency range of measured target cell. If the UE supports this feature, the UE needs to report *maxNumberCSI-RS-RRM-RS-SINR*. This applies only to non-shared spectrum channel access. For shared spectrum channel access, *csi-SINR-Meas-r16* applies.	UE	No	No	Yes

deriveSSB-IndexFromCellInterNon-NCSG-r17 Indicates whether the UE supports configuration of *deriveSSB-IndexFromCellInter-r17* in *MeasObjectNR*. This field applies to NR SA, MN configured measurements when NR-DC or NE-DC is configured, and SN configured measurements when NR-DC or (NG)EN-DC is configured. UE supporting this feature is required to meet the measurement requirements in TS 38.133 [5]. This field applies only to non-NCSG capable UEs (i.e. UEs not supporting *ncsg-MeasGapNR-Patterns-r17*).	UE	No	No	No
dynamicCollision-r18 Indicates whether the UE supports RRM requirements for handling dynamic collisions between a Pre-MG and another measurement gap or Pre-MG. A UE supporting this feature shall also indicate support of *concurrentMeasGapsPreMG-r18*.	UE	No	No	No
enterAndLeaveCellReport-r18 Indicates whether the UE supports the report of cell(s) that meet the event leaving condition and the report of cell(s) that meet the event entering condition as defined in TS 38.331 [9] clause 5.5.4.2.	UE	No	No	No
eutra-AutonomousGaps-r16 Defines whether the UE supports, upon configuration of *useAutonomousGaps* by the network, acquisition of relevant information from a neighbouring E-UTRA cell by reading the SI of the neighbouring cell using autonomous gap and reporting the acquired information to the network as specified in TS 38.331 [9] when MR-DC is not configured.	UE	No	No	No
eutra-AutonomousGaps-NEDC-r16 Defines whether the UE supports, upon configuration of *useAutonomousGaps* by the network, acquisition of relevant information from a neighbouring E-UTRA cell by reading the SI of the neighbouring cell using autonomous gap and reporting the acquired information to the network as specified in TS 38.331 [9] when NE-DC is configured.	UE	No	No	No
eutra-AutonomousGaps-NRDC-r16 Defines whether the UE supports, upon configuration of *useAutonomousGaps* by the network, acquisition of relevant information from a neighbouring E-UTRA cell by reading the SI of the neighbouring cell using autonomous gap and reporting the acquired information to the network as specified in TS 38.331 [9] when NR-DC is configured.	UE	No	No	No
eutra-CGI-Reporting Defines whether the UE supports acquisition of relevant CGI-information from a neighbouring E-UTRA cell by reading the SI of the neighbouring cell and reporting the acquired information to the network as specified in TS 38.331 [9] when the (NG)EN-DC and NE-DC are not configured or, when consistent DRX is configured in NR-DC. The consistent DRX configuration implies that MN and SN have the same DRX cycle and on-duration configured by MN completely contains on-duration configured by SN. It is mandated if the UE supports EUTRA. It is optional for (e)RedCap UEs.	UE	CY	No	No
eutra-CGI-Reporting-HSDN-r19 Defines whether the UE supports acquisition of HSDN cell information from a neighbouring E-UTRA cell by reading the SI of the neighbouring cell and reporting the acquired information to the network as specified in TS 38.331 [9].	UE	No	No	No
eutra-CGI-Reporting-NEDC Defines whether the UE supports acquisition of relevant information from a neighbouring E-UTRA cell by reading the SI of the neighbouring cell and reporting the acquired information to the network as specified in TS 38.331 [9] when the NE-DC is configured.	UE	No	No	No
eutra-CGI-Reporting-NRDC Defines whether the UE supports acquisition of relevant information from a neighbouring E-UTRA cell by reading the SI of the neighbouring cell and reporting the acquired information to the network as specified in TS 38.331 [9] when the NR-DC is configured wherein MN and SN have different DRX cycles, or on-duration configured by MN does not contain on-duration configured by SN if the DRX cycles are the same.	UE	No	No	No

eutra-MeasEMW-r18 Indicates whether the UE supports configuration of effective measurement window for inter-RAT EUTRAN measurements, including offset, duration and periodicity. The leftmost bit in the bitmap corresponds to EMW pattern #0 and the right most bit in the bitmap corresponds to EMW pattern #5. The bitmap for EMW patterns are defined in TS 38.133 [5]. EMW patterns #0 and #1 are mandatory (i.e. the corresponding bits in the bitmap is set to 1) if UE supports EMW feature. Other patterns are optional. A UE supporting this feature shall also indicate support of *eutra-NoGapMeasurementOutsideBWP-r18* or *eutra-NoGapMeasurementInsideBWP-r18*. If a UE does not support this feature, a UE is not allowed to cause scheduling restriction defined in TS 38.133 [5] for *eutra-NoGapMeasurementOutsideBWP-r18* or *eutra-NoGapMeasurementInsideBWP-r18*. NOTE: If UE supports *eutra-NoGapMeasurementOutsideBWP-r18* or *eutra-NoGapMeasurementInsideBWP-r18* and UE requires scheduling restriction, UE should support this feature.	UE	No	No	No
eutra-NeedForGapNCSG-Reporting-r17 Indicates whether the UE supports reporting of the NCSG and measurement gap requirement information for E-UTRA target bands in the UE response to a network configuration RRC message as specified in TS 38.331 [9].	UE	No	No	No
eutra-NoGapMeasurementInsideBWP-r18 Indicates whether the UE supports inter-RAT EUTRAN measurements without gap when CRS is completely contained within UE's active DL BWP.	UE	No	No	FR1 only
eutra-NoGapMeasurementOutsideBWP-r18 Indicates whether the UE supports inter-RAT EUTRAN measurements outside active DL BWP for nogap-noncsg. A UE supporting this feature shall also indicate support of *eutra-NeedForGapNCSG-Reporting-r17*.	UE	No	No	No
eventA-MeasAndReport Indicates whether the UE supports NR measurements and events A triggered reporting as specified in TS 38.331 [9]. This field only applies to SN configured measurement when (NG)EN-DC is configured. For NR SA, MN and SN configured measurement when NR-DC is configured, and MN configured measurement when NE-DC is configured, this feature is mandatory supported.	UE	Yes	Yes	No
eventB-MeasAndReport Indicates whether the UE supports EUTRA measurement and event B triggered reporting as specified in TS 38.331 [9]. It is mandated if the UE supports EUTRA.	UE	CY	No	No
eventD1-MeasReportTrigger-r17 Indicates whether the UE supports location-based triggered measurement reporting (i.e., event D1) as specified in TS 38.331 [9]. It is mandated if the UE supports *locationBasedCondHandover-r17* in any NTN band. It is mandated if the UE supports *locationBasedCondHandoverATG-r18* in any ATG band.	UE	CY	No	No
eventD2-MeasReportTrigger-r18 Indicates whether the UE supports location-based triggered measurement reporting for an NTN Earth-moving cell (i.e., event D2) as specified in TS 38.331 [9]. It is mandated if the UE supports *locationBasedCondHandoverEMC-r18* in any NTN band.	UE	CY	No	No
eventD2-MultiReferenceLocations-r19 Indicates whether the UE supports the configuration of multiple event D2 associated to different moving reference locations provided in the same measurement object as specified in TS 38.331 [9]. A UE supporting this feature shall also indicate support of *eventD2-MeasReportTrigger-r18*.	UE	No	No	No
gapOccasionCancelRatioReport-r19 Indicates whether the UE supports reporting preference for gap occasion cancellation ratio, as specified in TS 38.331 [9]. A UE supporting this feature shall also indicate support of *enableTx-RxDuringMeasGap-r19*.	UE	No	No	No

gNB-ID-LengthReporting-r17 Indicates whether the UE supports acquisition and reporting of gNB ID length from a neighbouring intra-frequency or inter-frequency NR cell by reading the SI of the neighbouring cell and reporting the acquired gNB ID length to the network as specified in TS 38.331 [9] when (NG)EN-DC and NE-DC are not configured or, when consistent DRX is configured in NR-DC. The consistent DRX configuration implies that MN and SN have the same DRX cycle and on-duration configured by MN completely contains on-duration configured by SN. It is mandated if UE supports NR CGI reporting (NG)EN-DC and NE-DC are not configured or, when consistent DRX is configured in NR-DC.	UE	CY	No	No
gNB-ID-LengthReporting-ENDC-r17 Indicates whether the UE supports acquisition and reporting of gNB ID length from a neighbouring intra-frequency or inter-frequency NR cell by reading the SI of the neighbouring cell and reporting the acquired gNB ID length to the network as specified in TS 38.331 [9] when the (NG)EN-DC is configured. It is mandated if UE supports NR CGI reporting when (NG)EN-DC is configured.	UE	CY	No	No
gNB-ID-LengthReporting-NEDC-r17 Indicates whether the UE supports acquisition and reporting of gNB ID length from a neighbouring intra-frequency or inter-frequency NR cell by reading the SI of the neighbouring cell and reporting the acquired gNB ID length to the network as specified in TS 38.331 [9] when the NE-DC is configured. It is mandated if UE supports NR CGI reporting when NE-DC is configured.	UE	CY	No	No
gNB-ID-LengthReporting-NRDC-r17 Indicates whether the UE supports acquisition and reporting of gNB ID length from a neighbouring intra-frequency or inter-frequency NR cell by reading the SI of the neighbouring cell and reporting the acquired gNB ID length to the network as specified in TS 38.331 [9] when the NR-DC is configured wherein MN and SN have different DRX cycles, or on-duration configured by MN does not contain on-duration configured by SN if the DRX cycles are the same. It is mandated if UE supports NR CGI reporting when NR-DC is configured.	UE	CY	No	No
gNB-ID-LengthReporting-NPN-r17 Indicates whether the UE supports acquisition of NPN-relevant gNB ID length from a neighbouring intra-frequency or inter-frequency NR NPN cell by reading the SI of the neighbouring cell and reporting the acquired gNB ID length to the network as specified in TS 38.331 [9]. It is mandated if UE supports NPN CGI reporting.	UE	CY	No	No
handoverLTE-5GC, handoverLTE-5GC-r17 Indicates whether the UE supports HO to EUTRA connected to 5GC. It is mandated if the UE supports EUTRA connected to 5GC.	UE	CY	Yes	Yes (Incl FR2-2 DIFF)
handoverFDD-TDD Indicates whether the UE supports HO between FDD and TDD. It is mandated if the UE supports both FDD and TDD. This field only applies to NR SA/NR-DC/NE-DC (e.g. PCell handover). For PSCell change when (NG)EN-DC/NR-DC is configured, this feature is mandatory supported. UEs supporting this shall indicate support of *handoverInterF* for both FDD and TDD.	UE	Yes	No	No
handoverFR1-FR2 Indicates whether the UE supports HO between FR1 and FR2. Support is mandatory for the UE supporting both FR1 and FR2. This field only applies to NR SA/NR-DC/NE-DC (e.g. PCell handover). For PSCell change when (NG)EN-DC/NR-DC is configured, this feature is mandatory supported. UEs supporting this shall indicate support of *handoverInterF* for both FR1 and FR2.	UE	Yes	No	No
handoverFR1-FR2-2-r17 Indicates whether the UE supports HO between FR1 and FR2-2. This field only applies to NR SA/NR-DC/NE-DC (e.g. PCell handover) and PSCell change when (NG)EN-DC/NR-DC is configured. UEs supporting this shall indicate support of *handoverInterF* for both FR1 and FR2-2.	UE	No	No	No
handoverFR2-1-FR2-2-r17 Indicates whether the UE supports HO between FR2-1 and FR2-2. This field only applies to NR SA/NR-DC/NE-DC (e.g. PCell handover) and PSCell change when (NG)EN-DC/NR-DC is configured. UEs supporting this shall indicate support of *handoverInterF* for both FR2-1 and FR2-2.	UE	No	No	No
handoverInterF, handoverInterF-r17 Indicates whether the UE supports inter-frequency HO. It indicates the support for inter-frequency HO from the corresponding duplex mode and from frequency range indicated to be supported as described in Annex B. This field only applies to NR SA/NR-DC/NE-DC (e.g. PCell handover). For PSCell change when (NG)EN-DC/NR-DC is configured, this feature is mandatory supported.	UE	Yes	Yes	Yes (Incl FR2-2 DIFF)

handoverLTE-EPC, handoverLTE-EPC-r17 Indicates whether the UE supports HO to EUTRA connected to EPC. It is mandated if the UE supports EUTRA connected to EPC.	UE	CY	Yes	Yes (Incl FR2-2 DIFF)
idleInactiveNR-MeasReport-r16, idleInactiveNR-MeasReport-r17 Indicates whether the UE supports configuration of NR SSB measurements in RRC_IDLE/RRC_INACTIVE and reporting of the corresponding results upon network request as specified in TS 38.331 [9]. If this parameter is indicated for FR1 and FR2 differently, each indication corresponds to the frequency range of measured target cell.	UE	No	No	Yes (Incl FR2-2 DIFF)
idleInactiveNR-MeasBeamReport-r16 Indicates whether the UE supports beam level measurements in RRC_IDLE/RRC_INACTIVE and reporting of the corresponding beam measurement results upon network request as specified in TS 38.331 [9]. A UE supports this feature shall also support *idleInactiveNR-MeasReport-r16*. If this parameter is indicated for FR1 and FR2 differently, each indication corresponds to the frequency range of measured target cell.	UE	No	No	Yes
idleInactiveEUTRA-MeasReport-r16 Indicates whether the UE supports configuration of E-UTRA measurements in RRC_IDLE/RRC_INACTIVE and reporting of the corresponding results upon network request as specified in TS 38.331 [9].	UE	No	No	No
idleInactive-ValidityArea-r16 Indicates whether the UE supports configuration of a validity area for NR measurements in RRC_IDLE/RRC_INACTIVE as specified in TS 38.331 [9].	UE	No	No	No
increasedNumberofCSIRSPerMO-r16 Indicates support of up to 192 CSI-RS resource for L3 mobility configuration per measurement object configured with *associatedSSB*. If this parameter is indicated for FR1 and FR2 differently, each indication corresponds to the frequency range of the cells to be measured within *MeasObjectNR*.	UE	No	No	Yes
independentGapConfig This field indicates whether the UE supports two independent measurement gap configurations for FR1 and FR2 specified in clause 9.1.2 of TS 38.133 [5], in NR standalone (when included in *measAndMobParameters*), in NR-DC (when included in *measAndMobParametersNRDC*), and in (NG)EN-DC and NE-DC (when included in *measAndMobParametersMRDC*). The field in *measAndMobParametersMRDC* also indicates whether the UE supports the FR2 inter-RAT measurement without gaps when (NG)EN-DC is not configured.	UE	No	No	No
independentGapConfig-maxCC-r17 This field indicates whether the UE supports two independent measurement gap configurations for FR1 and FR2 as specified in clause 9.1.2 of TS 38.133 [5] while the number of configured serving cells is less than or equal to the indicated number. The capability signalling includes the following parameters: - *fr1-Only-r17* indicates the maximum number of configured serving cells when only NR FR1 serving cells are configured - *fr2-Only-r17* indicates the maximum number of configured serving cells when only NR FR2 serving cells are configured - *fr1-AndFR2-r17* indicates the maximum number of configured serving cells when both NR FR1 and NR FR2 serving cells are configured The absence of the *fr1-Only-r17* or *fr2-Only-r17* field indicates that per-FR gap is not supported when only FR1 or FR2 serving cells are configured. Absence of the *fr1-AndFR2* field indicates that per-FR-gap is not supported when both FR1 and FR2 serving cells are configured. Value "1" for *fr1-Only-r17* or *fr2-Only-r17* indicates support of the per-FR gap when only PCell is configured (no additional CC). Value "2" for *fr1-Only-r17* or *fr2-Only-r17* indicates support of the per-FR gap when PCell and 1 additional CC are configured, and so on. Value "1" or "2" for *fr1-AndFR2-r17* indicates the support of per-FR gap when PCell and "1" additional CC are configured. UE indicating support of this feature in *UE-NR-Capability* shall not indicate support of *independentGapConfig* in *UE-NR-Capability*.	UE	No	No	No
independentGapConfigPRS-r17 Indicates whether the UE supports two independent measurement gap configurations for FR1 and FR2 for PRS measurement, as specified in clause 9.1.2 of TS 38.133 [5].	UE	No	No	No

intraAndInterF-MeasAndReport Indicates whether the UE supports NR intra-frequency and inter-frequency measurements and at least periodical reporting. This field only applies to SN configured measurement when (NG)EN-DC is configured. For NR SA, MN and SN configured measurement when NR-DC is configured, and MN configured measurement when NE-DC is configured, this feature is mandatory supported.	UE	Yes	Yes	No
intraF-NeighMeasForSCellWithoutSSB Indicates whether the UE supports the configuration of *servingCellMO* for SCell that does not transmit SS/PBCH block. A UE supporting this feature shall also support NR intra-frequency measurements on neighbour cells based on *servingCellMO* associated with SCell that does not transmit SS/PBCH block. A UE supporting this feature shall also indicate support of *scellWithoutSSB* or *scellWithoutSSB-InterBandCA-r18* or both.	UE	No	No	No
interFrequencyMeas-NoGap-r16 Indicates whether the UE can perform inter-frequency SSB based measurements without measurement gaps if the SSB is completely contained in the active BWP of the UE as specified in TS 38.133 [5]. If this parameter is indicated for FR1 and FR2 differently, each indication corresponds to the frequency range of cells to be measured.	UE	No	No	Yes
interSatMeas-r17 Indicates whether the UE supports inter-satellite measurement as specified in TS 38.331 [9]. It is mandatory if the UE supports *nonTerrestrialNetwork-r17*.	UE	CY	No	No
l3-MeasUnknownSCellActivation-r18 Indicates whether the UE supports reporting valid L3 measurement results triggered by the unknown SCell activation command UE is required to meet the shortened SCell activation delay requirement in TS 38.133 [5] if the feature is supported, including single SCell activation, single PUCCH SCell activation, and multiple SCell activation with/without PUCCH SCell.	UE	No	No	No
ltm-EventMeasAndReport-r19 Indicates whether the UE supports performing and reporting of measurements based on LTM events (including event LTM2/LTM3/LTM4/LTM5) as specified in TS 38.321 [8].	UE	No	No	No
ltm-FastUE-Processing-r18 Indicates the reduced $T_{LTM_processing}$ delay of the UE during cell switch. The capability signalling includes the following parameters: - *fr1-r18* indicates the reduced $T_{LTM_processing}$ for cell switch from FR1 to FR1. - *fr2-r18* indicates the reduced $T_{LTM_processing}$ for cell switch from FR2 to FR2. - *fr1-AndFR2-r18* indicates the reduced $T_{LTM_processing}$ for cell switch from FR1/FR2 to FR2/FR1.	UE	No	No	No
ltm-InterFreq-r18 Indicates UE supports inter-frequency MCG LTM on all the bands where the UE indicates support of *ltm-MCG-IntraFreq-r18* or inter-frequency SCG LTM on all the bands where the UE indicates support of *ltm-SCG-IntraFreq-r18* respectively. A UE supporting this feature shall also indicate support of *ltm-MCG-IntraFreq-r18* or *ltm-SCG-IntraFreq-r18.*	UE	No	No	No
ltm-interFreqL1-OnlyInBC-r18 When included, for each BC in which the UE indicates support of *interFreqL1-MeasConfig-r18*, the UE only supports inter-frequency L1-RSRP measurement and reporting based on SSB(s) of LTM candidate cell(s) that are inside the BC. When not included, the description in *interFreqL1-MeasConfig-r18* is applicable. A UE supporting this feature shall also indicate support of *interFreqL1-MeasConfig-r18*.	UE	No	No	No
ltm-InterFreqMeasGap-r18 Indicates whether the UE supports SSB based inter-frequency L1-RSRP measurements with measurement gaps for LTM. A UE supporting this feature shall also indicate support of *interFreqL1-MeasConfig-r18*.	UE	No	No	No
ltm-KeyUpdateMCG-r19 Indicates whether the UE supports security key change during MCG LTM cell switch execution. A UE supporting this feature shall also indicate support of *ltm-MCG-IntraFreq-r18* in at least one band.	UE	No	No	No
ltm-KeyUpdateSCG-r19 Indicates whether the UE supports security key change during SCG LTM cell switch execution. A UE supporting this feature shall also indicate support of *ltm-SCG-IntraFreq-r18* in at least one band.	UE	No	No	No

ltm-MCG-NRDC-r18 Indicates whether the UE supports LTM for MCG with RACH with NR-DC configured as defined in TS 38.331 [9] and TS 38.321 [8]. UE indicating support for this feature shall also indicate support of *ltm-MCG-IntraFreq-r18.*	UE	No	No	No
ltm-MCG-NRDC-Release-r18 Indicates whether the UE supports LTM for MCG with the release of NR-DC configuration as part of LTM execution when LTM cell switch command MAC CE is received. If the UE also supports *ltm-Recovery-r18*, this capability also indicates that the UE supports LTM for MCG with the release of NR-DC configuration as part of LTM recovery procedure. UE indicating support for this feature shall also indicate support of *ltm-MCG-IntraFreq-r18.*	UE	No	No	No
ltm-MCG-SCG-AdditionOrChange-r19 Indicates whether the UE supports LTM for MCG with the SCG change or SCG addition as part of LTM execution when LTM cell switch command MAC CE is received. If the UE also supports *ltm-Recovery-r18*, this capability also indicates the UE supports LTM for MCG with the SCG change or addition as part of LTM recovery procedure. A UE indicating support for this feature shall also indicate support of *ltm-KeyUpdateMCG-r19.*	UE	No	No	No
ltm-RACH-LessCG-r18 Indicates whether the UE supports RACH-less LTM with configured grant for MCG LTM if the UE indicates support of *ltm-MCG-IntraFreq-r18* or for SCG LTM if the UE indicates support of *ltm-SCG-IntraFreq-r18* respectively. UE indicating support for this feature shall also indicate support of either *ltm-BeamIndicationJointTCI-r18* or *ltm-BeamIndicationSeparateTCI-r18* for at least one band and either *ta-IndicationCellSwitch-r18* or *ue-TA-Measurement-r18*. If the UE indicates support of *cltm-ExecutionConditionL3-r19* or *cltm-ExecutionConditionL1-r19* and at least one of *cltm-EarlyTA-Indication-r19* or *ue-TA-Measurement-r18*, this field indicates whether the UE supports RACH-less conditional LTM with configured grant for MCG LTM.	UE	No	No	No
ltm-RACH-LessDG-r18 Indicates whether the UE supports RACH-Less LTM with dynamic grant, for MCG LTM if the UE indicates support of *ltm-MCG-IntraFreq-r18* or for SCG LTM if the UE indicates support of *ltm-SCG-IntraFreq-r18* respectively. UE indicating support for this feature shall also indicate support of either *ltm-BeamIndicationJointTCI-r18* or *ltm-BeamIndicationSeparateTCI-r18* for at least one band and TA indication in *ta-IndicationCellSwitch-r18* or *ue-TA-Measurement-r18*.	UE	No	No	No
ltm-Recovery-r18 Indicates whether the UE supports recovery procedure for MCG LTM execution when the selected cell in RRC re-establishment procedure is a LTM candidate as specified in TS 38.331 [9]. UE indicating support for this feature shall also indicate support of *ltm-MCG-IntraFreq-r18* for at least one band.	UE	No	No	No
ltm-RecoveryWithKeyUpdate-r19 Indicates whether the UE supports recovery procedure for MCG LTM execution with key update when the selected cell in RRC re-establishment procedure is a LTM candidate as specified in TS 38.331 [9]. A UE supporting this feature shall also indicate support of *ltm-KeyUpdateMCG-r19*.	UE	No	No	No
ltm-ReferenceConfig-r18 Indicates whether UE supports a reference configuration for LTM. UE indicating support for this feature shall also indicate support of either *ltm-MCG-IntraFreq-r18* or *ltm-SCG-IntraFreq-r18* for at least one band.	UE	No	No	No
ltm-SR-ConfIdInCellSwitchCommand-r19 Indicates whether the UE supports the configuration of *ltm-SchedulingRequestInfo-r19* in *ReconfigurationWithSync* for providing the dedicated SR configurations and resources for LTM, as specified in TS 38.331 [9], and the indication of the SR configuration ID within the (enhanced) LTM cell switch command MAC CE.	UE	No	No	No
maxNumberCLI-RSSI-r16 Defines the maximum number of CLI-RSSI measurement resources for CLI RSSI measurement. If the UE supports *cli-RSSI-Meas-r16*, the UE shall report this capability.	UE	CY	TDD only	No

maxNumberCLI-SRS-RSRP-r16 Defines the maximum number of SRS-RSRP measurement resources for SRS-RSRP measurement. If the UE supports *cli-SRS-RSRP-Meas-r16*, the UE shall report this capability. NOTE 1: A slot is based on minimum SCS among active BWPs across all CCs configured for SRS-RSRP measurement. NOTE 2: A SRS resource occasion that overlaps with the slot is counted as one measurement resource in the slot.	UE	CY	TDD only	No
maxNumberCSI-RS-RRM-RS-SINR Defines the maximum number of CSI-RS resources for RRM and RS-SINR measurement across all measurement frequencies per slot. UE indicating support of this feature shall also indicate support of *csi-RSRP-AndRSRQ-MeasWithSSB*, *csi-RSRP-AndRSRQ-MeasWithoutSSB* or *csi-SINR-Meas*. If UE supports any of *csi-RSRP-AndRSRQ-MeasWithSSB*, *csi-RSRP-AndRSRQ-MeasWithoutSSB*, and *csi-SINR-Meas*, UE shall report this capability. NOTE: A slot is based on minimum SCS among all measurement frequencies configured for RRM and RS-SINR measurement.	UE	CY	No	No
maxNumberPerSlotCLI-SRS-RSRP-r16 Defines the maximum number of SRS-RSRP measurement resources per slot for SRS-RSRP measurement. If the UE supports *cli-SRS-RSRP-Meas-r16*, the UE shall report this capability.	UE	CY	TDD only	No
maxNumberResource-CSI-RS-RLM Defines the maximum number of CSI-RS resources within a slot per spCell for CSI-RS based RLM. UE indicating support of this feature shall also indicate support of *csi-RS-RLM* or *ssb-AndCSI-RS-RLM*, If UE supports any of *csi-RS-RLM* and *ssb-AndCSI-RS-RLM*, UE shall report this capability.	UE	CY	No	Yes
measSequenceConfig-r18 Indicates whether the UE supports configuration of *measSequence-r18* in *MeasObjectNR* and *MeasObjectEUTRA* for recommended sequence for intra/inter-RAT intra/inter-frequency measurement.	UE	No	No	No
multiCarrierSingleReportWithoutGap-r19 Indicates whether the UE supports serving cell and neighbour cells measurement and report on one serving carrier per-band for intra-frequency measurements without measurement gap if multiple serving carriers are configured in a same band. A UE supporting this feature shall meet the corresponding enhanced requirements in TS 38.133 [5] Clause 9.2.3.2, 9.1.5.1.1, 9.1.5.1.2, 9.1.5.1.3, and 9.1.5.1.4	UE	No	No	FR2-1 only
ncsg-MeasGapNR-Patterns-r17 Indicates whether the UE supports NR-only NCSG patterns. The left most bit in the bitmap corresponds to NCSG pattern #0 and the right most bit in the bitmap corresponds to NCSG pattern #23. A bit in the bitmap is set to 1 if the corresponding pattern is supported by the UE. NCSG patterns #0 to #23 are as specified in TS 38.133 [5]. NCSG patterns #2 and #3 are mandatory (i.e. the corresponding bits in the bitmap is set to 1) if the UE includes this field. NCSG patterns #17 and #18 are mandatory (i.e. the corresponding bits in the bitmap is set to 1) if UE includes this field and supports a FR2 band. UEs supporting this shall indicate support of *nr-NeedForGapNCSG-Reporting-r17*.	UE	No	No	No
ncsg-MeasGapPatterns-r17 Indicates whether the UE supports NCSG patterns. The left most bit in the bitmap corresponds to NCSG pattern #0 and the right most bit in the bitmap corresponds to NCSG pattern #23. A bit in the bitmap is set to 1 if the corresponding pattern is supported by the UE. NCSG patterns #0 to #23 are as specified in TS 38.133 [5]. NCSG patterns #0 and #1 are mandatory (i.e. the corresponding bits in the bitmap is set to 1) if the UE includes this field. NCSG patterns #13 and #14 are mandatory (i.e. the corresponding bits in the bitmap is set to 1) if UE supports *ncsg-MeasGapPerFR-r17* or if the UE is NCSG capable and supports FR2 band in standalone mode. UEs supporting this shall indicate support of *nr-NeedForGapNCSG-Reporting-r17* or *eutra-NeedForGapNCSG-Reporting-r17*.	UE	No	No	No
ncsg-MeasGapPerFR-r17 Indicates whether the UE supports per-FR NCSG. UEs supporting this shall indicate support of *nr-NeedForGapNCSG-Reporting-r17*.	UE	No	No	No

ncsg-SymbolLevelScheduleRestrictionInter-r17 Indicates whether the UE supports performing measurement with NCSG based on flag *deriveSSB-IndexFromCell-inter* and meeting the following requirements that the scheduling restriction in FR2 serving cell during NCSG ML is on SSB symbol level. UEs supporting this shall indicate support of *nr-NeedForGapNCSG-Reporting-r17*.	UE	No	No	FR2 only
nr-AutonomousGaps-r16 Defines whether the UE supports, upon configuration of *useAutonomousGaps* by the network, acquisition of relevant information from a neighbouring NR cell by reading the SI of the neighbouring cell using autonomous gap and reporting the acquired information to the network as specified in TS 38.331 [9] when MR-DC is not configured. If this parameter is indicated for FR1 and FR2 differently, each indication corresponds to the frequency range of measured target cell.	UE	No	No	Yes
nr-AutonomousGaps-ENDC-r16 Defines whether the UE supports, upon configuration of *useAutonomousGaps* by the network, acquisition of relevant information from a neighbouring NR cell by reading the SI of the neighbouring cell using autonomous gap and reporting the acquired information to the network as specified in TS 38.331 [9] when (NG)EN-DC is configured. If this parameter is indicated for FR1 and FR2 differently, each indication corresponds to the frequency range of measured target cell.	UE	No	No	Yes
nr-AutonomousGaps-NEDC-r16 Defines whether the UE supports, upon configuration of *useAutonomousGaps* by the network, acquisition of relevant information from a neighbouring NR cell by reading the SI of the neighbouring cell using autonomous gap and reporting the acquired information to the network as specified in TS 38.331 [9] when NE-DC is configured. If this parameter is indicated for FR1 and FR2 differently, each indication corresponds to the frequency range of measured target cell.	UE	No	No	Yes
nr-AutonomousGaps-NRDC-r16 Defines whether the UE supports, upon configuration of *useAutonomousGaps* by the network, acquisition of relevant information from a neighbouring NR cell by reading the SI of the neighbouring cell using autonomous gap and reporting the acquired information to the network as specified in TS 38.331 [9] when NR-DC is configured. If this parameter is indicated for FR1 and FR2 differently, each indication corresponds to the frequency range of measured target cell.	UE	No	No	Yes
nr-CGI-Reporting Defines whether the UE supports acquisition of relevant CGI-information from a neighbouring intra-frequency or inter-frequency NR cell by reading the SI of the neighbouring cell and reporting the acquired information to the network as specified in TS 38.331 [9] when (NG)EN-DC and NE-DC are not configured or, when consistent DRX is configured in NR-DC. The consistent DRX configuration implies that MN and SN have the same DRX cycle and on-duration configured by MN completely contains on-duration configured by SN. It is optional for (e)RedCap UEs.	UE	CY	No	No
nr-CGI-Reporting-ENDC Defines whether the UE supports acquisition of relevant CGI-information from a neighbouring intra-frequency or inter-frequency NR cell by reading the SI of the neighbouring cell and reporting the acquired information to the network as specified in TS 38.331 [9] when the (NG)EN-DC is configured.	UE	Yes	No	No
nr-CGI-Reporting-HSDN-r19 Defines whether the UE supports acquisition of HSDN cell information from a neighbouring intra-frequency or inter-frequency NR HSDN cell by reading the SI of the neighbouring cell and reporting the acquired information to the network as specified in TS 38.331 [9].	UE	No	No	No
nr-CGI-Reporting-NEDC Defines whether the UE supports acquisition of relevant information from a neighbouring intra-frequency or inter-frequency NR cell by reading the SI of the neighbouring cell and reporting the acquired information to the network as specified in TS 38.331 [9] when the NE-DC is configured.	UE	Yes	No	No
nr-CGI-Reporting-NPN-r16 Defines whether the UE supports acquisition of NPN-relevant CGI-information from a neighbouring intra-frequency or inter-frequency NR NPN cell by reading the SI of the neighbouring cell and reporting the acquired information to the network as specified in TS 38.331 [9]. If UE supports NPN, UE shall report this capability. It is optional for (e)RedCap UEs.	UE	CY	No	No

nr-CGI-Reporting-NRDC Defines whether the UE supports acquisition of relevant information from a neighbouring intra-frequency or inter-frequency NR cell by reading the SI of the neighbouring cell and reporting the acquired information to the network as specified in TS 38.331 [9] when the NR-DC is configured wherein MN and SN have different DRX cycles, or on-duration configured by MN does not contain on-duration configured by SN if the DRX cycles are the same.	UE	Yes	No	No
nr-NeedForGapNCSG-Reporting-r17 Indicates whether the UE supports reporting of the NCSG and measurement gap requirement information for SSB based measurement in the UE response to a network configuration RRC message as specified in TS 38.331 [9].	UE	No	No	No
nr-NeedForGap-Reporting-r16 Indicates whether the UE supports reporting the measurement gap requirement information for NR target in the UE response to a network configuration RRC message.	UE	No	No	No
nr-NeedForInterruptionReport-r18 Indicates whether the UE supports reporting the interruption requirement information for SSB based measurement towards NR target without gap in the UE response to a network configuration RRC message. The UE supporting this feature shall also indicate support of *nr-NeedForGap-Reporting-r16*.	UE	No	No	No
ntn-NeighbourCellInfoSupport-r18 Indicates whether the UE supports configuration of *ntn-NeighbourCellInfo-r18* in *MeasObjectNR* for dedicated ephemeris. A UE supporting this feature shall also indicate the support of *nonTerrestrialNetwork-r17*.	UE	No	No	No
parallelMeasurementGap-r17 Indicates whether the UE supports 2 parallel measurement gaps for NTN SSB based RRM measurements. If a UE does not include this field but includes *nonTerrestrialNetwork-r17*, the UE supports 1 measurement gap for NTN SSB based RRM measurements. If this parameter is indicated, a UE shall also support that two parallel measurement gaps with the same gap type can be associated to one frequency layer. A UE supporting this feature shall also indicate the support of *nonTerrestrialNetwork-r17*.	UE	No	FDD only	FR1 only
parallelSMTC-r17 Indicates whether the UE supports NTN SSB based RRM measurements on target cells belonging to 4 SMTC-s on a single frequency carrier. If a UE does not include this field but includes *nonTerrestrialNetwork-r17*, the UE supports NTN SSB based RRM measurements on target cells belonging to 2 SMTC-s on a single frequency carrier.	UE	No	FDD only	FR1 only
periodicEUTRA-MeasAndReport Indicates whether the UE supports periodic EUTRA measurement and reporting. It is mandated if the UE supports EUTRA.	UE	CY	No	No
pcellT312-r16 Indicates whether the UE supports T312 based fast failure recovery for PCell.	UE	No	No	No
preconfiguredUE-AutonomousMeasGap-r17 Indicates whether the UE supports the preconfigured measurement gap with UE-autonomous mechanism for activation and deactivation as specified in TS 38.133 [5].	UE	No	No	No
preconfiguredNW-ControlledMeasGap-r17 Indicates whether the UE supports the preconfigured measurement gap with network-controlled mechanism for activation and deactivation as specified in TS 38.133 [5].	UE	No	No	No
rach-LessHandoverInterFreq-r18 Indicates whether the UE supports inter-frequency RACH-less handover. The UE supports inter-frequency RACH-less handover on all the bands where the UE indicates support for *rach-LessHandoverCG-r18* or *rach-LessHandoverDG-r18*. If the UE does not support *rach-LessHandoverInterFreq-r18* but indicates support of *rach-LessHandoverCG-r18 or rach-LessHandoverDG-r18*, the UE only supports intra-frequency RACH-less handover with configured grant or dynamic grant, respectively, on the corresponding bands.	UE	No	No	No
reportAddNeighMeasForPeriodic-r16 Defines whether the UE supports periodic reporting of best neighbour cells per serving frequency, as defined in TS 38.331 [9]. It is optional for (e)RedCap UEs.	UE	CY	No	No
reportClosestReferenceLocations-r19 Indicates whether the UE supports reporting closest reference location(s) as specified in TS 38.331 [9]. A UE supporting this feature shall also indicate the support of *nonTerrestrialNetwork-r17*.	UE	No	No	No

secondBestCellChangeReport-r18 Indicates whether the UE supports the sending of the measurement report if more than one of two best cells changed as specified in TS 38.331 [9].	UE	No	No	No
serviceLinkPropDelayDiffReporting-r17 Indicates whether the UE supports the reporting of service link propagation delay difference between serving cell and neighbour cell(s). A UE supporting this feature shall also indicate the support of *nonTerrestrialNetwork-r17*.	UE	No	No	No
sftd-MeasPSCell Indicates whether the UE supports SFTD measurements between the PCell and a configured PSCell. If this capability is included in UE-MRDC-Capability, it indicates that the UE supports SFTD measurement between PCell and PSCell in (NG)EN-DC. If this capability is included in UE-NR-Capability, it indicates that the UE supports SFTD measurement between PCell and PSCell in NR-DC.	UE	No	Yes	No
sftd-MeasPSCell-NEDC Indicates whether the UE supports SFTD measurement between the NR PCell and a configured E-UTRA PSCell in NE-DC.	UE	No	Yes	No
sftd-MeasNR-Cell Indicates whether the SFTD measurement with and without measurement gaps between the EUTRA PCell and the NR cells is supported by the UE which is capable of EN-DC/NGEN-DC when EN-DC/NGEN-DC is not configured. The SFTD measurement without gaps can be used when the UE supports at least one EN-DC band combination consisting of the set of the current E-UTRA serving frequencies and the NR frequency where SFTD measurement is configured. In UE-NR-Capability, this field is not used, and UE does not include the field.	UE	No	Yes	No
sftd-MeasNR-Neigh Indicates whether the inter-frequency SFTD measurement with and without measurement gaps between the NR PCell and inter-frequency NR neighbour cells is supported by the UE when MR-DC is not configured. The SFTD measurement without gaps can be used when the UE supports at least one DC or CA band combination consisting of the set of the current NR serving frequencies and the NR frequency where SFTD measurement is configured.	UE	No	Yes	No
sftd-MeasNR-Neigh-DRX Indicates whether the inter-frequency SFTD measurement using DRX off period between the NR PCell and the inter-frequency NR neighbour cells is supported by the UE when MR-DC is not configured.	UE	No	Yes	No
shortMeasInterval-r18 Indicates whether the UE supports using SSB periodicity instead of SMTC periodicity for the measurement interval during unknown SCell activation when the SMTC is only configured in measurement object for enhanced unknown SCell activation requirement and performing L1-RSRP measurement in non-DRX mode even DRX is configured during unknown SCell activation. UE is required to meet the shortened SCell activation delay requirement in TS 38.133 [5] if the feature is supported.	UE	No	No	No
simultaneousRxDataSSB-DiffNumerology Indicates whether the UE supports concurrent intra-frequency measurement on serving cell or neighbouring cell and PDCCH or PDSCH reception from the serving cell with a different numerology as defined in clause 8 and 9 of TS 38.133 [5].	UE	No	No	Yes
simultaneousRxDataSSB-DiffNumerology-Inter-r16 Indicates whether the UE supports concurrent SSB based inter-frequency measurement without measurement gap on neighbouring cell and PDCCH or PDSCH reception from the serving cell with a different numerology as defined in clause 8 and 9 of TS 38.133 [5]. UE indicates support of this indicates support of *interFrequencyMeas-NoGap-r16*. If this parameter is indicated for FR1 and FR2 differently, each indication corresponds to the frequency range where the SSB and PDCCH/PDSCH are received.	UE	No	No	Yes

skipSSB-L1-RSRP-Meas-r19 Indicates whether the UE supports to skip SSB based L1-RSRP measurement for candidate cell CSI-RS-based L1-RSRP measurement. Value '*neighbour*' indicates the UE supports skipping SSB-based L1-RSRP during neighbouring cell CSI-RS-based L1-RSRP measurement. Value '*both*' indicates the UE supports skipping SSB-based L1-RSRP during both neighbouring cell and serving cell CSI-RS-based L1-RSRP measurement. If a UE indicates '*neighbour*', CSI-RS resources from neighbour cell do not need to be Type-D QCL'ed with the associated SSB for L1 measurement, but shall be Type-D QCL'ed with the associated SSB for L3 measurement. CSI-RS resources configured for LTM L1-RSRP measurement from serving cell shall be Type-D QCL'ed with SSB for L1-RSRP measurement, or another CSI-RS in resource set configured with repetition ON. If a UE indicates '*both*', CSI-RS resources from neighbour cell do not need to be Type-D QCL'ed with the associated SSB for L1 measurement, but shall be Type-D QCL'ed with the associated SSB for L3 measurement. CSI-RS resources configured for LTM L1-RSRP measurement from serving cell do not need to be Type-D QCL'ed with SSB for L1-RSRP measurement, or another CSI-RS in resource set configured with repetition ON. If a UE does not support this feature, CSI-RS resources from neighbour cell shall be Type-D QCL'ed with the associated SSB for L1 measurement. CSI-RS resources configured for LTM L1-RSRP measurement from serving cell shall be Type-D QCL'ed with SSB for L1-RSRP measurement, or another CSI-RS in resource set configured with repetition ON. A UE supporting this feature shall also indicate support of *intraFreqL1-MeasConfigPeriodicCSI-RS-r19*.	UE	No	No	FR2-1 only
speedStateDetection-r19 Indicates whether the UE supports mobility state detection and speed dependent measurement related parameters as specified in TS 38.331 [9]	UE	No	No	No
ssb-RLM Indicates whether the UE can perform radio link monitoring procedure based on measurement of SS/PBCH block as specified in TS 38.213 [11] and TS 38.133 [5]. This field shall be set to *supported*. This applies only to non-shared spectrum channel access. For shared spectrum channel access, *ssb-RLM-DynamicChAccess-r16* or *ssb-RLM-Semi-StaticChAccess-r16* applies.	UE	Yes	No	No
ssb-AndCSI-RS-RLM Indicates whether the UE can perform radio link monitoring procedure based on measurement of SS/PBCH block and CSI-RS as specified in TS 38.213 [11] and TS 38.133 [5]. UE indicating support of this feature shall also indicate support of *ssb-RLM* and *csi-RS-RLM*. If the UE supports this feature, the UE needs to report *maxNumberResource-CSI-RS-RLM*. This applies only to non-shared spectrum channel access. For shared spectrum channel access, *ssb-AndCSI-RS-RLM-r16* applies.	UE	No	No	No
ss-SINR-Meas Indicates whether the UE can perform SS-SINR measurement as specified in TS 38.215 [13]. If this parameter is indicated for FR1 and FR2 differently, each indication corresponds to the frequency range of measured target cell. This applies only to non-shared spectrum channel access. For shared spectrum channel access, *ss-SINR-Meas-r16* applies.	UE	No	No	Yes
supportedGapPattern Indicates measurement gap pattern(s) optionally supported by the UE for NR SA, for NR-DC, for NE-DC and for independent measurement gap configuration on FR2 in (NG)EN-DC. The leading / leftmost bit (bit 0) corresponds to the gap pattern 2, the next bit corresponds to the gap pattern 3, as specified in TS 38.133 [5] and so on. The UE shall set the bits corresponding to the measurement gap pattern 13, 14, 17, 18 and 19 to 1 if the UE is an NR standalone capable UE that supports a band in FR2 or if the UE is an (NG)EN-DC capable UE that supports *independentGapConfig* and supports a band in FR2.	UE	CY	No	No
supportedGapPattern-r16 Indicates measurement gap pattern(s) optionally supported by the UE for NR SA, for NR-DC for PRS measurement and NR/E-UTRA RRM measurement. The leading / leftmost bit (bit 0) corresponds to the gap pattern 24, the next bit corresponds to the gap pattern 25, as specified in TS 38.133 [5]. The applicability of the gap patterns 24 and 25 is defined in clause 9.1.2 of TS 38.133 [5]. A UE that indicates support of this capability shall indicate support of *NR-DL-PRS-ProcessingCapability-r16* defined in TS 37.355 [22].	UE	No	No	No

supportedGapPattern-NRonly-r16 Indicates measurement gap pattern(s) optionally supported by the UE for NR SA and NR-DC when the frequencies to be measured within this measurement gap are all NR frequencies. The leading / leftmost bit (bit 0) corresponds to the gap pattern 2, the next bit corresponds to the gap pattern 3 and so on. The UE shall set the bits corresponding to the measurement gap pattern 2, 3 and 11 to 1.	UE	FD	No	No
supportedGapPattern-NRonly-NEDC-r16 Indicates whether the UE supports gap patterns 2, 3 and 11 in NE-DC when the frequencies to be measured within this measurement gap are all NR frequencies.	UE	No	No	No
threeCarrierMeasWithoutGap-r19 Indicates whether the UE supports measuring serving cell and neighbour cells measurement on three carriers simultaneously for measurements without measurement gap. The capability signalling includes the following parameters: - *fr1-CA-NR-DC-r19* indicates whether the UE supports this feature on FR1 only CA and FR1 only NR-DC; - *fr1-FR2-CA-r19* indicates whether the UE supports this feature on FR1 and FR2 CA, where PCell is FR1 only; - *fr1-FR2-NR-DC-r19* indicates whether the UE supports this feature on FR1 and FR2 NR-DC, where PCell is FR1 only. A UE supporting this feature shall meet the corresponding enhanced requirements defined in TS 38.133 [5] Clause 9.1.5.1.1, 9.1.5.1.2, and 9.1.5.1.3.	UE	No	No	No
twoSMTC-PeriodicitiesIntraFreq-r19 Indicates whether the UE supports NTN SSB based RRM measurements on target cells using two SMTC periodicities on intra-frequency carrier. A UE supporting this feature shall also indicate the support of *nonTerrestrialNetwork-r17*.	UE	No	FDD only	FR1 only
twoSMTC-PeriodicitiesInterFreq-r19 Indicates whether the UE supports NTN SSB based RRM measurements on target cells using two SMTC periodicities on each inter-frequency carrier. A UE supporting this feature shall also indicate the support of *nonTerrestrialNetwork-r17*.	UE	No	FDD only	FR1 only

4.2.9a *MeasAndMobParametersMRDC*

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
condHandoverWithCandSCG-Addition-r18 Indicates whether the UE supports conditional handover with candidate NR PSCell addition. The UE indicating support of this feature shall also indicate the support of *condHandover-r16* and support of at least one NR-DC band combination.	UE	No	No	No
condHandoverWithCandSCG-FDD-TDD-Change-r18 Indicates whether the UE supports conditional handover with candidate SCG, where conditional NR PSCell change is supported between FDD and TDD. The parameter can only be set if *condHandoverWithCandSCG-change-r18* is set for both FDD and TDD.	UE	No	No	No
condHandoverWithCandSCG-FR1-FR2-Change-r18 Indicates whether the UE supports conditional handover with candidate SCG, where conditional NR PSCell change is supported between FR1 and FR2. The parameter can only be set if *condHandoverWithCandSCG-change-r18* is set for both FR1 and FR2.	UE	No	No	No
condHandoverWithSCG-ENDC-r17 Indicates whether the UE supports conditional handover with NR SCG configuration for EN-DC. The UE indicating support of this feature shall also indicate the support of *cho-r16* as specified in TS 36.306 [15] and at least one EN-DC band combination.	UE	No	No	No
condHandoverWithSCG-NEDC-r17 Indicates whether the UE supports conditional handover with E-UTRA SCG configuration for NE-DC. The UE indicating support of this feature shall also indicate the support of *condHandover-r16* and at least one NE-DC band combination.	UE	No	No	No
condPSCellChangeFDD-TDD-r16 Indicates whether the UE supports conditional PSCell change between FDD and TDD cells. The parameter can only be set if *condPSCellChange-r16* is set for both FDD and TDD.	UE	No	No	No
condPSCellChangeFR1-FR2-r16 Indicates whether the UE supports conditional PSCell change between FR1 and FR2. The parameter can only be set if *condPSCellChange-r16* is set for both FR1 and FR2.	UE	No	No	No
independentGapConfig-maxCC-r17 This field indicates whether the UE supports two independent measurement gap configurations for FR1 and FR2 as specified in clause 9.1.2 of TS 38.133 [5] while the number of configured serving cells is less than or equal to the indicated number. The capability signalling includes the following parameters: - *fr1-Only-r17* indicates the maximum number of configured serving cells when E-UTRA and NR FR1 serving cells are configured - *fr2-Only-r17* is not applicable when the field *independentGapConfig-maxCC-r17* is included in *UE-MRDC-Capability*. - *fr1-AndFR2-r17* indicates the maximum number of configured serving cells when E-UTRA and NR FR2 serving cells are configured or when E-UTRA, NR FR1 and NR FR2 serving cells are configured. The absence of the *fr1-Only-r17* field indicates that per-FR gap is not supported when E-UTRA and NR FR1 serving cells are configured. Absence of the *fr1-AndFR2* field indicates that per-FR-gap is not supported when E-UTRA and NR FR2 serving cells are configured or when E-UTRA, NR FR1 and NR FR2 serving cells are configured. Value "1" or "2" for *fr1-Only-r17* or *fr1-AndFR2-r17* indicates the support of per-FR gap when PCell and "1" additional CC are configured. UE indicating support of this feature in *UE-MRDC-Capability* shall not indicate support of *independentGapConfig* in *UE-MRDC-Capability*.	UE	No	No	No

inter-SN-condPSCellChangeFDD-TDD-ENDC-r17 Indicates whether the UE supports inter SN conditional PSCell change between FDD and TDD cells in EN-DC. The parameter can only be set - if *mn-InitiatedCondPSCellChange-FR1FDD-ENDC-r17* is supported and at least one of *mn-InitiatedCondPSCellChange-FR1TDD-ENDC-r17* and *mn-InitiatedCondPSCellChange-FR2TDD-ENDC-r17* is supported; or - if *sn-InitiatedCondPSCellChange-FR1FDD-ENDC-r17* is supported and at least one of *sn-InitiatedCondPSCellChange-FR1TDD-ENDC-r17* and *sn-InitiatedCondPSCellChange-FR2TDD-ENDC-r17* is supported.	UE	No	No	No
inter-SN-condPSCellChangeFDD-TDD-NRDC-r17 Indicates whether the UE supports inter SN conditional PSCell change between FDD and TDD cells in NR-DC. The parameter can only be set if *mn-InitiatedCondPSCellChangeNRDC-r17* is set for FDD band(s) and TDD band(s), or *sn-InitiatedCondPSCellChangeNRDC-r17* is set for FDD band(s) and TDD band(s).	UE	No	No	No
inter-SN-condPSCellChangeFR1-FR2-ENDC-r17 Indicates whether the UE supports inter SN conditional PSCell change between FR1 and FR2 cells in EN-DC. The parameter can only be set: - if *mn-InitiatedCondPSCellChange-FR2TDD-ENDC-r17* is supported and at least one of *mn-InitiatedCondPSCellChange-FR1TDD-ENDC-r17* and *mn-InitiatedCondPSCellChange-FR1FDD-ENDC-r17* is supported; or - if *sn-InitiatedCondPSCellChange-FR2TDD-ENDC-r17* is supported and at least one of *sn-InitiatedCondPSCellChange-FR1TDD-ENDC-r17* and *sn-InitiatedCondPSCellChange-FR1FDD-ENDC-r17* is supported.	UE	No	No	No
inter-SN-condPSCellChangeFR1-FR2-NRDC-r17 Indicates whether the UE supports inter SN conditional PSCell change between FR1 and FR2 cells. The parameter can only be set if *mn-InitiatedCondPSCellChangeNRDC-r17* is set for FR1 band(s) and FR2 band(s), or *sn-InitiatedCondPSCellChangeNRDC-r17* is set for FR1 band(s) and FR2 band(s).	UE	No	No	No
mn-ConfiguredMN-TriggerSCPAC-r18 Indicates whether the UE supports Subsequent CPAC as defined in TS 38.331 [9] for MN initiated subsequent conditional PSCell change or addition in NR-DC, which is configured by NR *conditionalReconfiguration* using MN configured measurement as the initial triggering condition and using candidate SN configured measurement as the following triggering condition. The parameter can only be set if *sn-InitiatedCondPSCellChangeNRDC-r17, mn-InitiatedCondPSCellChangeNRDC-r17* and *condPSCellAdditionNRDC-r17* are supported. A UE indicating support for this feature and for inter-SN-condPSCellChangeFDD-TDD-NRDC-r17, and respectively for inter-SN-condPSCellChangeFR1-FR2-NRDC-r17, shall support this feature between FDD and TDD cells, and respectively between FR1 and FR2 cells, in NR-DC.	UE	No	No	No
mn-ConfiguredMN-TriggerSCPAC-afterSCG-release-r18 Indicates whether the UE supports Subsequent CPAC as defined in TS 38.331 [9] for MN initiated subsequent conditional PSCell change or addition in NR-DC, which is configured by NR *conditionalReconfiguration* using MN configured measurement as the initial triggering condition and using candidate SN configured measurement as the following triggering condition, after the SCG from a previous SCPAC configuration is released. UE indicating support for this feature shall indicate support of *mn-ConfiguredMN-TriggerSCPAC-r18*. A UE indicating support for this feature and for *inter-SN-condPSCellChangeFDD-TDD-NRDC-r17*, and respectively for *inter-SN-condPSCellChangeFR1-FR2-NRDC-r17*, shall support this feature between FDD and TDD cells, and respectively between FR1 and FR2 cells, in NR-DC.	UE	No	No	No
mn-ConfiguredReferenceConfigSCPAC-r18 Indicates whether the UE supports reference configuration for *mn-ConfiguredMN-TriggerSCPAC-r18* and *mn-ConfiguredSN-TriggerSCPAC-r18* as defined in TS 38.331 [9].	UE	No	No	No

mn-ConfiguredSN-TriggerSCPAC-r18 Indicates whether the UE supports Subsequent CPAC as defined in TS 38.331 [9] for initial MN configured subsequent conditional PSCell change in NR-DC, which is configured by NR *conditionalReconfiguration* using SN configured measurement as the initial triggering condition. The parameter can only be set if *sn-InitiatedCondPSCellChangeNRDC-r17* is supported. A UE indicating support for this feature and for *inter-SN-condPSCellChangeFDD-TDD-NRDC-r17*, and respectively for *inter-SN-condPSCellChangeFR1-FR2-NRDC-r17*, shall support this feature between FDD and TDD cells, and respectively between FR1 and FR2 cells, in NR-DC.	UE	No	No	No
mn-InitiatedCondPSCellChange-FR1FDD-ENDC-r17 Indicates whether the UE supports MN initiated conditional PSCell change within all supported FR1-FDD bands in EN-DC, which is configured by E-UTRA *conditionalReconfiguration* field using MN configured measurement as triggering condition. The UE supporting this feature shall also support 2 trigger events for same execution condition in MN initiated conditional PSCell change in EN-DC.	UE	No	No	No
mn-InitiatedCondPSCellChange-FR1TDD-ENDC-r17 Indicates whether the UE supports MN initiated conditional PSCell change within all supported FR1-TDD bands in EN-DC, which is configured by E-UTRA *conditionalReconfiguration* field using MN configured measurement as triggering condition. The UE supporting this feature shall also support 2 trigger events for same execution condition in MN initiated conditional PSCell change in EN-DC.	UE	No	No	No
mn-InitiatedCondPSCellChange-FR2TDD-ENDC-r17 Indicates whether the UE supports MN initiated conditional PSCell change within all supported FR2-TDD bands in EN-DC, which is configured by E-UTRA *conditionalReconfiguration* field using MN configured measurement as triggering condition. The UE supporting this feature shall also support 2 trigger events for same execution condition in MN initiated conditional PSCell change in EN-DC.	UE	No	No	No
pscellT312-r16 Indicates whether the UE supports T312 based fast failure recovery for PSCell.	UE	No	No	No
sn-ConfiguredReferenceConfigSCPAC-r18 Indicates whether the UE supports reference configuration for *sn-Configured-SCPAC-r18* as defined in TS 38.331 [9].	UE	No	No	No
sn-ConfiguredSCPAC-r18 Indicates whether the UE supports Subsequent CPAC as defined in TS 38.331 [9] for SN configured subsequent conditional PSCell change (intra-SN) in NR-DC. The parameter can only be set if *condPSCellChange-r16* is supported. A UE indicating support for this feature and for *condPSCellChangeFDD-TDD-r16*, and respectively for *condPSCellChangeFR1-FR2-r16*, shall support this feature between FDD and TDD cells, and respectively between FR1 and FR2 cells, in NR-DC.	UE	No	No	No
sn-InitiatedCondPSCellChange-FR1FDD-ENDC-r17 Indicates whether the UE supports SN initiated inter-SN conditional PSCell change within all supported FR1-FDD bands in EN-DC, which is configured by E-UTRA *conditionalReconfiguration* field using SN configured measurement as triggering condition. The UE supporting this feature shall also support 2 trigger events for same execution condition in SN initiated inter-SN conditional PSCell change in EN-DC.	UE	No	No	No
sn-InitiatedCondPSCellChange-FR1TDD-ENDC-r17 Indicates whether the UE supports SN initiated inter-SN conditional PSCell change within all supported FR1-TDD bands in EN-DC, which is configured by E-UTRA *conditionalReconfiguration* field using SN configured measurement as triggering condition. The UE supporting this feature shall also support 2 trigger events for same execution condition in SN initiated inter-SN conditional PSCell change in EN-DC.	UE	No	No	No
sn-InitiatedCondPSCellChange-FR2TDD-ENDC-r17 Indicates whether the UE supports SN initiated inter-SN conditional PSCell change within all supported FR2-TDD bands in EN-DC, which is configured by E-UTRA *conditionalReconfiguration* field using SN configured measurement as triggering condition. The UE supporting this feature shall also support 2 trigger events for same execution condition in SN initiated inter-SN conditional PSCell change in EN-DC.	UE	No	No	No

threeCarrierMeasWithoutGap-r19 Indicates whether the UE supports measuring serving cell and neighbour cells measurement on three carriers simultaneously for measurements without measurement gap for FR1 only EN-DC. A UE supporting this feature shall meet the corresponding enhanced requirements defined in TS 38.133 [5] Clause 9.1.5.1.1, 9.1.5.1.2, and 9.1.5.1.3.	UE	No	No	No

4.2.10 Inter-RAT parameters

Definitions for parameters	Per	M	FDD-TDD DIFF
mfbi-EUTRA Indicates whether the UE supports the mechanisms defined for cells broadcasting multi band information i.e. comprehending *multiBandInfoList* defined in TS 36.331 [17].	UE	Yes	No
modifiedMPR-BehaviorEUTRA *modifiedMPR-Behavior* in 4.3.5.10, TS 36.306 [15].	UE	No	No
multiNS-Pmax-EUTRA *multiNS-Pmax* defined in 4.3.5.16, TS 36.306 [15].	UE	No	No
ne-DC Indicates whether the UE supports NE-DC as specified in TS 37.340 [7].	UE	No	No
nr-HO-ToEN-DC-r16 Indicates whether the UE supports inter-RAT handover from NR to EN-DC while NR-DC or NE-DC is not configured as defined in TS 36.306 [15]. It is mandated if the UE supports EN-DC.	UE	CY	No
rs-SINR-MeasEUTRA *rs-SINR-Meas* in 4.3.6.13, TS 36.306 [15].	UE	No	No
rsrqMeasWidebandEUTRA *rsrqMeasWideband* in 4.3.6.2, TS 36.306 [15]. If this parameter is indicated for FDD and TDD differently, each indication corresponds to the duplex mode of measured target cell.	UE	No	Yes
supportedBandListEUTRA *supportedBandListEUTRA* defined in 4.3.5.1, TS 36.306 [15].	UE	No	No
supportedBandListUTRA-FDD-r16 *Radio frequency bands* defined in 4.5.7, TS 25.306 [20].	UE	No	No

4.2.10.1 Void

4.2.10.2 Void

4.2.11 Void

4.2.12 Void

4.2.13 IMS Parameters

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
voiceFallbackIndicationEPS-r16 Indicates whether the UE supports *voiceFallbackIndication* in *RRCRelease* and *MobilityFromNRCommand*. If this field is included, the UE shall support IMS voice over NR and IMS voice over E-UTRA via EPC.	UE	No	No	No
voiceOverEUTRA-5GC Indicates whether the UE supports IMS voice over E-UTRA via 5GC. It is mandated to the UE if the UE is capable of IMS voice over E-UTRA via 5GC. Otherwise, the UE does not include this field. If this field is included and the UE is capable of E-UTRA with EPC, the UE shall support IMS voice over E-UTRA via EPC.	UE	No	No	No
voiceOverNR, voiceOverNR-r17 Indicates whether the UE supports IMS voice over NR. It is mandated to the UE if the UE is capable of IMS voice over NR (including SNPN if the UE is SNPN capable). Otherwise, the UE does not include this field. If this field is included and the UE is capable of E-UTRA with EPC, the UE shall support IMS voice over E-UTRA via EPC.	UE	No	No	Yes (Incl FR2-2 DIFF)
voiceOverSCG-BearerEUTRA-5GC Indicates whether the UE supports IMS voice over SCG bearer of NE-DC.	UE	No	No	N/A

NOTE: In this release of specification, IMS voice over split bearer is not supported for NR-DC, NE-DC, and L2 multi-path relay.

4.2.14 RRC buffer size

The RRC buffer size is defined as the maximum overall RRC configuration size that the UE is required to store. The RRC buffer size is 45Kbytes.

4.2.15 IAB Parameters

4.2.15.1 Mandatory IAB-MT features

Table 4.2.15.1-1, Table 4.2.15.1-2 and Table 4.2.15.1-3 capture feature groups, which are mandatory for an IAB-MT. In addition, it is mandatory for an IAB-MT which is not a mobile IAB-MT to support the following features:

- Cell barring based on *iab-Support*, as specified in TS 38.331 [9].
- Inclusion of *iab-NodeIndication*, as specified in TS 38.331 [9].

All other feature groups or components of the feature groups as captured in TR 38.822 [24] as well as capabilities specified in this specification are optional for an IAB-MT, unless indicated otherwise.

Table 4.2.15.1-1: Layer-1 mandatory features for IAB-MT

Features	Index	Feature group	Components	Additional information
0. Waveform, modulation, subcarrier spacings, and CP	0-1	CP-OFDM waveform for DL and UL	1) CP-OFDM for DL 2) CP -OFDM for UL	
	0-3	DL modulation scheme	1) QPSK modulation 2) 16QAM modulation 3) 64QAM modulation for FR1	
	0-4	UL modulation scheme	1) QPSK modulation 2) 16QAM modulation	
1. Initial access and mobility	1-1	Basic initial access channels and procedures	1) RACH preamble format 2) SS block based RRM measurement 3) Broadcast SIB reception including RMSI/OSI and paging	Only 1 preamble for component 1), component 2), component 3) except paging
	1-3	SS block based RLM	SS-SINR measurement	
2. MIMO	2-1	Basic PDSCH reception	1) Data RE mapping 2) Single layer transmission 3) Support one TCI state	
	2-5	Basic downlink DMRS for scheduling type A	1) Support 1 symbol FL DMRS without additional symbol(s) 2) Support 1 symbol FL DMRS and 1 additional DMRS symbol 3) Support 1 symbol FL DMRS and 2 additional DMRS symbols for at least one port.	
	2-6	Basic downlink DMRS for scheduling type B	1) Support 1 symbol FL DMRS without additional symbol(s) 2) Support 1 symbol FL DMRS and 1 additional DMRS symbol	
	2-12	Basic PUSCH transmission	Data RE mapping Single layer (single Tx) transmission Single port, single resource SRS transmission (SRS set use is configured as for codebook)	
	2-16	Basic uplink DMRS (uplink) for scheduling type A	1) Support 1 symbol FL DMRS without additional symbol(s) 2) Support 1 symbol FL DMRS and 1 additional DMRS symbols 3) Support 1 symbol FL DMRS and 2 additional DMRS symbols	
	2-16a	Basic uplink DMRS for scheduling type B	1) Support 1 symbol FL DMRS without additional symbol(s) 2) Support 1 symbol FL DMRS and 1 additional DMRS symbol	
	2-22	Aperiodic beam report	Support aperiodic report on PUSCH	
	2-32	Basic CSI feedback	1) Type I single panel codebook based PMI (further discuss which mode or both to be supported as mandatory) 2) 2Tx codebook for FR1 and FR2 3) 4Tx codebook for FR1 4) 8Tx codebook for FR1 when configured as wideband CSI report 7) a-CSI on PUSCH (at least Z value >= 14 symbols, detail processing time to be discussed separately) further check a-CSI on p-CSI-RS and/or SP-CSI-RS from component-7	
	2-50	Basic TRS	1) Support of TRS (mandatory) 2) All the periodicity are supported.	
	2-52	Basic SRS	1) Support 1 port SRS transmission 2) Support periodic/aperiodic SRS transmission	

3. DL control channel and procedure	3-1	Basic DL control channel	1) One configured CORESET per BWP per cell in addition to CORESET0 - CORESET resource allocation of 6RB bit-map and duration of 1 – 3 OFDM symbols for FR1 - For type 1 CSS without dedicated RRC configuration and for type 0, 0A, and 2 CSSs, CORESET resource allocation of 6RB bit-map and duration 1-3 OFDM symbols for FR2 - For type 1 CSS with dedicated RRC configuration and for type 3 CSS, UE specific SS, CORESET resource allocation of 6RB bit-map and duration 1-2 OFDM symbols for FR2 - REG-bundle sizes of 2/3 RBs or 6 RBs - Interleaved and non-interleaved CCE-to-REG mapping - Precoder-granularity of REG-bundle size - PDCCH DMRS scrambling determination - TCI state(s) for a CORESET configuration 2) CSS and UE-SS configurations for unicast PDCCH transmission per BWP per cell - PDCCH aggregation levels 1, 2, 4, 8, 16 - UP to 3 search space sets in a slot for a scheduled SCell per BWP This search space limit is before applying all dropping rules. - For type 1 CSS with dedicated RRC configuration, type 3 CSS, and UE-SS, the monitoring occasion is within the first 3 OFDM symbols of a slot - For type 1 CSS without dedicated RRC configuration and for type 0, 0A, and 2 CSS, the monitoring occasion can be any OFDM symbol(s) of a slot, with the monitoring occasions for any of Type 1- CSS without dedicated RRC configuration, or Types 0, 0A, or 2 CSS configurations within a single span of three consecutive OFDM symbols within a slot 3) Monitoring DCI formats 0_0, 1_0, 0_1, 1_1 4) Number of PDCCH blind decodes per slot with a given SCS follows Case 1-1 table 5) Processing one unicast DCI scheduling DL and one unicast DCI scheduling UL per slot per scheduled CC for FDD	
4. UL control channel and procedure	4-1	Basic UL control channel	1) PUCCH format 0 over 1 OFDM symbols once per slot 2) PUCCH format 0 over 2 OFDM symbols once per slot with frequency hopping as "enabled" 3) PUCCH format 1 over 4 – 14 OFDM symbols once per slot with intra-slot frequency hopping as "enabled" 5) One SR configuration per PUCCH group 6) HARQ-ACK transmission once per slot with its resource/timing determined by using the DCI 7) SR/HARQ multiplexing once per slot using a PUCCH when SR/HARQ-ACK are supposed to be sent by overlapping PUCCH resources with the same starting symbols in a slot 8) HARQ-ACK piggyback on PUSCH with/without aperiodic CSI once per slot when the starting OFDM symbol of the PUSCH is the same as the starting OFDM symbols of the PUCCH resource that HARQ-ACK would have been transmitted on 9) Semi-static beta-offset configuration for HARQ-ACK 10) Single group of overlapping PUCCH/PUCCH and overlapping PUCCH/PUSCH s per slot per PUCCH cell group for control multiplexing	
	4-10	Dynamic HARQ-ACK codebook	Dynamic HARQ-ACK codebook	

5. Scheduling /HARQ operation	5-1	Basic scheduling/HARQ operation	1) Frequency-domain resource allocation - RA Type 0 only and Type 1 only for PDSCH without interleaving - RA Type 1 for PUSCH without interleaving 2) Time-domain resource allocation - 1-14 OFDM symbols for PUSCH once per slot - One unicast PDSCH per slot - Starting symbol, and duration are determined by using the DCI - PDSCH mapping type A with 7-14 OFDM symbols - PUSCH mapping type A and type B - For type 1 CSS without dedicated RRC configuration and for type 0, 0A, and 2 CSS, PDSCH mapping type A with {4-14} OFDM symbols and type B with {2, 4, 7} OFDM symbols 3) TBS determination 4) Nominal UE processing time for N1 and N2 (Capability #1) 5) HARQ process operation with configurable number of DL HARQ processes of up to 16 6) Cell specific RRC configured UL/DL assignment for TDD 7) Dynamic UL/DL determination based on L1 scheduling DCI with/without cell specific RRC configured UL/DL assignment 9) In TDD support at most one switch point per slot for actual DL/UL transmission(s) 10) DL scheduling slot offset K0=0 12) UL scheduling slot offset K2<=12 For type 1 CSS without dedicated RRC configuration and for type 0, 0A, and 2 CSS, interleaving for VRB-to-PRB mapping for PDSCH	
6. CA/DC, BWP, SUL	6-1	Basic BWP operation with restriction	1) 1 UE-specific RRC configured DL BWP per carrier 2) 1 UE-specific RRC configured UL BWP per carrier 3) RRC reconfiguration of any parameters related to BWP 4) BW of a UE-specific RRC configured BWP includes BW of CORESET#0 (if CORESET#0 is present) and SSB for PCell/PSCell (if configured) and BW of the UE-specific RRC configured BWP includes SSB for SCell if there is SSB on SCell	
7. Channel coding	7-1	Channel coding	1) LDPC encoding and associated functions for data on DL and UL 2) Polar encoding and associated functions for PBCH, DCI, and UCI 3) Coding for very small blocks	
8. UL TPC	8-3	Basic power control operation	1) Accumulated power control mode for closed loop 2) 1 TPC command loop for PUSCH, PUCCH respectively 3) One or multiple DL RS configured for pathloss estimation 4) One or multiple p0-alpha values configured for open loop PC 5) PUSCH power control 6) PUCCH power control 7) PRACH power control 8) SRS power control 9) PHR	

Table 4.2.15.1-2: Layer-2 and Layer-3 mandatory features for IAB-MT

Features	Index	Feature group	Components	Additional information
0. General	N/A	IAB procedures	1) Routing using BAP protocol, as specified in TS 38.340 [23] 2) Bearer mapping using BAP protocol, as specified in TS 38.340 [23] 3) IAB-node IP address signalling over RRC, as specified in TS 38.331 [9]	
1. PDCP	1-0	Basic PDCP procedures	1) (de)Ciphering on SRB 2) Integrity protection on SRB 3) Timer based SDU discard 4) Re-ordering and in-order delivery 6) Duplicate discarding 7) 18bits SN	
2. RLC	2-0	Basic RLC procedures	1) RLC TM 2) RLC AM with 18bits SN 3) SDU discard	
	2-4	NR RLC SN size for SRB	NR RLC SN size for SRB	
3. MAC	3-0	Basic MAC procedures	1) RA procedure on PCell 2) IAB-MT initiated RA procedure (including for beam recovery purpose) 3) NW initiated RA procedure (i.e. based on PDCCH) 4) Support of ssb-Threshold and association between preamble/PRACH occasion and SSB 5) Preamble grouping 6) UL single TA maintenance 7) HARQ operation for DL and UL 8) LCH prioritization 9) Prioritized bit rate 10) Multiplexing 11) SR with single SR configuration 12) BSR 13) PHR 14) 8bits and 16bits L field	
9. RRC	9-1	RRC buffer size	Maximum overall RRC configuration size	45 Kbytes
	9-2	RRC processing time	1) RRC connection establishment 2) RRC connection resume without SCell addition/release and SCG establishment/modification/release 3) RRC connection reconfiguration without SCell addition/release and SCG establishment/modification/release 4) RRC connection re-establishment. 5) RRC connection reconfiguration with sync procedure 6) RRC connection reconfiguration with SCell addition/release or SCG establishment/modification/release 7) RRC connection resume 8) Initial security activation 9) Counter check 10) UE capability transfer	1) to 3) 10ms 4) 10ms 5): 10ms + additional delay (cell search time and synchronization) defined in TS 38.133 6) and 7) 16ms 7) 10 or 6ms (See details in clause 12, TS 38.331) 8) and 9) 5ms 10) 80ms

Table 4.2.15.1-3: RF/RRM mandatory features for IAB-MT

Features	Index	Feature group	Components	Additional information
1. System parameter	1-2	64QAM modulation for FR2 PDSCH	64QAM modulation for FR2 PDSCH	
	1-3	64QAM for PUSCH	64QAM for PUSCH	

4.2.15.1a Mandatory mobile IAB-MT features

Mobile IAB-MT shall apply the same capabilities as IAB-MT unless indicated otherwise. In addition, it is mandatory for mobile IAB-MT to support the following features:

- Acquisition of *gNB-ID-Length* from SIB1, as specified in TS 38.331 [9].
- Cell barring based on *mobileIAB-Support*, as specified in TS 38.331 [9].
- Inclusion of *mobileIAB-NodeIndication*, as specified in TS 38.331 [9].

All IAB-MT features and corresponding capabilities related to MR-DC and BAP header rewriting are not used by the mobile IAB-MT.

4.2.15.2 General Parameters

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
bh-RLF-DetectionRecovery-Indication-r17 Indicates whether the IAB-MT supports BH RLF detection indication and BH RLF recovery indication handling as specified in TS 38.340 [23]	IAB-MT	No	No	No
bh-RLF-Indication-r16 Indicates whether the IAB-MT supports BH RLF indication handling as specified in TS 38.331 [9] and in TS 38.340 [23]	IAB-MT	No	No	No
directSN-AdditionFirstRRC-IAB-r16 Indicates whether the IAB-MT supports direct SN addition in the first RRC connection reconfiguration after RRC connection establishment.	IAB-MT	No	No	No

4.2.15.3 SDAP Parameters

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
sdap-QOS-IAB-r16 Indicates whether the IAB-MT supports flow-based QoS and multiple flows to 1 DRB mapping, as specified in TS 37.324 [25].	IAB-MT	No	No	No
sdapHeaderIAB-r16 Indicates whether the IAB-MT supports UL SDAP header and SDAP End-marker, as specified in TS 37.324 [25].	IAB-MT	No	No	No

4.2.15.4 PDCP Parameters

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
drb-IAB-r16 Indicates whether the IAB-MT supports DRB configuration including split DRB with one UL path, (de)ciphering on DRB and PDCP status reporting.	IAB-MT	No	No	No
non-DRB-IAB-r16 Indicates whether the IAB-MT supports SRB2 configuration without a DRB, as specified in TS 38.331 [9].	IAB-MT	No	No	No

4.2.15.5 BAP Parameters

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
bapHeaderRewriting-Rerouting-r17 Indicates whether the IAB-MT supports BAP header rewriting for inter-donor-DU re-routing, as specified in TS 38.340 [23] and TS 38.300 [28]. IAB-donor-DUs can belong to the same or different IAB-donor CUs.	IAB-MT	No	No	No
bapHeaderRewriting-Routing-r17 Indicates whether the IAB-MT supports BAP header rewriting for inter-donor CU partial migration, inter-donor-CU RLF recovery and inter-donor-CU topology redundancy, as specified in TS 38.340 [23] and TS 38.300 [28].	IAB-MT	No	No	No
flowControlBH-RLC-ChannelBased-r16 Indicates whether the IAB-MT supports flow control procedures and flow control feedback per backhaul RLC channel, as specified in TS 38.340 [23].	IAB-MT	No	No	No
flowControlRouting-ID-Based-r16 Indicates whether the IAB-MT supports flow control procedures and flow control feedback per Routing ID, as specified in TS 38.340 [23].	IAB-MT	No	No	No

4.2.15.6 MAC Parameters

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
lcg-ExtensionIAB-r17 Indicates whether the IAB-MT supports extended logical channel group as specified in TS 38.321 [8]. A UE supporting this feature shall also support Extended Buffer Status Report formats and Extended Pre-emptive BSR formats (if *preEmptiveBSR-r16* is supported).	IAB-MT	No	No	No
lcid-ExtensionIAB-r16 Indicates whether the IAB-MT supports extended Logical Channel ID space using two-octet eLCID, as specified in TS 38.321 [8].	IAB-MT	No	No	No
preEmptiveBSR-r16 Indicates whether the IAB-MT supports Pre-emptive BSR as specified in TS 38.321 [8].	IAB-MT	No	No	No

4.2.15.7 Physical layer parameters

4.2.15.7.1 BandNR parameters

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
handoverIntraF-IAB-r16 Indicates whether the IAB-MT supports intra-frequency HO. It indicates the support for intra-frequency HO from the corresponding duplex mode if this capability is included in *fdd-Add-UE-NR-Capabilities* or *tdd-Add-UE-NR-Capabilities*. It indicates the support for intra-frequency HO in the corresponding frequency range if this capability is included in *fr1-Add-UE-NR-Capabilities* or *fr2-Add-UE-NR-Capabilities*. IAB-MT shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands and all TDD-FR2 bands respectively.	Band	No	N/A	N/A
multipleTCI Indicates whether IAB-MT supports more than one TCI state configurations per CORESET. UE is only required to track one active TCI state per CORESET. UE is required to support minimum between 64 and number of configured TCI states indicated by *tci-StatePDSCH*.	Band	No	N/A	N/A
rasterShift7dot5-IAB-r16 Indicates whether the IAB-MT supports 7.5kHz UL raster shift in the indicated band.	Band	No	N/A	N/A

4.2.15.7.2 Phy-Parameters

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
case6-TimingAlignmentReception-IAB-r17 Indicates whether the IAB-MT supports case 6 timing alignment reception and signalling to the parent-node that case 6 timing mode is required for simultaneous transmission as specified in TS 38.213 [11].	IAB-MT	No	No	No
case7-TimingAlignmentReception-IAB-r17 Indicates whether the IAB-MT supports case 7 timing offset indication reception and case 7 timing at parent-node indication reception as specified in TS 38.213 [11].	IAB-MT	No	No	No
dft-S-OFDM-WaveformUL-IAB-r16 Indicates whether the IAB-MT supports DFT-S-OFDM waveform for UL and transform precoding for single-layer PUSCH.	IAB-MT	No	No	No
dci-25-AI-RNTI-Support-IAB-r16 Indicates the support of monitoring DCI Format 2_5 scrambled by AI-RNTI for indication of soft resource availability to an IAB node as specified in TS 38.212 [10].	IAB-MT	No	No	No
directionalCollisionDC-IAB-r17 Indicates the support for directional collision handling between MCG and SCG cell(s) of the dual parent nodes for simultaneous operation in inter-donor and/or intra-donor DC operation.	IAB-MT	No	No	No
dl-tx-PowerAdjustment-IAB-r17 Indicates the support of desired DL Tx power adjustment reporting and DL Tx power adjustment reception.	IAB-MT	No	No	No
desired-ul-tx-PowerAdjustment-r17 Indicates the support of Desired IAB-MT PSD range reporting.	IAB-MT	No	No	No
fdm-SoftResourceAvailability-DynamicIndication-r17 Indicates the support of monitoring DCI Format 2_5 scrambled by AI-RNTI for indication of FDM soft resource availability to an IAB-node.	IAB-MT	No	No	No
guardSymbolReportReception-IAB-r16 Indicates the support of DesiredGuardSymbols reporting and ProvidedGuardSymbols reception as specified in TS 38.213 [11].	IAB-MT	No	No	No
guardSymbolReportReception-IAB-r17 Indicates the support of extended DesiredGuardSymbols reporting and ProvidedGuardSymbols reception to new switching scenarios case#6 and case#7 as specified in TS 38.213 [11]. UE indicating support of this feature shall also indicate support of one or more of *case6-TimingAlignmentReception-IAB-r17* and *case7-TimingAlignmentReception-IAB-r17*. NOTE: If an IAB node does not support a certain timing mode (Case 6, Case 7), the reported/provided values shall be ignored.	IAB-MT	No	No	No
pdsch-MappingTypeA Indicates whether the IAB-MT supports receiving PDSCH using PDSCH mapping type A with less than seven symbols.	IAB-MT	No	No	No
pucch-F2-WithFH Indicates whether the IAB-MT supports transmission of a PUCCH format 2 (2 OFDM symbols in total) with frequency hopping in a slot.	IAB-MT	No	No	Yes
pucch-F3-WithFH Indicates whether the IAB-MT supports transmission of a PUCCH format 3 (4~14 OFDM symbols in total) with frequency hopping in a slot.	IAB-MT	No	No	Yes
restricted-IAB-DU-BeamReception-r17 Indicates the support of restricted IAB-DU beam reception.	IAB-MT	No	No	No
recommended-IAB-MT-BeamTransmission-r17 Indicates the support of recommended IAB-MT beam transmission for DL and UL beam.	IAB-MT	No	No	No
separateSMTC-InterIAB-Support-r16 Indicates the support of up to 4 SMTCs configurations per frequency location, including IAB-specific SMTC window periodicities.	IAB-MT	No	No	No
separateRACH-IAB-Support-r16 Indicates the support of separate RACH configurations including new IAB-specific offset and scaling factors.	IAB-MT	No	No	No
t-DeltaReceptionSupport-IAB-r16 Indicates the support of T_delta reception for case 1 OTA timing alignment as specified in TS 38.213 [11].	IAB-MT	No	No	No
ul-flexibleDL-SlotFormatSemiStatic-IAB-r16 Indicates the support of semi-static configuration/indication of UL-Flexible-DL slot formats for IAB-MT resources.	IAB-MT	No	No	No

ul-flexibleDL-SlotFormatDynamics-IAB-r16 Indicates the support of dynamic indication of UL-Flexible-DL slot formats for IAB-MT resources.	IAB-MT	No	No	No
updated-T-DeltaRangeReception-r17 Indicates the support of updated T_Delta range reception. UE indicating support of this feature shall also support *case6-TimingAlignmentReception-IAB-r17*.	IAB-MT	No	No	No

4.2.15.8 MeasAndMobParameters Parameters

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
eventA-MeasAndReport Indicates whether the IAB-MT supports NR measurements and events A triggered reporting as specified in TS 38.331 [9].	IAB-MT	Yes	Yes	No
handoverInterF Indicates whether the IAB-MT supports inter-frequency HO. It indicates the support for inter-frequency HO from the corresponding duplex mode if this capability is included in fdd-Add-UE-NR-Capabilities or tdd-Add-UE-NR-Capabilities. It indicates the support for inter-frequency HO from the corresponding frequency range if this capability is included in fr1-Add-UE-NR-Capabilities or fr2-Add-UE-NR-Capabilities.	IAB-MT	No	Yes	Yes
mfbi-IAB-r16 Indicates whether the IAB-MT supports multiple frequency band indication.	IAB-MT	No	No	No
intraAndInterF-MeasAndReport Indicates whether the IAB-MT supports NR intra-frequency and inter-frequency measurements and at least periodical reporting.	IAB-MT	Yes	Yes	No

4.2.15.9 MR-DC Parameters

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
f1c-OverEUTRA-r16 Indicates whether the IAB-MT supports F1-C signalling over *DLInformationTransfer* and *ULInformationTransfer* messages via MN when IAB-MT operates in EN-DC mode, as specified in TS 36.331 [17].	IAB-MT	No	No	No
scg-DRB-NR-IAB-r16 Indicates whether the IAB-MT supports SCG DRB with NR PDCP when IAB-MT operates in EN-DC mode.	IAB-MT	No	No	No
interNR-MeasEUTRA-IAB-r16 Indicates whether the IAB-MT supports NR measurement and reports while in EUTRA connected and event B1-based measurement and reports while in EUTRA connected.	IAB-MT	No	No	No

4.2.15.10 NRDC Parameters

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
f1c-OverNR-RRC-r17 Indicates whether the IAB-MT supports F1-C signalling over DLInformationTransfer and ULInformationTransfer messages via MN when IAB-MT operates in NR-DC and MN is the non-F1-termination node or via SN when IAB-MT operates in NR-DC and SN is the non-F1-termination node, as specified in TS 38.401 [33] and TS 37.340 [7].	IAB-MT	No	No	No
simultaneousRxTx-IAB-MultipleParents-r17 Indicates the support of simultaneous transmission and reception of an IAB-node from multiple parent nodes.	BC	No	No	No

4.2.16 Sidelink Parameters

4.2.16.1 Sidelink Parameters in NR

4.2.16.1.1 Sidelink General Parameters

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
accessStratumReleaseSidelink-r16 Indicates the access stratum release for NR sidelink communication the UE supports as specified in TS 38.331 [9].	UE	Yes	No	No
multipathRelayUE-N3C-r18 Indicates whether L2 multi-path relay UE operation using non-3GPP connection is supported by the UE.	UE	No	No	No
multipathRemoteUE-ExtN3C-r19 Indicates whether L2 multi-path remote UE operation using one or more relay UE(s) via non-3GPP connection is supported by the UE.	UE	No	No	No
multipathRemoteUE-N3C-r18 Indicates whether L2 multi-path remote UE operation using non-3GPP connection is supported by the UE.	UE	No	No	No
multipathRemoteUE-PC5L2-r18 Indicates whether L2 multi-path remote UE operation using PC5 connection is supported by the UE. A UE supporting this feature shall also indicate support of *remoteUE-Operation-L2-r17.*	UE	No	No	No
pdcp-DuplicationMoreThanOneUuRLC-r18 Indicates whether L2 multi-path remote UE supports PDCP duplication with more than one RLC entity over Uu interface in L2 multi-path relay. A UE supporting this feature shall also indicate support of *multipathRemoteUE-PC5L2-r18 or multipathRemoteUE-N3C-r18.*	UE	No	No	No
pdcp-CADuplicationDirectpath-DRB-r18 Indicates whether L2 multi-path remote UE supports CA-based PDCP duplication over DRB using Uu interface in L2 multi-path relay. A UE supporting this feature shall also indicate support of *pdcp-DuplicationMoreThanOneUuRLC-r18*.	UE	No	No	No
pdcp-CADuplicationDirectpath-SRB-r18 Indicates whether L2 multi-path remote UE supports CA-based PDCP duplication over SRB1/2 using Uu interface in L2 multi-path relay. A UE supporting this feature shall also indicate support of *pdcp-DuplicationMoreThanOneUuRLC-r18*.	UE	No	No	No
pdcp-DuplicationMP-SplitDRB-r18 Indicates whether L2 multi-path remote UE supports PDCP duplication over split DRB in L2 multi-path relay. A UE supporting this feature shall also indicate support of *multipathRemoteUE-PC5L2-r18* or *multipathRemoteUE-N3C-r18*.	UE	No	No	No
pdcp-DuplicationMP-SplitSRB-r18 Indicates whether L2 multi-path remote UE supports PDCP duplication over split SRB1/2 in L2 multi-path relay. A UE supporting this feature shall also indicate support of *multipathRemoteUE-PC5L2-r18* or *multipathRemoteUE-N3C-r18*.	UE	No	No	No
directpathRLF-RecoveryViaSRB1-r18 Indicates whether L2 multi-path remote UE supports recovery from direct path RLF via split SRB1 using either PC5 connection or non-3GPP connection (if supported) in TS 38.331 [9].	UE	No	No	No
posSIB-ForwardingSupported-r18 Indicates whether the UE, when operating as an NR L2 sidelink relay UE, supports forwarding of posSIBs. The UE capable of operation as an NR L2 sidelink relay UE shall set this field to *supported* if it is capable of obtaining posSIBs.	UE	CY	No	No
relayUE-MH-OperationL2-r19 Indicates whether NR L2 multihop sidelink relay UE operation is supported by the UE. A UE supporting this feature shall also indicate support of *relayUE-Operation-L2-r17*.	UE	No	No	No
relayUE-Operation-L2-r17 Indicates whether NR L2 sidelink relay UE operation is supported by the UE. A UE supporting this feature shall also indicate support of *supportedBandCombinationListSL-RelayDiscovery-r17*.	UE	No	No	No
relayUE-U2U-OperationL2-r18 Indicates whether L2 U2U sidelink relay UE operation is supported by the UE. A UE supporting this feature shall also indicate support of *supportedBandCombinationListSL-U2U-RelayDiscovery-r18.*	UE	No	No	No
remoteUE-IndirectPathAddChangeToIdleInactiveRelay-r18 Indicates whether L2 multi-path remote UE supports indirect path addition or indirect path change with target relay UE in RRC_IDLE or RRC_INACTIVE state. A UE supporting this feature shall also indicate support of *multipathRemoteUE-PC5L2-r18* or *multipathRemoteUE-N3C-r18*.	UE	No	No	No

remoteUE-MH-OperationL2-r19 Indicates whether NR L2 multihop sidelink remote UE operation is supported by the UE. A UE supporting this feature shall also indicate support of *remoteUE-Operation-L2-r17*. A UE acting as the intermediate relay UE also indicates support of this capability.	UE	No	No	No
remoteUE-Operation-L2-r17 Indicates whether NR L2 sidelink remote UE operation is supported by the UE. A UE supporting this feature shall also indicate support of *supportedBandCombinationListSL-RelayDiscovery-r17*.	UE	No	No	No
remoteUE-PathSwitchToIdleInactiveRelay-r17 Indicates whether L2 sidelink remote UE supports direct to indirect path switch with target relay in RRC_IDLE or RRC_INACTIVE state. A UE supporting this feature shall also indicate support of *remoteUE-Operation-L2-r17*.	UE	No	No	No
remoteUE-U2N-PathSwitchOperationL2-r18 Indicates whether enhanced NR L2 U2N remote UE operation for intra-gNB path switch and inter-gNB path switch including separate SL-RSRP and SD-RSRP threshold configurations for events X1 and X2 is supported by the UE. A UE supporting this feature shall also indicate support of *remoteUE-Operation-L2-r17.*	UE	No	No	No
remoteUE-U2U-OperationL2-r18 Indicates whether L2 U2U sidelink remote UE operation is supported by the UE. A UE supporting this feature shall also indicate support of *supportedBandCombinationListSL-U2U-RelayDiscovery-r18.*	UE	No	No	No
sfn-DFN-OffsetSupported-r18 Indicates whether the UE, when operating as an NR L2 sidelink relay UE, supports indication of the offset between SFN and DFN timelines.	UE	No	No	No
sl-PRS-CommonProcCapabilityPerUE-r18 Indicates the common SL-PRS processing capability, and comprises the following parameters: - *maxNumOfActiveSL-PRS-Resources-r18*: Maximum number of active SL PRS resources across all configured RPs across all bands in a slot assuming maximum SL PRS bandwidth in MHz, which is supported and reported by UE; - *maxNumOfSlotswithActiveSL-PRS-Resources-r18*: Maximum number of slots with active SL PRS resources across all configured RPs across all bands assuming maximum SL PRS bandwidth in MHz, which is supported and reported by UE. A UE supporting this feature shall also support *sl-PRS-CommonProcCapabilityPerBand-r18*.	UE	No	No	No
splitDRB-WithUL-BothDirectIndirect-r18 Indicates whether L2 multi-path remote UE supports UL PDCP split transmission via both direct path and indirect path for split DRB. A UE supporting this feature shall also indicate support of *multipathRemoteUE-PC5L2-r18* or *multipathRemoteUE-N3C-r18*.	UE	No	No	No

4.2.16.1.2 Sidelink PDCP Parameters

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
outOfOrderDeliverySidelink-r16 Indicates whether UE supports out of order delivery of data to upper layers by PDCP for sidelink.	UE	No	No	No
pdcp-DuplicationDRB-sidelink-r18 Indicates whether the UE supports CA-based duplication over sidelink DRB as specified in TS 38.323 [16].	UE	No	No	No
pdcp-DuplicationSRB-sidelink-r18 Indicates whether the UE supports CA-based duplication over sidelink SRB1/2/3 as specified in TS 38.323 [16].	UE	No	No	No

4.2.16.1.3 Sidelink RLC Parameters

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
am-WithLongSN-Sidelink-r16 Indicates whether the UE supports AM DRB with 18 bit length of RLC sequence number for sidelink.	UE	No	No	No
um-WithLongSN-Sidelink-r16 Indicates whether the UE supports UM DRB with 12 bit length of RLC sequence number for sidelink.	UE	No	No	No

4.2.16.1.4 Sidelink MAC Parameters

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
drx-OnSidelink-r17 Indicates whether UE supports sidelink DRX for unicast, groupcast and broadcast.	UE	No	No	No
lcp-RestrictionSidelink-r16 Indicates whether UE supports the selection of logical channels for each SL grant based on RRC configured restriction.	UE	No	No	No
logicalChannelSR-DelayTimerSidelink-r16 Indicates whether the UE supports the logicalChannelSR-DelayTimer as specified in TS 38.321 [8] for sidelink logical channel(s).	UE	No	Yes	No
multipleSR-ConfigurationsSidelink-r16 Indicates whether the UE supports 8 SR configurations per PUCCH cell group as specified in TS 38.321 [8] for sidelink.	UE	No	Yes	No
multipleConfiguredGrantsSidelink-r16 Indicates whether UE supports 8 sidelink configured grant configurations (including both Type 1 and Type 2) in a resource pool. If absent, for each resource pool, the UE only supports one sidelink configured grant configuration.	UE	No	No	No
sl-LBT-FailureDectectionRecovery-r18 Indicates whether the UE supports sidelink consistent LBT detection and recovery, as specified in TS 38.321 [8], for shared spectrum channel access.	UE	No	No	No

4.2.16.1.5 Other PHY parameters

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
p0-OLPC-Sidelink-r17 Indicates whether the UE supports the use of P0 parameters (i.e. *dl-P0-PSSCH-PSCCH-r17, sl-P0-PSSCH-PSCCH-r17, dl-P0-PSBCH-r17, dl-P0-PSFCH-r17*) for sidelink open loop power control.	UE	No	No	No
supportedBandCombinationListSidelinkEUTRA-NR-r16 Defines the supported NR sidelink communication and/or V2X sidelink communication band combinations by the UE. A fallback band combination resulting from the reported sidelink band combination shall be supported by the UE. The UE does not include this field if the UE capability is requested by E-UTRAN (see TS 36.331 [17]) and the network request includes the field *eutra-nr-only*.	UE	No	No	No
supportedBandCombinationListSidelinkNR-r16 Defines the supported joint NR sidelink communication band combinations by the UE. A fallback band combination resulting from the reported sidelink band combination shall be supported by the UE.	UE	No	No	No
supportedBandCombinationListSL-NonRelayDiscovery-r17 Defines the supported band combinations of NR sidelink non-relay discovery message transmission and reception by the UE.	UE	No	No	No
supportedBandCombinationListSL-RelayDiscovery-r17 Defines the supported band combinations of NR sidelink relay discovery message transmission and reception by the UE. This parameter is used by the remote UE and relay UE, and for the case of L2 and L3 relay.	UE	No	No	No
supportedBandCombinationListSL-U2U-RelayDiscovery-r18 Defines the supported band combinations of NR U2U sidelink relay discovery message transmission and reception by the UE. This parameter is used by the remote UE and relay UE, and for the case of L2 and L3 relay.	UE	No	No	No
supportedBandListSidelink-r16 Indicates frequency bands supported for NR sidelink communications and parameters supported for each frequency band, as specified in 4.2.16.1.6. If a band is included in *supportedBandCombinationListSL-NonRelayDiscovery-r17, supportedBandCombinationListSL-RelayDiscovery-r17 or supportedBandCombinationListSL-U2U-RelayDiscovery-r18*, the band supports non-relay/relay NR sidelink discovery.	UE	No	No	No

4.2.16.1.6 *BandSidelink* Parameters

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
congestionControlSidelink-r16 Indicates whether UE supports sidelink congestion control for NR sidelink. If supported, this parameter indicates the support of the capabilities and includes the parameters as follows: - *cbr-ReportSidelink*, which indicates whether UE can report CBR measurement to gNB when operating in Mode 1 and mode 2, if the band is indicated with only the PC5 interface in TS 38.101-1 [2], Table 5.2E.1-1. Otherwise, it is mandatory. - UE can adjust its radio parameters based on CBR measurement and CRlimit. - *cbr-CR-TimeLimitSidelink*, which indicates the time within which UE can process CBR and CR. Value time1 corresponds to congestion process time of 2, 2, 4, 8 slots for 15, 30, 60, 120 kHz subcarrier spacing, and value time2 corresponds to congestion process time of 2, 4, 8, 16 slots for 15, 30, 60, 120 kHz subcarrier spacing. This field is only applicable if the UE supports *sl-Reception-r16* and at least one of *sl-TransmissionMode1-r16* and *sl-TransmissionMode2-r16*. Support of this feature is mandatory if UE supports NR sidelink.	Band	CY	N/A	N/A
csi-ReportSidelink-r16 Indicates UE supports Sidelink CSI report. If supported, this parameter indicates the support of the capabilities and includes the parameters as follows: - *csi-RS-PortsSidelink*, which indicates the number of antenna port(s) up to which UE can transmit and receive sidelink CSI-RS with. Value p1 corresponds to 1, and value p2 corresponds to 2. - UE supports RI and CQI feedback on sidelink. This field is only applicable if the UE supports at least one of *sl-Reception-r16*, *sl-TransmissionMode1-r16* and *sl-TransmissionMode2-r16*. Support of this feature is mandatory if UE supports NR sidelink.	Band	CY	N/A	N/A
enb-Sync-Sidelink-r16 Indicates whether UE supports eNB type synchronization source for NR sidelink. If supported, this parameter indicates the support of the capabilities and includes the parameters as follows: - UE can transmit or receive NR sidelink based on the synchronization to an eNB. - If UE supports *sync-Sidelink-r16*, UE additionally supports eNB, GNSS and SyncRef UE as the synchronization reference according to the synchronization procedure with *sl-SyncPriority* set to *gnbEnb*. - If UE supports *sync-Sidelink-r16*, UE additionally supports eNB, GNSS and SyncRef UE as the synchronization reference according to the synchronization procedure with *sl-SyncPriority* set to *GNSS* and *sl-NbAsSync* set to *true*. This field is only applicable if the UE supports at least one of *sl-Reception-r16*, *sl-TransmissionMode1-r16* and *sl-TransmissionMode2-r16*.	Band	No	N/A	N/A
enb-Sync-Sidelink-v1710 Indicates whether UE supports eNB type synchronization source for NR sidelink. If supported, this parameter indicates the support of the capabilities and includes the parameters as follows: - UE can transmit NR sidelink based on the synchronization to an eNB. - If UE supports *sync-GNSS-r17*, UE additionally supports eNB, GNSS as the synchronization reference according to the synchronization procedure with *sl-SyncPriority* set to *gnbEnb*. - If UE supports *sync-GNSS-r17*, UE additionally supports eNB, GNSS as the synchronization reference according to the synchronization procedure with *sl-SyncPriority* set to *GNSS* and *sl-NbAsSync* set to *true*. This field is only applicable if the UE supports *sync-Sidelink-v1710.* NOTE: Configuration by NR Uu is not required to be supported in a band indicated with only the PC5 interface in TS 38.101-1 [2] Table 5.2E.1-1.	Band	No	N/A	N/A

fewerSymbolSlotSidelink-r16 Indicates whether UE supports transmission/reception of SL slot configured with 7, 8, 9, 10, 11, 12, 13 consecutive symbols and all the corresponding DMRS patterns in a slot. This field is only applicable if the UE supports at least one of *sl-Reception-r16*, sl-*TransmissionMode1-r16* and *sl-TransmissionMode2-r16*.	Band	No	N/A	N/A
lowSE-64QAM-MCS-TableSidelink-r16 Indicates UE can transmit and receive PSSCH according to the low-spectral efficiency 64QAM MCS table. This field is only applicable if the UE supports at least one of *sl-Reception-r16*, *sl-TransmissionMode1-r16* and *sl-TransmissionMode2-r16*.	Band	No	N/A	N/A
psfch-FormatZeroSidelink-r16 Indicates whether UE supports PSFCH format 0. If supported, this parameter indicates the support of the capabilities and includes the parameters as follows: - UE can transmit and receive NR PSFCH format 0. - *psfch-RxNumber* which indicates the number of PSFCH(s) resources that the UE can receive in a slot. Value n5 corresponds to 5, n15 corresponds to 15, and so on. - *psfch-TxNumber* which indicates the number of PSFCH(s) resources that the UE can transmit in a slot. Value n4 corresponds to 4, n8 corresponds to 8, and so on. This field is only applicable if the UE supports at least one of *sl-Reception-r16* and *sl-TransmissionMode2-r16*. NOTE: Configuration by NR Uu is not required to be supported in a band indicated with only the PC5 interface in TS 38.101-1 [2] Table 5.2E.1-1. Support of this feature is mandatory if UE supports NR sidelink.	Band	CY	N/A	N/A
rankTwoReception-r16 Indicates whether UE supports rank 2 PSSCH reception. This field is only applicable if the UE supports *sl-Reception-r16*.	Band	No	N/A	N/A
rx-IUC-Scheme1-NonPreferredMode2Sidelink-r17 Indicates whether UE supports reception of non-preferred resource set for NR sidelink for mode 2. If supported, this parameter indicates the support of the capabilities as follows: - UE can receive inter-UE coordination information of non-preferred resource set and use the received information in its own resource (re-)selection in NR sidelink mode 2. - UE can transmit an explicit request for inter-UE coordination information of non-preferred resource set only. UE supporting this feature shall support receiving NR sidelink of S-SSB or indicate support of *sync-Sidelink-r16* or *sync-Sidelink-v1710*. NOTE: Configuration by NR Uu is not required to be supported in a band indicated with only the PC5 interface in TS 38.101-1 [2] Table 5.2E.1-1.	Band	No	N/A	N/A
rx-IUC-Scheme1-PreferredMode2Sidelink-r17 Indicates whether UE supports reception of preferred resource set for NR sidelink for mode 2. If supported, this parameter indicates the support of the capabilities as follows: - UE can receive inter-UE coordination information of preferred resource set and use the received information in its own resource (re-)selection in NR sidelink mode 2. - UE can transmit an explicit request for inter-UE coordination information of preferred resource set only. UE supporting this feature shall support receiving NR sidelink of S-SSB or indicate support of *sync-Sidelink-r16* or *sync-Sidelink-v1710*. NOTE: Configuration by NR Uu is not required to be supported in a band indicated with only the PC5 interface in TS 38.101-1 [2] Table 5.2E.1-1.	Band	No	N/A	N/A

rx-IUC-Scheme1-SCI-ExplicitReq-r17 Indicates whether UE can receive an explicit request for inter-UE coordination information of both preferred resource set and non-preferred resource set over 2nd SCI that is used in addition to the MAC-CE carrying the explicit request in the same transmission. UE indicating support of this feature shall indicate support of *tx-IUC-Scheme1-Mode2Sidelink-r17*. NOTE: Configuration by NR Uu is not required to be supported in a band indicated with only the PC5 interface in TS 38.101-1 [2] Table 5.2E.1-1.	Band	No	N/A	N/A
rx-IUC-Scheme1-SCI-r17 Indicates whether UE can receive Scheme 1 inter-UE coordination transmission over 2nd SCI that is used in addition to the MAC-CE carrying the same inter-UE coordination information in the same transmission. UE indicating support of this feature shall indicate support of at least one of *rx-IUC-Scheme1-Preferred-Mode2Sidelink-r17* and *rx-IUC-Scheme1-NonPreferred-Mode2Sidelink-r17*. NOTE: Configuration by NR Uu is not required to be supported in a band indicated with only the PC5 interface in TS 38.101-1 [2] Table 5.2E.1-1.	Band	No	N/A	N/A
rx-IUC-Scheme2-Mode2Sidelink-r17 Indicates whether UE supports reception of inter-UE coordination scheme 2 for NR sidelink for mode 2. If supported, this parameter indicates the support of the capabilities and includes the parameters as follows: - UE can receive inter-UE coordination information of presence of expected/potential resource conflict and use the received information in its own resource re-selection in NR sidelink mode 2. - UE indicates the number of PSFCH(s) resources that the UE can receive in a slot. Value n5 corresponds to 5, n15 corresponds to 15, and so on. UE supporting this feature shall support receiving NR sidelink of S-SSB or indicate support of *sync-Sidelink-r16* or *sync-Sidelink-v1710*. NOTE 1: If UE reports more than one capability of *psfch-FormatZeroSidelink-r16*, *rx-sidelinkPSFCH-r17* and *rx-IUC-Scheme1-PreferredMode2Sidelink-r17*, the reported value of the number of PSFCH(s) resources in each capability is the total number and the same among those capabilities. NOTE 2: Configuration by NR Uu is not required to be supported in a band indicated with only the PC5 interface in TS 38.101-1 [2] Table 5.2E.1-1.	Band	No	N/A	N/A
scheme2-ConflictDeterminationRSRP-r17 Indicates whether UE can determine a conflict for overlapping resource reservation between UE-B and another UE based on RSRP difference of the two reservations. UE indicating support of this feature shall indicate support of *tx-IUC-Scheme2-Mode2Sidelink-r17*. NOTE: Configuration by NR Uu is not required to be supported in a band indicated with only the PC5 interface in TS 38.101-1 [2] Table 5.2E.1-1.	Band	No	N/A	N/A

sl-CA-Communication-r18 Indicates whether the UE supports NR SL communication with SL CA. This capability signalling comprises the following parameters: - *numberOfCarriers-r18* indicates the number of SL carries that a UE supports for transmitting/receiving PSCCH/PSSCH/PSFCH simultaneously. The maximum number of simultaneous PSCCH/PSSCH TX equal to *numberOfCarriers-r18,* 1 TX per carrier; - *numberOfPSCCH-DecodeValueZ-r18* indicates the number of value Z for PSCCH decoding. The UE can receive Z* floor ($N_{RB,i}$/10 RBs) PSCCH in a slot on i^{th} carrier of the carriers. - *totalBandwidth-r18* indicates the total bandwidth that a UE can aggregate. For the number of non-overlapped PRBs over aggregated SL carriers, the UE can attempt to decode $N_{RB,i}$ non-overlapping RBs in a slot on i^{th} carrier of the carriers. $N_{RB,i}$ is the number of RBs defined per channel bandwidth of i^{th} carrier in TS 38.101-1 [2] Table 5.3.2-1 for FR1. The UE can adjust the transmission power of the PSCCH/PSSCH/PSFCH across aggregated carriers such that its total transmission power does not exceed the maximum transmission power. A UE supporting this feature shall also indicate support of *sl-TransmissionMode2-r16* and *psfch-FormatZeroSidelink-r16*. NOTE: This feature is supported only in a band indicated with the PC5 interface in TS 38.101-1 [2] Table 5.2E.1A-1 for FR1.	Band	No	N/A	N/A
sl-CA-PSFCH-r18 Indicates whether the UE supports PSFCH for SL CA. This capability comprises the following parameters: - *rx-PSFCH-Resource-r18* indicates the number of PSFCH resources that a UE supports to receive in a slot over all aggregated SL carriers. A UE is capable of receiving at least one PSFCH resource on each of the aggregated carriers in a slot. It is up to UE implementation which PSFCH(s) to receive; - *tx-PSFCH-Resource-r18* indicates the number of PSFCH resources that a UE supports to transmit in a slot over all aggregated SL carriers according to PSFCH procedures. A UE is capable of transmitting at least one PSFCH resource on each of the aggregated carriers. A UE supporting this feature shall also indicate support of *sl-CA-Communication-r18*.	Band	No	N/A	N/A
sl-CA-Synchronization-r18 Indicates whether the UE supports transmitting S-SSB on one selected or all candidate synchronization carriers with the same sync reference from Set-B and receiving S-SSB from all candidate synchronization carriers with the same sync reference from Set-B. The UE can adjust the transmission power of the S-SSB across aggregated carriers such that its total transmission power does not exceed the maximum transmission power. A UE supporting this feature shall also indicate support of *sl-CA-Communication-r18* and *sync-Sidelink-r16.* NOTE 1: Option of UE selection of one selected SL synchronization carrier with the same sync reference from Set-B is not based on limited Tx capability. NOTE 2: Receiving S-SSB from all candidate synchronization carriers with the same sync reference from Set-B does not require simultaneous reception of S-SSB on all candidate synchronization carriers with the same sync reference from Set-B.	Band	No	N/A	N/A
sl-DynamicSharingTxRx-r18 Indicates whether the UE supports avoidance of NR PSCCH/PSSCH/PSFCH overlapping with EUTRA SL resources in dynamic resource pool sharing using LTE sidelink resource reservation information in NR mode2 resource (re)selection. The UE also supports NR sidelink TXs and RXs in a resource pool in 15kHz and 30kHz SCSs and uses the SCS that is (pre)configured for a SL BWP. This does not imply that two different SCSs can be (pre)configured simultaneously in a SL BWP. A UE supporting this feature shall also indicate support of *sl-TransmissionMode2-r16*, *psfch-FormatZeroSidelink-r16* and short-term time-scale TDM for in-device coexistence.	Band	No	N/A	N/A

sl-openLoopPC-RSRP-ReportSidelink-r16 Indicates whether UE supports sidelink pathloss based open loop power control and RSRP report in case of unicast. This field is only applicable if the UE supports *sl-Reception-r16* and at least one of *sl-TransmissionMode1-r16* and *sl-TransmissionMode2-r16*. Support of this feature is mandatory if UE supports NR sidelink, except for A2X services.	Band	CY	N/A	N/A
sl-PathlossBasedOLPC-SL-RSRP-Report-r18 Indicates whether UE supports Open loop SL pathloss based power control for SL-PRS and associated PSCCH and SL RSRP report for dedicated resource pool for unicast transmissions. UE supporting this feature shall also support of at least one of *sl-PRS-TxScheme1InDedicatedResourcePool-r18* or *sl-PRS-TxScheme2InDedicatedResourcePool-r18*.	Band	No	N/A	N/A
sl-PRS-CommonProcCapabilityPerBand-r18 Indicates the common SL-PRS processing capability per band, and comprises the following parameters: - *maxSL-PRS-Bandwidth-r18* indicates the maximum SL PRS bandwidth in MHz in a resource pool for positioning, which is supported and reported by UE for SL-PRS measurement; - *maxNumOfActiveSL-PRS-ResourcesInOneSlot-r18* indicates the maximum number of active SL PRS resources across all configured RPs in a slot assuming maximum SL PRS bandwidth in MHz, which is supported and reported by UE; - *maxNumOfSlotsWithActiveSL-PRS-Resources-r18* indicates the maximum number of slots with active SL PRS resources across all configured RPs assuming maximum SL PRS bandwidth in MHz, which is supported and reported by UE; - *minTimeAfterEndofSlotCarryActiveSL-PRS-Resources-r18* indicates the minimum time after the end of a slot carrying the active SL-PRS resource(s) assuming maximum number of symbols and maximum bandwidth for a UE to finish the SL-PRS resource and the associated PSCCH processing which is supported and reported by UE; NOTE: A SL PRS resource is considered as active starting at the end of the last symbol of the PSCCH carrying the SCI trigger and the occupancy is released at the end of timeline indicated *minTimeAfterEndofSlotCarryActiveSL-PRS-Resources-r18*.	Band	No	N/A	N/A
sl-PRS-CongestionCtrl-r18 Indicates whether UE supports SL-PRS congestion control in a dedicated resource pool, and is comprised of the following functional components: - Support reporting SL PRS CBR measurement to gNB when operating in mode 1 and mode 2 (NOTE 1); - Support adjusting its radio parameters based on SL PRS CBR measurement and SL PRS CR limit; This capability signalling indicates the congestion process time within which the UE can process SL PRS CBR and SL PRS CR. Value '*cpt1*' denotes 2, 2, 4, 8 slots for 15, 30, 60, 120 kHz subcarrier spacing, value '*cpt2*' denotes 2, 4, 8, 16 slots for 15, 30, 60, 120 kHz subcarrier spacing, and value '*cpt3*' denotes 3, 6, 12, 24 slots for 15, 30, 60, 120 kHz subcarrier spacing. A UE supporting this feature shall also support *sl-PRS-RxInDedicatedResourcePool-r18*, and at least one of *sl-PRS-TxScheme1InDedicatedResourcePool-r18* and *sl-PRS-TxScheme2InDedicatedResourcePool-r18*. NOTE: It is not required to be supported in a band indicated with only the PC5 interface in TS 38.101-1 [2] Table 5.2E.1-1.	Band	No	N/A	N/A

sl-PRS-RxForBandWithSL-CA-r18 Indicates whether UE supports SL PRS reception in a single carrier for a shared SL PRS resource pool and/or a dedicated SL PRS resource pool for a band configured with SL CA. UE supporting this feature shall also support *sl-CA-Communication-r18*, and one of *sl-PRS-RxInSharedResourcePool-r18* or *sl-PRS-RxInDedicatedResourcePool-r18*. NOTE 1: In a shared SL PRS resource pool in a single SL carrier, Tx power control follows the rule defined for SL CA in NR Rel-18. NOTE 2: In a dedicated SL PRS resource pool in a single SL carrier when the slots (pre)configured for the dedicated SL PRS resource pool do not collide with the slots (pre)configured for any other resource pool or S-SSB resource(s) in other carriers.	Band	No	N/A	N/A
sl-PRS-RxInDedicatedResourcePool-r18 Indicates whether UE supports receiving SL-PRS in dedicated resource pool and receiving SCI format 1B. This field comprises the following parameters: - *numOfSupportedRxPSCCH-PerSlot-r18* indicates the number of PSCCH UE can receive in a slot. value1 corresponds to floor (N_{RB} /10 RBs), value2 corresponds to 2*floor (N_{RB} /10 RBs). N_{RB} is the number of RBs defined per channel bandwidth in TS 38.101-1 [2] Table 5.3.2-1 for FR1 and TS 38.101-2 [3] Table 5.3.2-1 for FR2. - *supportedCP-TypeFor60kHzSCS-r18* indicates the supported CP type for 60 kHz SCS. UE supporting this feature shall also support *sl-PRS-CommonProcCapabilityPerBand-r18*.	Band	No	N/A	N/A
sl-PRS-RxInSharedResourcePool-r18 Indicates whether UE supports receiving SL-PRS in shared resource pool and receiving SCI format 2D. A UE supporting this feature shall also support *sl-PRS-CommonProcCapabilityPerBand-r18* and *sl-Reception-r16* as specified in TS 38.331 [9].	Band	No	N/A	N/A
sl-PRS-TxForBandWithSL-CA-r18 Indicates whether UE supports SL PRS transmission in a single carrier for a shared SL PRS resource pool and/or a dedicated SL PRS resource pool for a band configured with SL CA. UE supporting this feature shall also support *sl-CA-Communication-r18*, and one of *sl-PRS-TxInSharedResourcePool-r18, sl-PRS-TxScheme1InDedicatedResourcePool-r18*, or *sl-PRS-TxScheme2InDedicatedResourcePool-r18*. NOTE 1: In a shared SL PRS resource pool in a single SL carrier: Tx power control follows the rule defined for SL CA in NR Rel-18. NOTE 2: In a dedicated SL PRS resource pool in a single SL carrier when the slots (pre)configured for the dedicated SL PRS resource pool do not collide with the slots (pre)configured for any other resource pool or S-SSB resource(s) in other carriers.	Band	No	N/A	N/A
sl-PRS-TxInSharedResourcePool-r18 Indicates whether UE supports transmitting SL-PRS in a shared resource pool, and is comprised of the following functional components: - Support transmitting SL-PRS in shared resource pool; - Support transmitting SCI format 2D; - Support downlink pathloss based open loop power control. The supported resource allocation modes are the same as for communication and signaled in *sl-TransmissionMode1-r16* and *sl-TransmissionMode2-r16.* UE supporting this feature shall also support *sl-TransmissionMode1-r16* or *sl-TransmissionMode2-r16*, and *sl-PRS-RxInSharedResourcePool-r16*. NOTE: If UE indicates support of *p0-OLPC-Sidelink-r17*, the range of P0 values associated with *p0-OLPC-Sidelink-r17* is used for SL PRS transmission.	Band	No	N/A	N/A

sl-PRS-TxRandomSelection-r18 Indicates whether UE supports random selection in a dedicated resource pool, and is comprised of the following functional components: - Support transmitting SL-PRS and associated PSCCH using random selection in a dedicated resource pool; - Support DL pathloss based open loop power control when configured by NR Uu (NOTE 2). NOTE 1: Configuration by NR Uu is not required to be supported in a band indicated with only the PC5 interface in TS 38.101-1 [2] Table 5.2E.1-1. NOTE 2: It is not required to be supported in a band indicated with only the PC5 interface in TS 38.101-1 [2] Table 5.2E.1-1.	Band	No	N/A	N/A
sl-PRS-TxScheme1InDedicatedResourcePool-r18 Indicates whether UE supports transmitting SL-PRS scheme 1 in a dedicated resource pool, and is comprised of the following functional components: - Support transmitting SL-PRS and PSCCH within a slot without PSSCH in dedicated resource pool; - Support transmitting SL-PRS according to the mapping rule between PSCCH and SL-PRS; - Support transmitting SCI format 1B; - Support receiving DCI format 3_2; - Support downlink pathloss based open loop power control of SL-PRS (NOTE 1). UE supporting this feature shall also support *sl-PRS-RxInDedicatedResourcePool-r18*. NOTE: It is not required to be supported in a band indicated with only the PC5 interface in TS 38.101-1 [2] Table 5.2E.1-1.	Band	No	N/A	N/A
sl-PRS-TxScheme2InDedicatedResourcePool-r18 Indicates whether UE supports transmitting SL-PRS scheme 2 in a dedicated resource pool, and is comprised of the following functional components: - Support transmitting SL-PRS and PSCCH within a slot without PSSCH in dedicated resource pool; - Support transmitting SL-PRS according to the mapping rule between PSCCH and SL-PRS; - Support transmitting SCI format 1B. UE supporting this feature shall also support of at least one of *sl-PRS-TxRandomSelection-r18* or *sl-PRS-TxUsingFullSensing-r18*.	Band	No	N/A	N/A
sl-PRS-TxUsingFullSensing-r18 Indicates whether UE supports full sensing in a dedicated resource pool, and is comprised of the following functional components: - UE can transmit SL-PRS and associated PSCCH using full sensing; - Support DL pathloss based open loop power control when configured by NR Uu. This capability also indicates the number of PSCCH UE can receive in a slot. Value '*value1*' corresponds to floor (N_{RB} /10 RBs), value '*value2*' corresponds to 2*floor (N_{RB} /10 RBs). N_{RB} is the number of RBs defined per channel bandwidth by RAN4 in TS 38.101-1 [2] Table 5.3.2-1 for FR1 and TS 38.101-2 [3] Table 5.3.2-1 for FR2. NOTE 1: Configuration by NR Uu is not required to be supported in a band indicated with only the PC5 interface in TS 38.101-1 [2] Table 5.2E.1-1. NOTE 2: Component 2 is not required to be supported in a band indicated with only the PC5 interface in TS 38.101-1 [2] Table 5.2E.1-1. NOTE 3: UE supporting this feature also support receiving SCI format 1B.	Band	No	N/A	N/A
sl-ReceptionIntraCarrierGuardBand-r18 Indicates whether the UE supports reception in the non-zero intra-cell guardband between contiguous RB sets in SL wideband carrier operation wider than 20MHz when LBT is successful only in a subset of RB sets, where intra-cell guardband is specified in TS 38.101-1 [2].	Band	No	N/A	FR1 only

sl-Reception-r16 Indicates whether receiving NR sidelink communication is supported. If supported, this parameter indicates the support of the capabilities and includes the parameters as follows: - UE can receive NR PSCCH/PSSCH. - *harq-RxProcessSidelink*, which indicates the number of sidelink HARQ processes across all links that the UE supports for NR PSSCH reception. Value n16 corresponds to 16, n24 corresponds to 24, and so on. - *pscch-RxSidelink*, which indicates the number of PSCCH that the supports for reception in a slot. Value value1 corresponds to floor (N_{RB} /10 RBs), value2 corresponds to 2*floor (N_{RB} /10 RBs); - UE can attempt to decode N_{RB} non-overlapping RBs per slot. - UE supports reception of PSSCH according to the 64QAM MCS table. - UE supports PT-RS reception in FR2. - *scs-CP-PatternRxSidelink*, which indicates the subcarrier spacing with normal CP and the corresponding channel bandwidth that the UE supports for NR sidelink communication reception. Value scs-15kHz corresponds to 15kHz, scs-30kHz corresponds to 30kHz, and so on. It is mandatory for UE to support reception using 30 kHz subcarrier spacing with normal CP in FR1, and 120 kHz subcarrier spacing with normal CP FR2. For FR1, the bits in scs-XXkHz starting from the leading / leftmost bit indicate 5, 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90 and 100MHz. For FR2, the bits in scs-XXkHz starting from the leading / leftmost bit indicate 50, 100 and 200MHz. This capability is not required to be signalled in a band indicated with only the PC5 interface in TS 38.101-1 [2], Table 5.2E.1-1. Otherwise, it is mandatory. For a band indicated with only the PC5 interface in 38.101-1 [2], Table 5.2E.1-1, UE supports reception using 30 kHz subcarrier spacing with normal CP in FR1, 120 kHz subcarrier spacing with normal CP in FR2. - *extendedCP-RxSidelink*, which indicates whether the UE supports 60 kHz subcarrier spacing with extended CP length for NR sidelink communication reception. This capability is not required to be signalled in a band indicated with only the PC5 interface in TS 38.101-1 [2], Table 5.2E.1-1. Otherwise, it is mandatory. - UE supports 14-symbol SL slot with all DMRS patterns corresponding to number of PSSCH symbols = {12, 9} for slots with and without PSFCH. If UE signals support of extended CP, support 12-symbol SL slot with all DMRS patterns corresponding to number of PSSCH symbols = {10,7} for slots with and without PSFCH. NOTE 1: N_{RB} is the number of RBs defined per channel bandwidth by RAN4 in TS 38.101-1 [2], Table 5.3.2-1 for FR1 and TS 38.101-2 [3], Table 5.3.2.-1 for FR2. NOTE 2: Configuration by NR Uu is not required to be supported in a band indicated with only the PC5 interface in TS 38.101-1 [2] Table 5.2E.1-1. Support of this feature is mandatory if UE supports NR sidelink. If a band is included in *supportedBandCombinationListSL-NonRelayDiscovery-r17, supportedBandCombinationListSL-RelayDiscovery-r17 or supportedBandCombinationListSL-U2U-RelayDiscovery-r18*, it indicates whether receiving non-relay/relay NR sidelink discovery is supported.	Band	CY	N/A	N/A
sl-Rx-256QAM-r16 Indicates UE can receive PSSCH according to the 256QAM MCS table. This field is only applicable if the UE supports *sl-Reception-r16*.	Band	No	N/A	FR1 only

sl-TransmissionMode1-r16 Indicates whether transmitting NR sidelink mode 1 scheduled by Uu is supported. If supported, this parameter indicates the support of the capabilities and includes the parameters as follows: - UE can transmit PSCCH/PSSCH using configured grant type 1. For NR sidelink mode 1 scheduled by NR Uu, UE can additionally transmit PSCCH/PSSCH using dynamic scheduling or configured grant type 2. Up to 8 configured grants can be configured for a UE. - *harq-TxProcessModeOneSidelink*, which indicates the number of sidelink HARQ processes across all links that the UE supports for NR PSSCH transmission using mode 1, including those for configured grants. Value n8 corresponds to 8, n16 corresponds to 16, and so on. - UE can transmit PSSCH according to the normal 64QAM MCS OFDM table. - UE supports PT-RS transmission in FR2. - For NR sidelink mode 1 scheduled by NR Uu, UE can monitor DCI format 3_0 for NR sidelink dynamic scheduling and configured grant type 2 on the same carrier as sidelink. - *scs-CP-PatternTxSidelinkModeOne*, which indicates the subcarrier spacing with normal CP and the corresponding bandwidth that the UE supports for NR sidelink communication transmission using NR sidelink mode 1. Value scs-15kHz corresponds to 15kHz, scs-30kHz corresponds to 30kHz, and so on. For FR1, the bits in scs-XXkHz starting from the leading / leftmost bit indicate 5, 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90 and 100MHz. For FR2, the bits in scs-XXkHz starting from the leading / leftmost bit indicate 50, 100 and 200MHz. For a band indicated with only the PC5 interface in TS 38.101-1 [2], Table 5.2E.1-1, UE supports transmission using at least 30 kHz subcarrier spacing with normal CP in FR1, at least 120 kHz subcarrier spacing with normal CP in FR2. Otherwise, the reported subcarrier spacing with normal CP and the corresponding bandwidth that the UE supports shall be the same as reported for UL via *channelBWs-UL*. - *extendedCP-TxSidelink*, which indicates whether the UE supports 60 kHz subcarrier spacing with extended CP length for NR sidelink communication transmission using mode 1. For a band indicated with only the PC5 interface in TS 38.101-1 [2], Table 5.2E.1-1, the reported subcarrier spacing with normal CP and the corresponding bandwidth that the UE supports shall be the same as reported for UL via *channelBWs-UL*. - UE supports 14-symbol SL slot with all DMRS patterns corresponding to the number of PSSCH symbols = {12, 9} for slots with and without PSFCH. If UE signals support of extended CP, support 12-symbol SL slot with all DMRS patterns corresponding to the number of PSSCH symbols = {10,7} for slots with and without PSFCH. - UE supports downlink pathloss based open loop power control for NR sidelink mode 1 scheduled by NR Uu if the band is not indicated with only the PC5 interface in TS 38.101-1 [2], Table 5.2E.1-1. Otherwise, it is not supported. - *harq-ReportOnPUCCH*, which indicates whether UE supports reporting sidelink HARQ-ACK to gNB via PUCCH and PUSCH when it is operating in NR sidelink mode 1, for NR sidelink mode 1 scheduled by NR Uu, if the band is indicated with only the PC5 interface in TS 38.101-1 [2], Table 5.2E.1-1. Otherwise, it is mandatory. NOTE: Random selection in the exceptional pool is supported. Support of this feature is mandatory if UE supports NR sidelink in licensed spectrum where gNB is operating on or managing that spectrum, except for A2X services. If a band is included in *supportedBandCombinationListSL-NonRelayDiscovery-r17, supportedBandCombinationListSL-RelayDiscovery-r17 or supportedBandCombinationListSL-U2U-RelayDiscovery-r18*,, it indicates whether receiving non-relay/relay NR sidelink discovery is supported.	Band	CY	N/A	N/A

sl-TransmissionMode2-r16 Indicates whether transmitting NR sidelink mode 2 is supported. If supported, this parameter indicates the support of the capabilities and includes the parameters as follows: - UE can transmit PSCCH/PSSCH using NR sidelink mode 2 configured by NR Uu or preconfiguration. - *harq-TxProcessModeTwoSidelink*, which indicates the number of sidelink HARQ processes across all links that the UE supports for NR PSSCH transmission using mode 2. Value n8 corresponds to 8, n16 corresponds to 16. - UE can transmit PSSCH according to the normal 64QAM MCS table. - UE supports PT-RS transmission in FR2. - UE can perform mode 2 sensing and resource allocation operations - *scs-CP-PatternTxSidelinkModeTwo*, which indicates UE can transmit using the subcarrier spacing and CP length it reports in *sl-Reception-r16*. This capability is not required to be signalled in a band indicated with only the PC5 interface in TS 38.101-1 [2], Table 5.2E.1-1. Otherwise, it is mandatory. For a band indicated with only the PC5 interface in TS 38.101-1 [2], Table 5.2E.1-1, UE supports transmission using 30 kHz subcarrier spacing with normal CP in FR1, 120 kHz subcarrier spacing with normal CP in FR2. - UE supports 14-symbol SL slot with all DMRS patterns corresponding to the number of PSSCH symbols = {12, 9} for slots with and without PSFCH. If UE signals support of extended CP, support 12-symbol SL slot with all DMRS patterns corresponding to the number of PSSCH symbols = {10,7} for slots with and without PSFCH. - *dl-openLoopPC-Sidelink*, which indicates whether UE supports DL pathloss based open loop power control when mode 2 is configured by NR Uu, if the band is indicated with only the PC5 interface in TS 38.101-1 [2], Table 5.2E.1-1. Otherwise, it is mandatory. This field is only applicable if the UE supports *sl-Reception-r16*. NOTE 1: Random selection in the exceptional pool is supported. NOTE 2: Configuration by NR Uu is not required to be supported in a band indicated with only the PC5 interface in TS 38.101-1 [2] Table 5.2E.1-1. Support of this feature is mandatory if UE supports NR sidelink.	Band	CY	N/A	N/A

sl-TransmissionMode2-RandomResourceSelection-r17 Indicates transmitting NR sidelink mode 2 with random resource selection is supported. If supported, this parameter indicates the support of the capabilities and includes the parameters as follows: - UE can transmit PSCCH/PSSCH using NR sidelink mode 2 with random resource selection configured by NR Uu or preconfiguration. - *harq-TxProcessModeTwoSidelink-r17*, which indicates the number of sidelink HARQ processes across all links that the UE supports for NR PSSCH transmission using mode 2. Value n8 corresponds to 8, n16 corresponds to 16. - UE can transmit PSSCH according to the normal 64QAM MCS table. - UE supports PT-RS transmission in FR2. - *scs-CP-PatternTxSidelinkModeTwo-r17*, which indicates the subcarrier spacing with normal CP and the corresponding bandwidth that the UE supports for NR sidelink communication transmission using NR sidelink mode 2 with random resource selection. Value scs-15kHz corresponds to 15kHz, scs-30kHz corresponds to 30kHz, and so on. For FR1, the bits in scs-XXkHz starting from the leading / leftmost bit indicate 5, 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90 and 100MHz. For FR2, the bits in scs-XXkHz starting from the leading / leftmost bit indicate 50, 100 and 200MHz.UE can transmit using the subcarrier spacing and CP length it reports in *sl-Reception-r16*. This capability is not required to be signalled in a band indicated with only the PC5 interface in TS 38.101-1 [2], Table 5.2E.1-1. Otherwise, it is mandatory. For a band indicated with only the PC5 interface in TS 38.101-1 [2], Table 5.2E.1-1, UE supports transmission using 30 kHz subcarrier spacing with normal CP in FR1, 120 kHz subcarrier spacing with normal CP in FR2. - *extendedCP-Mode2Random-r17*, which indicates whether the UE supports 60 kHz subcarrier spacing with extended CP length for NR sidelink communication transmission using mode 2 with random resource selection. - UE supports 14-symbol SL slot with all DMRS patterns corresponding to the number of PSSCH symbols = {12, 9} for slots with and without PSFCH. If UE signals support of extended CP, support 12-symbol SL slot with all DMRS patterns corresponding to the number of PSSCH symbols = {10,7} for slots with and without PSFCH. - *dl-openLoopPC-Sidelink-r17*, which indicates whether UE supports DL pathloss based open loop power control when mode 2 is configured by NR Uu, if the band is indicated with only the PC5 interface in TS 38.101-1 [2], Table 5.2E.1-1. Otherwise, it is mandatory. UE supporting this feature shall support receiving NR sidelink of S-SSB or indicate support of *sync-Sidelink-r16* or *sync-Sidelink-v1710*. If a band is included in *supportedBandCombinationListSL-NonRelayDiscovery-r17, supportedBandCombinationListSL-RelayDiscovery-r17 or supportedBandCombinationListSL-U2U-RelayDiscovery-r18*, it indicates whether transmitting NR sidelink mode 2 with random resource selection is supported for non-relay/relay NR sidelink discovery. NOTE 1: Configuration by NR Uu is not required to be supported in a band indicated with only the PC5 interface in TS 38.101-1 [2] Table 5.2E.1-1. NOTE 2: If UE reports more than one features of *sl-TransmissionMode2-r16*, *sl-TransmissionMode2-PartialSensing-r17* and *sl-TransmissionMode2-RandomResourceSelection-r17*, the reported value of *harq-TxProcessModeTwoSidelink* in each feature is the total number of SL processes and the same among those features. NOTE 3 Random selection in the exceptional pool is supported.	Band	No	N/A	N/A
sl-Tx-256QAM-r16 Indicates UE can transmit PSSCH according to the 256QAM MCS table. This field is only applicable if the UE supports at least one of *sl-TransmissionMode1-r16* and *sl-TransmissionMode2-r16*.	Band	No	N/A	FR1 only
sl-UE-COT-Sharing-r18 Indicates whether the UE supports using *ue-ToUE-COT-SharingED-Threshold-r18* for Type 1 channel access for UE to UE COT sharing and indicating COT sharing information in SCI. The capability is only expected for a band where shared spectrum channel access must be used. A UE supporting this feature shall also indicate support of *sl-DynamicChannelAccess-r18*.	Band	No	N/A	N/A

sync-Sidelink-r16 Indicates whether UE supports synchronization sources for NR sidelink. If supported, this parameter indicates the support of the capabilities and includes the parameters as follows: - UE can receive S-SSB in NR sidelink if it supports *sl-Reception-r16*. - UE can transmit S-SSB in NR sidelink if it supports *sl-TransmissionMode1-r16* or *sl-TransmissionMode2-r16*. - UE supports GNSS and SyncRef UE as the synchronization reference according to the synchronization procedure with *sl-SyncPriority* set to *GNSS* and *sl-NbAsSync* set to *false*. - *gNB-Sync*, which indicates whether UE can transmit or receive NR sidelink based on the synchronization to an gNB for NR Uu, if the band is indicated with only the PC5 interface in TS 38.101-1 [2], Table 5.2E.1-1. Otherwise, it is mandatory. - *gNB-GNSS-UE-SyncWithPriorityOnGNB-ENB*, which indicates whether UE additionally supports gNB, GNSS and SyncRef UE as the synchronization reference according to the synchronization procedure with *sl-SyncPriority* set to *gnbEnb* for NR Uu, if the band is indicated with only the PC5 interface in TS 38.101-1 [2], Table 5.2E.1-1. Otherwise, it is mandatory. - *gNB-GNSS-UE-SyncWithPriorityOnGNSS*, which indicates whether UE additionally supports gNB, GNSS and SyncRef UE as the synchronization reference according to the synchronization procedure with *sl-SyncPriority* set to *GNSS* and *sl-NbAsSync* set to true for NR Uu, if the band is indicated with only the PC5 interface in TS 38.101-1 [2], Table 5.2E.1-1. Otherwise, it is mandatory. This field is only applicable if the UE supports at least one of *sl-Reception-r16*, *sl-TransmissionMode1-r16* and *sl-TransmissionMode2-r16*. NOTE: Configuration by NR Uu is not required to be supported in a band indicated with only the PC5 interface in TS 38.101-1 [2] Table 5.2E.1-1. Support of this feature is mandatory if UE supports NR sidelink.	Band	CY	N/A	N/A

sync-Sidelink-v1710 Indicates whether UE supports synchronization sources for NR sidelink. If supported, this parameter indicates the support of the capabilities and includes the parameters as follows: - *sync-GNSS-r17*, which indicates UE supports GNSS as the synchronization reference according to the synchronization procedure with *sl-SyncPriority* set to *GNSS* and *sl-NbAsSync* set to *false*. This capability is only required to be supported in a band indicated with only the PC5 interface in TS 38.101-1 [2], Table 5.2E.1-1 - *gNB-Sync-r17*, which indicates whether UE can transmit NR sidelink based on the synchronization to an gNB for NR Uu, if the band is indicated with only the PC5 interface in TS 38.101-1 [2], Table 5.2E.1-1, it is not required to be supported. Otherwise, it is mandatory. - *gNB-GNSS-UE-SyncWithPriorityOnGNB-ENB-r17*, which indicates whether UE additionally supports gNB, GNSS as the synchronization reference according to the synchronization procedure with *sl-SyncPriority* set to *gnbEnb* for NR Uu, if the band is indicated with only the PC5 interface in TS 38.101-1 [2], Table 5.2E.1-1, it is not required to be supported. Otherwise, it is mandatory. - *gNB-GNSS-UE-SyncWithPriorityOnGNSS-r17*, which indicates whether UE additionally supports gNB, GNSS as the synchronization reference according to the synchronization procedure with *sl-SyncPriority* set to *GNSS* and *sl-NbAsSync* set to true for NR Uu, if the band is indicated with only the PC5 interface in TS 38.101-1 [2], Table 5.2E.1-1, it is not required to be supported. Otherwise, it is mandatory. - UE can transmit S-SSB in NR sidelink if it supports *sl-TransmissionMode1-r16* or *sl-TransmissionMode2-r16* or *sl-TransmissionMode2-PartialSensing-r17* or *sl-TransmissionMode2-RandomResourceSelection-r17*. - UE supports synchronization to a reference UE if it supports *sl-Reception-r16*. NOTE: Configuration by NR Uu is not required to be supported in a band indicated with only the PC5 interface in TS 38.101-1 [2] Table 5.2E.1-1.	Band	No	N/A	N/A
ue-PowerClassSidelink-r16 This parameter indicates the supported power class for this band used for sidelink. The power class *pc5* is only applicable for sidelink band of shared spectrum channel access. If the field is absent, the UE supports the default power class in TS 38.101-1 [2], Table 6.2E.1.2-2 and Table 6.2E.1F-1.	Band	No	N/A	N/A

4.2.16.1.6a *SharedSpectrumChAccessParamsSidelinkPerBand* Parameters

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
sl-ContiguousRB-TxRx-r18 Indicates whether the UE supports contiguous RB-based PSCCH/PSSCH transmission/reception and resource (re-)selection for contiguous RB-based PSCCH/PSSCH transmission. A UE supporting this feature shall also support of at least one of *sl-CrossCarrierScheduling-r16, sl-TransmissionMode2-r16, sl-TransmissionMode2-PartialSensing-r17,* and *sl-TransmissionMode2- RandomResourceSelection-r17*. NOTE 1: If UE supports *sl-CrossCarrierScheduling-r16*, the UE is not required to support PT-RS transmission in FR2 and monitoring DCI format 3_0 for NR sidelink dynamic scheduling and configured grant type 2 on the same carrier as sidelink in *sl-TransmissionMode1-r16*. NOTE 2: If UE supports *sl-TransmissionMode2-r16*, the UE is not required to support PT-RS transmission in FR2 and transmission using 120 kHz subcarrier spacing with normal CP FR2 in *sl-TransmissionMode2-r16*.	Band	No	N/A	N/A
sl-DynamicChannelAccess-r18 Indicates whether the UE supports the following components in a band where shared spectrum channel access is used: - SL Type 1 channel access and contention window size adjustment - SL Type 2A channel access - SL Type 2B channel access - SL Type 2C channel access - 20MHz LBT bandwidth - CP extension up to 1 symbol in 15kHz SCS if the UE supports 15 kHz SCS - CP extension up to 2 symbols in 30kHz SCS - CP extension up to 2 symbols if the UE supports 60kHz SCS when regions without OCB requirements. For UE supports NR SL in shared spectrum and when shared spectrum channel access must be used for a band, UE must support this feature. A UE supporting this feature shall also indicate support of at least one of *sl-CrossCarrierScheduling*-r16, *sl-TransmissionMode2-r16*, *sl-TransmissionMode2-RandomResourceSelection-r17*, and *sl-TransmissionMode2-PartialSensing-r17*.	Band	CY	N/A	N/A
sl-DynamicMultiChannelAccess-r18 Indicates the number of channels with 20MHz LBT bandwidth for multi-channel access procedures for PSCCH/PSSCH/S-SSB/PSFCH transmission(s) in multiple RB sets in a slot. A UE supporting this feature shall also indicate support of *sl-DynamicChannelAccess-r18*. NOTE: Support of S-SSB/PSFCH transmission(s) in multiple RB-sets in a slot is according to the support of {*sl-PSFCH-MultiContiguousRB-r18, sl-PSFCH-MultiNonContiguousRB-r18*} and {S-SSB transmissions in multiple contiguous RB sets, S-SSB transmissions in multiple non-contiguous RB sets }.	Band	No	N/A	N/A
sl-Interlace-RB-TxRx-r18 Indicates whether the UE supports interlace RB-based SL transmissions for the physical layer channels that it is capable of transmit and interlace RB-based SL receptions for the physical layer channels that it is capable of receive. A UE supporting this feature shall also indicate support of at least one of *sl-CrossCarrierScheduling*-r16, *sl-TransmissionMode2-r16*, *sl-TransmissionMode2-RandomResourceSelection-r17*, and *sl-TransmissionMode2-PartialSensing-r17*. The UE supports NR sidelink in shared spectrum where PSD and/or OCB requirements are defined by regulation must support this feature.	Band	CY	N/A	N/A
sl-LBT-Option1-r18 Indicates whether the UE supports to avoid selection of N consecutive resource(s) before a reserved resource when the L1 SL priority value for the transmission is higher than the L1 SL priority value of the reserved resource and avoid selection of M consecutive resource(s) after a reserved resource when the transmitting symbols of the reserved resource overlap with LBT of the selected resource. It is up to UE whether to do it. A UE supporting this feature shall also indicate support of *sl-DynamicChannelAccess-r18*.	Band	No	N/A	N/A

sl-LBT-Option2-r18 Indicates whether the UE supports to prioritize / select resource(s) in the slot(s) for transmission if transmission in slot(s) at least T_proc,0 before a reserved resource is able to share its initiated COT to the reservation. It is up to UE whether to do it. A UE supporting this feature shall also indicate support of *sl-DynamicChannelAccess-r18*.	Band	No	N/A	N/A
sl-MultiplePRB-CommonInterlacePSFCH-r18 Indicates whether the UE supports transmissions/receptions of multiple dedicated PRBs in common interlace-based PSFCH. This capability signalling comprises the following parameters: - *tx-TotalPRB-PSFCH-r18* indicates the maximum total number of dedicated PRBs for PSFCH in a slot that a UE can transmit PSFCH(s), in addition to common PRBs. - *rx-TotalPRB-PSFCH-r18* indicates the maximum total number of dedicated PRBs for PSFCH in a slot that a UE can receive PSFCH(s). For UE supports NR sidelink in shared spectrum, where PSD and/or OCB requirements are defined by regulation, UE must support this feature. A UE supporting this feature shall also indicate support of *sl-Interlace-RB-TxRx-r18*.	Band	CY	N/A	N/A
sl-MultiplePRB-DedicatedInterlacePSFCH-r18 Indicates whether the UE supports transmissions/receptions of multiple dedicated PRBs in dedicated interlace-based PSFCH. This capability signalling comprises the following parameters: - *tx-TotalPRB-PSFCH-r18* indicates the maximum total number of dedicated interlaces for PSFCH in a slot that a UE can transmit PSFCH(s). - *rx-TotalPRB-PSFCH-r18* indicates the maximum total number of dedicated interlaces for PSFCH in a slot that a UE can receive PSFCH(s). A UE supporting this feature shall also indicate support of *sl-Interlace-RB-TxRx-r18*.	Band	No	N/A	N/A
sl-PowerClassUnlicensed-r18 Indicates the supported power class of UE for this band used for sidelink unlicensed. If the field is absent, the UE supports the default power class in TS 38.101-1 [2], Table 6.2E.1F-1.	Band	No	N/A	FR1 only
sl-PSFCH-MultiContiguousRB-r18 Indicates whether the UE supports PSFCH transmissions in multiple contiguous RB sets. A UE supporting this feature shall at least indicate support of *sl-DynamicMultiChannelAccess-r18* or support transmitting PSFCH/S-SSB on a subset of the intended number of RB sets based on the outcome of channel access on individual RB sets.	Band	No	N/A	N/A
sl-PSFCH-MultiNonContiguousRB-r18 Indicates whether the UE supports PSFCH transmissions in multiple non-contiguous RB sets. A UE supporting this feature shall also indicate support of *sl-PSFCH-MultiContiguousRB-r18*.	Band	No	N/A	N/A
sl-PSFCH-MultiOccasion-r18 Indicates the number of PSFCH occasion(s) per PSCCH/PSSCH that a UE supports for PSFCH transmission/reception. A UE supporting this feature shall also indicate support of *psfch-FormatZeroSidelink-r16*.	Band	No	N/A	N/A
sl-ResourceAllocMode1-r18 Indicates whether the UE supports monitoring DCI format 3_0 on a licensed band for NR sidelink dynamic scheduling and configured grant type 2 for transmitting PSCCH/PSSCH on a shared spectrum and reporting NACK to gNB when transmitting PSCCH/PSSCH on scheduled resource(s) is failed due to LBT failure. A UE supporting this feature shall also indicate support of *sl-DynamicChannelAccess-r18*.	Band	No	N/A	N/A

4.2.16.1.7 *BandCombinationListSidelinkEUTRA-NR* Parameters

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
rx-Sidelink-r16 Indicates whether the UE supports sidelink reception on the band. For NR sidelink, this field is only applicable if the UE supports *sl-Reception-r16* on the band.	Band	No	N/A	N/A
rx-sidelinkPSFCH-r17 Indicates whether UE can receive PSFCH with HARQ-ACK information in NR sidelink and also the maximum number of PSFCH(s) resources N in a slot. If UE reports more than one of *psfch-FormatZeroSidelink-r16*, *rx-sidelinkPSFCH-r17*and *rx-IUC-Scheme2-Mode2Sidelink-r17*, the reported value N is the total number and the same among *psfch-FormatZeroSidelink-r16*, *rx-sidelinkPSFCH-r17* and *rx-IUC-Scheme2-Mode2Sidelink-r17.* UE supporting this feature shall support receiving NR sidelink of S-SSB and at least one of *sl-TransmissionMode1-r16* or *sl-TransmissionMode2-r16* or *sl-TransmissionMode2-RandomResourceSelection-r17* or *sl-TransmissionMode2-PartialSensing-r17*. NOTE: Configuration by NR Uu is not required to be supported in a band indicated with only the PC5 interface in TS 38.101-1 [2] Table 5.2E.1-1.	FS	No	N/A	N/A
sl-CrossCarrierScheduling-r16 Indicates whether the UE supports monitoring DCI format 3_0 on a different carrier from sidelink for NR sidelink dynamic scheduling and configured grant type 2. If the UE indicates support for *sl-TransmissionMode1-r16* in a band indicated with only the PC5 interface in Table 5.2E.1-1 of TS 38.101-1 [2], the UE shall indicate that *sl-CrossCarrierScheduling-r16* is supported for a band combination with that band. For NR sidelink, this field is only applicable if the UE supports *sl-TransmissionMode1-r16* on the band.	Band	No	N/A	N/A

sl-TransmissionMode2-PartialSensing-r17 Indicates transmitting NR sidelink mode 2 with partial sensing is supported. If supported, this parameter indicates the support of the capabilities and includes the parameters as follows: - UE can transmit PSCCH/PSSCH using NR sidelink mode 2 with partial sensing configured by NR Uu or preconfiguration. - *harq-TxProcessModeTwoSidelink-r17*, which indicates the number of sidelink HARQ processes across all links that the UE supports for NR PSSCH transmission using mode 2. Value n8 corresponds to 8, n16 corresponds to 16. - UE can transmit PSSCH according to the normal 64QAM MCS table. - UE supports PT-RS transmission in FR2. - UE can perform periodic-based partial sensing and resource allocation operation. - UE can perform contiguous partial sensing and resource allocation operation. - *scs-CP-PatternTxSidelinkModeTwo-r17*, the subcarrier spacing with normal CP and the corresponding bandwidth that the UE supports for NR sidelink communication transmission using NR sidelink mode 2 with partial sensing. Value scs-15kHz corresponds to 15kHz, scs-30kHz corresponds to 30kHz, and so on. For FR1, the bits in scs-XXkHz starting from the leading / leftmost bit indicate 5, 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90 and 100MHz. For FR2, the bits in scs-XXkHz starting from the leading / leftmost bit indicate 50, 100 and 200MHz. This capability is not required to be signalled in a band indicated with only the PC5 interface in TS 38.101-1 [2], Table 5.2E.1-1. Otherwise, it is mandatory. For a band indicated with only the PC5 interface in TS 38.101-1 [2], Table 5.2E.1-1, UE supports transmission using 30 kHz subcarrier spacing with normal CP in FR1, 120 kHz subcarrier spacing with normal CP in FR2. - *extendedCP-Mode2PartialSensing-r17*, which indicates whether the UE supports 60 kHz subcarrier spacing with extended CP length for NR sidelink communication transmission using mode 2 with partial sensing. - UE supports 14-symbol SL slot with all DMRS patterns corresponding to the number of PSSCH symbols = {12, 9} for slots with and without PSFCH. If UE signals support of extended CP, support 12-symbol SL slot with all DMRS patterns corresponding to the number of PSSCH symbols = {10,7} for slots with and without PSFCH. - *dl-openLoopPC-Sidelink-r17*, which indicates whether UE supports DL pathloss based open loop power control when mode 2 is configured by NR Uu, if the band is indicated with only the PC5 interface in TS 38.101-1 [2], Table 5.2E.1-1. Otherwise, it is mandatory. UE supporting this feature shall support receiving NR sidelink of S-SSB or indicate support of *sync-Sidelink-r16* or *sync-Sidelink-v1710*. If a band combination is included in *supportedBandCombinationListSL-NonRelayDiscovery-r17, supportedBandCombinationListSL-RelayDiscovery-r17 or supportedBandCombinationListSL-U2U-RelayDiscovery-r18*, it indicates whether transmitting NR sidelink mode 2 with partial sensing is supported for non-relay/relay NR sidelink discovery. NOTE 1: Configuration by NR Uu is not required to be supported in a band indicated with only the PC5 interface in TS 38.101-1 [2] Table 5.2E.1-1. NOTE 2: If UE reports more than one feature of *sl-TransmissionMode2-r16*, *sl-TransmissionMode2-PartialSensing-r17* and *sl-TransmissionMode2-RandomResourceSelection-r17*, the reported value of *harq-TxProcessModeTwoSidelink* in each FG is the total number of SL processes and the same among those FGs. NOTE 3: Random selection in the exceptional pool is supported.	FS	No	N/A	N/A

tx-IUC-Scheme1-Mode2Sidelink-r17 Indicates whether UE supports transmission of inter-UE coordination scheme 1 for NR sidelink for mode 2. If supported, this parameter indicates the support of the capabilities as follows: - UE can transmit inter-UE coordination information of preferred resource set/non-preferred resource set in NR sidelink mode 2. - UE can receive an explicit request for inter-UE coordination information of both preferred resource set and non-preferred resource set. UE supporting this feature shall support receiving NR sidelink of S-SSB or indicate support of *sync-Sidelink-r16* or *sync-Sidelink-v1710*. NOTE: Configuration by NR Uu is not required to be supported in a band indicated with only the PC5 interface in TS 38.101-1 [2] Table 5.2E.1-1.	FS	No	N/A	N/A
tx-IUC-Scheme2-Mode2Sidelink-r17 Indicates whether UE supports transmission of inter-UE coordination scheme 2 for NR sidelink for mode 2. If supported, this parameter indicates the support of the capabilities and includes the parameters as follows: - UE can transmit inter-UE coordination information of presence of expected/potential resource conflict in NR sidelink mode 2. - UE can transmit up to M PSFCH(s) resources in a slot where M takes the values of {4, 8, 16} If UE reports both *psfch-FormatZeroSidelink-r16* and *tx-IUC-Scheme2-Mode2Sidelink-r17*, the reported value M is the total number and the same in both *psfch-FormatZeroSidelink-r16* and *tx-IUC-Scheme2-Mode2Sidelink-r17*. UE supporting this feature shall indicate support of *rx-IUC-Scheme2-Mode2Sidelink-r17* and indicate support of at least one among *sync-Sidelink-r16*, *sync-Sidelink-v1710* and receiving NR sidelink of S-SSB. NOTE: Configuration by NR Uu is not required to be supported in a band indicated with only the PC5 interface in TS 38.101-1 [2] Table 5.2E.1-1.	FS	No	N/A	N/A
tx-Sidelink-r16 Indicates whether the UE supports sidelink transmission on the band. For NR sidelink, this field is only applicable if the UE supports at least one of *sl-TransmissionMode1-r16* and *sl-TransmissionMode2-r16* on the band.	Band	No	N/A	N/A

4.2.16.2 Sidelink Parameters in E-UTRA

4.2.16.2.0 General

Descriptions for parameters	Per	M	FDD-TDD DIFF
supportedBandListSidelinkEUTRA-r16 Indicates E-UTRA frequency bands supported for V2X sidelink communications and parameters supported for each frequency band, as specified in 4.2.16.2.1.	UE	No	No

4.2.16.2.1 *BandSideLinkEUTRA* parameters

Descriptions for parameters	Per	M	FDD-TDD DIFF
gnb-ScheduledMode3SidelinkEUTRA-r16 Indicates whether transmitting V2X sidelink communication mode 3 scheduled by NR Uu is supported. If supported, this parameter indicates the support of the capabilities and includes the parameters as follows: - the UE can be scheduled by gNB using DCI format 3_1 for V2X sidelink mode 3 transmission. - *gnb-ScheduledMode3DelaySidelinkEUTRA*, which indicates the minimum value UE supports for the additional time indicated in the NR DCI scheduling V2X sidelink mode 3. Value ms0 corresponds to 0 ms, ms0dot25 corresponds to 0.25 ms, and so on. This field is only applicable if the UE supports V2X sidelink communication.	Band	No	N/A
gnb-ScheduledMode4SidelinkEUTRA-r16 Indicates whether the UE can be scheduled by gNB for V2X sidelink mode 4 transmission. This field is only applicable if the UE supports V2X sidelink communication.	Band	No	N/A

4.2.17 SON parameters

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
onDemandSI-Report-r17 Indicates whether the UE supports delivery of on-Demand SI information upon request from the network as specified in TS 38.331 [9].	UE	No	No	No
pscell-MHI-Report-r17 Indicates whether the UE supports the storage of PSCell mobility history information and the reporting in *UEInformationResponse* message as specified in TS 38.331 [9].	UE	No	No	No
rach-Report-r16 Indicates whether the UE supports delivery of RA report upon request from the network.	UE	No	No	No
rlfReportCHO-r17 Indicates whether the UE supports RLF-Report for conditional handover.	UE	No	No	No
rlfReportCondHandoverWithCandSCG-r19 Indicates whether the UE supports RLF-Report for conditional handover with candidate SCG. A UE supporting this feature shall also indicate support *rlfReportCHO-r17*.	UE	No	No	No
rlfReportDAPS-r17 Indicates whether the UE supports RLF-Report for DAPS handover.	UE	No	No	No
rlfReportLTM-r19 Indicates whether the UE supports RLF-Report for MCG LTM.	UE	No	No	No
spr-Report-r18 Indicates whether the UE supports the storage and delivery of Successful PScell Change/Addition Report upon request from the network.	UE	No	No	No
success-HO-Report-r17 Indicates whether the UE supports the storage and delivery of Successful Handover Report upon request from the network as specified in TS 38.331 [9].	UE	No	No	No
successIRAT-HO-Report-r18 Indicates whether the UE supports the storage and delivery of Successful Handover Report for Handover from NR to E-UTRA, upon request from the network.	UE	No	No	No
twoStepRACH-Report-r17 Indicates whether the UE supports the storage and delivery of 2-step RACH related information upon request from the network as specified in TS 38.331 [9].	UE	No	No	No

4.2.18 UE-based performance measurement parameters

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
barometerMeasReport-r16 Indicates whether the UE supports uncompensated barometeric pressure measurement reporting upon request from the network.	UE	No	No	No
earlyMeasLog-r17 Indicates whether the UE supports the storage of Early Measurement Logging in logged measurements and the reporting upon request from the network as specified in TS 38.331 [9].	UE	No	No	No
excessPacketDelay-r17 Indicates whether the UE supports the UL PDCP excess packet delay measurement per DRB as specified in TS 38.314 [26]. A UE that supports the UL PDCP excess packet delay measurement shall also support the measurement configuration and reporting as specified in TS 38.331 [9].	UE	No	No	No
geoAreaScopeChecking-r19 Indicates whether the UE supports geographic area scope checking for logged MDT. A UE supporting this feature shall also indicate support of *loggedMeasurements-r16* and *nonTerrestrialNetwork-r17*.	UE	No	No	No
gnss-Location-r16 Indicates whether the UE is equipped with a GNSS or A-GNSS receiver that may be used to provide detailed or (for NTN case only) coarse location information along with SON, MDT, and NTN related measurements in RRC_CONNECTED, RRC_IDLE and RRC_INACTIVE state. A UE shall set this field to *supported* if it indicates the support of *nonTerrestrialNetwork-r17*.	UE	CY	No	No
immMeasBT-r16 Indicates whether the UE supports Bluetooth measurements in RRC_CONNECTED state.	UE	No	No	No
immMeasWLAN-r16 Indicates whether the UE supports WLAN measurements in RRC_CONNECTED state.	UE	No	No	No
loggedMDT-PNI-NPN-r18 Indicates whether the UE supports Logged MDT for PNI-NPN(s).	UE	No	No	No
loggedMDT-Slicing-r19 Indicates whether the UE supports Logged MDT for Slicing.	UE	No	No	No
loggedMDT-SNPN-r18 Indicates whether the UE supports Logged MDT for SNPN(s).	UE	No	No	No
loggedMeasBT-r16 Indicates whether the UE supports Bluetooth measurements in RRC_IDLE and RRC_INACTIVE state.	UE	No	No	No
loggedMeasurements-r16 Indicates whether the UE supports logged measurements in RRC_IDLE and RRC_INACTIVE state. A UE that supports logged measurements shall support both periodical logging and event-triggered logging. The minimum memory size of MDT logged measurements is 64KB. For eRedCap UE supporting this feature, the minimum memory size of MDT logged measurements is 16KB.	UE	No	No	No
loggedMeasWLAN-r16 Indicates whether the UE supports WLAN measurements in RRC_IDLE and RRC_INACTIVE state.	UE	No	No	No
multipleCEF-Report-r17 Indicates whether the UE supports the storage and delivery of multiple CEF reports upon request from the network as specified in TS 38.331 [9].	UE	No	No	No
orientationMeasReport-r16 Indicates whether the UE supports orientation information reporting upon request from the network.	UE	No	No	No
sigBasedLogMDT-OverrideProtect-r17 Indicates whether the UE supports the override protection of the signalling based logged measurements configured in NR.	UE	No	No	No
speedMeasReport-r16 Indicates whether the UE supports speed information reporting upon request from the network.	UE	No	No	No
ulPDCP-Delay-r16 Indicates whether the UE supports UL PDCP Packet Average Delay measurement (as specified in TS 38.314 [26]) and reporting in RRC_CONNECTED state.	UE	No	No	No

4.2.19 High speed parameters

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
demodulationEnhancement-r16 Indicates whether the UE supports the enhanced demodulation processing for HST-SFN joint transmission scheme with velocity up to 500km/h as specified in TS 38.101-4 [18]. This field applies to MN configured demodulation enhancement when MR-DC is not configured and SN configured demodulation enhancement when (NG)EN-DC is configured.	UE	No	No	FR1 only
intraNR-MeasurementEnhancement-r16 Indicates whether the UE supports the enhanced intra-NR RRM requirements to support high speed up to 500 km/h as specified in TS 38.133 [5]. This field applies to MN configured measurement enhancement when MR-DC is not configured and SN configured measurement enhancement when (NG)EN-DC is configured. The UE can include this field only if the UE does not indicate the support of *measurementEnhancement-r16* and *interRAT-MeasurementEnhancement-r16*. Otherwise, the UE does not include this field.	UE	No	No	FR1 only
interRAT-MeasurementEnhancement-r16 Indicates whether the UE supports the enhanced inter-RAT E-UTRAN RRM requirements to support high speed up to 500 km/h as specified in TS 38.133 [5]. This field applies to MN configured measurement enhancement. The UE can include this field only if the UE does not indicate the support of *measurementEnhancement-r16* and *intraNR-MeasurementEnhancement-r16*. Otherwise, the UE does not include this field.	UE	No	No	FR1 only
measurementEnhancement-r16 Indicates whether the UE supports the enhanced intra-NR and inter-RAT E-UTRAN RRM requirements for MN configured measurement enhancement when MR-DC is not configured, and the enhanced intra-NR RRM requirements for SN configured measurement enhancement when (NG)EN-DC is configured, to support high speed up to 500 km/h as specified in TS 38.133 [5].	UE	No	No	FR1 only
measurementEnhancementCA-r17 Indicates whether the UE supports the enhanced RRM requirements for carrier aggregation to support high speed up to 500 km/h as specified in TS 38.133 [5]. UE indicating support of this feature shall indicate support of *measurementEnhancement-r16* or *intraNR-MeasurementEnhancement-r16*.	UE	No	No	FR1 only
measurementEnhancementInterFreq-r17 Indicates whether the UE supports the enhanced RRM requirements for inter-frequency measurements in connected mode to support high speed up to 500 km/h as specified in TS 38.133 [5]. UE indicating support of this feature shall indicate support of *measurementEnhancement-r16* or *intraNR-MeasurementEnhancement-r16*.	UE	No	No	FR1 only

4.2.20 Application layer measurement parameters

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
qoe-AdditionalMemoryMeasReport-r18 Indicates the minimum AS layer memory size the UE supports for QoE measurement in RRC_IDLE and RRC_INACTIVE in addition to the "AS layer memory size for QoE paused measurement reports". Value kB128 means the UE supports at least 128 kilobytes for this purpose, and so on. A UE supporting this feature shall also support *qoe-IdleInactiveMeasReport-r18*.	UE	No	No	No
qoe-IdleInactiveMeasReport-r18 Indicates whether the UE supports NR QoE Measurement Collection in RRC_IDLE and RRC_INACTIVE states for the services indicated with *qoe-Streaming-MeasReport-r17* or *qoe-MTSI-MeasReport-r17* or *qoe-VR-MeasReport-r17*.	UE	No	No	No
qoe-MTSI-MeasReport-r17 Indicates whether the UE supports NR QoE Measurement Collection for MTSI services, see TS 26.114 [30].	UE	No	No	No
qoe-NRDC-MeasReport-r18 Indicates whether the UE supports to receive QoE configuration(s) via SRB1 and/or SRB3 (if supported) from SN, and send the corresponding QoE report(s) via SRB4 and/or SRB5 (if the UE supports srb5). A UE supporting this feature shall also support *qoe-Streaming-MeasReport-r17* or *qoe-MTSI-MeasReport-r17* or *qoe-VR-MeasReport-r17*.	UE	No	No	No
qoe-PriorityBasedDiscarding-r18 Indicates whether the UE supports to discard QoE report(s) stored during QoE pause for UE in RRC_CONNECTED and stored in RRC_IDLE/RRC_INACTIVE based on the priority information gNB provides. A UE supporting this feature shall also support *qoe-Streaming-MeasReport-r17* or *qoe-MTSI-MeasReport-r17* or *qoe-VR-MeasReport-r17*, and conditionally support *qoe-IdleInactiveMeasReport-r18* for QoE measurement reports in RRC_IDLE/RRC_INACTIVE.	UE	No	No	No
qoe-Streaming-MeasReport-r17 Indicates whether the UE supports NR QoE Measurement Collection for streaming services, see TS 26.247 [29].	UE	No	No	No
qoe-VR-MeasReport-r17 Indicates whether the UE supports NR QoE Measurement Collection for VR services, see TS 26.118 [31].	UE	No	No	No
ran-VisibleQoE-Streaming-MeasReport-r17 Indicates whether the UE supports RAN visible QoE Measurement Collection for streaming services. A UE supporting this feature shall also support *qoe-Streaming-MeasReport-r17.*	UE	No	No	No
ran-VisibleQoE-VR-MeasReport-r17 Indicates whether the UE supports RAN visible QoE Measurement Collection for VR services. A UE supporting this feature shall also support *qoe-VR-MeasReport-r17.*	UE	No	No	No
srb5-r18 Indicates whether the UE supports SRB5 which is a direct SRB between the SN and the UE as specified in TS 37.340 [7]. A UE supporting this feature shall also indicate support of *qoe-NRDC-MeasReport-r18*.	UE	No	No	No
ul-MeasurementReportAppLayer-Seg-r17 Indicates whether the UE supports RRC segmentation of the MeasurementReportAppLayer message in UL over SRB4 and SRB5 (if supported), as specified in TS 38.331 [9].	UE	No	No	No

4.2.21 RedCap Parameters

4.2.21.1 Definition of RedCap UE

RedCap UE is the UE with reduced capability:

- The maximum bandwidth is 20 MHz for FR1, and is 100 MHz for FR2. UE features and corresponding capabilities related to UE bandwidths wider than 20 MHz in FR1 or wider than 100 MHz in FR2 are not supported by RedCap UEs;

- The mandatory support (with capability signalling, *enhancedChannelRaster-r18*) of the channel raster as specified in TS 38.101-1 [2], clause 5.4I, for all bands supported by the UE;

- The maximum mandatory supported DRB number is 8;

- The mandatory supported PDCP SN length is 12 bits while 18 bits being optional;

- The mandatory supported RLC AM SN length is 12 bits while 18 bits being optional;

- For FR1, 1 DL MIMO layer if 1 Rx branch is supported, and 2 DL MIMO layers if 2 Rx branches are supported; for FR2, either 1 or 2 DL MIMO layers can be supported, while 2 Rx branches are always supported. For FR1 and FR2, UE features and corresponding capabilities related to more than 2 UE Rx branches or more than 2 DL MIMO layers, as well as UE features and capabilities related to more than 1 UE Tx branch or more than 1 UL MIMO layer are not supported by RedCap UEs;

- CA, MR-DC, DAPS, CPAC, IAB (i.e., the RedCap UE is not expected to act as IAB node), and NCR (i.e., the RedCap UE is not expected to act as NCR-MT) related UE features and corresponding capabilities are not supported by RedCap UEs. All other feature groups or components of the feature groups as captured in TR 38.822 [24] as well as capabilities specified in this specification remain applicable for RedCap UEs same as other UEs, unless indicated otherwise.

4.2.21.2 General parameters

Definitions for parameters	Per	M	FDD-TDD DIFF
ncd-SSB-ForRedCapInitialBWP-SDT-r17 Indicates that the UE supports using RedCap-specific initial DL BWP associated with NCD-SSB for SDT. If absent, the UE only supports SDT in an initial DL BWP that includes the CD-SSB. For MO-SDT, UE supporting this feature shall indicate support of *supportOfRedCap-r17* or *supportOfERedCap-r18*, and *ra-SDT-r17 and/or cg-SDT-r17*. For MT-SDT, UE supporting this feature shall indicate support of *supportOfRedCap-r17* or *supportOfERedCap-r18* and *mt-SDT-r18 and/or mt-CG-SDT-r18*.	UE	No	No
supportOf16DRB-RedCap-r17 Indicates whether the (e)RedCap UE supports 16 DRBs. This capability is only applicable for (e)RedCap UEs.	UE	No	No

supportOfRedCap-r17
Indicates that the UE is a RedCap UE with comprised of at least the following functional components:
- Maximum FR1 RedCap UE bandwidth is 20 MHz;
- Maximum FR2 RedCap UE bandwidth is 100 MHz;
- Support of RedCap early indication based on Msg1, MsgA (if UE indicated support of t*woStepRACH-r16*) and Msg3 for random access;
- Separate initial UL BWP for RedCap UEs;
  - It includes the configuration(s) needed for RedCap UE to perform random access
  - Enabling/disabling of frequency hopping for common PUCCH resources
- Separate initial DL BWP for RedCap UEs;
  - It includes CSS/CORESET for random access
  - For separate initial DL BWP used for paging, CD-SSB is included
  - For separate initial DL BWP only used for RACH, SSB may or may not be included
  - For separate initial DL BWP used in connected mode as BWP#0 configuration option 1, CD-SSB is included
- 1 UE-specific RRC configured DL BWP per carrier;
- 1 UE-specific RRC configured UL BWP per carrier;
- UE-specific RRC-configured DL BWP with CD-SSB or NCD-SSB;
- NCD-SSB based measurements in RRC-configured DL BWP.
A RedCap UE shall set the field to *supported*.
	UE	CY	No

4.2.21.3 PDCP parameters

Definitions for parameters	Per	M	FDD-TDD DIFF
longSN-RedCap-r17 Indicates whether the (e)RedCap UE supports 18 bit length of PDCP sequence number. This capability is only applicable for (e)RedCap UEs.	UE	No	No

4.2.21.4 RLC parameters

Definitions for parameters	Per	M	FDD-TDD DIFF
am-WithLongSN-RedCap-r17 Indicates whether the (e)RedCap UE supports AM DRB with 18 bit length of RLC sequence number. This capability is only applicable for (e)RedCap UEs.	UE	No	No

4.2.21.5 MeasAndMobParameters

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
rrm-RelaxationRRC-ConnectedRedCap-r17 Indicates whether (e)RedCap UE supports Rel-17 relaxed RRM measurements in RRC_CONNECTED as specified in TS 38.331 [9].	UE	No	No	No

4.2.21.6 Physical layer parameters

4.2.21.6.1 *BandNR* parameters

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
bwp-WithoutCD-SSB-OrNCD-SSB-RedCap-r17 Indicates support of RRC-configured DL BWP without CD-SSB or NCD-SSB. The UE can include this field only if the UE supports *supportOfRedCap-r17* or *supportOfERedCap-r18*.	Band	No	N/A	N/A
dl-PRS-MeasurementWithRxFH-RRC-ConnectedForRedCap-r18 Indicates whether UE supports DL-PRS measurement with Rx frequency hopping within a MG and measurement reporting in RRC_CONNECTED for RedCap UEs and comprises the following parameters: - *maximumPRS-BandwidthAcrossAllHopsFR1-r18* indicates the maximum DL PRS bandwidth across all hops in MHz for FR1, which is supported and reported by UE. - *maximumPRS-BandwidthAcrossAllHopsFR2-r18* indicates the maximum DL PRS bandwidth across all hops in MHz for FR2, which is supported and reported by UE. - *maximumFH-Hops-r18* indicates the maximum number of hops, which is supported and reported by UE. - *processingDuration-r18* indicates the duration of DL PRS symbols N3 in units of ms a UE can process every T3 ms. - *processingPRS-SymbolsDurationN3-r18* indicates the values for N3. Enumerated values indicate 0.125, 0.25, 0.5, 1, 2, 4, 6, 8, 12, 16, 20, 25, 30, 32, 35, 40, 45, 50 ms. - *processingDurationT3-r18* indicates the values for T3. Enumerated values indicate 8, 16, 20, 30, 40, 80, 160, 320, 640, 1280ms. - *rf-RxRetuneTimeFR1-r18* indicates the RF Rx retune times between consecutive hops for FR1. Enumerated values indicate 70, 140, 210µs. - *rf-RxRetuneTimeFR2-r18* indicates the RF Rx retune times between consecutive hops for FR2. Enumerated values indicate 35, 70, 140µs. - *numOfOverlappingPRB-r18* indicates the overlapping PRB(s) between adjacent hops. Enumerated values indicate 0,1,2,4 PRBs. UE indicating support of this feature shall also indicate support of *supportedBandwidthPRS-r16*, *dl-PRS-BufferType-r16*, *durationOfPRS-Processing-r16*, *maxNumOfDL-PRS-ResProcessedPerSlot-r16* defined in TS 37.355 [22] and one of *supportOfRedCap-r17* and *supportOfERedCap-r18* defined in TS 38.331 [35]. NOTE 1: The maximum DL-PRS bandwidth per hop follows component 1 of *supportedBandwidthPRS-r16* defined in TS 37.355 [22]. NOTE 2: DL PRS buffering capability follows component 2 of *dl-PRS-BufferType-r16* defined in TS 37.355 [22].	Band	No	N/A	N/A
dl-PRS-MeasurementWithRxFH-RRC-IdleForRedCap-r18 Indicates whether UE supports PRS measurement with Rx frequency hopping in RRC_IDLE for RedCap UEs. A UE supporting this feature shall also indicate the support of *dl-PRS-MeasurementWithRxFH-RRC-ConnectedForRedCap-r18*.	Band	No	N/A	N/A
dl-PRS-MeasurementWithRxFH-RRC-InactiveForRedCap-r18 Indicates whether UE supports PRS measurement with Rx frequency hopping in RRC_INACTIVE for RedCap UEs. A UE supporting this feature shall also indicate the support of *dl-PRS-MeasurementWithRxFH-RRC-ConnectedForRedCap-r18* and *prs-ProcessingRRC-Inactive-r17*.	Band	No	N/A	N/A
halfDuplexFDD-TypeA-RedCap-r17 Indicates support of Half-duplex FDD operation (instead of full-duplex FDD operation) type A for (e)RedCap UE. The UE can include this field only if the UE supports *supportOfRedCap-r17* or *supportOfERedCap-r18*.	Band	No	FDD only	FR1 only

posSRS-TxFH-RRC-ConnectedForRedCap-r18 Indicates whether UE supports positioning SRS with Tx frequency hopping in RRC_CONNECTED for RedCap UEs and comprises the following parameters: - *maximumSRS-BandwidthAcrossAllHopsFR1-r18* indicates the maximum positioning SRS bandwidth across all hops in MHz for FR1, which is supported and reported by UE. - *maximumSRS-BandwidthAcrossAllHopsFR2-r18* indicates the maximum positioning SRS bandwidth across all hops in MHz for FR2, which is supported and reported by UE. - *maximumTxFH-Hops-r18* indicates the maximum number of transmission hops, which is supported and reported by UE. - *rf-TxRetuneTimeFR1-r18* indicates the RF Tx retune times between consecutive hops for FR1. Enumerated values indicate 70, 140, 210µs. - *rf-TxRetuneTimeFR2-r18* indicates the RF Tx retune times between consecutive hops for FR2. Enumerated values indicate 35, 70, 140µs. - *switchTimeBetweenActiveBWP-FrequencyHop-r18* indicates the switching time between active BWP and frequency hop. Enumerated values indicate 100, 140, 200, 300, 500µs. - *numOfOverlappingPRB-r18* indicates the overlapping PRB(s) between adjacent hops. Enumerated values indicate 0,1,2,4 PRBs. - *maximumSRS-ResourcePeriodic-r18* indicates the maximum number of periodic positioning SRS resources with Tx frequency hopping. - *maximumSRS-ResourceAperiodic-r18* indicates the maximum number of aperiodic positioning SRS resources with Tx frequency hopping. - *maximumSRS-ResourceSemipersistent-r18* indicates maximum number of Semi-persistent positioning SRS resources with Tx frequency hopping. UE indicating support of this feature shall also indicate the support of *SRS-AllPosResources-r16* and one of *supportOfRedCap*-r17 and *supportOfERedCap-r18*. NOTE: No additional UE requirements shall be specified for the case of Tx hopping with non-overlapping hops compared to the case of Tx hopping with overlapping hops, e.g., a UE is not responsible for keeping phase continuity across the hops in either case of overlapping or non-overlapping hops.	Band	No	N/A	N/A

posSRS-TxFH-RRC-InactiveForRedCap-r18 Indicates the UE capability for support of positioning SRS with Tx frequency hopping in RRC_INACTIVE for RedCap UEs and comprises the following parameters: - *maximumSRS-BandwidthAcrossAllHopsFR1-r18* indicates the maximum positioning SRS bandwidth across all hops in MHz for FR1, which is supported and reported by UE. - *maximumSRS-BandwidthAcrossAllHopsFR2-r18* indicates the maximum positioning SRS bandwidth across all hops in MHz for FR2, which is supported and reported by UE. - *maximumTxFH-Hops-r18* indicates the maximum number of transmission hops, which is supported and reported by UE. - *rf-TxRetuneTimeFR1-r18* indicates the RF Tx retune times between consecutive hops for FR1. Enumerated values indicate 70, 140, 210µs. - *rf-TxRetuneTimeFR2-r18* indicates the RF Tx retune times between consecutive hops for FR2. Enumerated values indicate 35, 70, 140µs. - *switchTimeBetweenActiveBWP-FrequencyHop-r18* indicates the switching time between active BWP and frequency hop. Enumerated values indicate 100, 140, 200, 300, 500µs. - *numOfOverlappingPRB-r18* indicates the overlapping PRB(s) between adjacent hops. Enumerated values indicate 0,1,2,4 PRBs. - *maximumSRS-ResourcePeriodic-r18* indicates the maximum number of periodic positioning SRS resources with Tx frequency hopping. - *maximumSRS-ResourceSemipersistent-r18* indicates maximum number of Semi-persistent positioning SRS resources with Tx frequency hopping. UE indicating support of this feature shall also indicate the support of *posSRS-RRC-Inactive-OutsideInitialUL-BWP-r17* and one of *supportOfRedCap*-r17 and *supportOfERedCap-r18*. NOTE: No additional UE requirements shall be specified for the case of Tx hopping with non-overlapping hops compared to the case of Tx hopping with overlapping hops, e.g., a UE is not responsible for keeping phase continuity across the hops in either case of overlapping or non-overlapping hops.	Band	No	N/A	N/A
posSRS-TxFH-WithTimeWindowForRedCap-r18 Indicates whether the UE supports the UL Time Window and transmission of SRS for positioning with Tx Frequency hopping within the window for RedCap UEs. A UE indicating support of this feature shall also indicate support of *posSRS-TxFH-RRC-ConnectedForRedCap-r18*.	Band	No	N/A	N/A

4.2.21.7 SON parameters

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
cef-ReportRedCap-r17 Indicates whether the (e)RedCap UE supports the storage of connection establishment failure or connection resume failure information and the reporting in *UEInformationResponse* message as specified in TS 38.331 [9]. It is mandatory with capability signalling for (e)RedCap UEs.	UE	CY	No	No
rlf-ReportRedCap-r17 Indicates whether the (e)RedCap UE supports the storage of radio link failure information or handover failure information and the reporting in *UEInformationResponse* message as specified in TS 38.331 [9]. It is mandatory with capability signalling for (e)RedCap UEs.	UE	CY	No	No

4.2.22 eRedCap Parameters

4.2.22.1 Definition of eRedCap UE

eRedCap UE is the UE with reduced peak data rate and, with or without reduced baseband bandwidth in FR1:

- The maximum bandwidth is 20 MHz for FR1. UE features and corresponding capabilities related to UE bandwidths wider than 20 MHz in FR1 are not supported by eRedCap UEs. eRedCap UEs do not support operation in FR2 and in FR1 60kHz SCS.
- The mandatory support (with capability signalling, *enhancedChannelRaster-r18*) of the channel raster as specified in TS 38.101-1 [2], clause 5.4I, for all bands supported by the UE;
- The maximum mandatory supported DRB number is 8;
- The mandatory supported PDCP SN length is 12 bits while 18 bits being optional;
- The mandatory supported RLC AM SN length is 12 bits while 18 bits being optional;
- 1 DL MIMO layer if 1 Rx branch is supported, and 2 DL MIMO layers if 2 Rx branches are supported. UE features and corresponding capabilities related to more than 2 UE Rx branches or more than 2 DL MIMO layers, as well as UE features and capabilities related to more than 1 UE Tx branch or more than 1 UL MIMO layer are not supported by eRedCap UEs;
- CA, MR-DC, DAPS, CPAC, IAB (i.e., the eRedCap UE is not expected to act as IAB node), and NCR (i.e., the eRedCap UE is not expected to act as NCR-MT) related UE features and corresponding capabilities are not supported by eRedCap UEs. All other feature groups or components of the feature groups as captured in TR 38.822 [24] as well as capabilities specified in this specification remain applicable for eRedCap UEs same as other UEs, unless indicated otherwise.

4.2.22.2 General parameters

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
eRedCapIgnoreCapabilityFiltering-r18 Indicates that the eRedCap UE ignores the capability filtering enquiry and conveys all the supported bands in the *appliedFreqBandListFilter*, as specified in TS 38.331 [9]. A UE indicating this field shall also indicate the support of *supportOfERedCap-r18*.	UE	No	No	FR1 only
eRedCapNotReducedBB-BW-r18 Indicates that the UE is an eRedCap UE without reduced baseband bandwidth in FR1. DL/UL peak data rate of 10 Mbps corresponding to $v_{Layers} \cdot Q_m \cdot f = 0.75$ when $v_{Layers} = 1$ and $v_{Layers} \cdot Q_m \cdot f = 0.8$ when $v_{Layers} = 2$. UE supporting this feature shall also indicate the support of *supportOfERedCap-r18*.	UE	No	No	FR1 only

supportOfERedCap-r18
Indicates that the UE is an eRedCap UE with reduced peak data rate and reduced baseband bandwidth in FR1. This capability comprises of at least the following functional components:
 	
The following functional components are the same as for *supportOfRedCap-r17*:
- Maximum FR1 bandwidth is 20 MHz;
- Support of RedCap early indication based on Msg1 for 4-step RACH, and MsgA PRACH (if UE indicates the support of *twoStepRACH-r16*);
- Separate initial UL BWP (NOTE-1):
  - It includes the configuration(s) needed to perform random access
  - Enabling/disabling of frequency hopping for common PUCCH resources
- Separate initial DL BWP (NOTE-1);
  - It includes CSS/CORESET for random access
  - For separate initial DL BWP used for paging, CD-SSB is included
  - For separate initial DL BWP only used for RACH, SSB may or may not be included
  - For separate initial DL BWP used in connected mode as BWP#0 configuration option 1 (as specified in Annex B2 in TS 38.331 [9]), CD-SSB is included
- 1 UE-specific RRC configured DL BWP per carrier;
- 1 UE-specific RRC configured UL BWP per carrier;
- UE-specific RRC-configured DL BWP with CD-SSB or NCD-SSB;
- NCD-SSB based measurements in RRC-configured DL BWP.
 	
The following functional components are new compared to *supportOfRedCap-r17*:
- DL/UL peak data rate of 10 Mbps corresponding to $v_{Layers} \cdot Q_m \cdot f = 3.2$.
  - If UE supporting this feature also indicates *eRedCapNotReducedBB-BW-r18,* this component is not applicable.
- Maximum number of PDSCH/PUSCH PRBs that can be scheduled/configured for unicast is 25 PRBs for 15 kHz SCS and is 12 PRBs for 30 kHz SCS.
  - If UE supporting this feature also indicates *eRedCapNotReducedBB-BW-r18,* this component is not applicable.
- Relaxed processing timeline of 1/0.5 ms for 15/30 kHz SCS when the RAR PDSCH and MsgB PDSCH (if supported) is larger than 25/12 PRBs for 15/30 kHz SCS.
  - If UE supporting this feature also indicates *eRedCapNotReducedBB-BW-r18*, this component is only applicable during contention based random access.
- Network-configurable separate eRedCap early indication in Msg1.
- Support of eRedCap early indication based on MsgA PUSCH, if UE indicates the support of *twoStepRACH-r16*, and Msg3.
- Maximum number of Msg4 PDSCH PRBs, which is scheduled by DCI scrambled by a TC-RNTI, that can be decoded and maximum number of Msg 3 PUSCH PRBs and Msg A PUSCH PRBs (if supported), which is scheduled by RAR UL grant or by a DCI scrambled by a TC-RNTI, or is configured for a Type-2 random access procedure, that can be transmitted is 25 PRBs for 15 kHz SCS and is 12 PRBs for 30 kHz SCS.
  - If UE supporting this feature also indicates *eRedCapNotReducedBB-BW-r18*, this component is only applicable during contention based random access.
 	
An eRedCap UE shall set this field to *supported* but shall not indicate support of *supportOfRedCap-r17*.
 	
NOTE 1: The Separate initial DL/UL BWP is shared by RedCap UEs and eRedCap UEs when the access of both UEs is allowed and RedCap-specific initial BWP is configured.
	UE	CY	No	FR1 only

4.2.23 NCR Parameters

4.2.23.1 Mandatory NCR-MT features

Table 4.2.23.1-1, Table 4.2.23.1-2 and Table 4.2.23.1-3 capture feature groups, which are mandatory for an NCR-MT. In addition, it is mandatory for an NCR-MT to support the following features:

- Cell barring based on *ncr-Support*, as specified in TS 38.331 [9].

- Inclusion of *ncr-NodeIndication*, as specified in TS 38.331 [9].

CA, MR-DC, handover (e.g. CHO, DAPS, CPAC, etc), unlicensed band, HPUE Duty cycle, MPR related UE features and corresponding capabilities are not supported by an NCR-MT. 7.5kHz UL raster shift is not applicable to NCR-MT. All other feature groups or components of the feature groups as captured in TR 38.822 [24] as well as capabilities specified in this specification are optional for an NCR-MT, unless indicated otherwise.

Table 4.2.23.1-1: Layer-1 mandatory features for NCR-MT

Features	Index	Feature group	Components
0. Waveform, modulation, subcarrier spacings, and CP	0-1	CP-OFDM waveform for DL and UL	1) CP-OFDM for DL 2) CP -OFDM for UL
	0-3	DL modulation scheme	1) QPSK modulation 2) 16QAM modulation 3) 64QAM modulation for FR1
	0-4	UL modulation scheme	1) QPSK modulation 2) 16QAM modulation
1. Initial access and mobility	1-1	Basic initial access channels and procedures	1) RACH preamble format 2) SS block based RRM measurement 3) Broadcast SIB reception including RMSI/OSI and paging
2. MIMO	2-1	Basic PDSCH reception	1) Data RE mapping 2) Single layer transmission 3) Support one TCI state
	2-5	Basic downlink DMRS for scheduling type A	1) Support 1 symbol FL DMRS without additional symbol(s) 2) Support 1 symbol FL DMRS and 1 additional DMRS symbol 3) Support 1 symbol FL DMRS and 2 additional DMRS symbols for at least one port.
	2-6	Basic downlink DMRS for scheduling type B	1) Support 1 symbol FL DMRS without additional symbol(s) 2) Support 1 symbol FL DMRS and 1 additional DMRS symbol
	2-12	Basic PUSCH transmission	Data RE mapping Single layer (single Tx) transmission Single port, single resource SRS transmission (SRS set use is configured as for codebook)
	2-16	Basic uplink DMRS (uplink) for scheduling type A	1) Support 1 symbol FL DMRS without additional symbol(s) 2) Support 1 symbol FL DMRS and 1 additional DMRS symbols 3) Support 1 symbol FL DMRS and 2 additional DMRS symbols
	2-16a	Basic uplink DMRS for scheduling type B	1) Support 1 symbol FL DMRS without additional symbol(s) 2) Support 1 symbol FL DMRS and 1 additional DMRS symbol
	2-32	Basic CSI feedback	1) Type I single panel codebook based PMI (further discuss which mode or both to be supported as mandatory) 2) 2Tx codebook for FR1 and FR2 3) 4Tx codebook for FR1 4) 8Tx codebook for FR1 when configured as wideband CSI report 7) a-CSI on PUSCH (at least Z value >= 14 symbols, detail processing time to be discussed separately) further check a-CSI on p-CSI-RS and/or SP-CSI-RS from component-7
	2-50	Basic TRS	1) Support of TRS (mandatory) 2) All the periodicity are supported.
	2-52	Basic SRS	1) Support 1 port SRS transmission 2) Support periodic/aperiodic SRS transmission

3. DL control channel and procedure	3-1	Basic DL control channel	1) One configured CORESET per BWP per cell in addition to CORESET0 - CORESET resource allocation of 6RB bit-map and duration of 1 – 3 OFDM symbols for FR1 - For type 1 CSS without dedicated RRC configuration and for type 0, 0A, and 2 CSSs, CORESET resource allocation of 6RB bit-map and duration 1-3 OFDM symbols for FR2 - For type 1 CSS with dedicated RRC configuration and for type 3 CSS, UE specific SS, CORESET resource allocation of 6RB bit-map and duration 1-2 OFDM symbols for FR2 - REG-bundle sizes of 2/3 RBs or 6 RBs - Interleaved and non-interleaved CCE-to-REG mapping - Precoder-granularity of REG-bundle size - PDCCH DMRS scrambling determination - TCI state(s) for a CORESET configuration 2) CSS and UE-SS configurations for unicast PDCCH transmission per BWP per cell - PDCCH aggregation levels 1, 2, 4, 8, 16 - For type 1 CSS with dedicated RRC configuration, type 3 CSS, and UE-SS, the monitoring occasion is within the first 3 OFDM symbols of a slot - For type 1 CSS without dedicated RRC configuration and for type 0, 0A, and 2 CSS, the monitoring occasion can be any OFDM symbol(s) of a slot, with the monitoring occasions for any of Type 1-CSS without dedicated RRC configuration, or Types 0, 0A, or 2 CSS configurations within a single span of three consecutive OFDM symbols within a slot 3) Monitoring DCI formats 0_0, 1_0, 0_1, 1_1 4) Number of PDCCH blind decodes per slot with a given SCS follows Case 1-1 table 5) Processing one unicast DCI scheduling DL and one unicast DCI scheduling UL per slot per scheduled CC for FDD
4. UL control channel and procedure	4-1	Basic UL control channel	1) PUCCH format 0 over 1 OFDM symbols once per slot 2) PUCCH format 0 over 2 OFDM symbols once per slot with frequency hopping as "enabled" 3) PUCCH format 1 over 4 – 14 OFDM symbols once per slot with intra-slot frequency hopping as "enabled" 5) One SR configuration per PUCCH group 6) HARQ-ACK transmission once per slot with its resource/timing determined by using the DCI 7) SR/HARQ multiplexing once per slot using a PUCCH when SR/HARQ-ACK are supposed to be sent by overlapping PUCCH resources with the same starting symbols in a slot 8) HARQ-ACK piggyback on PUSCH with/without aperiodic CSI once per slot when the starting OFDM symbol of the PUSCH is the same as the starting OFDM symbols of the PUCCH resource that HARQ-ACK would have been transmitted on 9) Semi-static beta-offset configuration for HARQ-ACK 10) Single group of overlapping PUCCH/PUCCH and overlapping PUCCH/PUSCH s per slot per PUCCH cell group for control multiplexing
	4-10	Dynamic HARQ-ACK codebook	Dynamic HARQ-ACK codebook

5. Scheduling /HARQ operation	5-1	Basic scheduling/HARQ operation	1) Frequency-domain resource allocation - RA Type 0 only and Type 1 only for PDSCH without interleaving - RA Type 1 for PUSCH without interleaving 2) Time-domain resource allocation - 1-14 OFDM symbols for PUSCH once per slot - One unicast PDSCH per slot - Starting symbol, and duration are determined by using the DCI - PDSCH mapping type A with 7-14 OFDM symbols - PUSCH mapping type A and type B - For type 1 CSS without dedicated RRC configuration and for type 0, 0A, and 2 CSS, PDSCH mapping type A with {4-14} OFDM symbols and type B with {2, 4, 7} OFDM symbols 3) TBS determination 4) Nominal UE processing time for N1 and N2 (Capability #1) 5) HARQ process operation with configurable number of DL HARQ processes of up to 16 6) Cell specific RRC configured UL/DL assignment for TDD 7) Dynamic UL/DL determination based on L1 scheduling DCI with/without cell specific RRC configured UL/DL assignment 9) In TDD support at most one switch point per slot for actual DL/UL transmission(s) 10) DL scheduling slot offset K0=0 12) UL scheduling slot offset K2<=12 For type 1 CSS without dedicated RRC configuration and for type 0, 0A, and 2 CSS, interleaving for VRB-to-PRB mapping for PDSCH
6. CA/DC, BWP, SUL	6-1	Basic BWP operation with restriction	1) 1 UE-specific RRC configured DL BWP per carrier 2) 1 UE-specific RRC configured UL BWP per carrier 3) RRC reconfiguration of any parameters related to BWP 4) BW of a UE-specific RRC configured BWP includes BW of CORESET#0 (if CORESET#0 is present) and SSB for PCell
7. Channel coding	7-1	Channel coding	1) LDPC encoding and associated functions for data on DL and UL 2) Polar encoding and associated functions for PBCH, DCI, and UCI 3) Coding for very small blocks
8. UL TPC	8-3	Basic power control operation	1) Accumulated power control mode for closed loop 2) 1 TPC command loop for PUSCH, PUCCH respectively 3) One or multiple DL RS configured for pathloss estimation 4) One or multiple p0-alpha values configured for open loop PC 5) PUSCH power control 6) PUCCH power control 7) PRACH power control 8) SRS power control 9) PHR

Table 4.2.23.1-2: Layer-2 and Layer-3 mandatory features for NCR-MT

Features	Index	Feature group	Components	Additional information
0. General	0-0	NCR procedures	1) Side control information over MAC CE and RRC, as specified in TS 38.321 [8] and TS 38.331 [9], respectively. 2) Switching OFF NCR-Fwd during radio link failure in TS 38.331 [9], beam failure recovery in TS 38.321 [8].	
1. PDCP	1-0	Basic PDCP procedures	1) (de)Ciphering on SRB 2) Integrity protection on SRB 4) Re-ordering and in-order delivery 6) Duplicate discarding 7) 12bits SN	
2. RLC	2-0	Basic RLC procedures	1) RLC TM 2) RLC AM with 12bits SN	
	2-4	NR RLC SN size for SRB	NR RLC SN size for SRB	
3. MAC	3-0	Basic MAC procedures	1) RA procedure on PCell 2) NCR-MT initiated RA procedure (including for beam recovery purpose) 3) NW initiated RA procedure (i.e. based on PDCCH) 4) Support of ssb-Threshold and association between preamble/PRACH occasion and SSB 5) Preamble grouping 6) UL single TA maintenance 7) HARQ operation for DL and UL 8) LCH prioritization 9) Prioritized bit rate 10) Multiplexing 11) SR with single SR configuration 12) BSR 13) PHR 14) 8bits and 16bits L field	
9. RRC	9-1	RRC buffer size	Maximum overall RRC configuration size	45 Kbytes
	9-2	RRC processing time	1) RRC connection establishment 3) RRC connection reconfiguration without SCell addition/release and SCG establishment/modification/release 4) RRC connection re-establishment. 5) RRC connection reconfiguration with sync procedure 8) Initial security activation 10) UE capability transfer	1) to 3) 10ms 4) 10ms 5): 10ms + additional delay (cell search time and synchronization) defined in TS 38.133 8) 5ms 10) 80ms

Table 4.2.23.1-3: RF and RRM mandatory features for NCR-MT

Features	Index	Feature group	Components
1. System parameter	1-3	64QAM for PUSCH	64QAM for PUSCH
2. UE RF	2-10	Multiple frequency band indication	Multiple frequency band indication

4.2.23.2 General Parameters

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
inactiveStateNCR-r18 Indicates whether the NCR-MT supports RRC_INACTIVE as specified in TS 38.331 [9].	NCR-MT	No	No	No
supportedNumberOfDRBs-NCR-r18 Indicates the number of DRB that NCR-MT supports. If absent, NCR-MT does not support DRB. If absent, NCR-MT also does not support SDU discard in PDCP and RLC, and counter check in RRC. Value *n1* indicates support of 1 DRB, value *n16* indicates the support of 16 DRBs.	NCR-MT	No	No	No

4.2.23.3 SDAP Parameters

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
sdap-HeaderNCR-r18 Indicates whether the NCR-MT supports UL SDAP header and SDAP End-marker, as specified in TS 37.324 [25].	NCR-MT	No	No	No
sdap-QOS-NCR-r18 Indicates whether the NCR-MT supports flow-based QoS and multiple flows to 1 DRB mapping, as specified in TS 37.324 [25].	NCR-MT	No	No	No

4.2.23.4 PDCP Parameters

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
longSN-NCR-r18 Indicates whether the NCR-MT supports 18 bit length of PDCP sequence number.	NCR-MT	No	No	No

4.2.23.5 RLC Parameters

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
am-WithLongSN-NCR-r18 Indicates whether the NCR-MT supports AM DRB with 18 bit length of RLC sequence number.	NCR-MT	No	No	No

4.2.23.6 Physical layer Parameters

4.2.23.6.1 Phy-Parameters

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
ncr-AdaptiveBeamBackhaulAndC-Link-r18 Indicates whether NCR supports backhaul link beam determination based on predefined rule. The UE indicating support of this feature shall also indicate support of *timeDurationForQCL*, *tci-StatePDSCH* and *additionalActiveTCI-StatePDCCH*.	NCR-MT	No	No	No
ncr-AperiodicBeamInd-AccessLink-r18 Indicates whether NCR supports aperiodic beam indication for access link. The UE indicates the value of supported slot-offset for reference slot. The value is selected based on the SCS of the PDCCH received by the NCR-MT. If 0 is reported, the NCR expects that the time resource in *NCR-AperiodicFwdConfig* of the aperiodic beam indication is at least after the end of time resource for PDCCH carrying the DCI for aperiodic beam indication.	NCR-MT	No	No	No
ncr-BackhaulBeamInd-r18 Indicates whether NCR supports dedicated signalling for backhaul link beam indication. The UE indicating support of this feature shall also indicate support of *ncr-AdaptiveBeamBackhaulAndC-Link-r18.*	NCR-MT	No	No	No
ncr-dft-S-OFDM-WaveformUL-r18 Indicates whether the NCR-MT supports DFT-S-OFDM waveform for UL and transform precoding for single-layer PUSCH.	NCR-MT	No	No	No
ncr-Semi-PersistentBeamInd-AccessLink-r18 Indicates whether NCR supports semi-persistent beam indication for access link, priority flag for semi-persistent indication and MAC CE override of the RRC configured of the beam index(es) at activation of semi-persistent beam indication.	NCR-MT	No	No	No
ncr-SimultaneousUL-BackhaulAndC-Link-r18 Indicates whether NCR supports simultaneous UL transmission of backhaul link and C-link.	NCR-MT	No	No	No

4.2.23.6.2 *BandNR parameters*

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
ncr-PDSCH-64QAM-FR2-r18 Indicates whether the NCR-MT supports 64QAM modulation scheme for PDSCH for FR2 as defined in 7.3.1.2 of TS 38.211 [6].	Band	No	N/A	FR2 only

4.2.24 Aerial UE Parameters

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
aerialUE-Capability-r18 Indicates whether the UE supports aerial UE communication as described in TS 38.300 [28] clause 16.18.	UE	No	No	No
altitudeMeas-r18 Indicates whether the UE supports altitude based measurement reporting as specified in TS 38.331 [9]. It is mandatory if the UE supports *aerialUE-Capability-r18*.	UE	CY	No	No
altitudeBasedSSB-ToMeasure-r18 Indicates whether the UE supports altitude based *ssb-ToMeasure* as specified in TS 38.331 [9].	UE	No	No	No
condEventAxHy-r19 Indicates whether the UE supports condEvents A3H1, A3H2, A5H1, and A5H2 as specified in TS 38.331 [9]. A UE supporting this feature shall also indicate support of *eventAxHy-r18*.	UE	No	No	No
eventAxHy-r18 Indicates whether the UE supports events A3H1, A3H2, A4H1, A4H2, A5H1, and A5H2 as specified in TS 38.331 [9]. If the UE indicates support of *eventAxHy-r18*, then the UE additionally supports *multipleCellsMeasExtension-r18* for eventA3H1, eventA3H2, eventA4H1, eventA4H2, eventA5H1, and eventA5H2 as specified in TS 38.331 [9].	UE	No	No	No
flightPathReporting-r18 Indicates whether the UE supports reporting of the flight path plan through the procedure defined in TS 38.331 [9].	UE	No	No	No
flightPathAvailabilityIndicationUAI-r18 Indicates whether the UE supports indication of the flight path availability through the UAI message as defined in TS 38.331 [9]. If a UE supports this capability, the UE shall also support *flightPathReporting-r18.*	UE	No	No	No
multipleCellsMeasExtension-r18 Indicates whether the UE supports measurement reporting triggered based on a number of cells for eventA3, eventA4, and eventA5 as specified in TS 38.331 [9]. It is mandatory if the UE supports *aerialUE-Capability-r18*.	UE	CY	No	No
nr-NS-PmaxListAerial-r18 Indicates whether the UE supports the mechanisms defined for cells broadcasting *nr-NS-PmaxListAerial* and *frequencyBandListAerial* as specified in TS 38.331 [9]. It is mandatory if the UE supports *aerialUE-Capability-r18*.	UE	CY	No	No
simulMultiTriggerSingleMeasReport-r18 Indicates whether the UE supports, for all the events of the same type for which the measurement reporting was triggered, measurement reporting considering only the configuration of the event with the smallest value between the altitude of the UE and the corresponding altitude threshold, as specified in TS 38.331 [9].	UE	No	No	No
sl-A2X-Service-r18 Indicates whether the UE supports A2X service(s) which include BRID, DAA or both using A2X communication as specified in TS 38.331 [9]. This field also indicates whether the UE supports the dedicated resource pools as specified in TS 38.331 for the corresponding A2X service(s). A UE supporting this feature shall also support NR sidelink in at least one sidelink band.	UE	No	No	No

4.2.25 AI/ML Parameters

Definitions for parameters	Per	M	FDD-TDD DIFF	FR1-FR2 DIFF
applicabilityReportingCSI-r19 Indicates whether the UE supports applicability reporting and/or its updates based on inference configuration provided via *CSI-ReportConfig*, as specified in TS 38.331 [9]. It is mandatory if UE supports at least one of *aiml-BM-Case1-r19*, *aiml-BM-Case2-r19* and *aiml-CSI-Prediction-r19, aiml-CSI-PredictionPerBC-r19*.	UE	CY	No	No
applicabilityReportingOther-r19 Indicates whether the UE supports applicability reporting and/or its updates based on inference related parameters configuration provided via *OtherConfig*, as specified in TS 38.331 [9]. It is mandatory if UE supports at least one of *aiml-BM-Case1-r19* and *aiml-BM-Case2-r19*.	UE	CY	No	No
dataThresholdAvailabilityIndication-r19 Indicates whether the UE supports triggering data availability indication via *UEAssistanceInformation* message when the amount of logged data for network-side data collection reaches a configured threshold. A UE supporting this feature shall also indicate support of *loggedDataCollection-r19*.	UE	No	No	No
eventBasedLoggedDataCollection-r19 Indicates whether the UE supports L3 measurement event-triggered logging of measurements for network-side data collection, as specified in TS 38.331 [9]. A UE supporting this feature shall also indicate support of *loggedDataCollection-r19* and *dataThresholdAvailabilityIndication-r19*.	UE	No	No	No
loggedDataCollection-r19 Indicates whether the UE supports logged measurements for network-side data collection, as specified in TS 38.331 [9]. The UE supporting this feature also supports periodical logging and providing full memory indication and low power indication via *UEAssistanceInformation* message. The minimum memory size for storing of logged measurement of network-side data collection is 64kB.	UE	No	No	No

5 Optional features without UE radio access capability parameters

5.1 PWS features

Definitions for feature
CMAS It is optional for UE to support CMAS reception as specified in TS 38.331 [9]. It is optional for a CMAS-capable UE to support Geofencing information (*warningAreaCoordinates*) as specified in TS 38.331 [9].
ETWS It is optional for UE to support ETWS reception as specified in TS 38.331 [9].
ETWS geofencing in NTN It is optional for an ETWS-capable NTN UE to support Geofencing information (*warningAreaCoordinates*) as specified in TS 38.331 [9].
KPAS It is optional for UE to support Korean Public Alert System (KPAS) reception as specified in TS 38.331 [9]. KPAS uses the same AS mechanisms as defined for CMAS. Therefore a KPAS-capable UE shall support all behaviour that is included in TS 38.331 [9] and TS 38.304 [21] for a CMAS-capable UE.
EU-Alert It is optional for UE to support EU-Alert reception as specified in TS 38.331 [9]. EU-Alert uses the same AS mechanisms as defined for CMAS. Therefore a EU-Alert-capable UE shall support all behaviour that is included in TS 38.331 [9] and TS 38.304 [21] for a CMAS-capable UE.

5.2 UE receiver features

Definitions for feature
MU-MIMO Interference Mitigation advanced receiver with modulation order detection R-ML (reduced complexity ML) receivers with enhanced inter-user interference suppression for MU-MIMO for 2 layers across target and co-scheduled UEs with 2RX and 4RX in FR1 when the co-scheduled UE information with DCI index 6 or 7 in Table 7.3.1.2.2-12 of TS 38.212 [10] is signalled. UE supporting the feature is required to indicate the support of *advReceiver-MU-MIMO-r18* and meet the Enhanced Receiver Type 2 requirements in TS 38.101-4 [18].
MU-MIMO Interference Mitigation advanced receiver with modulation order detection Enh R-ML (reduced complexity ML) receivers with enhanced inter-user interference suppression for MU-MIMO for 2 layers across target and co-scheduled UEs with 2RX and *maxNumberMIMO-LayersPDSCH* layers across target and co-scheduled UEs with 4RX in FR1 when the co-scheduled UE information with DCI index 6 in Table 7.3.1.2.2-12 of TS 38.212 [10] is signalled. UE supporting the feature is required to indicate the support of *advReceiver-MU-MIMO-r18* and meet the Enhanced Receiver Type 2 requirements in TS 38.101-4 [18].
SU-MIMO Interference Mitigation advanced receiver - R-ML (reduced complexity ML) receivers with enhanced inter-stream interference suppression for SU-MIMO transmissions with rank 2 with 2RX antennas - R-ML (reduced complexity ML) receivers with enhanced inter-stream interference suppression for SU-MIMO transmissions with rank 2, 3, and 4 with 4RX antennas UE supporting the feature is required to meet the Enhanced Receiver Type 1 requirements in TS 38.101-4 [18].
8Rx receiver - Baseline 8Rx receiver: 8Rx receivers for MIMO transmissions with support of up to 8 layers with joint 8Rx MIMO detector in FR1 - Simplified 8Rx receiver: 8Rx receivers for MIMO transmissions with support of up to 4 layers with two joint 4Rx MIMO detectors in FR1.

5.3 RRC connection

Definitions for feature
RRC connection release with deprioritisation It is optional for UE to support *RRCRelease* with *deprioritisationReq* as specified in TS 38.331 [9].
RRC connection establishment failure with temporary offset It is optional for UE to support RRC connection establishment failure with temporary offset (*Qoffsettemp*) as specified in TS 38.331 [9].
Selection of acceptable E-UTRA cell upon HO failure during EPS fallback for emergency call It is optional for UE to support selecting an acceptable E-UTRA cell supporting emergency call if no suitable E-UTRA cell is available upon handover failure during EPS fallback when the UE has an ongoing emergency call as specified in TS 38.331 [9].
E-UTRA cell selection upon HO failure during EPS services fallback It is optional for UE to support selecting a suitable E-UTRA cell, and support selecting an acceptable E-UTRA cell supporting emergency call if no suitable E-UTRA cell is available upon handover failure when the UE is performing emergency services fallback as specified in TS 38.331 [9].

5.4 Other features

Definitions for feature
Access Category 1 selection assistance information enhancement It is optional for UE that is configured for delay tolerant service to support Access Category 1 selection assistance information enhancement, according to *uac-AC1-SelectAssistInfo-r16* as specified in TS 38.331 [9].
Barring exemption for emergency call It is optional for UE to support the barring exemption for emergency call, as specified in TS 38.331 [9] and in TS 38.304 [21].
Beam Failure recovery for SDT It is optional for UE to support Beam failure recovery for RA-SDT initiated for MO-SDT and MT-SDT as specified in TS 38.321 [8] and TS 38.331 [9].
eCall over IMS It is optional for UE to support eCall over IMS as specified in TS 38.331 [9].
Equivalent SNPNs for cell (re)selection It is optional for UE in SNPN access mode to support cell (re)selection for equivalent SNPNs as specified in TS 38.304 [21].
HSDN cell reselection It is optional for UE to support HSDN cell reselection priority handling in RRC_IDLE/RRC_INACTIVE as specified in TS 38.304 [21] and TS 38.331 [9].
Minimization of service interruption It is optional for UE to support minimization of service interruption including reporting to NAS of disaster roaming information for available PLMNs and Access Barring check for Access Identity 3, as specified in TS 38.331 [9].
Mobile IAB cell reselection It is optional for UE to support mobile IAB cell reselection priority handling in RRC_IDLE/RRC_INACTIVE, as specified in TS 38.304 [21] and TS 38.331 [9].
PUCCH repetition on common PUCCH resource It is optional for UE to support repetition transmission of PUCCH for Msg4 HARQ-ACK on common PUCCH resource (i.e., PUCCH resource before dedicated configuration is provided). The UE supports receiving repetition factor in system information, receiving repetition factor in DCI format 1_0 with CRC scrambled by TC-RNTI scheduling Msg4 PDSCH, Msg3 to report capability for PUCCH Msg4 HARQ-ACK repetition, extension of the repetition transmission of PUCCH before dedicated PUCCH resource configuration and RSRP threshold for Msg4 HARQ-ACK repetition on common PUCCH resources. A UE that includes LCID codepoint = one of {2, 3, 4, 5, 6, 7, 14, 15, 16, 17, 18, 19} for UL CCCH when the LX field is set to 1 must support this feature. NOTE: This capability is applicable only for bands in Tables 5.2.2-1 and 5.2.3-1 in TS 38.101-5 [34] and HAPS operation bands in Clause 5.2 of TS 38.104 [35].
Random access prioritization for MPS and MCS It is optional for UE that is configured for MPS or MCS to support random access prioritization for Access Identity 1 or 2 as specified in TS 38.321 [8].
Random access prioritisation for Slicing It is optional for UE to support slice-based prioritisation for random access as specified in TS 38.321 [8].
Random access partitioning for Slicing It is optional for UE to support slice-based RACH partitioning as specified in TS 38.321 [8].
Relaxed cell reselection on GSO It is optional for UE to support the relaxed cell reselection on GSO.
Support of polarization signalling in NR NTN It is optional for UE to support the polarization signalling in NR NTN comprised of the following functional components: - Support polarization indication reception in SIB indicating DL and/or UL polarization information using respective polarization type parameters to indicate: RHCP or LHCP or linear; - Support polarization signalling for target serving cell in handover command message; - Support polarization signalling for non-serving cell in RRM measurement configuration.
TRS occasions from SIB17 for idle mode and RRC_INACTIVE UEs It is optional for UE to support reading TRS configuration from SIB17 and receiving L1 indication for TRS availability. NOTE: Receiving L1 indication via DCI format 2_7 is supported only if the UE supports receiving DCI format 2_7.
TRS occasions from SIB17bis for idle mode and RRC_INACTIVE UEs It is optional for UE to support reading TRS configuration from SIB17bis and receiving L1 indication for TRS availability. NOTE: Receiving L1 indication via DCI format 2_7 is supported only if the UE supports receiving DCI format 2_7.

5.5 Sidelink Features

Definitions for feature
CW autonomous update for SL transmission without HARQ feedback It is optional for UE to support autonomous update of the CW_p to the next higher allowed value when the same $CW_p \neq CW_{max,p}$ value is consecutively used for X times for generation of N_{init} for PSCCH/PSSCH transmission without HARQ feedback for a band where shared spectrum channel access must be used. A UE supporting this feature shall also indicate the support of *sl-DynamicChannelAccess-r18*.
Rank 2 PSSCH transmission It is optional for UE to support rank 2 PSSCH transmission. This field is only applicable if the UE supports *csi-ReportSidelink-r16* with *csi-RS-PortsSidelink* = p2.
Receiving NR sidelink of S-SSB It is optional for UE to receive S-SSB in NR sidelink and support synchronisation to a reference UE.
Receiving PSCCH/PSSCH from 2nd starting symbol in a slot It is optional for UE to support receiving PSCCH/PSSCH from 2nd starting symbol in a slot in addition to the first starting symbol for a band where shared spectrum channel access is used. A UE supporting this feature shall also indicate support of *sl-Reception-r16*.
Receiving S-SSB on additional S-SSB occasion(s) It is optional for UE to support receiving S-SSB on additional S-SSB occasion(s). A UE supporting this feature shall also indicate support of *sync-Sidelink-r16*.
Resource allocation for multi-consecutive slots transmission It is optional for UE to support resource (re-)selection for PSCCH/PSSCH transmission on multiple consecutive slots. A UE supporting this feature shall also indicate support of at least one of *sl-TransmissionMode2-r16* and *sl-TransmissionMode2-PartialSensing-r17*.
S-SSB transmissions in multiple contiguous RB sets It is optional for UE to support S-SSB transmissions in multiple contiguous RB sets. A UE supporting this feature shall at least indicate support of *sl-DynamicMultiChannelAccess-r18* or support transmitting PSFCH/S-SSB on a subset of the intended number of RB sets based on the outcome of channel access on individual RB sets.
S-SSB transmissions in multiple non-contiguous RB sets It is optional for UE to support S-SSB transmissions in multiple non-contiguous RB sets. A UE supporting this feature shall also support S-SSB transmissions in multiple contiguous RB sets.
Short-term time-scale TDM for in-device coexistence It is optional for UE to support prioritization between LTE sidelink transmission/reception and NR sidelink transmission/reception. This feature is only applicable if the UE supports at least one of *sl-Reception-r16*, *sl-TransmissionMode1-r16* and *sl-TransmissionMode2-r16*, and if the UE supports V2X sidelink communication in the band combination.
SL multi-channel access allowing PSFCH/S-SSB transmission It is optional for UE to support Type A and Type B multi-channel access procedures for PSFCH/S-SSB transmissions on a subset of intended number of RB sets based on the outcome of channel access on individual RB sets in a slot. A UE supporting this feature shall also indicate support of *sl-DynamicMultiChannelAccess-r18*.
Transmitting PSCCH/PSSCH from 2nd starting symbol in a slot It is optional for UE to support transmitting PSCCH/PSSCH from 2nd starting symbol in a slot in addition to the first starting symbol for a band where shared spectrum channel access is used. A UE supporting this feature shall also indicate support of *sl-DynamicChannelAccess-r18*, at least one of *sl-CrossCarrierScheduling*-r16, *sl-TransmissionMode2-r16*, *sl-TransmissionMode2-RandomResourceSelection-r17*, and *sl-TransmissionMode2-PartialSensing-r17*.
Transmitting SSB repetitions within one RB set It is optional for UE to support transmitting S-PSS/S-SSS/PSBCH multiple times by repetition in frequency domain within one RB set. The UE supports NR sidelink in shared spectrum where PSD and/or OCB requirements are defined by regulation must support this feature. A UE supporting this feature shall also indicate support of *sync-Sidelink-r16*.
Transmitting S-SSB on additional S-SSB occasion(s) It is optional for UE to support transmitting S-SSB on additional S-SSB occasion(s) per band. A UE supporting this feature shall also indicate support of *sync-Sidelink-r16*.

5.6 RRM measurement features

Definitions for feature
Altitude based measurement in IDLE/INACTIVE It is optional for the UE in RRC_IDLE or in RRC_INACTIVE to support altitude based SSB measurement as specified in TS 38.304 [21]. This feature is only applicable if the UE supports *aerialUE-Capability-r18*.
Cell reselection from TN to NTN It is optional for the UE in RRC_IDLE or in RRC_INACTIVE in a TN cell to support the measurement of NTN neighbour cells for cell reselection based on the information acquired in SIB19 as specified in TS 38.304 [21] and in TS 38.133 [5]. This feature is only applicable if the UE supports *nonTerrestrialNetwork-r17*.
Enhanced inter-frequency IDLE/INACTIVE measurements for HST FR2 It is optional for UE to support RRM requirement for inter-frequency measurements in idle and inactive mode to support FR2 high speed up to 350 km/h, as specified in TS 38.133 [5]. A UE supporting this feature shall also indicate support of PC6 in *ue-PowerClass-v1700*.
Enhanced RRM requirements for measurements in IDLE and INACTIVE modes It is optional for UE to support enhanced RRM requirements for measurements for NTN bands (FR1 only and FDD only) in RRC_IDLE/RRC_INACTIVE as specified in TS 38.133 [5]. If UE does not support this feature, other NTN measurement requirements (as specified in TS 38.133 [5], clause 4.2C.2 for RRC_IDLE and clause 5.1C.2 for RRC_INACTIVE) are applied.
Enhanced RRM requirements for measurements in IDLE and INACTIVE modes for ATG It is optional for the UE in RRC_IDLE/RRC_INACTIVE to support the enhanced inter-frequency cell re-selection requirements for ATG (as specified in TS 38.133 [5], Table 4.2D.2.4-2). If UE does not support this feature, other measurement requirements as specified in TS 38.133 [5], Table 4.2D.2.4-1 are applied.
Enhanced RRM requirements for measurements in IDLE and INACTIVE modes for FR1-NTN Ku band It is optional for VSAT UE working in FR1-NTN bands between 10.7 GHz and 14.5 GHz as defined in TS 38.101-5 [34] to support enhanced RRM requirements in RRC_IDLE/RRC_INACTIVE as specified in TS 38.133 [5]. If UE does not support this feature, other NTN measurement requirements (as specified in TS 38.133 [5], clause 4.2C.2 for RRC_IDLE and clause 5.1C.2 for RRC_INACTIVE) are applied.
Enhanced RRM requirements for measurements in IDLE and INACTIVE modes for FR2-NTN It is optional for UE to support enhanced RRM requirements for measurements for FDD FR2-NTN bands in RRC_IDLE/RRC_INACTIVE as specified in TS 38.133 [5]. If UE does not support this feature, other NTN measurement requirements (as specified in TS 38.133 [5], clause 4.2C.2 for RRC_IDLE and clause 5.1C.2 for RRC_INACTIVE) are applied.
High speed inter-frequency IDLE/INACTIVE measurements It is optional for UE to support high speed inter-frequency measurements in RRC_IDLE/RRC_INACTIVE as specified in TS 38.133 [5].
Inter-RAT cell selection to IoT NTN It is optional for the UE to support assistance information for inter-RAT cell selection from NR NTN to IoT NTN, as specified in TS 38.331 [9].
Location-based measurement initiation It is optional for the UE in RRC_IDLE/RRC_INACTIVE to support location based RRM measurements of neighbour cells in NTN (quasi-)Earth fixed cell as specified in TS 38.304 [21].
Location-based measurement initiation for NTN Earth-moving cell It is optional for the UE in RRC_IDLE/RRC_INACTIVE to support location based RRM measurements of neighbour cells in NTN Earth-moving cell as specified in TS 38.304 [21].
Location based SMTC selection for RRC_IDLE/RRC_INACTIVE It is optional for the UE in RRC_IDLE/RRC_INACTIVE to support SMTC selection based on UE position and associated location for each SMTC in NTN, as specified in TS 38.331 [9].
Relaxed measurement It is optional for UE to support relaxed RRM measurements of neighbour cells in RRC_IDLE/RRC_INACTIVE as specified in TS 38.304 [21].
Rel-17 relaxed measurement for RRC_IDLE/RRC_INACTIVE It is optional for (e)RedCap UE to support Rel-17 relaxed RRM measurements of neighbour cells in RRC_IDLE/RRC_INACTIVE as specified in TS 38.304 [21].
Skipping TN measurements It is optional for the UE in RRC_IDLE/RRC_INACTIVE to support skipping the neighbour cell measurements for TN neighbour cells in an area where there is no TN network coverage as specified in TS 38.304 [21].
SMTC adjustment for RRC_IDLE/RRC_INACTIVE It is optional for the UE in RRC_IDLE/RRC_INACTIVE to support SMTC adjustment based on propagation delay difference between serving and neighbour cells.
Time-based measurement initiation It is optional for the UE in RRC_IDLE/RRC_INACTIVE to support time based RRM measurements of neighbour cells in NTN quasi-Earth fixed cell as specified in TS 38.304 [21].
Time-based measurement initiation for NTN Earth-moving cell It is optional for the UE in RRC_IDLE/RRC_INACTIVE to support time based RRM measurements of neighbour cells in NTN Earth-moving cell as specified in TS 38.304 [21].
UAV prioritized frequency for cell reselection It is optional for the UE in RRC_IDLE or in RRC_INACTIVE to prioritize the frequency configured with *uav-PrioritizedFrequency-r19* for cell reselection as specified in TS 38.304 [21]. This feature is only applicable if the UE supports *aerialUE-Capability-r18*.

5.7 MDT and SON features

Definitions for feature
Cross RAT RLF Report It is optional for UE to support the delivery of EUTRA RLF report to an NR node upon request from the network.
Mobility history information storage It is optional for UE to support the storage of PCell mobility history information and the reporting in *UEInformationResponse* message as specified in TS 38.331 [9].
Mobility history information storage for SCG deactivation It is optional for UE to support the storage of the time the UE has spent in PSCell with SCG activated and the reporting in *UEInformationResponse* message as specified in TS 38.331 [9].
Radio Link Failure Report for inter-RAT MRO EUTRA It is optional for UE to support: - Inclusion of EUTRA CGI and associated TAC, if available, and otherwise to include the physical cell identity and carrier frequency of the target PCell of the failed handover as *failedPCellId* in *RLF-Report* upon request from the network as specified in TS 38.331 [9]. - Inclusion of EUTRA CGI and associated TAC as *previousPCellId* in *RLF-Report* as specified in TS 38.331 [9]. - Inclusion of *eutraReconnectCellId* in *reconnectCellId* in the *RLF-Report* as specified in TS 38.331 [9] upon UE has radio link failure or handover failure and successfully re-connected to an E-UTRA cell.
RACH Partitioning Information It is optional for UE to support the delivery of RACH partitioning related information via RACH report procedure, upon request from the network.
RA Report for SDT It is optional for UE to support the delivery of SDT related information via RACH report procedure, upon request from the network.
RLF report after successful fast MCG recovery It is optional for UE to support logging *previousPCellId*, *lastHO-Type*, and *timeConnFailure* when T316 was not running before entering the PCell in which the radio link failure was detected.
RLF Report for Fast MCG Recovery It is optional for UE to support the delivery of the Fast MCG recovery related information in the RLF-Report.
RLF Report for Inter-system HO for Voice Fallback It is optional for UE to support the delivery of an explicit indication in the RLF-report when mobility from NR due to voice fallback fails.
RLF Report for time- or location-based CHO in NTN It is optional for UE to support the delivery of the time-/location-based CHO (e.g., CHO configured with *condEventD1*, *condEventD2* or *condEventT1* as specified in TS 38.331 [9]) related information in the RLF-Report. A UE supporting this feature shall also indicate support of *rlfReportCHO-r17*.
SCG Failure Report for CPAC It is optional for UE to support the delivery of the CPAC and Subsequent CPAC related parameters for MRO in *SCGFailureInformation* message to the network.
SCG Failure Report for MRO It is optional for UE to support the delivery of the SCG failure related parameters for MRO in *SCGFailureInformation* message to the network.
SHR and RA report enhancement for MCG LTM It is optional for UE to support the delivery of MCG LTM related information in SHR/RACH report, upon request from the network.
SON enhancements for CHO with candidate SCG It is optional for UE to support the delivery of CHO with candidate SCG related information in SHR/SPR/SCGFailureInformation report, upon request from the network.
SON enhancements for CHO with candidate SCG when CHO only configuration is received It is optional for UE to support the delivery of CHO with candidate SCG related information when CHO only configuration is received in RLF/SHR report, upon request from the network.
SON enhancements for NR-U It is optional for UE to support the delivery of NR-U related information (FR1 only) in RA-report/SHR/RLF/SPR/SCGFailureInformation report, upon request from the network.
SON Report in SNPN It is optional for UE to support collection and delivery of SON reports in SNPN. UE is not required to support all SON reports if it supports collection and delivery of the SON reports in SNPN, it may support one or more SON report for SNPN.
SpCell ID indication It is optional for UE to support the delivery of the *spCellID-r17* in the RA-Report, if the RA procedure is performed in a SCell of the MCG/SCG.
Uplink PDCP delay measurements upon MO update It is optional for UE to support not resetting the UL PDCP Packet Average Delay measurement or UL PDCP excess packet delay measurement when the associated measurement object is modified. A UE supporting this feature shall also indicate the support of at least one of *ulPDCP-Delay-r16* and *excessPacketDelay-r17*.

5.8 Extended DRX features

Definitions for feature
Rel-17 extended DRX in RRC_IDLE It is optional for UE to support Rel-17 extended DRX cycle up to 10485.76 seconds and paging in extended DRX in RRC_IDLE as specified in TS 38.331 [9] and TS 38.304 [21]. A UE that supports extended DRX shall also support *inactiveStatePO-Determination-r17*.

5.9 Sidelink Relay Features

Definitions for feature
L2 PC5-RRC trigger It is optional for L2 sidelink relay UE or L2 sidelink remote UE to support the PC5-RRC trigger in L2 multi-path relay.
L3 sidelink relay UE operation It is optional for UE to support L3 sidelink relay UE operation as specified in TS 38.331 [9].
L3 sidelink remote UE operation It is optional for UE to support L3 sidelink remote UE operation as specified in TS 38.331 [9].
L3 sidelink U2U relay UE operation It is optional for UE to support L3 sidelink U2U relay UE operation as specified in TS 38.331 [9].
L3 sidelink U2U remote UE operation It is optional for UE to support L3 sidelink U2U remote UE operation as specified in TS 38.331 [9].
MUSIM paging cause forward It is optional for L2 sidelink relay UE or L2 sidelink remote UE to support forwarding MUSIM paging cause as defined in TS 38.331 [9].

5.10 MBS features

Definitions for feature
Broadcast reception It is optional for UE to support broadcast reception as specified in TS 38.331 [9]. A UE that supports the feature shall also support: - Group-common PDCCH/PDSCH for broadcast with CRC scrambled by MCCH-RNTI; - Group-common PDCCH/PDSCH for broadcast with CRC scrambled by G-RNTI(s) for MTCH; - CFR configuration for broadcast; - CORESET and common search space for broadcast; - DCI format 4_0 with CRC scrambled with G-RNTI/MCCH-RNTI for broadcast; - Inter-slot TDM between unicast PDSCH and MCCH group-common PDSCH or MTCH group-common PDSCH, or between MCCH group-common PDSCH and MTCH group-common PDSCH, or among unicast PDSCH and MCCH group-common PDSCH and MTCH group-common PDSCH in different slots; - MCCH change notification indication via DCI; - RRC configured slot-level repetition up to 8 for MTCH; - One G-RNTI per UE is supported for broadcast reception; - Support of FDMed MCCH and PBCH; - Support of up to 64QAM for FR1/FR2; - 4 broadcast MRBs as the minimum number; - PDCP 12 bits SN; - ROHC with profiles 0x0000, 0x0001 and 0x0002; - 4 ROHC context sessions; - RLC UM with 6 bits SN; - RLC UM with 12 bits SN; - DRX with long DRX cycle for MBS broadcast as specified in TS 38.321 [8]. An (e)RedCap UE supporting Broadcast reception also supports CFR and MCCH configuration for (e)RedCap UE. An NTN UE supporting Broadcast reception may optionally support the intended service area(s) associated with a broadcast service.

5.11 Idle/inactive measurement for voice fallback features

Definitions for feature
Idle/Inactive measurement for voice fallback It is optional for UE to support the idle/inactive measurement for EPS fallback in RRC_IDLE/RRC_INACTIVE as specified in TS 38.331 [9].

5.12 NCR features

Definitions for feature
Basic NCR support It is optional for UE to support the NCR-MT feature as specified in TS 38.213 [11]. An NCR node for which the NCR-MT includes *ncr-NodeIndication* in *RRCSetupComplete* as specified in TS 38.331 [9] must support these feature components: - Support of fixed beam for C-link/backhaul link - Support of TDMed UL transmission of C-link and backhaul link - Support of ON-OFF operation for NCR-Fwd based on access link beam indication - Support of TDD UL/DL determination for backhaul/access link based on TDD UL/DL configuration of C-link - Support of Tx/Rx timing determination for backhaul/access link based on Tx/Rx timing of C-link - Support of beam correspondence of the DL/UL of the access link at NCR-Fwd - Support periodic beam indication for access link - Priority flag for periodic indication - Support of simultaneous and TDMed DL reception of C-link and backhaul link

6 Conditionally mandatory features without UE radio access capability parameters

Features	Condition
Acquisition of positioning SI messages with 80 milliseconds offset position compared to SI messages in *schedulingInfoList*	It is mandatory to support acquisition of positioning SI messages with 80 milliseconds offset position compared to SI messages in *schedulingInfoList* for UEs which support the acquisition of the posSIB types in *posSchedulingInfoList* as specified in TS 38.331 [9].
Acquisition of SI messages with explicit SI window positions	It is mandatory to support acquisition of SI messages with explicit SI window positions for UEs which support the SIB types in *schedulingInfoList2* as specified in TS 38.331 [9].
AS layer memory size for QoE paused measurement reports	It is mandatory to support the minimum AS layer memory size of 64KB for QoE paused measurement reports for UEs which support *qoe-Streaming-MeasReport-r17*, *qoe-MTSI-MeasReport-r17* or *qoe-VR-MeasReport-r17*.
AS layer memory size for QoE measurement reports in RRC_IDLE and RRC_INACTIVE	It is mandatory to support the minimum AS layer memory size of 64KB for QoE measurement reports stored in RRC_IDLE/RRC_INACTIVE for UEs which support *qoe-IdleInactiveMeasReport-r18* and any of *qoe-Streaming-MeasReport-r17* or *qoe-MTSI-MeasReport-r17* or *qoe-VR-MeasReport-r17*. This memory size is additional to "AS layer memory size for QoE paused measurement reports"
ATG specific P-max	It is mandatory to support the ATG specific P-max configured by network for UEs supporting *airToGroundNetwork-r18*.
Downlink SDAP header	Either NAS reflective QoS or *as-ReflectiveQoS* is supported.
Extended values for *drx-HARQ-RTT-TimerDL/UL*	It is mandatory for UEs which support FR2-2 bands with SCS 480kHz and/or 960kHz.
IMS emergency call	It is mandatory to support IMS emergency call over PLMN for UEs which are IMS voice capable in NR. It is mandatory to support IMS emergency call over SNPN for UEs that are SNPN capable and IMS voice capable over SNPNs.
Logged measurements suspension due to IDC interference	It is mandatory to support Logged measurements suspension due to IDC interference for UEs which are supporting logged measurements in RRC_IDLE and RRC_INACTIVE upon request from the network and in-device coexistence indication as specified in TS 38.331 [9].
MAC subheaders with LX field	It is mandatory to support MAC subheaders with LX field for UEs supporting MAC SDU(s) using the LCID value(s) as specified in Table 6.2.1-2c in TS 38.321 [8].
MAC subheaders with one-octet eLCID field	It is mandatory to support MAC subheaders with one-octet eLCID field for UEs/IAB-MTs/NCR-MTs supporting MAC CEs using extended LCID values as specified in TS 38.321 [8].
Paging cause in RAN paging message	It is mandatory for a UE to support paging cause in RAN paging if UE supports paging cause in CN paging.
Receiving PSCCH/PSSCH from 2nd starting symbol in a slot	It is mandatory for a UE supporting NR sidelink in shared spectrum and when shared spectrum channel access must be used to support receiving PSCCH/PSSCH transmitted from 2nd starting symbol in a slot in addition to the first starting symbol and monitor a total up to the number reported in *pscch-RxSidelink-r16* of PSCCHs in a slot in the 1st and 2nd starting symbols. A UE supporting this feature shall indicate support of *sl-Reception-r16*.
Receiving UE to UE COT sharing information	It is mandatory for a UE supporting NR SL in shared spectrum where shared spectrum channel access must be used to support monitoring SCI to read COT sharing information and transmitting NR SL based on COT sharing information subject to COT sharing conditions. A UE supporting this feature shall indicate support of *sl-DynamicChannelAccess-r18*.
SON report in PNI-NPN	It is mandatory for a UE to support a SON report in PNI-NPN if UE supports PNI-NPN and supports the SON report in PLMN.
Skipping UL configured grant if no data to transmit, as specified in release-15 version of TS 38.321 [8].	Either configuredUL-GrantType1 or *configuredUL-GrantType1-v1650* or configuredUL-GrantType2 or *configuredUL-GrantType2-v1650* is supported.

Features	Condition
Acquisition of positioning SI messages with 80 milliseconds offset position compared to SI messages in *schedulingInfoList*	It is mandatory to support acquisition of positioning SI messages with 80 milliseconds offset position compared to SI messages in *schedulingInfoList* for UEs which support the acquisition of the posSIB types in *posSchedulingInfoList* as specified in TS 38.331 [9].
TA reporting during initial access	It is mandatory to support TA reporting during initial access for UEs supporting *uplink-TA-Reporting-r17* or *uplinkTA-ReportingATG-r18* as specified in TS 38.321 [8].
Inter-frequency configuration for less than 5MHz in SIB4	It is mandatory to support configuration of *dl-CarrierFreq-r18* and *frequencyBandList-r18* as specified in TS 38.331 [9] for UEs supporting *support5MHz-ChannelBW-20PRB-CORESET0-r18*, *support3MHz-ChannelBW-Symmetric-r18* or *support3MHz-ChannelBW-Asymmetric-r18*.
Relaxation of serving cell and further relaxation of neighbouring cell RRM measurements and offloading of serving cell RRM measurements	It is mandatory to support relaxation of serving cell and neighbouring cell RRM measurements as specified in clause 5.2.4.12.1 in TS 38.304 [21] and offloading of serving cell RRM measurements as specified in clause 5.2.4.12.3 in TS 38.304 [21] if a UE supports reception of LP-WUS in RRC_IDLE/RRC_INACTIVE. A UE supporting this feature shall also indicate the support at least one of *lpwus-OOK-r19* and *lpwus-OFDM-r19*.

7 Void

8 UE Capability Constraints

The following table lists constraints indicating the UE capabilities that the UE shall support.

Parameter	Description	Value
#DRBs	The number of DRBs that a UE shall support.	8 per UE, for (e)RedCap UEs. 16 per UE, otherwise. NOTE 1 NOTE 3 NOTE 4
#minCellperMeasObjectNR	The minimum number of neighbour cells (excluding exclude-list cells) that a UE shall be able to store associated with a MeasObjectNR.	32 NOTE 2
#minExcludedCellRangesperMeasObjectNR	The minimum number of exclude-list cell PCI ranges that a UE shall be able to store associated with a MeasObjectNR.	8
#minExcludedCellperMeasObjectEUTRA	The minimum number of exclude-list cells that a UE shall be able to store associated with a MeasObjectEUTRA.	32
#minCellperMeasObjectEUTRA	The minimum number of neighbour cells that a UE shall be able to store associated with a MeasObjectEUTRA.	32 NOTE 2
#minCellTotal	The minimum number of neighbour cells (excluding exclude-list cells) that UE shall be able to store in total from all measurement objects configured.	256 with counting CSI-RS and SSB as 2.
#maxDeprioritisationFreq	The UE shall be able to store a depriotisation request for up to 8 frequencies (applicable when receiving another frequency specific deprioritisation request via *RRCRelease* before T325 expiry).	8
#minCellperMeasObjectUTRA-FDD	The minimum number of neighbour cells that a UE shall be able to store associated with a MeasObjectUTRA-FDD.	32

NOTE 1: For one MAC entity, the maximum number of DRBs configured with PDCP duplication and with RLC entity(ies) associated with this MAC entity is 8.
NOTE 2: In case of CGI reporting, the limit regarding the cells configured includes the cell for which the UE is requested to report CGI i.e. the amount of neighbour cells that can be included is at most (# minCellperMeasObjectRAT - 1), where RAT represents NR and EUTRA.
NOTE 3: This requirement is applicable in NR SA, NR-DC and NE-DC.
NOTE 4: The value of parameter #DRBs defines the total number of multicast MRBs and DRBs, and each multicast MRB associated with two RLC entities is counted as two RBs.

Annex A (normative): Differentiation of capabilities

A.1: TDD/FDD differentiation of capabilities in TDD-FDD CA

Annex A.1 specifies for which TDD and FDD serving cells a UE supporting TDD/FDD CA shall support a feature/capability for which it indicates support within the capability signalling.

A UE that indicates support for TDD/FDD CA (e.g. MCG or SCG):

- For the fields for which the UE is allowed to indicate different support for FDD and TDD, the UE shall support the feature on the PCell and/or SCell(s), as specified in tables A.1-1 in accordance to the following rules:
  - PCell: the UE shall support the feature for the PCell, if the UE indicates support of the feature for the PCell duplex mode;
  - PSCell: the UE shall support the feature for the PSCell, if the UE indicates support of the feature for the PSCell duplex mode;
  - Per serving cell: the UE shall support the feature for a serving cell if the UE indicates support of the feature for the serving cell's duplex mode;
  - All serving cells: UE shall support the feature for all serving cells in a CG if the UE indicates support of the feature for both TDD and FDD duplex modes;
  - Associated serving cells: UE shall support the feature if the UE indicates support of the feature for all associated serving cells's duplex modes;
- For the fields where the UE is not allowed to indicate different support for FDD and TDD, the UE shall support the feature for PCell and SCell(s) if the UE indicates support of the feature via the common capability bit.

Table A.1-1: UE capabilities for which FDD/TDD differentiation is allowed

UE-NR-Capability or UE-MRDC-Capability	Classification
eventA-MeasAndReport	PSCell
dl-SchedulingOffset-PDSCH-TypeA (Note3)	Associated serving cells
dl-SchedulingOffset-PDSCH-TypeB (Note3)	Associated serving cells
dynamicSFI (Note3)	Associated serving cells
handoverInterF	PCell
handoverLTE-EPC	PCell
handoverLTE-5GC	PCell
intraAndInterF-MeasAndReport	PSCell
logicalChannelSR-DelayTimer(Note2)	Associated serving cells
longDRX-Cycle	All serving cells
multipleConfiguredGrants(Note1)	Associated serving cells
multipleSR-Configurations	Per serving cell
secondaryDRX-Group-r16	All serving cells
sftd-MeasNR-Cell	PCell
sftd-MeasNR-Neigh	PCell
sftd-MeasNR-Neigh-DRX	PCell
sftd-MeasPSCell	PCell
sftd-MeasPSCell-NEDC	PCell
shortDRX-Cycle	All serving cells
skipUplinkTxDynamic	Per serving cell
twoDifferentTPC-Loop-PUCCH (Note3)	Associated serving cells
twoDifferentTPC-Loop-PUSCH (Note3)	Associated serving cells
ul-SchedulingOffset (Note3)	Associated serving cells
NOTE 1: The associated serving cells including the serving cell(s) configured with configured grant. NOTE 2: For a given logical channel, the associated serving cells including the PUCCH cell(s) associated with this logical channel (via *schedulingRequestID*). NOTE 3: The associated serving cells including both the cell sending the command and the cell applying the command.	

A.2: FR1/FR2 differentiation of capabilities in FR1-FR2 CA

Annex A.2 specifies for which FR1 and FR2 serving cells a UE supporting FR1/FR2 CA shall support a feature/capability for which it indicates support within the capability signalling.

A UE that indicates support for FR1/FR2 CA (e.g. MCG or SCG):

- For the fields for which the UE is allowed to indicate different support for FR1 and FR2, the UE shall support the feature on the PCell and/or SCell(s), as specified in tables A.2-1 in accordance to the following rules:
  - PCell: the UE shall support the feature for the PCell, if the UE indicates support of the feature for the PCell FR mode;
  - Associated serving cells: UE shall support the feature if the UE indicates support of the feature for associated serving cells's FR modes;
- For the fields where the UE is not allowed to indicate different support for FR1 and FR2, the UE shall support the feature for PCell and SCell(s) if the UE indicates support of the feature via the common capability bit.

Table A.2-1: UE capabilities for which FR1/FR2 differentiation is allowed

UE-NR-Capability	Classification
absoluteTPC-Command (Note2)	Associated serving cells
dl-SchedulingOffset-PDSCH-TypeA (Note2)	Associated serving cells
dl-SchedulingOffset-PDSCH-TypeB (Note2)	Associated serving cells
drx-Adaptation-r16	PCell
dynamicSFI (Note2)	Associated serving cells
handoverInterF	PCell
handoverLTE-EPC	PCell
handoverLTE-5GC	PCell
tpc-PUCCH-RNTI (Note2)	Associated serving cells
tpc-PUSCH-RNTI (Note2)	Associated serving cells
tpc-SRS-RNTI (Note2)	Associated serving cells
twoDifferentTPC-Loop-PUCCH (Note2)	Associated serving cells
twoDifferentTPC-Loop-PUSCH (Note2)	Associated serving cells
ul-SchedulingOffset (Note2)	Associated serving cells
voiceOverNR (Note1)	Associated serving cells.
NOTE 1: For a UE that does not support *lch-ToSCellRestriction* capability, the associated serving cells includes all serving cells in the CG; for a UE that supports *lch-ToSCellRestriction* capability, the associated serving cells includes the serving cells indicated by *allowedServingCells* for the LCH. NOTE 2: The associated serving cells including both the cell sending the command and the cell applying the command.	

A.3: TDD/FDD differentiation of capabilities for sidelink

Annex A.3 specifies for which TDD and FDD serving cells for Uu interface and carrier for PC5 interface a UE supporting sidelink shall support a feature/capability for which it indicates support within the capability signalling.

A UE that indicates support for sidelink:

- For the fields for which the UE is allowed to indicate different support for FDD and TDD, the UE shall support the feature on the PCell and/or SCell(s) for Uu interface, as specified in tables A.3-1 in accordance to the following rules:
  - Per serving cell: the UE shall support the feature for a serving cell if the UE indicates support of the feature for the serving cell's duplex mode;
  - Associated serving cells: UE shall support the feature if the UE indicates support of the feature for all associated serving cells's duplex modes;
- For the fields where the UE is not allowed to indicate different support for FDD and TDD, the UE shall support the feature for PCell and SCell(s) for Uu interface and carrier for PC5 interface if the UE indicates support of the feature via the common capability bit.

Table A.3-1: Rel-16 UE capabilities for which FDD/TDD differentiation is allowed

Sidelink Parameter	Classification
logicalChannelSR-DelayTimerSidelink(Note1)	Associated serving cells
multipleSR-ConfigurationsSidelink	Per serving cell
NOTE 1: For a given logical channel, the associated serving cells including the PUCCH cell(s) associated with this logical channel (via *schedulingRequestID*).	

A.4: Sidelink capabilities applicable to Uu and PC5

Annex A.4 specifies for each sidelink related capability, in which interface (i.e., *UECapabilityInformation* in Uu RRC and *UECapabilityInformation*Sidelink in PC5 RRC) a UE supporting sidelink shall report the concerned capability:

- *UECapabilityInformation*: the concerned sidelink capability is reported within *UECapabilityInformation*;
- *UECapabilityInformationSidelink*: the concerned sidelink capability is reported within *UECapabilityInformationSidelink;*

Table A.4-1: Sidelink capability reported in *UECapabilityInformation*/ *UECapabilityInformationSidelink*

Sidelink Parameter	*UECapabilityInformation*	*UECapabilityInformationSidelink*
accessStratumReleaseSidelink		X
outOfOrderDeliverySidelink		X
am-WithLongSN-Sidelink	X	X
um-WithLongSN-Sidelink	X	X
lcp-RestrictionSidelink	X	
logicalChannelSR-DelayTimerSidelink	X	
multipleSR-ConfigurationsSidelink	X	
multipleConfiguredGrantsSidelink	X	
supportedBandCombinationListSidelinkEUTRA-NR	X	
supportedBandCombinationListSidelinkNR		X
gnb-ScheduledMode3SidelinkEUTRA	X	
gnb-ScheduledMode4SidelinkEUTRA	X	
sl-Reception	X	X
sl-TransmissionMode1	X	
sl-TransmissionMode2	X	
sl-TransmissionMode2-PartialSensing	X	
sl-TransmissionMode2-RandomResourceSelection	X	
sync-Sidelink	X	
congestionControlSidelink	X	
sl-Tx-256QAM	X	X
sl-Rx-256QAM	X	X
psfch-FormatZeroSidelink	X	
lowSE-64QAM-MCS-TableSidelink	X	X
csi-ReportSidelink		X
enb-sync-Sidelink	X	
rankTwoReception		X
fewerSymbolSlotSidelink	X	
sl-openLoopPC-RSRP-ReportSidelink	X	X
rx-IUC-Scheme1-PreferredMode2Sidelink	X	X
rx-IUC-Scheme1-NonPreferredMode2Sidelink	X	X
rx-IUC-Scheme2-Mode2Sidelink	X	X
rx-IUC-Scheme1-SCI	X	X
tx-Sidelink	X	
rx-Sidelink	X	
ue-PowerClassSidelink	X	
drx-OnSidelink	X	X
enhancedUuDRX-forSidelink	X	
relayUE-Operation-L2	X	
remoteUE-Operation-L2	X	
remoteUE-PathSwitchToIdleInactiveRelay	X	

supportedBandCombinationListSL-RelayDiscovery	X	
supportedBandCombinationListSL-NonRelayDiscovery	X	
rx-IUC-Scheme1-SCI-ExplicitReq	X	X
scheme2-ConflictDeterminationRSRP		X
tx-IUC-Scheme2-Mode2Sidelink	X	X
tx-IUC-Scheme1-Mode2Sidelink	X	X
rx-sidelinkPSFCH	X	
p0-OLPC-Sidelink	X	
sl-LBT-FailureDectectionRecovery	X	
pdcp-DuplicationSRB-sidelink	X	X
pdcp-DuplicationDRB-sidelink	X	X
supportedBandCombinationListSL-U2U-RelayDiscovery	X	
relayUE-U2U-OperationL2	X	
remoteUE-U2U-OperationL2	X	
remoteUE-U2N-PathSwitchOperationL2	X	
multipathRemoteUE-PC5L2	X	
multipathRelayUE-N3C	X	
multipathRemoteUE-N3C	X	
remoteUE-IndirectPathAddChangeToIdleInactiveRelay	X	
pdcp-DuplicationMoreThanOneUuRLC	X	
sl-ReceptionIntraCarrierGuardBand	X	X
sl-PowerClassUnlicensed		X
pdcp-CADuplicationDirectpath-DRB	X	
pdcp-CADuplicationDirectpath-SRB	X	
pdcp-DuplicationMP-SplitDRB	X	
pdcp-DuplicationMP-SplitSRB	X	
directpathRLF-RecoveryViaSRB1	X	
sl-DynamicChannelAccess	X	
sl-DynamicMultiChannelAccess	X	
sl-UE-COT-Sharing		X
sl-LBT-Option1	X	
sl-LBT-Option2	X	
sl-ResourceAllocMode1	X	

sl-Interlace-RB-TxRx	X	
sl-PSFCH-MultiOccasion	X	
sl-ContiguousRB-TxRx	X	
sl-PSFCH-MultiContiguousRB	X	X
-PSFCH-MultiNonContiguousRB	X	X
sl-DynamicSharingTxRx	X	
sl-CA-Basic	X	X
sl-CA-Synchronization	X	
sl-MultiplePRB-CommonInterlacePSFCH	X	
sl-PathlossBasedOLPC-SL-RSRP-Report	X	X
sl-PRS-CommonProcCapabilityPerUE	X	
sl-PRS-CommonProcCapabilityPerBand	X	
sl-PRS-RxInDedicatedResourcePool	X	
sl-PRS-CongestionCtrl	X	
sl-PRS-TxUsingFullSensing	X	
sl-PRS-RxForBandWithSL-CA	X	
sl-PRS-TxForBandWithSL-CA	X	
sl-PRS-RxInSharedResourcePool	X	
sl-PRS-TxInSharedResourcePool	X	
sl-PRS-TxInSharedResourcePool	X	
sl-PRS-TxScheme1InDedicatedResourcePool	X	
sl-PRS-TxScheme2InDedicatedResourcePool	X	
sl-PRS-TxRandomSelection	X	
splitDRB-WithUL-BothDirectIndirect	X	
relayUE-MH-Operation-L2	X	
remoteUE-MH-Operation-L2	X	

A.5: General differentiation of capabilities in Cross-Carrier operation

Annex A.5 specifies for which multiple serving cells a UE supporting cross-carrier operation shall support a feature/capability for which it indicates support within the capability signalling.

A UE that indicates support for cross-carrier operation in CA (e.g. MCG or SCG):

- For the fields for which the UE is allowed to indicate different support for different bands, the UE shall support the feature on the PCell and/or SCell(s) in cross-carrier operation, as specified in table A.5-1 in accordance to the following rules:

  - Triggered serving cell: the UE shall support the feature if the UE indicates support of the feature for the band of the scheduled/triggered/indicated serving cell;

  - Triggering&Triggered serving cells: UE shall support the feature if the UE indicates support of the feature for the band of both the scheduling/triggering/indicating serving cell and the scheduled/triggered/indicated serving cell;

Table A.5-1: General UE capabilities for which differentiation is allowed

UE-NR-Capability	Classification
activeConfiguredGrant-r16	Triggered serving cell
aperiodicTRS	Triggered serving cell
beamSwitchTiming, beamSwitchTiming-r16	Triggered serving cell
bwp-DiffNumerology (NOTE 1)	Triggering&Triggered serving cells
bwp-SameNumerology (NOTE 1)	Triggering&Triggered serving cells
crossCarrierScheduling-SameSCS	Triggering&Triggered serving cells
crossCarrierSchedulingProcessing-DiffSCS-r16 (NOTE 2)	Triggering&Triggered serving cells
dynamicSFI-r16	Triggering&Triggered serving cells
jointReleaseConfiguredGrantType2-r16	Triggered serving cell
jointReleaseDCI-r18	Triggered serving cell
jointReleaseSPS-r16	Triggered serving cell
multiPUSCH-ActiveConfiguredGrant-r18	Triggered serving cell
pdcch-MonitoringAnyOccasionsWithSpanGap (NOTE 3)	Triggering&Triggered serving cells
sps-r16	Triggered serving cell
ue-SpecificUL-DL-Assignment	Triggering&Triggered serving cells
ul-CancellationCrossCarrier-r16	Triggering&Triggered serving cells
NOTE 1: For *bwp-DiffNumerology* and *bwp-SameNumerology*, the supported number of BWPs for each band is still based on the indicated number for this band regardless of whether it is a scheduling cell or scheduled cell. NOTE 2: For *crossCarrierSchedulingProcessing-DiffSCS-r16*, if reported value is different between the band of the scheduled/triggered/indicated cell and the band of the scheduling/triggering/indicating cell, the value reported for the scheduling/triggering/indicating cell is applied. NOTE 3: Applicable for cross carrier scheduling with the same SCS in the scheduling cell and the scheduled cell. If the reported value is different between the band of the scheduled/triggered/indicated cell and the band of the scheduling/triggering/indicating cell, the value reported for the scheduling/triggering/indicating cell is applied.	

Annex B (informative): UE capability indication for UE capabilities with both FDD/TDD and FR1/FR2 differentiations

Annex B clarifies the UE capability indication for the case where the UE is allowed to support different functionality between FDD and TDD, and between FR1 and FR2. Table B-1 clarifies the setting of UE capability fields for cases where the UE supports the corresponding feature in different combinations of duplex mode and frequency range. There are two possible ways of UE capability indication in Case 3 and Case 8.

Table B-1: UE capability indication for UE capabilities with both FDD/TDD and FR1/FR2 differentiations

Support for the feature		Setting of UE capability fields					
		Common UE capability (with suffix '-XDD-Diff')	**Common UE capability (with suffix '-FRX-diff')**	**fdd-Add-UE-NR/MRDC-Capabilities**	**tdd-Add-UE-NR/MRDC-Capabilities**	**fr1-Add-UE-NR/MRDC-Capabilities**	**fr2-Add-UE-NR/MRDC-Capabilities**
Case 1	FR1 FDD: 'supported' FR1 TDD: 'supported' FR2 TDD: 'supported'	Included	Included	Not included	Not included	Not included	Not included
Case 2	FR1 FDD: 'not supported' FR1 TDD: 'not supported' FR2 TDD: 'not supported'	Not included	Not included	Not included	Not included	Not included	Not included
Case 3	FR1 FDD: 'not supported' FR1 TDD: 'supported' FR2 TDD: 'supported'	Not included	Included	Not included	Included	Not included	Not included
		Not included	Not included	Not included	Included	Not included	Not included
Case 4	FR1 FDD: 'not supported' FR1 TDD: 'not supported' FR2 TDD: 'supported'	Not included	Not included	Not included	Included	Not included	Included
Case 5	FR1 FDD: 'not supported' FR1 TDD: 'supported' FR2 TDD: 'not supported'	Not included	Not included	Not included	Included	Included	Not included
Case 6	FR1 FDD: 'supported' FR1 TDD: 'not supported' FR2 TDD: 'supported'	The current UE capability signalling does not support the UE capability indication for this case.					
Case 7	FR1 FDD: 'supported' FR1 TDD: 'not supported' FR2 TDD: 'not supported'	Not included	Not included	Included	Not included	Included	Not included
Case 8	FR1 FDD: 'supported' FR1 TDD: 'supported' FR2 TDD: 'not supported'	Included	Not included	Not included	Not included	Included	Not included
		Not included	Not included	Not included	Not included	Included	Not included

NOTE 1: For a UE capability which cannot be differentiated between FR2-1 and FR2-2, 'FR2 TDD' in Table B-1 includes both 'FR2-1 TDD' and 'FR2-2 TDD'.

NOTE 2: For a UE capability which can be differentiated between FR2-1 and FR2-2, 'FR2 TDD' in Table B-1 only means 'FR2-1 TDD'.

Annex C (informative): Change history

Change history							
Date	**Meeting**	**TDoc**	**CR**	**Rev**	**Cat**	**Subject/Comment**	**New version**
06/2017	RAN2#98	R2-1704810				First version	0.0.1
06/2017	RAN2#NR2	R2-1707386					0.0.2
08/2017	RAN2#99	R2-1708750					0.0.3
12/2017	RAN2#100	R2-1712587					0.0.4
12/2017	RAN2#100	R2-1714141					0.0.5
12/2017	RAN2#100	R2-1714271					0.1.0
12/2017	RP-78	RP-172521				Submitted to RAN#78 for approval	1.0.0
12/2017	RP-78					Upgraded to Rel-15	15.0.0
03/2018	RP-79	RP-180440	0003	3	F	Updates on UE capabilities	15.1.0
06/2018	RP-80	RP-181216	0009	2	B	Introduce ANR in NR	15.2.0
	RP-80	RP-181216	0012	1	F	Miscellaneous corrections	15.2.0
	RP-80	RP-181216	0013	-	B	Delay budget report and MAC CE adaptation for NR for TS 38.306	15.2.0
09/2018	RP-81	RP-181940	0008	4	F	Correction on total layer2 buffer size	15.3.0
	RP-81	RP-181942	0024	1	F	Introduction of UE capability constraints	15.3.0
	RP-81	RP-181942	0030	-	F	38.306 corrections and cleanup	15.3.0
12/2018	RP-82	RP-182651	0016	4	F	Clarification for Interruption-based and gap-based SFTD measurement	15.4.0
	RP-82	RP-182653	0033	1	F	Timer based BWP switching	15.4.0
	RP-82	RP-182652	0035	2	F	Additional UE capabilities for NR standalone	15.4.0
	RP-82	RP-182651	0037	1	F	Clarification to UE capability of independentGapConfig for inter-RAT NR measurement not yet configured with EN-DC	15.4.0
	RP-82	RP-182661	0038	2	F	Update of L2 capability parameters	15.4.0
	RP-82	RP-182660	0047	2	F	Clarification on physical layer parameters of UE capability	15.4.0
	RP-82	RP-182666	0050	3	F	Introduce RRC buffer size in NR	15.4.0
	RP-82	RP-182664	0051	2	F	Clarification of multipleConfiguredGrants	15.4.0
	RP-82	RP-182664	0052	2	F	CR to 38.306 for PDCP CA duplication for SRB	15.4.0
	RP-82	RP-182661	0054	1	F	UE capability handling for FDD/TDD and FR1/FR2	15.4.0
	RP-82	RP-182663	0057	1	F	Clarify for per CC UL/DL modulation order capabilities	15.4.0
	RP-82	RP-182664	0058	1	F	Inter-frequency handover capability	15.4.0
	RP-82	RP-182665	0060	3	F	UE capability on PA architecture	15.4.0
	RP-82	RP-182661	0062	1	F	CR on signaling contiguous and non-contiguous EN-DC capability	15.4.0
	RP-82	RP-182813	0063	6	F	Update of UE capabilities	15.4.0
	RP-82	RP-182662	0065	2	F	Introduction of SRS switching capability	15.4.0
	RP-82	RP-182667	0068	2	B	CR on introduction of UE overheating support in NR SA scenario	15.4.0
	RP-82	RP-182664	0071	-	F	Introduction of SRS switching capability	15.4.0
03/2019	RP-83	RP-190634	0073	1	F	Capability for aperiodic CSI-RS triggering with different numerology between PDCCH and CSI-RS	15.5.0
	RP-83	RP-190542	0074	1	F	Layer-1 capability update	15.5.0
	RP-83	RP-190545	0075	2	F	CR to 38.306 on introducing nr-CGI-Reporting-ENDC	15.5.0
	RP-83	RP-190545	0086	2	F	CR to clarify intra-NR handover capabilities	15.5.0
	RP-83	RP-190546	0088	3	F	Clarification for PDSCHs and PUSCHs per slot for different TBs for UE capable of processing time capability 1	15.5.0
	RP-83	RP-190542	0092	2	F	Correction to mandatory supported capability signaling	15.5.0
	RP-83	RP-190542	0097	2	F	Miscellaneous corrections	15.5.0
	RP-83	RP-190545	0098	2	F	Correction on supportedBandwidthCombinationSetEUTRA-v1530 usage	15.5.0
	RP-83	RP-190543	0099	-	F	Clarification on signaling the bandwidth class	15.5.0
	RP-83	RP-190545	0100	1	F	Clarification on Frequency Separation Class	15.5.0
	RP-83	RP-190544	0101	-	F	CR on Processing delay requirements for RRC Resume procedures in TS 38.306	15.5.0
06/2019	RP-84	RP-191375	0094	1	F	CR to clarify ul-TimingAlignmentEUTRA-NR	15.6.0
	RP-84	RP-191373	0108	-	F	Layer-1, RF and RRM capability updates	15.6.0
	RP-84	RP-191373	0109	-	F	Clarification on UE capability of lch-ToSCellRestriction	15.6.0
	RP-84	RP-191379	0110	2	F	Correction on description of additionalActiveSpatialRelationPUCCH	15.6.0
	RP-84	RP-191378	0111	1	F	Clarification on csi-RS-CFRA-ForHO	15.6.0
	RP-84	RP-191379	0114	2	F	CR on capability of maxUplinkDutyCycle for FR2	15.6.0
	RP-84	RP-191380	0115	2	F	38.306 miscellaneous corrections	15.6.0
	RP-84	RP-191378	0116	1	B	38.306 CR for late drop	15.6.0
	RP-84	RP-191381	0118	4	F	Clarification on supported modulation order capability	15.6.0
	RP-84	RP-191374	0119	-	F	Correction to PDCP parameters	15.6.0
	RP-84	RP-191381	0121	3	F	Corrections to UE Capability definitions	15.6.0
	RP-84	RP-191378	0122	1	F	38.306 Clarification on multiple TA capabilities	15.6.0
	RP-84	RP-191379	0123	2	F	CR to clarify non-codebook based PUSCH transmission	15.6.0

	RP-84	RP-191380	0124	3	F	Clarification on pdsch-ProcessingType2	15.6.0
	RP-84	RP-191378	0125	1	F	Clarification on present of tci-StatePDSCH	15.6.0
	RP-84	RP-191378	0126	1	F	Clarification on SA fallback BC support	15.6.0
	RP-84	RP-191375	0128	-	F	Correction to Beam Correspondence for CA	15.6.0
	RP-84	RP-191379	0130	2	F	Correction on the number of DRB in UE Capability Constraints	15.6.0
	RP-84	RP-191379	0132	1	F	CR to capture UE supported DL/UL bandwidths	15.6.0
	RP-84	RP-191376	0133	-	F	UE capability signalling for FD-MIMO processing capabilities for EN-DC	15.6.0
	RP-84	RP-191376	0134	-	F	Modified UE capability on different numerologies within the same PUCCH group	15.6.0
	RP-84	RP-191554	0135	-	F	Removal of "Capability for aperiodic CSI-RS triggering with different numerology between PDCCH and CSI-RS"	15.6.0
09/2019	RP-85	RP-192196	0136	1	C	Additional capability signalling for 1024QAM support	15.7.0
	RP-85	RP-192191	0142	1	B	Introduction of SFTD measurement to neighbour cells for NR SA	15.7.0
	RP-85	RP-192193	0146	1	F	MR-DC measurement gap pattern capability	15.7.0
	RP-85	RP-192194	0151	3	F	Clarifying UE capability freqHoppingPUCCH-F0-2 and freqHoppingPUCCH-F1-3-4	15.7.0
	RP-85	RP-192190	0152	-	F	Clarification to dynamic power sharing capability	15.7.0
	RP-85	RP-192192	0153	2	F	Miscellaneous corrections	15.7.0
	RP-85	RP-192190	0154	-	F	Capability of measurement gap patterns	15.7.0
	RP-85	RP-192193	0155	2	F	Correction to IMS capability	15.7.0
	RP-85	RP-192194	0156	3	F	UE Capabilities covering across all serving cells	15.7.0
	RP-85	RP-192190	0167	-	F	Clarification on UE capability on different numerologies within the same PUCCH group	15.7.0
	RP-85	RP-192193	0168	1	F	Correction on CA parameters in NR-DC	15.7.0
	RP-85	RP-192346	0169	-	C	Introduction of UE capability for NR-DC with SFN synchronization between PCell and PSCell	15.7.0
12/2019	RP-86	RP-192934	0185	1	F	Clarification on the restriction of maximum SRS resource sets configuration for uplink beam management.	15.8.0
	RP-86	RP-192936	0186	3	F	Miscellaneous corrections on UE capability fields	15.8.0
	RP-86	RP-192935	0191	1	F	Corrections on PDCCH blind decoding in NR-DC	15.8.0
	RP-86	RP-192937	0200	1	F	Clarification on ne-DC capability	15.8.0
	RP-86	RP-192935	0202	1	F	Correction to channelBWs	15.8.0
	RP-86	RP-192936	0204	1	F	Use of splitSRB-WithOneUL-Path capability (38.306)	15.8.0
	RP-86	RP-192935	0205	-	F	Correction to pdsch-RepetitionMultiSlots and pusch-RepetitionMultiSlots	15.8.0
	RP-86	RP-192937	0215	1	F	Correction on initial BWP bandwidth capabilities	15.8.0
	RP-86	RP-192937	0216	1	F	NE-DC dynamic power sharing capability	15.8.0
	RP-86	RP-192935	0219	-	F	Clarification on crossCarrierScheduling-OtherSCS in R15	15.8.0
	RP-86	RP-192937	0220	-	F	Correction on ambiguity of UE FDD/TDD FR1/FR2 capabilities	15.8.0
03/2020	RP-87	RP-200334	0194	2	F	Correction on parameter description of beamManagementSSB-CSI-RS	15.9.0
	RP-87	RP-200335	0208	3	F	CR on BWCS for inter-ENDC BC with intra-ENDC BC (38.306)	15.9.0
	RP-87	RP-200335	0209	5	F	CR to 38.306 on support of 70MHz channel bandwidth	15.9.0
	RP-87	RP-200334	0236	-	F	Correction on SRB capability in NR-DC	15.9.0
	RP-87	RP-200335	0248	2	F	Data rate for the case of single carrier standalone operation	15.9.0
	RP-87	RP-200334	0254	1	F	CR on the maximum stored number of deprioritisation frequencies	15.9.0
	RP-87	RP-200335	0255	2	F	Miscellaneous Corrections to UE capability parameters	15.9.0
	RP-87	RP-200335	0259	1	F	UE capability of intra-band requirements for inter-band EN-DC/NE-DC	15.9.0
03/2020	RP-87	RP-200356	0145	1	F	CR on capability of maxUplinkDutyCycle for inter-band EN-DC PC2 UE	16.0.0
	RP-87	RP-200335	0214	2	F	Correction on beamSwitchTiming values of 224 and 336	16.0.0
	RP-87	RP-200335	0223	1	C	Inclusion of 90MHz UE Bandwidth	16.0.0
	RP-87	RP-200358	0226	2	B	Introducing autonomous gap in CGI reporting	16.0.0
	RP-87	RP-200357	0229	-	B	UE capability for IDC	16.0.0
	RP-87	RP-200340	0230	-	B	Introduction of Cross Link Interference (CLI) handling and Remote Interference Management (RIM)	16.0.0
	RP-87	RP-200358	0233	1	C	Introduction of EPS voice fallback enhancement	16.0.0
	RP-87	RP-200350	0235	-	B	Introduction of SRVCC from 5G to 3G	16.0.0
	RP-87	RP-200358	0243	1	B	Introduction of DL RRC segmentation	16.0.0
	RP-87	RP-200358	0258	1	B	Introduction of downgraded configuration for SRS antenna switching	16.0.0
	RP-87	RP-200359	0260	-	B	Recommended Bit Rate/Query for FLUS and MTSI	16.0.0
	RP-87	RP-200358	0261	-	B	Introduction of UE capability indicator of supporting inter-RAT handover from NR to EN-DC in 38.306.	16.0.0
07/2020	RP-88	RP-201163	0288	2	A	Correction to the serving cell number for ENDC power class	16.1.0
	RP-88	RP-201187	0289	3	A	CR on introduction of BCS to asymmetric channel bandwidths (38.306)	16.1.0
	RP-88	RP-201160	0295	1	A	SRS Capability report for SRS only Scell	16.1.0
	RP-88	RP-201159	0299	-	A	Clarification on L1 feature of NGEN-DC and NE-DC	16.1.0
	RP-88	RP-201161	0304	2	A	Default values for UE capability	16.1.0
	RP-88	RP-201163	0312	1	A	Invalidating bandwidth class F for FR1	16.1.0
	RP-88	RP-201163	0318	1	A	Missing "Optional features without UE radio access capability parameters"	16.1.0

	RP-88	RP-201163	0320	1	A	Missing UE capability requirements	16.1.0
	RP-88	RP-201198	0321	1	C	Introduction of secondary DRX group CR 38.306	16.1.0
	RP-88	RP-201164	0324	2	A	Correction on UE capability constraints	16.1.0
	RP-88	RP-201183	0328	2	B	UE capability of supporting UL Tx switching	16.1.0
	RP-88	RP-201217	0329	2	B	Release-16 UE capabilities based on RAN1, RAN4 feature lists and RAN2	16.1.0
	RP-88	RP-201163	0330	1	A	Corrections on the number of DRBs	16.1.0
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	RP-100	RP-231409	0919	1	A	Clarification on SRS Tx switching capability	17.5.0
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09/2023	RP-101	RP-232565	0929	1	A	Introduction of intra-band EN-DC contiguous capability for UL	17.6.0
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	RP-101	RP-232570	0949	1	F	Miscellaneous corrections on UE capabilities	17.6.0
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12/2023	RP-102	RP-233888	0678	5	B	Introduction of FR2 FBG2 CA BW classes	17.7.0
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	RP-103	RP-240655	1025	-	A	Correction on the UE capability of survival time	18.1.0
	RP-103	RP-240654	1030	-	A	Clarification on capabilities of mixed codebook	18.1.0
	RP-103	RP-240655	1043	1	A	Corrections on usage of LEO, GEO, GSO and NGSO	18.1.0
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	RP-103	RP-240708	1056	1	B	Corrections and Updates to UE capabilities for Rel-18 WIs, including TEI18 [HARQ-ACK MUX on PUSCH], [LCID-extension], [RA-SDT_BeamFailure]	18.1.0
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	RP-104	RP-241554	1061	3	A	CEF and RLF reporting for (e)RedCap UEs	18.2.0
	RP-104	RP-241552	1076	1	A	Clarification on the srs-AntennaSwitchingBeyond4RX-r17	18.2.0
	RP-104	RP-241551	1078	2	A	Correction on the supportedBandwidthDL/UL-v1780 for the NR-DC (r18)	18.2.0
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	RP-104	RP-241553	1083	1	A	Clarification on usage of LEO or NGSO	18.2.0
	RP-104	RP-241551	1085	4	A	Introduction of new intra-band EN-DC capabilities for inter-band EN-DC	18.2.0
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	RP-104	RP-241551	1121	1	A	Clarification on srs-SwitchingAffectedBandsListNR	18.2.0
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History

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