# ETSI TS 136 523-2 V16.8.0 (2021-05)



## LTE;

Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC);
User Equipment (UE) conformance specification;
Part 2: Implementation Conformance Statement (ICS) proforma specification
(3GPP TS 36.523-2 version 16.8.0 Release 16)



# Reference RTS/TSGR-0536523-2vg80 Keywords LTE

#### **ETSI**

650 Route des Lucioles F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - APE 7112B Association à but non lucratif enregistrée à la Sous-Préfecture de Grasse (06) N° w061004871

### Important notice

The present document can be downloaded from: http://www.etsi.org/standards-search

The present document may be made available in electronic versions and/or in print. The content of any electronic and/or print versions of the present document shall not be modified without the prior written authorization of ETSI. In case of any existing or perceived difference in contents between such versions and/or in print, the prevailing version of an ETSI deliverable is the one made publicly available in PDF format at <a href="https://www.etsi.org/deliver">www.etsi.org/deliver</a>.

Users of the present document should be aware that the document may be subject to revision or change of status.

Information on the current status of this and other ETSI documents is available at <a href="https://portal.etsi.org/TB/ETSIDeliverableStatus.aspx">https://portal.etsi.org/TB/ETSIDeliverableStatus.aspx</a>

If you find errors in the present document, please send your comment to one of the following services: https://portal.etsi.org/People/CommiteeSupportStaff.aspx

## Notice of disclaimer & limitation of liability

The information provided in the present deliverable is directed solely to professionals who have the appropriate degree of experience to understand and interpret its content in accordance with generally accepted engineering or other professional standard and applicable regulations.

No recommendation as to products and services or vendors is made or should be implied.

No representation or warranty is made that this deliverable is technically accurate or sufficient or conforms to any law and/or governmental rule and/or regulation and further, no representation or warranty is made of merchantability or fitness for any particular purpose or against infringement of intellectual property rights.

In no event shall ETSI be held liable for loss of profits or any other incidental or consequential damages.

Any software contained in this deliverable is provided "AS IS" with no warranties, express or implied, including but not limited to, the warranties of merchantability, fitness for a particular purpose and non-infringement of intellectual property rights and ETSI shall not be held liable in any event for any damages whatsoever (including, without limitation, damages for loss of profits, business interruption, loss of information, or any other pecuniary loss) arising out of or related to the use of or inability to use the software.

### Copyright Notification

No part may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm except as authorized by written permission of ETSI.

The content of the PDF version shall not be modified without the written authorization of ETSI.

The copyright and the foregoing restriction extend to reproduction in all media.

© ETSI 2021. All rights reserved.

## Intellectual Property Rights

### **Essential patents**

IPRs essential or potentially essential to normative deliverables may have been declared to ETSI. The declarations pertaining to these essential IPRs, if any, are publicly available for **ETSI members and non-members**, and can be found in ETSI SR 000 314: "Intellectual Property Rights (IPRs); Essential, or potentially Essential, IPRs notified to ETSI in respect of ETSI standards", which is available from the ETSI Secretariat. Latest updates are available on the ETSI Web server (https://ipr.etsi.org/).

Pursuant to the ETSI Directives including the ETSI IPR Policy, no investigation regarding the essentiality of IPRs, including IPR searches, has been carried out by ETSI. No guarantee can be given as to the existence of other IPRs not referenced in ETSI SR 000 314 (or the updates on the ETSI Web server) which are, or may be, or may become, essential to the present document.

### **Trademarks**

The present document may include trademarks and/or tradenames which are asserted and/or registered by their owners. ETSI claims no ownership of these except for any which are indicated as being the property of ETSI, and conveys no right to use or reproduce any trademark and/or tradename. Mention of those trademarks in the present document does not constitute an endorsement by ETSI of products, services or organizations associated with those trademarks.

**DECT**<sup>TM</sup>, **PLUGTESTS**<sup>TM</sup>, **UMTS**<sup>TM</sup> and the ETSI logo are trademarks of ETSI registered for the benefit of its Members. **3GPP**<sup>TM</sup> and **LTE**<sup>TM</sup> are trademarks of ETSI registered for the benefit of its Members and of the 3GPP Organizational Partners. **oneM2M**<sup>TM</sup> logo is a trademark of ETSI registered for the benefit of its Members and of the oneM2M Partners. **GSM**<sup>®</sup> and the GSM logo are trademarks registered and owned by the GSM Association.

## **Legal Notice**

This Technical Specification (TS) has been produced by ETSI 3rd Generation Partnership Project (3GPP).

The present document may refer to technical specifications or reports using their 3GPP identities. These shall be interpreted as being references to the corresponding ETSI deliverables.

The cross reference between 3GPP and ETSI identities can be found under <a href="http://webapp.etsi.org/key/queryform.asp">http://webapp.etsi.org/key/queryform.asp</a>.

## Modal verbs terminology

In the present document "shall", "shall not", "should", "should not", "may", "need not", "will", "will not", "can" and "cannot" are to be interpreted as described in clause 3.2 of the <u>ETSI Drafting Rules</u> (Verbal forms for the expression of provisions).

"must" and "must not" are NOT allowed in ETSI deliverables except when used in direct citation.

## Contents

| Intell           | lectual Property Rights   | 2      |
|------------------|---|--------|
| Legal            | ıl Notice   | 2      |
| Moda             | al verbs terminology  | 2      |
| Forev            | word  | 2      |
| Introd           | duction   |        |
| 1                | Scope   |        |
| 2                | References  |        |
| 3                | Definitions, symbols and abbreviations                                |        |
| 3.1              | Definitions   |        |
| 3.2              | Symbols   | 8      |
| 3.3              | Abbreviations   | 8      |
| 4                | Recommended Test Case Applicability                                   | 8      |
| Anne             | ex A (normative): ICS proforma for E-UTRA/EPC Generation User Equipme | ent135 |
| A.1              | Guidance for completing the ICS proforma                              | 135    |
| A.1.1            | 1   |        |
| A.1.2<br>A.1.3   |   |        |
|                  |   |        |
| A.2<br>A.2.1     | Identification of the User Equipment                                  |        |
| A.2.1<br>A.2.2   |   |        |
| A.2.3            |   |        |
| A.2.4            |   |        |
| A.2.5            | ICS contact person  | 138    |
| A.3              | Identification of the protocol  | 138    |
| A.4              | ICS proforma tables   | 138    |
| A.4.1            | 1 71  |        |
| A.4.2            | - · · · · · · · · · · · · · · · · · · ·                               |        |
| A.4.2.<br>A.4.2. | 1   |        |
| A.4.3            |   |        |
| A.4.3.           |   |        |
| A.4.3.           |   | 145    |
| A.4.3.           |   |        |
| A.4.3.<br>A.4.3. |   |        |
| A.4.3.<br>A.4.3. |   |        |
| A.4.3.           |   |        |
| A.4.4            |   |        |
| A.4.5            | Feature group indicators  | 185    |
| Anne             | ex B (informative): Test Case Branching                               | 229    |
| B.1              | Introduction  | 229    |
| B.2              | Special ICS to identify optional branches                             | 229    |
| B.3              | Test Case Preambles and Postambles specific information               | 230    |
| Anne             | ex C (informative): Change history                                    | 231    |
| Histo            | ory   | 264    |

## **Foreword**

This Technical Specification has been produced by the 3<sup>rd</sup> Generation Partnership Project (3GPP).

The contents of the present document are subject to continuing work within the TSG and may change following formal TSG approval. Should the TSG modify the contents of the present document, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows:

Version x.y.z

where:

- x the first digit:
  - 1 presented to TSG for information;
  - 2 presented to TSG for approval;
  - 3 or greater indicates TSG approved document under change control.
- y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.
- z the third digit is incremented when editorial only changes have been incorporated in the document.

## Introduction

To evaluate conformance of a particular implementation, it is necessary to have a statement of which capabilities and options have been implemented for a telecommunication specification. Such a statement is called an Implementation Conformance Statement (ICS).

The present document is part 2 of a multi-part conformance test specification for User Equipment (UE).

3GPP TS 36.523-1 [19]: "Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 1: Protocol conformance specification".

3GPP TS 36.523-2: "Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 2: Implementation Conformance Statement (ICS) proforma specification". (the present document)

3GPP TS 36.523-3 [20]: "Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 3: Abstract Test Suite (ATS)".

## 1 Scope

The present document provides the Implementation Conformance Statement (ICS) proforma for 3<sup>rd</sup> Generation User Equipment (UE), in compliance with the relevant EPS (E-UTRA/EPC) requirements, and in accordance with the relevant guidance given in ISO/IEC 9646-1 [24] and ISO/IEC 9646-7 [25].

The present document also specifies a recommended applicability statement for the test cases included in TS 36.523-1 [19]. These applicability statements are based on the features implemented in the UE.

Special conformance testing functions can be found in TS 36.509 [6] and the common test environments are included in 3GPP TS 36.508 [18].

The present document is valid for UE complying with EPS (E-UTRA/EPC) and implemented according to 3GPP releases starting from Release 8 up to the Release indicated on the cover page of the present document.

## 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 23.003: "Numbering, Addressing and Identification".   |
| [3]  | 3GPP TS 23.122: "Non-Access-Stratum functions related to Mobile Station (MS) in idle mode".   |
| [4]  | 3GPP TS 24.008: "Mobile Radio Interface Layer 3 specification; Core Network Protocols; Stage 3".  |
| [5]  | Void  |
| [6]  | 3GPP TS 36.509: "Special conformance testing functions for User Equipment ".  |
| [7]  | Void  |
| [8]  | 3GPP TS 34.123-2: "User Equipment (UE) conformance specification; Part 2: Implementation Conformance Statement (ICS) proforma specification".                         |
| [9]  | Void  |
| [10] | 3GPP TS 36.300: "Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Overall description; Stage 2". |
| [11] | 3GPP TS 36.302: "Services provided by the physical layer for E-UTRA".   |
| [12] | 3GPP TS 36.304: "Evolved Universal Terrestrial Radio Access (E-UTRA) User Equipment (UE) Procedures in idle mode ".   |
| [13] | 3GPP TS 36.306: "Evolved Universal Terrestrial Radio Access (E-UTRA) User Equipment (UE) Radio Access capabilities ".   |
| [14] | 3GPP TS 36.321: "Evolved Universal Terrestrial Radio Access (E-UTRA) Medium Access Control (MAC) protocol specification".   |

| [15] | 3GPP TS 36.322: "Evolved Universal Terrestrial Radio Access (E-UTRA) Radio Link Control (RLC) protocol specification".  |
|------|---|
| [16] | 3GPP TS 36.323: "Evolved Universal Terrestrial Radio Access (E-UTRA) 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 36.508: "Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); Common Test Environments for User Equipment (UE) Conformance Testing".  |
| [19] | 3GPP TS 36.523-1: "Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 1: Protocol conformance specification".   |
| [20] | 3GPP TS 36.523-3: "Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 3: Abstract Test Suites (ATS)".   |
| [21] | 3GPP TR 24.801: "3GPP System Architecture Evolution; CT WG1 Aspects".   |
| [22] | 3GPP TS 23.401: "3GPP System Architecture Evolution; GPRS enhancements for E-UTRAN access".   |
| [23] | 3GPP TS 51.010-1: "Mobile Station (MS) conformance specification; Part 1: Conformance specification".   |
| [24] | ISO/IEC 9646-1: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 1: General concepts".   |
| [25] | ISO/IEC 9646-7: "Information technology - Open systems interconnection - Conformance testing methodology and framework - Part 7: Implementation Conformance Statements".  |
| [26] | 3GPP2 C.S0024-A-v3.0: "cdma2000 High Rate Packet Data Air Interface Specification".   |
| [27] | 3GPP2 C.S0002-A: "Physical Layer Standard for cdma2000 Spread Spectrum Systems – Release A".  |
| [28] | 3GPP TS 24.303: "Mobility management based on Dual-Stack Mobile IPv6; Stage 3".   |
| [29] | IEEE Std 802.11 (1999): "Standard for Information Technology - Telecommunications and information exchange between systems - Local and Metropolitan Area networks - Specific requirements - Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) specifications". |
| [30] | 3GPP TS 36.307: "Requirements on User Equipments (UEs) Supporting a release-independent frequency band ".   |
| [33] | GSMA PRD IR.92: "IMS Profile for Voice and SMS".  |
| [34] | 3GPP TS 22.101: "Service aspects; Service principles"   |
| [35] | 3GPP TS 24.301: "Non-Access-Stratum (NAS) protocol for Evolved Packet System (EPS); Stage 3".   |
| [36] | 3GPP TS 25.306: "UE Radio Access capabilities".   |
| [37] | 3GPP TS 25.331: "Radio Resource Control (RRC); Protocol specification".   |
| [38] | 3GPP TS 23.216: "Super-Charger technical realization; Stage 2".   |
| [39] | 3GPP TS 23.272: "Circuit Switched (CS) fallback in Evolved Packet System (EPS); Stage 2".   |
| [40] | 3GPP TS 44.060: "General Packet Radio Service (GPRS); Mobile Station (MS) - Base Station System (BSS) interface; Radio Link Control / Medium Access Control (RLC/MAC) protocol".  |
|      |   |

| [41] | 3GPP TS 26.114: "IP Multimedia Subsystem (IMS); Multimedia telephony; Media handling and interaction".  |
|------|---|
| [42] | 3GPP TS 24.229: "IP multimedia call control protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP); Stage 3".   |
| [43] | 3GPP TS 24.173: "IMS Multimedia telephony communication service and supplementary services; Stage 3".   |
| [44] | 3GPP TR 21.904: "User Equipment (UE) capability requirements".  |
| [45] | 3GPP TS 34.229-2: "Internet Protocol (IP) multimedia call control protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP); User Equipment (UE) conformance specification; Part 2: Implementation Conformance Statement (ICS) specification". |
| [46] | 3GPP TS 36.101: "User Equipment (UE) radio transmission and reception".   |
| [47] | 3GPP TS 24.368: "Non-Access Stratum (NAS) configuration Management Object (MO)".  |
| [48] | 3GPP TS 31.102: "Characteristics of the Universal Subscriber Identity Module (USIM) application".   |
| [49] | 3GPP TS 23.221: "Architectural requirements".   |
| [50] | 3GPP TS 45.008: "GSM/EDGE Radio Access Network; Radio subsystem link control".  |
| [51] | 3GPP TS 23.041: "Technical realization of Cell Broadcast Service (CBS)".  |
| [52] | 3GPP TS 24.334: "Proximity-services (ProSe) User Equipment (UE) to Proximity-services (ProSe) Function Protocol aspects; Stage 3".  |
| [53] | 3GPP TS 24.334: "Proximity-services (ProSe) User Equipment (UE) to Proximity-services (ProSe) Function Protocol aspects; Stage 3".  |
| [54] | GSMA PRD IR.51: "IMS Profile for Voice, Video and SMS over Wi-Fi".  |
| [55] | GSMA PRD NG.108: "IMS Profile for Voice and SMS for UE category M1".  |
| [56] | 3GPP TS 36.579-4: "Mission Critical (MC) services over LTE conformance testing; Part 4: Test Applicability and Implementation Conformance Statement (ICS) proforma specification" (the present document).   |

## 3 Definitions, symbols and abbreviations

For the purposes of the present document, the following terms, definitions, symbols and abbreviations apply:

- such given in TR 21.905 [1]
- such given in ISO/IEC 9646-1 [24] and ISO/IEC 9646-7 [25]

NOTE: Some terms and abbreviations defined in [24] and [25] are explicitly included below with small modification to reflect the terminology used in 3GPP.

## 3.1 Definitions

**Implementation Conformance Statement (ICS):** A statement made by the supplier of an implementation or system claimed to conform to a given specification, stating which capabilities have been implemented.

**ICS proforma:** A document, in the form of a questionnaire, which when completed for an implementation or system becomes an ICS.

**Implementation eXtra Information for Testing (IXIT)**: A statement made by a supplier or implementer of an UEUT which contains or references all of the information (in addition to that given in the ICS) related to the UEUT and its testing environment, which will enable the test laboratory to run an appropriate test suite against the UEUT.

**IXIT proforma:** A document, in the form of a questionnaire, which when completed for an UEUT becomes an IXIT.

**Protocol Implementation Conformance Statement (PICS):** An ICS for an implementation or system claimed to conform to a given protocol specification.

**Protocol Implementation eXtra Information for Testing (PIXIT):** An IXIT related to testing for conformance to a given protocol specification.

**static conformance review**: A review of the extent to which the static conformance requirements are claimed to be supported by the UEUT, by comparing the answers in the ICS(s) with the static conformance requirements expressed in the relevant specification(s).

## 3.2 Symbols

No specific symbols have been identified so far.

## 3.3 Abbreviations

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

**ENB** Evolved Node B **FFS** For Further Study **ICS** Implementation Conformance Statement IXIT Implementation eXtra Information for Testing **PICS** Protocol Implementation Conformance Statement **PIXIT** Protocol Implementation eXtra Information for Testing **SCS** System Conformance Statement TC Test Case **UEUT** User Equipment Under Test

## 4 Recommended Test Case Applicability

The applicability of each individual test is identified in Table 4-1. This is just a recommendation based on the purpose for which the test case was written.

The applicability of every test is formally expressed by the use of Boolean expression that are based on parameters (ICS) included in annex A of the present document.

Additional information related to the Test Case (TC), e.g. affecting its dynamic behaviour or its execution may be provided as well.

When a test case is to be executed against a category M1 UE and with IMS enabled, it is assumed that the UE is compliant to GSMA profile NG.108 [55].

The columns in Table 4-1 have the following meaning:

## Clause

The clause column indicates the clause number in TS 36.523-1 [19] that contains the test body.

## Title

The title column describes the name of the test and contains the clause title of the clause in TS 36.523-1 [19] that contains the test body.

#### Release

The release column indicates the earliest release from which the test case is applicable. In some specific cases it may indicate the release(s) for which the TC is **only** applicable.

Note: Some exceptions to this interpretation may be indicated in Notes in column 'Number of TC Executions'

e.g. see Note 3 Table 4-1.

### Applicability - Condition

The following notations are used for the applicability column:

R recommended - the test case is recommended

O optional – the test case is optional

N/A not applicable - in the given context, the test case is not recommended.

Ci conditional - the test is recommended ("R") or not ("N/A") depending on the support of other

items. "i" is an integer identifying an unique conditional status expression which is defined immediately following the table. For nested conditional expressions, the syntax "IF ... THEN (IF ...

THEN ... ELSE...) ELSE ..." is used to avoid ambiguities.

NOTE: The conditions are defined in Table 4-1a.

## Applicability - Comments

This column contains a verbal description of the condition.

### Additional Information - Specific ICS

This column contains the mnemonics of ICS(s) affecting the dynamic behaviour of the TC.

NOTE: ICS items specified in 3GPP TS 34.123-2 [8] and 3GPP TS 34.229-2 [45] can be referred, to avoid

redundant definitions.

### Additional Information - Specific IXIT

This column contains the mnemonics of IXIT(s) affecting the dynamic behaviour of the TC.

#### Additional Information - Number of TC Executions

This column contains, wherever applicable, the recommended for certification purposes number of TC executions. It may contain also other information e.g. exceptions to the release applicable to the test. Clarifying notes are listed in Table 4-1b.

## Additional Information - Release other RAT

In regard to a particular test case, this column provides information on the release which is used by the simulated network in the other (i.e. non E-UTRA) RAT(s) where applicable. For each applicable RAT the release shall be indicated in the format 'Rel-X RAT'. When multiple RATs are applicable the entries per RAT shall be separated by a comma. When a value for a 3GPP RAT is not provided but the RAT is in the scope of the test case then for this RAT the release indicated in the Release column applies (per default).

#### **EXAMPLES:**

#### Rel-9 UTRA FDD, Rel-8 GERAN or simply as Rel-9 UTRA FDD

(meaning that the UTRA FDD will simulate Rel-9 and the GERAN Rel-8 behaviours)

#### Rel-9 UTRA TDD

(meaning that the UTRA LCR TDD network will simulate Rel-9 behaviours)

NOTE 2: To meet the validation requirements from certification bodies then there is a need to uniquely reference the FDD and TDD branch of common FDD and TDD test cases. The FDD and TDD branches of common FDD and TDD test cases can be referenced by amending a "FDD" or "TDD" suffix to the test case clause number. For example for AM RLC test case 7.2.3.13 the FDD and TDD branches can be identified by "7.2.3.13 FDD" and "7.2.3.13 TDD".

Table 4-1: Applicability of tests and additional information for testing

| Clause   | TC Title  | Releas<br>e | Applicability |   | Additional Information |               |   |                   |
|----------|---|-------------|---------------|---|------------------------|---------------|---|-------------------|
|          |   |             | Condition     | Comment   | Specific ICS           | Specific IXIT | Number of TC<br>Executions  | Release other RAT |
| 6        | Idle mode operations  |             |               |   |                        |               |   |                   |
| 6.1.1.1  | PLMN selection of RPLMN, HPLMN/EHPLMN, UPLMN and OPLMN / Automatic mode                                     | Rel-8       | R             | UEs supporting E-UTRA   | pc_eFDD                |               | Either TC 6.1.1.1<br>or TC 6.1.1.1b<br>shall be executed.<br>(Note 4) |                   |
|          |   |             |               |   | pc_eTDD                |               |   |                   |
| 6.1.1.1a | PLMN selection / Automatic mode / between FDD and TDD   | Rel-8       | C142          | UEs supporting E-UTRA FDD and E-UTRA TDD  |                        |               |   |                   |
| 6.1.1.1b | PLMN selection of RPLMN, HPLMN/EHPLMN,<br>UPLMN and OPLMN / Automatic mode / Single<br>Frequency operation  | Rel-8       | R             | UEs supporting E-UTRA. This test is 'cells on single frequency only' equivalent of TC 6.1.1.1   | pc_eFDD                |               | Either TC 6.1.1.1<br>or TC 6.1.1.1b<br>shall be executed.<br>(Note 4) |                   |
|          |   |             |               |   | pc_eTDD                |               |   |                   |
| 6.1.1.2  | PLMN selection of "Other PLMN/access technology combinations" / Automatic mode                              | Rel-8       | R             | UEs supporting E-UTRA   | pc_eFDD                |               | Either TC 6.1.1.2<br>or TC 6.1.1.2a<br>shall be executed.<br>(Note 4) |                   |
|          |   |             |               |   | pc_eTDD                |               | <del> </del>  |                   |
| 6.1.1.2a | PLMN selection of "Other PLMN/access technology combinations" / Automatic mode / Single Frequency operation | Rel-8       | R             | UEs supporting E-UTRA This test is 'cells on single frequency only' equivalent of 6.1.1.2   | pc_eFDD                |               | Either TC 6.1.1.2<br>or TC 6.1.1.2a<br>shall be executed.<br>(Note 4) |                   |
|          |   |             |               |   | pc_eTDD                |               |   |                   |
| 6.1.1.3  | Cell reselection of ePLMN in manual mode  | Rel-8       | C388          | UEs supporting E-UTRA and (( NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED)))                   | pc_eFDD                |               | Either TC 6.1.1.3<br>or TC 6.1.1.3b<br>shall be executed.<br>(Note 4) |                   |
|          |   |             |               |   | pc_eTDD                |               |   |                   |
| 6.1.1.3a | Cell reselection of ePLMN in manual mode / between FDD and TDD  | Rel-9       | C389          | UEs supporting E-UTRA FDD and E-UTRA TDD and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED))) |                        |               | Note 3  |                   |
| 6.1.1.3b | Cell reselection of ePLMN in manual mode /<br>Single Frequency operation                                    | Rel-8       | R             | UEs supporting E-UTRA. This test is 'cells on single frequency only' equivalent of 6.1.1.3  | pc_eFDD                |               | Either TC 6.1.1.3<br>or TC 6.1.1.3b<br>shall be executed.<br>(Note 4) |                   |

| Clause             | TC Title  | Releas<br>e | Applicability |   | Additional Information |               |  |                   |
|--------------------|---|-------------|---------------|---|------------------------|---------------|--|-------------------|
|                    |   |             | Condition     | Comment   | Specific ICS           | Specific IXIT | Number of TC<br>Executions   | Release other RAT |
| 6.1.1.4            | PLMN selection in shared network environment / Automatic mode   | Rel-8       | R             | UEs supporting E-UTRA   | pc_eFDD                |               |  |                   |
| 6.1.1.4a           | PLMN selection in shared network environment /<br>Automatic mode / Between FDD and TDD  | Rel-8       | C389          | UEs supporting E-UTRA FDD and E-UTRA TDD and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED)))   | pc_eTDD                |               |  |                   |
| 6.1.1.5<br>6.1.1.6 | Void PLMN selection of RPLMN, HPLMN/EHPLMN, UPLMN and OPLMN / Automatic mode / User reselection                               | Rel-8       | C157a         | UEs supporting E-UTRA and user initiated PLMN reselection in automatic mode and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED)))                                      | pc_eFDD                |               | Either TC 6.1.1.6<br>or TC 6.1.1.6a<br>shall be executed.<br>(Note 4)  |                   |
| 6.1.1.6a           | PLMN selection of RPLMN, HPLMN/EHPLMN,<br>UPLMN and OPLMN / Automatic mode / User<br>reselection / Single Frequency operation | Rel-8       | C157          | UEs supporting E-UTRA and user initiated PLMN reselection in automatic mode. This test is 'cells on single frequency only' equivalent of 6.1.1.6  | pc_eTDD<br>pc_eFDD     |               | Either TC 6.1.1.6<br>or TC 6.1.1.6a<br>shall be executed.<br>(Note 4)  |                   |
| 6.1.1.6b           | PLMN selection of RPLMN, HPLMN/EHPLMN,<br>UPLMN and OPLMN / Automatic mode / User<br>reselection / Two Frequencies operation  | Rel-8       | C157b         | UEs supporting E-UTRA and user initiated PLMN reselection in automatic mode. This test is 'cells on two frequencies only' and 'TDD cat.1bis UE only' equivalent of 6.1.1.6  | pc_eTDD<br>pc_eTDD     |               | Either TC 6.1.1.6<br>or TC 6.1.1.6b<br>shall be executed.<br>(Note 21) |                   |
| 6.1.1.7            | PLMN selection / Periodic reselection / MinimumPeriodicSearchTimer  | Rel-10      | C179a         | UEs supporting E-UTRA and MinimumPeriodicSearchTimer and not supporting "Fast First Higher Priority PLMN search" and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED))) | pc_eFDD                |               | Either TC 6.1.1.7<br>or TC 6.1.1.7a<br>shall be executed.<br>(Note 4)  |                   |
| 6.1.1.7a           | PLMN selection / Periodic reselection / MinimumPeriodicSearchTimer / Single Frequency operation                               | Rel-10      | C179          | UEs supporting E-UTRA and MinimumPeriodicSearchTimer and not supporting "Fast First Higher Priority PLMN search". This test is 'cells on single frequency only' equivalent of 6.1.1.7   | pc_eFDD pc_eFDD        |               | Either TC 6.1.1.7<br>or TC 6.1.1.7a<br>shall be executed.<br>(Note 4)  |                   |
| 6.1.1.8            | PLMN selection of RPLMN or (E)HPLMN;<br>Automatic mode  | Rel-8       | C212 a        | UEs supporting E-UTRA and EF_LRPLMSI_Exception and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED)))   | pc_eFDD pc_eFDD        |               |  |                   |

| Clause   | TC Title  | Releas<br>e | Applicability |   | Additional Information |               |                            |                   |
|----------|---|-------------|---------------|---|------------------------|---------------|----------------------------|-------------------|
|          |   |             | Condition     | Comment   | Specific ICS           | Specific IXIT | Number of TC<br>Executions | Release other RAT |
| 6.1.1.9  | PLMN selection of RPLMN or (E)HPLMN;<br>Manual mode   | Rel-8       | C213          | UEs supporting E-UTRA and ManualModeNetworkSelectionException   | pc_eFDD                |               |                            |                   |
|          |   |             |               |   | pc_eTDD                |               |                            |                   |
| 6.1.2.1  | Void  |             |               |   |                        |               |                            |                   |
| 6.1.2.2  | Cell selection / Q <sub>rxlevmin</sub>  | Rel-8       | C224c         | UEs supporting E-UTRA and NOT Category M1   | pc_eFDD                |               |                            |                   |
|          |   |             |               |   | pc_eTDD                |               |                            |                   |
| 6.1.2.2a | Cell selection / Q <sub>qualmin</sub>   | Rel-9       | C224c         | UEs supporting E-UTRA and NOT Category M1   | pc_eFDD                |               | Note 3                     |                   |
|          |   |             |               |   | pc_eTDD                |               |                            |                   |
| 6.1.2.2b | Cell selection / UE Cat 0 not allowed   | Rel-12      | C224          | UEs supporting E-UTRA and UE Category 0   | pc_eFDD                |               |                            |                   |
|          |   |             |               |   | pc_eTDD                |               |                            |                   |
| 6.1.2.2c | Cell selection / Q <sub>rxlevmin</sub> / Enhanced Coverage                                    | Rel-13      | C254          | UEs supporting E-UTRA and (CE mode A or CE mode B)  | pc_eFDD                |               |                            |                   |
|          |   |             |               |   | pc_eTDD                |               |                            |                   |
| 6.1.2.2d | Cell selection / Q <sub>qualmin</sub> / Enhanced Coverage                                     | Rel-13      | C254          | UEs supporting E-UTRA and (CE mode A or CE mode B)  | pc_eFDD                |               |                            |                   |
|          |   |             |               | ,   | pc_eTDD                |               |                            |                   |
| 6.1.2.3  | Cell selection / Intra E-UTRAN / Serving cell becomes non-suitable (S<0 or barred)            | Rel-8       | C388          | UEs supporting E-UTRA and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED)))  | pc_eFDD                |               |                            |                   |
|          |   |             |               |   | pc_eTDD                |               |                            |                   |
| 6.1.2.3a | Cell selection / Intra E-UTRAN / Serving cell becomes non-suitable (Srxlev > 0 and Squal < 0) | Rel-9       | R             | UEs supporting E-UTRA   | pc_eFDD                |               | Note 3                     |                   |
|          |   |             |               |   | pc_eTDD                |               |                            |                   |
| 6.1.2.4  | Cell reselection  | Rel-8       | R             | UEs supporting E-UTRA   | pc_eFDD                |               |                            |                   |
|          |   |             |               |   | pc_eTDD                |               |                            |                   |
| 6.1.2.5  | Cell reselection for interband operation  | Rel-8       | C184 a        | UEs supporting E-UTRA and more than 1 FDD or TDD E-UTRA band and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED))) | pc_eFDD                |               |                            |                   |
|          |   |             |               |   | pc_eTDD                |               |                            |                   |
| 6.1.2.5a | Cell reselection for interband operation/ Power Class 2 UE operation/ Between FDD and TDD     | Rel-14      | C281          | UEs supporting E-UTRA FDD and E-UTRA<br>TDD and Bands38, 40, 41 and 42 Power class<br>2 operation and NOT Category M1   | pc_eFDD                |               | Note 17                    |                   |
| 6.1.2.5b | Cell reselection for interband operation using Pcompensation / Between FDD and TDD            | Rel-14      | C389          | UEs supporting E-UTRA FDD and E-UTRA TDD and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED)))                     |                        |               | Note 17                    |                   |
| 6.1.2.5c | Inter-band Cell reselection / Extended frequency list   | Rel-12      | C184 a        | UEs supporting E-UTRA and more than 1 FDD or TDD E-UTRA band and ((NOT Category M1) OR (Category M1 AND (intra-frequency  | pc_eFDD                |               |                            |                   |

| Clause   | TC Title  | Releas<br>e | Applicability |   | Additional Information |               |   |                   |
|----------|---|-------------|---------------|---|------------------------|---------------|---|-------------------|
|          |   |             | Condition     | Comment   | Specific ICS           | Specific IXIT | Number of TC<br>Executions  | Release other RAT |
|          |   |             |               | RSRQ measurements and inter-frequency<br>RSRP and RSRQ measurements in<br>RRC_CONNECTED)))  |                        |               |   |                   |
|          |   |             |               |   | pc_eTDD                |               |   |                   |
| 6.1.2.6  | Cell reselection using Q <sub>hyst</sub> , Q <sub>offset</sub> and T <sub>reselection</sub>                           | Rel-8       | C224c         | UEs supporting E-UTRA and NOT Category M1   | pc_eFDD                |               |   |                   |
|          |   |             |               |   | pc_eTDD                |               |   |                   |
| 6.1.2.6a | Cell reselection using T <sub>reselection</sub> / Enhanced Coverage   | Rel-13      | C254          | UEs supporting E-UTRA and (CE mode A or CE mode B)  | pc_eFDD                |               |   |                   |
|          |   |             |               |   | pc_eTDD                |               |   |                   |
| 6.1.2.6b | Cell reselection from cell in enhanced coverage to inter-frequency cell in normal coverage                            | Rel-13      | C254b         | UEs supporting E-UTRA and (CE mode A or CE mode B) and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED))) | pc_eFDD                |               |   |                   |
|          |   |             |               |   | pc_eTDD                |               |   |                   |
| 6.1.2.7  | Cell reselection / Equivalent PLMN  | Rel-8       | C388          | UEs supporting E-UTRA and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED)))                              | pc_eFDD                |               | Either TC 6.1.2.7<br>or TC 6.1.2.7a<br>shall be executed.<br>(Note 4) |                   |
|          |   |             |               |   | pc_eTDD                |               |   |                   |
| 6.1.2.7a | Cell reselection / Equivalent PLMN / Single Frequency operation   | Rel-8       | R             | UEs supporting E-UTRA. This test is 'cells on single frequency only ' equivalent of 6.1.2.7   | pc_eFDD                |               | Either TC 6.1.2.7<br>or TC 6.1.2.7a<br>shall be executed.<br>(Note 4) |                   |
|          |   |             |               |   | pc_eTDD                |               |   |                   |
| 6.1.2.8  | Cell reselection using cell status and cell reservations / Access control class 0 to 9                                | Rel-8       | C388          | UEs supporting E-UTRA and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED)))                              | pc_eFDD                |               | Either TC 6.1.2.8<br>or TC 6.1.2.8a<br>shall be executed.<br>(Note 4) |                   |
|          |   |             |               |   | pc_eTDD                |               |   |                   |
| 6.1.2.8a | Cell reselection using cell status and cell reservations / Access control class 0 to 9 / Single Frequency operation   | Rel-8       | R             | UEs supporting E-UTRA. This test is 'cells on single frequency only ' equivalent of 6.1.2.8   | pc_eFDD                |               | Either TC 6.1.2.8<br>or TC 6.1.2.8a<br>shall be executed.<br>(Note 4) |                   |
|          |   |             |               |   | pc_eTDD                |               |   |                   |
| 6.1.2.9  | Cell reselection using cell status and cell reservations / Access control class 11 to 15                              | Rel-8       | C224c         | UEs supporting E-UTRA and NOT Category<br>M1  | pc_eFDD                |               | Either TC 6.1.2.9<br>or TC 6.1.2.9a<br>shall be executed.<br>(Note 4) |                   |
|          |   |             |               |   | pc_eTDD                |               |   |                   |
| 6.1.2.9a | Cell reselection using cell status and cell reservations / Access control class 11 to 15 / Single Frequency operation | Rel-8       | R             | UEs supporting E-UTRA. This test is 'cells on single frequency only ' equivalent of 6.1.2.9   | pc_eFDD                |               | Either TC 6.1.2.9<br>or TC 6.1.2.9a<br>shall be executed.<br>(Note 4) |                   |

| Clause    | TC Title   | Releas<br>e | Applicability |  | Additional Information |               |                            |                   |
|-----------|--|-------------|---------------|--|------------------------|---------------|----------------------------|-------------------|
|           |  |             | Condition     | Comment  | Specific ICS           | Specific IXIT | Number of TC<br>Executions | Release other RAT |
|           |  |             |               |  | pc_eTDD                |               |                            |                   |
| 6.1.2.10  | Cell reselection in shared network environment   | Rel-8       | R             | UEs supporting E-UTRA  | pc_eFDD                |               |                            |                   |
|           |  |             |               |  | pc_eTDD                |               |                            |                   |
| 6.1.2.11  | Inter-frequency Cell reselection   | Rel-8       | C388          | UEs supporting E-UTRA and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED)))                                   | pc_eFDD                |               |                            |                   |
| 040445    | Inter francisco Call recalentian / Estandad  | D=1.40      | 0000          | LIFE CONTRACTOR F. LITPA and //NOT Cotagons  | pc_eTDD                |               |                            |                   |
| 6.1.2.11a | Inter-frequency Cell reselection / Extended frequency list   | Rel-12      | C388          | UEs supporting E-UTRA and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED)))                                   | pc_eFDD                |               |                            |                   |
|           |  |             |               |  | pc_eTDD                |               |                            |                   |
| 6.1.2.12  | Cell reselection / Cell-specific reselection parameters provided by the network in a neighbouring cell list    | Rel-8       | C388          | UEs supporting E-UTRA and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED)))                                   | pc_eFDD                |               |                            |                   |
|           |  |             |               |  | pc_eTDD                |               |                            |                   |
| 6.1.2.13  | Cell reselection, S <sub>intrasearch</sub> , S <sub>nonintrasearch</sub>                                       | Rel-8       | C388          | UEs supporting E-UTRA and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED)))                                   | pc_eFDD                |               |                            |                   |
|           |  |             |               |  | pc_eTDD                |               |                            |                   |
| 6.1.2.14  | Speed-dependent Cell reselection   | Rel-8       | C388          | UEs supporting E-UTRA and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED)))                                   | pc_eFDD                |               |                            |                   |
|           |  |             |               |  | pc_eTDD                |               |                            |                   |
| 6.1.2.15  | Inter-frequency Cell reselection according to cell reselection priority provided by SIBs                       | Rel-8       | C388          | UEs supporting E-UTRA and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED)))                                   | pc_eFDD                |               |                            |                   |
|           |  |             |               |  | pc_eTDD                |               |                            |                   |
| 6.1.2.15a | Inter-frequency Cell reselection according to cell reselection priority provided by SIBs / Between FDD and TDD | Rel-9       | C389          | UEs supporting E-UTRA FDD and E-UTRA<br>TDD and ((NOT Category M1) OR (Category<br>M1 AND (intra-frequency RSRQ<br>measurements and inter-frequency RSRP and<br>RSRQ measurements in<br>RRC_CONNECTED))) |                        |               | Note 3                     |                   |
| 6.1.2.15b | Inter-band Cell reselection according to cell reselection priority provided by SIBs                            | Rel-8       | C388          | UEs supporting E-UTRA and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency  | pc_eFDD                |               |                            |                   |

| Clause   | TC Title   | Releas<br>e               | Applicability |   | Additional Information |               |                            |                   |
|----------|--|---------------------------|---------------|---|------------------------|---------------|----------------------------|-------------------|
|          |  |                           | Condition     | Comment   | Specific ICS           | Specific IXIT | Number of TC<br>Executions | Release other RAT |
|          |  |                           |               | RSRP and RSRQ measurements in RRC_CONNECTED)))  | pc_eTDD                |               |                            |                   |
| 6.1.2.16 | Cell reselection / interband operation / Between FDD and TDD   | Rel-9                     | C389          | UEs supporting E-UTRA FDD and E-UTRA TDD and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED)))   | рс_етов                |               | Note 3                     |                   |
| 6.1.2.17 | Cell reselection for Squal to check against $S_{IntraSearchQ}$ and $S_{nonIntraSearchQ}$   | Rel-9                     | C388          | UEs supporting E-UTRA and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED)))  | pc_eFDD                |               | Note 3                     |                   |
|          |  |                           |               |   | pc_eTDD                |               |                            |                   |
| 6.1.2.18 | Inter-frequency Cell reselection based on common priority information with parameters Thresh <sub>X, HighQ</sub> , Thresh <sub>X, LowQ</sub> and Thresh <sub>Serving, LowQ</sub> | Rel-9                     | C388          | UEs supporting E-UTRA and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED)))  | pc_eFDD                |               | Note 3                     |                   |
|          |  |                           |               | <i>'''</i>  | pc_eTDD                |               |                            |                   |
| 6.1.2.19 | Intra-frequency Cell reselection / MFBI  | Rel-9                     | C189F         | UEs supporting E-UTRA and MFBI feature indicated by Feature Group Indicator 31  | pc_eFDD                |               | Note 3                     |                   |
|          |  |                           | C189T         |   | pc_eTDD                |               |                            |                   |
| 6.1.2.20 | Inter-frequency Cell reselection / MFBI  | Rel-9                     | C189bF        | UEs supporting E-UTRA and MFBI feature indicated by Feature Group Indicator 31 and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED)))             | pc_eFDD                |               | Note 3                     |                   |
|          |  |                           | C189bT        | 7"  | pc_eTDD                |               |                            |                   |
| 6.1.2.21 | Inter-band Cell reselection / MFBI   | Rel-9                     | C189bF        | UEs supporting E-UTRA and MFBI feature indicated by Feature Group Indicator 31 and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED)))             | pc_eFDD                |               | Note 3                     |                   |
| 1        |  |                           | C189bT        |   | pc_eTDD                |               |                            |                   |
| 6.1.2.22 | Cell reselection / MFBI / UE does not support multiBandInfoList  | Rel-8 to<br>Rel-9<br>only | C229 a        | UEs supporting E-UTRA and not support MFBI feature indicated by Feature Group Indicator 31 and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED))) | pc_eFDD                |               |                            |                   |
|          |  |                           | C230          |   | pc_eTDD                |               |                            |                   |
| 6.1.2.23 | Inter-band Cell reselection / MFBI frequency band priority adjustment/Inter-band CA  | Rel-12                    | C257          | UEs supporting E-UTRA and MFBI feature indicated by Feature Group Indicator 31 and  | pc_eFDD                |               |                            |                   |

| Clause   | TC Title   | Releas<br>e | Applicability  |   | Additional Information |               |                            |   |
|----------|--|-------------|--|---|------------------------|---------------|----------------------------|---|
|          |  |             | Condition  | Comment   | Specific ICS           | Specific IXIT | Number of TC<br>Executions | Release other RAT                       |
|          |  |             |  | freqBandIndicatorPriority-r12 and Inter-band  |                        |               |                            |   |
|          |  |             | 0050   | Carrier Aggregation   | TDD                    |               |                            |   |
| 0011     | L. BATRIANICA C. C. C.   | D 10        | C258   | LIE C ELITON LUTDA E  | pc_eTDD                |               |                            |   |
| 6.2.1.1  | Inter-RAT PLMN Selection / Selection of correct RAT for OPLMN / Automatic mode                                   | Rel-8       | C150   | UEs supporting E-UTRA and UTRA, or E-<br>UTRA and UTRA and GERAN and NOT<br>Category M1           | pc_eFDD                |               |                            |   |
|          |  |             |  |   | pc_eTDD                |               |                            | Rel-9 UTRA TDD                          |
| 6.2.1.2  | Inter-RAT PLMN Selection / Selection of correct RAT for UPLMN / Automatic mode                                   | Rel-8       | C01  | UEs supporting E-UTRA and UTRA and NOT Category M1  | pc_eFDD                |               |                            |   |
| <u> </u> |  |             |  |   | pc_eTDD                |               |                            | Rel-9 UTRA TDD                          |
| 6.2.1.3  | Inter-RAT PLMN Selection / Selection of correct PLMN and RAT in shared network environment / Automatic mode      | Rel-8       | C01  | UEs supporting E-UTRA and UTRA and NOT Category M1  | pc_eFDD                |               |                            |   |
|          |  |             |  |   | pc_eTDD                |               |                            | Rel-9 UTRA TDD                          |
| 6.2.1.4  | Inter-RAT PLMN Selection / Selection of correct RAT from the OPLMN list / Manual mode                            | Rel-8       | C05  | UEs supporting E-UTRA and GERAN and NOT Category M1   | pc_eFDD                |               |                            |   |
| ĺ        |  |             |  |   | pc_eTDD                |               |                            |   |
| 6.2.1.6  | Inter-RAT Background HPLMN Search / Search for correct RAT for HPLMN / Automatic Mode                            | Rel-8       | C05  | UEs supporting E-UTRA and GERAN and NOT Category M1   | pc_eFDD                |               |                            |   |
|          |  |             |  |   | pc_eTDD                |               |                            |   |
| 6.2.2.1  | Inter-RAT Cell selection / From E-UTRA<br>RRC_IDLE to UTRA_Idle / Serving cell becomes<br>non-suitable           | Rel-8       | C01  | UEs supporting E-UTRA and UTRA and NOT Category M1  | pc_eFDD                |               |                            |   |
|          |  |             |  |   | pc_eTDD                |               |                            | Rel-9 UTRA TDD                          |
| 6.2.2.2  | Inter-RAT Cell selection / From E-UTRA RRC_IDLE to GSM_Idle/GPRS Packet_idle / Serving cell becomes non-suitable | Rel-8       | C05  | UEs supporting E-UTRA and GERAN and NOT Category M1   | pc_eFDD                |               |                            |   |
|          |  |             |  |   | pc_eTDD                |               |                            |   |
| 6.2.2.3  | Inter-RAT Cell selection / From E-UTRA<br>RRC_IDLE to HRPD Idle / Serving cell becomes<br>non-suitable           | Rel-8       | C06 UEs supporting E-UTRA and HRPD and NOT Category M1 | pc_eFDD   |                        |               |                            |   |
| i        |  |             |  |   | pc_eTDD                |               |                            |   |
| 6.2.2.4  | Inter-RAT Cell selection / From E-UTRAN RRC_IDLE to 1xRTT idle / Serving cell becomes non-suitable               | Rel-8       | C07  | UEs supporting E-UTRA and 1xRTT and NOT Category M1   | pc_eFDD                |               |                            |   |
|          |  |             |  |   | pc_eTDD                |               |                            |   |
| 6.2.2.5  | Cell selection / No USIM   | Rel-8       | C182   | UEs supporting E-UTRA and UTRA and not<br>supporting of IMS emergency call and NOT<br>Category M1 | pc_eFDD                |               |                            |   |
|          |  |             |  |   | pc_eTDD                |               |                            | Rel-9 UTRA TDD                          |
| 6.2.2.6  | Inter-RAT Cell selection / From GSM_Idle/GPRS Packet_idle to E-UTRA_RRC_IDLE / Serving cell becomes non-suitable | Rel-8       | C05  | UEs supporting E-UTRA and GERAN and NOT Category M1   | pc_eFDD                |               |                            | 110.00111111111111111111111111111111111 |
|          |  |             |  |   | pc_eTDD                |               |                            |   |
| 6.2.2.7  | Inter-RAT Cell selection / From GSM_Idle/GPRS Packet_idle to E-UTRA_RRC_IDLE, when the serving cell is barred    | Rel-8       | C05  | UEs supporting E-UTRA and GERAN and NOT Category M1   | pc_eFDD                |               |                            |   |
| 1        | 229 20   |             |  |   | pc eTDD                |               |                            |   |
|          |  |             |  |   | pc_eTDD                |               |                            |   |

| Clause             | TC Title  | Releas<br>e | Applicability |  | Additional Information |               |                            |                   |
|--------------------|---|-------------|---------------|--|------------------------|---------------|----------------------------|-------------------|
|                    |   |             | Condition     | Comment  | Specific ICS           | Specific IXIT | Number of TC<br>Executions | Release other RAT |
| 6.2.2.8            | Inter-RAT Cell selection / From UTRA_Idle to E-<br>UTRA RRC_IDLE / Serving cell becomes non-<br>suitable  | Rel-8       | C01           | UEs supporting E-UTRA and UTRA and NOT Category M1   | pc_eFDD                |               |                            |                   |
|                    |   |             |               |  | pc_eTDD                |               |                            | Rel-9 UTRA TDD    |
| 6.2.3.1            | Inter-RAT Cell reselection / From E-UTRA RRC_IDLE to GSM_Idle/GPRS Packet_Idle  | Rel-8       | C05           | UEs supporting E-UTRA and GERAN and NOT Category M1  | pc_eFDD                |               |                            |                   |
|                    |   |             |               |  | pc_eTDD                | 1             |                            |                   |
| 6.2.3.1a           | Inter-RAT Cell reselection / From E-UTRA RRC_IDLE to GSM_Idle/GPRS Packet_Idle (Squal < Thresh <sub>Serving</sub> , LowQ, Srxlev > Thresh <sub>X, LowP</sub> and Srxlev > Thresh <sub>X, HighP</sub> )  | Rel-9       | C171          | UEs supporting E-UTRA and GERAN and Squal based cell reselection between E-UTRAN and GERAN and NOT Category M1       | pc_eFDD                |               | Note 3                     | Rel-8 GERAN       |
| 0000               | Vaid  |             |               |  | pc_eTDD                |               |                            |                   |
| 6.2.3.2<br>6.2.3.3 | Void Inter-RAT Cell reselection / From UTRA_Idle to E-UTRA RRC_IDLE   | Rel-8       | C01           | UEs supporting E-UTRA and UTRA and NOT Category M1   | pc_eFDD                |               |                            |                   |
| İ                  | 2 0 11 0 11 11 10 2 10 2 2  |             |               | Salegory   | pc_eTDD                |               |                            | Rel-9 UTRA TDD    |
| 6.2.3.3a           | Inter-RAT Cell reselection / From UTRA_Idle to E-UTRA RRC_IDLE (QqualminEUTRA, Squal <sub>ServingCell</sub> < Thresh <sub>serving,low2</sub> , Squal <sub>nonServingCell,x</sub> > Thresh <sub>x, low2</sub> and Squal <sub>nonServingCell,x</sub> > Thresh <sub>x, high2</sub> ) | Rel-9       | C126          | UEs supporting E-UTRA and UTRA and supporting Squal based cell reselection to UTRAN from E-UTRAN and NOT Category M1 | pc_eFDD                |               | Note 3                     | Rel-9 UTRA FDD    |
| 6.2.3.4            | Inter-RAT cell reselection / From UTRA_CELL_PCH state to E-UTRA RRC_IDLE  | Rel-8       | C77           | UEs supporting E-UTRA and UTRA and<br>EUTRA Feature Group Indicator 1 and NOT<br>Category M1                         | pc_eFDD                |               |                            |                   |
|                    |   |             |               |  | pc_eTDD                |               |                            | Rel-9 UTRA TDD    |
| 6.2.3.4a           | Inter-RAT Cell reselection / From UTRA_CELL_PCH state to E-UTRA RRC_IDLE based on RSRQ+RSRP evaluation  | Rel-9       | C77           | UEs supporting E-UTRA and UTRA and<br>EUTRA Feature Group Indicator 1 and NOT<br>Category M1                         | pc_eFDD                |               | Note 3                     | Rel-9 UTRA FDD    |
|                    |   |             |               |  | pc_eTDD                |               |                            | Rel-9 UTRA TDD    |
| 6.2.3.5            | Inter-RAT Cell reselection / From E-UTRA<br>RRC_IDLE to UTRA_Idle   | Rel-8       | C01           | UEs supporting E-UTRA and UTRA and NOT Category M1   | pc_eFDD                |               |                            |                   |
| 1                  |   |             |               |  | pc_eTDD                |               |                            | Rel-9 UTRA TDD    |
| 6.2.3.5a           | Inter-RAT Cell reselection / From E-UTRA RRC_IDLE to UTRA_Idle (Squal > Thresh <sub>X, HighQ</sub> , Squal < Thresh <sub>Serving, LowQ</sub> , Squal > Thresh <sub>X, LowQ</sub> and S <sub>nonIntraSearchQ</sub> )   | Rel-9       | C127          | UEs supporting E-UTRA and UTRA and supporting Squal based cell reselection to E-UTRAN from UTRAN and NOT Category M1 | pc_eFDD                |               | Note 3                     | Rel-9 UTRA FDD    |
| 6.2.3.6            | Inter-RAT Cell reselection / From E-UTRA<br>RRC_IDLE to UTRA_Idle according to RAT<br>priority provided by dedicated signalling   | Rel-8       | C01           | UEs supporting E-UTRA and UTRA and NOT Category M1   | pc_eFDD                |               |                            |                   |
|                    |   |             |               |  | pc_eTDD                |               |                            | Rel-9 UTRA TDD    |
| 6.2.3.7            | Inter-RAT Cell reselection / From E-UTRA<br>RRC_IDLE to HRPD Idle / HRPD cell is higher<br>reselection priority than E-UTRA   | Rel-8       | C06           | UEs supporting E-UTRA and HRPD and NOT Category M1   | pc_eFDD                |               |                            |                   |
|                    |   |             |               |  | pc_eTDD                |               |                            |                   |
| 6.2.3.7a           | Inter-RAT Cell reselection / From E-UTRA<br>RRC_IDLE to HRPD Idle / HRPD cell is higher<br>reselection priority than E-UTRA (Srxlev ><br>Thresh <sub>HRPD, HighP</sub> )  | Rel-9       | C06           | UEs supporting E-UTRA and HRPD and NOT Category M1   | pc_eFDD                |               |                            |                   |

| Clause    | TC Title  | Releas<br>e | Applicability |   | Additional Information |               |                            |                   |
|-----------|---|-------------|---------------|---|------------------------|---------------|----------------------------|-------------------|
|           |   |             | Condition     | Comment   | Specific ICS           | Specific IXIT | Number of TC<br>Executions | Release other RAT |
|           |   |             |               |   | pc_eTDD                |               |                            |                   |
| 6.2.3.8   | Inter-RAT Cell reselection / From E-UTRA<br>RRC_IDLE to HRPD Idle / HRPD is lower<br>reselection priority than E-UTRA   | Rel-8       | C06           | UEs supporting E-UTRA and HRPD and NOT Category M1  | pc_eFDD                |               |                            |                   |
|           | , ,   |             |               |   | pc_eTDD                |               |                            |                   |
| 6.2.3.8a  | Inter-RAT Cell reselection / From E-UTRA RRC_IDLE to HRPD Idle / HRPD cell is lower reselection priority than E-UTRA (Squal < Thresh <sub>Serving, LowQ</sub> and Srxlev > Thresh <sub>HRPD, LowP</sub>         | Rel-9       | C06           | UEs supporting E-UTRA and HRPD and NOT Category M1  | pc_eFDD                |               |                            |                   |
|           |   |             |               |   | pc_eTDD                |               |                            |                   |
| 6.2.3.9   | Inter-RAT Cell reselection: from E-UTRA RRC_IDLE to CDMA2000 1xRTT Dormant- When CDMA2000 1xRTT cell is higher reselection priority than E-UTRA   | Rel-8       | C07           | UEs supporting E-UTRA and 1xRTT and NOT Category M1 | pc_eFDD                |               |                            |                   |
|           | ,   |             |               |   | pc eTDD                |               |                            |                   |
| 6.2.3.9a  | Inter-RAT Cell reselection / From E-UTRA RRC_IDLE to 1xRTT Dormant / 1xRTT cell is higher reselection priority than E-UTRA (Srxlev > Thresh <sub>1xRTT, HighP</sub> )   | Rel-9       | C07           | UEs supporting E-UTRA and 1xRTT and NOT Category M1 | pc_eFDD                |               |                            |                   |
|           | THE GOLFIANT I, Flight y  |             |               |   | pc_eTDD                |               |                            |                   |
| 6.2.3.10  | Inter-RAT Cell reselection: from E-UTRA RRC_IDLE to CDMA2000 1xRTT Idle - When CDMA2000 1xRTT is lower reselection priority than E-UTRA   | Rel-8       | C07           | UEs supporting E-UTRA and 1xRTT and NOT Category M1 | pc_eFDD                |               |                            |                   |
|           |   |             |               |   | pc_eTDD                |               |                            |                   |
| 6.2.3.10a | Inter-RAT Cell reselection / From E-UTRA RRC_IDLE to 1xRTT Dormant / 1xRTT cell is lower reselection priority than E-UTRA (Squal < Thresh <sub>Serving, LowQ</sub> and Srxlev > Thresh <sub>1xRTT, LowP</sub> ) | Rel-9       | C07           | UEs supporting E-UTRA and 1xRTT and NOT Category M1 | pc_eFDD                |               | Note 3                     |                   |
|           |   |             |               |   | pc_eTDD                |               |                            |                   |
| 6.2.3.11  | Void  |             |               |   |                        |               |                            |                   |
| 6.2.3.12  | Void  |             |               |   |                        |               |                            |                   |
| 6.2.3.13  | Inter-RAT Cell reselection / From UTRA_Idle to<br>E-UTRA RRC_IDLE according to RAT priority<br>provided by dedicated signalling   | Rel-8       | C01           | UEs supporting E-UTRA and UTRA and NOT Category M1  | pc_eFDD                |               |                            |                   |
|           |   |             |               |   | pc_eTDD                |               |                            | Rel-9 UTRA TDD    |
| 6.2.3.14  | Inter-RAT cell reselection / from GSM_Idle/GPRS Packet_Idle to E-UTRA (priority of E-UTRA cells are higher than the serving cell)   | Rel-8       | C05           | UEs supporting E-UTRA and GERAN and NOT Category M1 | pc_eFDD                |               |                            |                   |
|           |   |             |               |   | pc_eTDD                |               |                            |                   |
| 6.2.3.15  | Inter-RAT Cell reselection / from<br>GSM_Idle/GPRS Packet_Idle to E-UTRA<br>(priority of E-UTRA cells are lower than the<br>serving cell)   | Rel-8       | C05           | UEs supporting E-UTRA and GERAN and NOT Category M1 | pc_eFDD                |               |                            |                   |
|           |   |             |               |   | pc_eTDD                |               |                            |                   |
| 6.2.3.16  | Inter-RAT Cell reselection / from GSM_Idle to E-<br>UTRAN /based on H_PRIO criteria   | Rel-8       | C05           | UEs supporting E-UTRA and GERAN and NOT Category M1 | pc_eFDD                |               |                            |                   |

| Clause   | TC Title   | Releas<br>e | Applicability |  | Additional Information |               |                            |                   |
|----------|--|-------------|---------------|--|------------------------|---------------|----------------------------|-------------------|
|          |  |             | Condition     | Comment  | Specific ICS           | Specific IXIT | Number of TC<br>Executions | Release other RAT |
|          |  |             |               |  | pc_eTDD                |               |                            |                   |
| 6.2.3.17 | Inter-RAT Cell reselection / from<br>GSM_Idle/GPRS Packet_Idle to E-UTRA<br>(priority E-UTRA cells)      | Rel-8       | C05           | UEs supporting E-UTRA and GERAN and NOT Category M1  | pc_eFDD                |               |                            |                   |
|          |  |             |               |  | pc_eTDD                |               |                            |                   |
| 6.2.3.18 | Inter-RAT Cell reselection / from<br>GSM_Idle/GPRS Packet_Idle to E-UTRA<br>(blacklisted E-UTRA cells)   | Rel-8       | C05           | UEs supporting E-UTRA and GERAN and NOT Category M1  | pc_eFDD                |               |                            |                   |
|          |  |             |               |  | pc_eTDD                |               |                            |                   |
| 6.2.3.19 | Redirection to E-UTRA upon the release of the CS connection  | Rel-8       | C115          | UEs supporting E-UTRA and GERAN and speech and NOT Category M1   | pc_eFDD                |               |                            |                   |
|          |  |             |               |  | pc_eTDD                |               |                            |                   |
| 6.2.3.20 | Void   |             |               |  |                        |               |                            |                   |
| 6.2.3.21 | Inter-RAT Cell reselection / From GPRS Packet_transfer (NC0 mode) to E-UTRA                              | Rel-8       | C66           | UEs supporting E-UTRA and GERAN and<br>GERAN to E-UTRAN neighbour cell<br>measurements and NOT Category M1   | pc_eFDD                |               |                            |                   |
|          |  |             |               |  | pc_eTDD                |               |                            |                   |
| 6.2.3.22 | Void   |             |               |  |                        |               |                            |                   |
| 6.2.3.23 | Inter-RAT Cell reselection from GPRS Packet transfer to E-UTRA in CCN Mode (PACKET CELL CHANGE CONTINUE) | Rel-8       | C114          | UEs supporting E-UTRA and GERAN and CCN towards E-UTRAN, E-UTRAN Neighbour Cell measurement reporting and Network controlled cell reselection to E-UTRAN and NOT Category M1 | pc_eFDD                |               |                            |                   |
| 6.2.3.24 | Inter-RAT Cell reselection from GPRS Packet transfer to E-UTRA in CCN Mode (PACKET CELL CHANGE ORDER)    | Rel-8       | C114          | UEs supporting E-UTRA and GERAN and CCN towards E-UTRAN, E-UTRAN Neighbour Cell measurement reporting and Network controlled cell reselection to E-UTRAN and NOT Category M1 | pc_eFDD                |               |                            |                   |
|          |  |             |               |  | pc_eTDD                |               |                            |                   |
| 6.2.3.26 | Inter-RAT Autonomous Cell reselection GPRS Packet_transfer to E-UTRA (NC1 mode)                          | Rel-8       | C114          | UEs supporting E-UTRA and GERAN and CCN towards E-UTRAN, E-UTRAN Neighbour Cell measurement reporting and Network controlled cell reselection to E-UTRAN and NOT Category M1 | pc_eFDD                |               |                            |                   |
|          |  |             |               |  | pc_eTDD                |               |                            |                   |
| 6.2.3.27 | Inter-RAT Cell selection from GPRS Packet_transfer to E-UTRA (NC2 Mode)                                  | Rel-8       | C114          | UEs supporting E-UTRA and GERAN and CCN towards E-UTRAN, E-UTRAN Neighbour Cell measurement reporting and Network controlled cell reselection to E-UTRAN and NOT Category M1 | pc_eFDD                |               |                            |                   |
|          |  |             |               |  | pc_eTDD                |               |                            |                   |
| 6.2.3.28 | Inter-RAT Cell reselection from GPRS Packet_transfer to E-UTRA (Network Assisted Cell Change)            | Rel-8       | C114          | UEs supporting E-UTRA and GERAN and CCN towards E-UTRAN, E-UTRAN Neighbour Cell measurement reporting and Network controlled cell reselection to E-UTRAN and NOT Category M1 | pc_eFDD                |               |                            |                   |
|          |  |             |               |  | pc_eTDD                |               |                            |                   |

| Clause   | TC Title   | Releas<br>e | Applicability |  | Additional Information |               |                            |                   |
|----------|--|-------------|---------------|--|------------------------|---------------|----------------------------|-------------------|
|          |  |             | Condition     | Comment  | Specific ICS           | Specific IXIT | Number of TC<br>Executions | Release other RAT |
| 6.2.3.29 | Inter-RAT Cell reselection from GPRS packet_transfer to E-UTRA in CCN mode (PACKET MEASUREMENT ORDER)  | Rel-8       | C114          | UEs supporting E-UTRA and GERAN and CCN towards E-UTRAN, E-UTRAN Neighbour Cell measurement reporting and Network controlled cell reselection to E-UTRAN and NOT Category M1                     | pc_eFDD                |               |                            |                   |
|          |  |             |               |  | pc_eTDD                |               |                            |                   |
| 6.2.3.30 | Inter-RAT Cell reselection failure from GPRS Packet transfer to E-UTRA (Network Assisted Cell Change)  | Rel-8       | C114          | UEs supporting E-UTRA and GERAN and CCN towards E-UTRAN, E-UTRAN Neighbour Cell measurement reporting and Network controlled cell reselection to E-UTRAN and NOT Category M1                     | pc_eFDD                |               |                            |                   |
|          |  |             |               |  | pc_eTDD                |               |                            |                   |
| 6.2.3.31 | Inter-RAT Cell reselection / From UTRA_Idle (low priority) to E-UTRA RRC_IDLE (high priority) according to RAT priority provided by dedicated signalling   | Rel-8       | C01           | UEs supporting E-UTRA and UTRA and NOT Category M1   | pc_eFDD                |               |                            |                   |
|          |  |             |               |  | pc_eTDD                |               |                            | Rel-9 UTRA TDD    |
| 6.2.3.32 | Inter-RAT Cell reselection / From E-UTRA<br>RRC_IDLE to UTRA_Idle, Snonintrasearch   | Rel-8       | C01           | UEs supporting E-UTRA and UTRA and NOT Category M1   | pc_eFDD                |               |                            |                   |
|          |  |             |               |  | pc_eTDD                |               |                            | Rel-9 UTRA TDD    |
| 6.2.3.33 | Inter-RAT Cell reselection / From E-UTRA RRC_IDLE to UTRA_Idle / Squal based cell reselection parameters are broadcasted in E- UTRAN / UE does not support Squal based cell reselection in UTRAN         | Rel-9       | C131          | UEs supporting E-UTRA and UTRA and not<br>supporting Squal based cell reselection to E-<br>UTRAN from UTRAN and NOT Category M1  | pc_eFDD                |               | Note 3                     | Rel-8 UTRA FDD    |
|          |  |             |               |  | pc_eTDD                |               |                            |                   |
| 6.2.3.34 | Inter-RAT Cell reselection from E-UTRA to UTRA / MFBI  | Rel-9       | C189aF        | UEs supporting E-UTRA and UTRA FDD and MFBI feature indicated by Feature Group Indicator 31 and NOT Category M1  | pc_eFDD                |               |                            |                   |
|          |  |             | C189aT        | 7  | pc_eTDD                | 1             |                            |                   |
| 6.2.3.35 | Inter-RAT Cell reselection from UTRA to E-<br>UTRA / MFBI  | Rel-10      | C189cF        | UEs supporting E-UTRA and UTRA and MFBI feature indicated by Feature Group Indicator 31 and NOT Category M1  | pc_eFDD                |               | Note 3                     | Rel-8 UTRA FDD    |
|          |  |             | C189cT        | 7  | pc_eTDD                |               | Note 3                     | Rel-9 UTRA TDD    |
| 6.2.4.1  | Inter-RAT absolute priority based reselection in UTRA CELL_FACH to E-UTRA RRC_IDLE (Higher Priority Layers, Srxlev,x > Threshx,high and Srxlev,serv > Sprioritysearch1 and SqualServ > Sprioritysearch2) | Rel-11      | C01a          | UEs supporting E-UTRA and UTRA FDD and support of High Priority layer measurements or support of all priority layer measurements and cell Reselection procedure in CELL_FACH and NOT Category M1 | pc_eFDD                |               | Note 3                     | Rel-9 UTRA FDD    |
|          |  |             |               |  | pc eTDD                |               |                            |                   |
| 6.2.4.2  | Inter-RAT absolute priority based reselection in UTRA CELL_FACH (Higher Priority Layers, no cell reselection to E-UTRA RRC_IDLE when Srxlev,serv < Sprioritysearch1)                                     | Rel-11      | C01a          | UEs supporting E-UTRA and UTRA FDD and support of High Priority layer measurements or support of all priority layer measurements and cell Reselection procedure in CELL_FACH and NOT Category M1 | pc_eFDD                |               | Note 3                     | Rel-8 UTRA FDD    |
|          |  |             |               |  | pc_eTDD                |               |                            |                   |

| Clause  | TC Title   | Releas<br>e | Applicability |  | Additional Information |               |                            |                   |
|---------|--|-------------|---------------|--|------------------------|---------------|----------------------------|-------------------|
|         |  |             | Condition     | Comment  | Specific ICS           | Specific IXIT | Number of TC<br>Executions | Release other RAT |
| 6.2.4.3 | Inter-RAT absolute priority based reselection in UTRA _CELL_FACH to E-UTRA RRC_IDLE (Higher Priority Layers, Squal,x > Threshx,high2 and Srxlev,serv > Sprioritysearch1 and SqualServ > Sprioritysearch2)                    | Rel-11      | C01a          | UEs supporting E-UTRA and UTRA FDD and support of High Priority layer measurements or support of all priority layer measurements and cell Reselection procedure in CELL_FACH and NOT Category M1 | pc_eFDD                |               | Note 3                     | Rel-9 UTRA FDD    |
|         |  |             |               |  | pc eTDD                |               |                            |                   |
| 6.2.4.4 | Inter-RAT absolute priority based reselection in UTRA CELL_FACH (lower priority) to E-UTRA RRC_IDLE (higher priority) (All Layers, Srxlev,x > Threshx,high)  | Rel-11      | C01b          | UEs supporting E-UTRA and UTRA FDD and support of all priority layer measurements and cell reselection procedure in CELL_FACH and NOT Category M1  | pc_eFDD                |               | Note 3                     | Rel-9 UTRA FDD    |
|         |  |             |               |  | pc_eTDD                |               |                            |                   |
| 6.2.4.5 | Inter-RAT absolute priority based reselection in UTRA CELL_FACH (lower priority) to E-UTRA RRC_IDLE (higher priority) (All Layers, Squal,x >ThreshX,high2)   | Rel-11      | C01b          | UEs supporting E-UTRA and UTRA FDD and support of all priority layer measurements and cell reselection procedure in CELL_FACH and NOT Category M1  | pc_eFDD                |               | Note 3                     | Rel-9 UTRA FDD    |
|         |  |             |               |  | pc_eTDD                |               |                            |                   |
| 6.2.4.6 | Inter-RAT absolute priority based reselection in UTRA CELL_FACH (higher priority) to E-UTRA RRC_IDLE (lower priority) (All Layers, Srxlev,serv < Sprioritysearch1, Srxlev,serv < Thresh serv,low and Srxlev,x > Threshx,low) | Rel-11      | C01b          | UEs supporting E-UTRA and UTRA FDD and support of all priority layer measurements and cell reselection procedure in CELL_FACH and NOT Category M1  | pc_eFDD                |               | Note 3                     | Rel-9 UTRA FDD    |
|         |  |             |               |  | TDD                    |               |                            |                   |
| 6047    | Inter-RAT absolute priority based reselection in   | Rel-11      | C01b          | UEs supporting E-UTRA and UTRA FDD and   | pc_eTDD<br>pc_eFDD     |               | Note 3                     | Rel-9 UTRA FDD    |
| 6.2.4.7 | UTRA CELL_FACH (higher priority) to E-UTRA RRC_IDLE (lower priority) (All Layers, Srxlev,serv < Sprioritysearch1 , Squal,serv <thresh and="" serv,low2="" squal,x=""> ThreshX,low2)</thresh>                                 | Kel-11      | COTE          | support of all priority layer measurements and cell reselection procedure in CELL_FACH and NOT Category M1   | рс_егоо                |               | Note 3                     | Rei-9 OTRA PDD    |
|         |  |             |               |  | pc_eTDD                |               |                            |                   |
| 6.3.1   | Inter-frequency Cell reselection / From E-UTRA RRC_IDLE non-CSG cell to E-UTRA RRC_IDLE CSG cell   | Rel-8       | C80           | UEs supporting E-UTRA and allowed CSG list<br>and manual CSG selection and NOT Category<br>M1  | pc_eFDD                |               |                            |                   |
|         |  |             |               |  | pc_eTDD                |               |                            |                   |
| 6.3.2   | Inter-RAT Cell reselection / From GSM_Idle/GPRS Packet_Idle to E-UTRA idle CSG cell  | Rel-8       | C95           | UEs supporting E-UTRA and GERAN and allowed CSG list and manual CSG selection and NOT Category M1  | pc_eFDD                |               |                            |                   |
|         |  |             |               |  | pc_eTDD                |               |                            |                   |
| 6.3.3   | Inter-RAT Cell reselection / From UTRA_Idle to E-UTRA RRC_IDLE CSG cell  | Rel-8       | C76           | UEs supporting E-UTRA and UTRA and allowed CSG list and manual CSG selection and NOT Category M1   | pc_eFDD                |               |                            |                   |
|         |  |             |               |  | pc_eTDD                |               |                            | Rel-9 UTRA TDD    |

| Clause | TC Title   | Releas<br>e | Applicability |   | Additional Information |               |                            |                   |
|--------|--|-------------|---------------|---|------------------------|---------------|----------------------------|-------------------|
|        |  |             | Condition     | Comment   | Specific ICS           | Specific IXIT | Number of TC<br>Executions | Release other RAT |
| 6.3.4  | Inter-RAT Cell reselection / From UTRA CELL_PCH state to E-UTRA RRC_IDLE CSG cell                              | Rel-8       | C82           | UEs supporting E-UTRA and UTRA and allowed CSG list and EUTRA Feature Group Indicator 1 and NOT Category M1 | pc_eFDD                |               |                            |                   |
|        |  |             |               |   | pc_eTDD                |               |                            | Rel-9 UTRA TDD    |
| 6.3.5  | Manual support for CSG ID selection  | Rel-8       | C80           | UEs supporting E-UTRA and allowed CSG list<br>and manual CSG selection and NOT Category<br>M1               | pc_eFDD                |               |                            |                   |
|        |  |             |               |   | pc_eTDD                |               |                            |                   |
| 6.3.6  | Ignoring CSG cells in cell selection/reselection when allowed CSG list is empty or not supported               | Rel-8       | C224c         | UEs supporting E-UTRA and NOT Category M1   | pc_eFDD                |               |                            |                   |
|        |  |             |               |   | pc_eTDD                |               |                            |                   |
| 6.3.7  | Inter-RAT Cell reselection from E-UTRA idle non-CSG cell to a UTRA CSG cell                                    | Rel-8       | C76           | UEs supporting E-UTRA and UTRA and allowed CSG list and manual CSG selection and NOT Category M1            | pc_eFDD                |               |                            |                   |
|        |  |             |               |   | pc_eTDD                |               |                            | Rel-9 UTRA TDD    |
| 6.3.8  | Void   |             |               |   |                        |               |                            |                   |
| 6.3.9  | Manual CSG ID selection across PLMNs   | Rel-9       | C80           | UEs supporting E-UTRA and allowed CSG list<br>and manual CSG selection and NOT Category<br>M1               | pc_eFDD                |               |                            |                   |
|        |  |             |               |   | pc_eTDD                |               |                            |                   |
| 6.3.10 | Void   |             |               |   |                        |               |                            |                   |
| 6.3.11 | Void   |             |               |   |                        |               |                            |                   |
| 6.3.12 | Void   |             |               |   |                        |               |                            |                   |
| 6.4.1  | Manual CSG ID selection / Hybrid cell whose CSG ID is not in the Allowed CSG list nor Operator's list          | Rel-9       | C80           | UEs supporting E-UTRA and allowed CSG list<br>and manual CSG selection and NOT Category<br>M1               | pc_eFDD                |               | Note 3                     |                   |
|        | ·  |             |               |   | pc_eTDD                |               |                            |                   |
| 6.4.2  | Inter-frequency Cell reselection / From E-UTRA RRC_IDLE non-CSG cell to E-UTRA RRC_IDLE member hybrid cell     | Rel-9       | C80           | UEs supporting E-UTRA and allowed CSG list<br>and manual CSG selection and NOT Category<br>M1               | pc_eFDD                |               | Note 3                     |                   |
|        |  |             |               |   | pc_eTDD                |               |                            |                   |
| 6.4.3  | Inter-RAT Cell reselection / From E-UTRA<br>RRC_IDLE non-CSG cell to UTRA_Idle member<br>hybrid cell           | Rel-9       | C76           | UEs supporting E-UTRA and UTRA and allowed CSG list and manual CSG selection and NOT Category M1            | pc_eFDD                |               | Note 3                     | Rel-8 UTRA FDD    |
|        |  |             |               |   | pc_eTDD                |               |                            | Rel-9 UTRA TDD    |
| 6.4.4  | Inter-RAT Cell reselection / From E-UTRA<br>RRC_IDLE non-member hybrid cell to<br>UTRA_Idle member hybrid cell | Rel-9       | C76           | UEs supporting E-UTRA and UTRA and allowed CSG list and manual CSG selection and NOT Category M1            | pc_eFDD                |               | Note 3                     | Rel-8 UTRA FDD    |
|        | ·  |             |               |   | pc_eTDD                |               |                            | Rel-9 UTRA TDD    |
| 6.4.5  | Inter-RAT Cell reselection / From UTRA_Idle to E-UTRA RRC_IDLE member hybrid cell                              | Rel-9       | C76           | UEs supporting E-UTRA and UTRA and allowed CSG list and manual CSG selection and NOT Category M1            | pc_eFDD                |               | Note 3                     | Rel-8 UTRA FDD    |
|        |  | <u> </u>    |               |   | pc_eTDD                |               |                            | Rel-9 UTRA TDD    |
| 6.4.6  | Inter-RAT Cell reselection / From UTRA CELL_PCH to E-UTRA RRC_IDLE member hybrid cell                          | Rel-9       | C76           | UEs supporting E-UTRA and UTRA and allowed CSG list and manual CSG selection and NOT Category M1            | pc_eFDD                |               | Note 3                     | Rel-8 UTRA FDD    |
|        |  |             |               | ,   | pc_eTDD                |               |                            | Rel-9 UTRA TDD    |

| Clause   | TC Title   | Releas<br>e | Applicability |   | Additional Information |               |                            |                   |
|----------|--|-------------|---------------|---|------------------------|---------------|----------------------------|-------------------|
|          |  |             | Condition     | Comment   | Specific ICS           | Specific IXIT | Number of TC<br>Executions | Release other RAT |
| 6.4.7    | Inter-RAT Cell reselection / From<br>GSM_Idle/GPRS Packet_Idle to E-UTRA<br>RRC_IDLE member hybrid cell  | Rel-9       | C95           | UEs supporting E-UTRA and GERAN and allowed CSG list and manual CSG selection and NOT Category M1   | pc_eFDD                |               | Note 3                     |                   |
|          | ·  |             |               |   | pc_eTDD                |               | 7                          |                   |
| 6.5.1    | WLAN Offload / Cell selection / EUTRA<br>RRC_Idle to/from WLAN (Qrxlevmeas,<br>BeaconRSSI, WLAN identifier no match/match)   | Rel-12      | C225          | UEs supporting E-UTRA and WLAN and allowed offload to and from WLAN and NOT Category M1   | pc_eFDD                |               |                            |                   |
|          |  |             |               |   | pc_eTDD                |               |                            |                   |
| 6.5.2    | WLAN Offload / Cell selection / EUTRA<br>RRC_Idle to/from WLAN (Qrxlevmeas,<br>BackhaulRateDIWLAN)   | Rel-12      | C225          | UEs supporting E-UTRA and WLAN and allowed offload to and from WLAN and NOT Category M1   | pc_eFDD                |               |                            |                   |
|          |  |             |               |   | pc_eTDD                |               |                            |                   |
| 6.5.3    | WLAN Offload / Cell selection / EUTRA<br>RRC_Idle to/from WLAN (Qqualmeas,<br>BackhaulRateUlWLAN)  | Rel-12      | C225          | UEs supporting E-UTRA and WLAN and allowed offload to and from WLAN and NOT Category M1   |                        |               |                            |                   |
|          | , and the second |             |               |   | pc_eTDD                |               | 7                          |                   |
| 6.5.4    | WLAN Offload / Cell selection / EUTRA<br>RRC_Idle to/from WLAN (Qqualmeas,<br>ChannelUtilizationWLAN)  | Rel-12      | C225          | UEs supporting E-UTRA and WLAN and allowed offload to and from WLAN and NOT Category M1   | pc_eFDD                |               |                            |                   |
|          |  |             |               |   | pc_eTDD                |               | 7                          |                   |
| 6.5.5    | WLAN offload / Cell selection / EUTRA<br>RRC_Idle to/from WLAN (ANDSF and RAN rules<br>co-existence)   | Rel-12      | C225          | UEs supporting E-UTRA and WLAN and allowed offload to and from WLAN and NOT Category M1   | pc_eFDD                |               |                            |                   |
|          |  |             |               |   | pc_eTDD                |               | 7                          |                   |
| 6.5.6    | Void   |             |               |   |                        |               |                            |                   |
| 7        | Layer 2  |             |               |   |                        |               |                            |                   |
| 7.1.1.1  | CCCH mapped to UL SCH/ DL-SCH / Reserved Logical Channel ID  | Rel-8       | R             | UEs supporting E-UTRA   | pc_eFDD                |               |                            |                   |
|          |  |             |               |   | pc_eTDD                |               |                            |                   |
| 7.1.1.1a | CCCH mapped to UL SCH/ DL-SCH / UE Cat 0   | Rel-12      | C224          | UEs supporting E-UTRA and UE Category 0   | pc_eFDD                |               |                            |                   |
|          |  |             |               | 115   | pc_eTDD                |               |                            |                   |
| 7.1.1.2  | DTCH or DCCH mapped to UL SCH/ DL-SCH / Reserved Logical Channel ID  | Rel-8       | R             | UEs supporting E-UTRA   | pc_eFDD                |               |                            |                   |
|          |  |             |               |   | pc_eTDD                |               |                            |                   |
| 7.1.2.1  | Correct selection of RACH parameters / Random access preamble and PRACH resource explicitly signalled to the UE by RRC / Non-contention based random access procedure  | Rel-8       | C12           | UEs supporting E-UTRA or (CE Mode A and "eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A" and "intra-frequency handover to target cell in normal coverage and CE Mode A") | pc_eFDD                |               |                            |                   |
| 7404-    | Comment colortion of DACI in account to the  | Dalida      | 0040          | LIE avenue estina E LIEDA EDD - E LIEDA EDD   | pc_eTDD                | 1             | 1                          |                   |
| 7.1.2.1a | Correct selection of RACH parameters / Random access preamble and PRACH resource explicitly signalled to the UE by RRC / Non-contention based random access procedure for high speed scenario  | Rel-14      | C313          | UEs supporting E-UTRA FDD or E-UTRA TDD and high speed enhancement for prach  | pc_eFDD<br>pc_eTDD     |               |                            |                   |
| 7.1.2.2  | Correct selection of RACH parameters / Random access preamble and PRACH resource explicitly  | Rel-8       | R             | UEs supporting E-UTRA   | pc_eFDD                |               |                            |                   |

| Clause     | TC Title  | Releas<br>e | Applicability |   | Additional Information                          |               |                            |                   |
|------------|---|-------------|---------------|---|---|---------------|----------------------------|-------------------|
|            |   |             | Condition     | Comment   | Specific ICS                                    | Specific IXIT | Number of TC<br>Executions | Release other RAT |
|            | signalled to the UE in PDCCH Order / Non-   |             |               |   |   |               |                            |                   |
|            | contention based random access procedure  |             |               |   |   |               |                            |                   |
|            |   |             |               |   | pc_eTDD   |               |                            |                   |
| 7.1.2.3    | Correct selection of RACH parameters /<br>Preamble selected by MAC itself / Contention<br>based random access procedure                     | Rel-8       | C224c         | UEs supporting E-UTRA and NOT Category M1   | pc_eFDD   |               |                            |                   |
|            |   |             |               |   | pc_eTDD   |               | 1                          |                   |
| 7.1.2.3a   | Correct selection of RACH parameters/<br>Preamble selected by MAC itself/ Contention<br>based random access procedure/ Enhanced<br>coverage | Rel-13      | C254a         | UEs supporting E-UTRA and CE Mode A   | pc_eFDD   |               |                            |                   |
|            |   |             |               |   | pc_eTDD   |               |                            |                   |
| 7.1.2.3b   | Correct selection of RACH parameters / Preamble selected by MAC itself / Contention based random access procedure for high speed scenario   | Rel-14      | C313          | UEs supporting E-UTRA FDD or E-UTRA TDD and high speed enhancement for prach  | pc_eFDD   |               |                            |                   |
| 7.1.2.4    | Random access procedure / Successful  | Rel-8       | R             | UEs supporting E-UTRA   | pc_eFDD   |               |                            |                   |
|            | ,   |             |               | 3   | pc_eTDD   |               |                            |                   |
| 7.1.2.5    | Random access procedure / MAC PDU containing multiple RARs  | Rel-8       | R             | UEs supporting E-UTRA   | pc_eFDD   |               |                            |                   |
|            |   |             |               |   | pc_eTDD   |               |                            |                   |
| 7.1.2.6    | Maintenance of uplink time alignment  | Rel-8       | R             | UEs supporting E-UTRA   | pc_eFDD   |               |                            |                   |
|            | ·   |             |               |   | pc_eTDD   |               | †                          |                   |
| 7.1.2.7    | MAC contention resolution / Temporary C-RNTI  | Rel-8       | R             | UEs supporting E-UTRA   | pc_eFDD   |               |                            |                   |
|            |   |             |               |   | pc_eTDD   |               |                            |                   |
| 7.1.2.8    | MAC contention resolution / C-RNTI  | Rel-8       | C12           | UEs supporting E-UTRA or (CE Mode A and "eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A" and "intra-frequency handover to target cell in normal coverage and CE Mode A") |   |               |                            |                   |
|            |   |             |               |   | pc_eTDD   |               |                            |                   |
| 7.1.2.9    | MAC back off indicator  | Rel-8       | R             | UEs supporting E-UTRA   | pc_eFDD   |               |                            |                   |
|            |   | 1           |               |   | pc_eTDD   |               |                            |                   |
| 7.1.2.10.1 | CA / Random access procedure / SCell / Intra-<br>band Contiguous CA   | Rel-11      | C190          | UEs supporting E-UTRA and Intra-band contiguous Uplink Carrier Aggregation and multiple timing advances   | pc_eFDD   |               |                            |                   |
|            |   | <u> </u>    |               |   | pc_eTDD   |               |                            |                   |
| 7.1.2.10.2 | CA / Random access procedure / SCell / Interband CA   | Rel-11      | C191          | UEs supporting E-UTRA and Inter-band Uplink Carrier Aggregation and multiple timing advances and UL (Pcell) supported in each band of Inter-band CA combination under test                            | pc_eFDD   |               |                            |                   |
|            |   |             |               |   | pc_eTDD   |               |                            |                   |
| 7.1.2.10.3 | CA / Random access procedure / SCell / Intra-<br>band non-contiguous CA   | Rel-11      | C192          | UEs supporting E-UTRA and Intra-band non-<br>contiguous Uplink Carrier Aggregation and<br>multiple timing advances  | pc_eFDD   |               |                            |                   |
|            |   |             |               | , 3   | pc_eTDD   |               |                            |                   |
|            |   |             |               |   | <u>. –                                     </u> |               |                            |                   |

| Clause     | TC Title  | Releas<br>e | Applicability |   | Additional Information |               |                            |                   |
|------------|---|-------------|---------------|---|------------------------|---------------|----------------------------|-------------------|
|            |   |             | Condition     | Comment   | Specific ICS           | Specific IXIT | Number of TC<br>Executions | Release other RAT |
| 7.1.2.11.1 | CA / Maintenance of uplink time alignment /<br>Multiple TA / Intra-band Contiguous CA     | Rel-11      | C190          | UEs supporting E-UTRA and Intra-band contiguous Uplink Carrier Aggregation and multiple timing advances   | pc_eFDD                |               |                            |                   |
|            |   |             |               |   | pc_eTDD                |               |                            |                   |
| 7.1.2.11.2 | CA / Maintenance of uplink time alignment /<br>Multiple TA / Inter-band CA                | Rel-11      | C191          | UEs supporting E-UTRA and Inter-band Uplink<br>Carrier Aggregation and multiple timing<br>advances and UL (Pcell) supported in each<br>band of Inter-band CA combination under test | pc_eFDD                |               |                            |                   |
|            |   |             |               |   | pc_eTDD                |               |                            |                   |
| 7.1.2.11.3 | CA / Maintenance of uplink time alignment /<br>Multiple TA / Intra-band non-contiguous CA | Rel-11      | C192          | UEs supporting E-UTRA and Intra-band non-<br>contiguous Uplink Carrier Aggregation and<br>multiple timing advances  | pc_eFDD                |               |                            |                   |
|            | 500 T00 04 (44 )  | 5           | 0000          |   | pc_eTDD                |               |                            |                   |
| 7.1.2.11.4 | FDD-TDD CA / Maintenance of uplink time alignment / Multiple TA                           | Rel-12      | C233          | UEs supporting E-UTRA FDD and TDD and 3DL CA and 3UL CA with tdd-FDD-CA-PCellDuplex-r12 with the first and/or second bit set to "1 "and multiple timing advances                    |                        |               |                            |                   |
| 7.1.2.12   | CA / Random access procedure / TDD SCell without PUSCH/PUCCH transmission                 | Rel-13      | C320          | UEs supporting E-UTRA FDD-TDD DL CA and SRS switching between a band pair.  | pc_eFDD                |               |                            |                   |
|            |   |             | C321          | UEs supporting E-UTRA TDD-TDD DL CA and SRS switching between a band pair.  | pc_eTDD                |               |                            |                   |
| 7.1.2.13   | CA / PUCCH SCell / Maintenance of uplink time alignment                                   | Rel-13      | C301          | UEs supporting E-UTRA and DL CA and UL CA and PUCCH SCell   | pc_eFDD                |               |                            |                   |
|            |   |             |               |   | pc_eTDD                |               |                            |                   |
| 7.1.3.1    | Correct handling of DL assignment / Dynamic case  | Rel-8       | R             | UEs supporting E-UTRA   | pc_eFDD                |               |                            |                   |
|            |   |             |               |   | pc_eTDD                |               |                            |                   |
| 7.1.3.2    | Correct handling of DL assignment / Semi-<br>persistent case                              | Rel-8       | C100F         | UEs supporting E-UTRA and semi-persistence scheduling and Feature Group Indicator 7   | pc_eFDD                |               |                            |                   |
|            |   |             | C100T         |   | pc_eTDD                |               |                            |                   |
| 7.1.3.3    | MAC PDU header handling   | Rel-8       | C224a         | UEs supporting E-UTRA and NOT (UE Category 0 or UE Category M1)   | pc_eFDD                |               |                            |                   |
|            |   |             |               |   | pc_eTDD                |               |                            |                   |
| 7.1.3.3a   | MAC PDU header handling / UE with limited TB size   | Rel-12      | C224b         | UEs supporting E-UTRA and (UE Category 0 or UE Category M1)   | pc_eFDD                |               |                            |                   |
|            |   |             |               |   | pc_eTDD                |               |                            |                   |
| 7.1.3.4    | Correct HARQ process handling / DCCH and DTCH   | Rel-8       | C224c         | UEs supporting E-UTRA and NOT Category M1   | pc_eFDD                |               |                            |                   |
|            |   |             |               |   | pc_eTDD                |               |                            |                   |
| 7.1.3.4a   | Correct HARQ process handling / DCCH and DTCH/ Enhanced Coverage / CE Mode A              | Rel-13      | C254a         | UEs supporting E-UTRA and CE mode A   | pc_eFDD                |               |                            |                   |
|            |   |             |               |   | pc_eTDD                |               |                            |                   |
|            |   |             |               |   |                        |               |                            |                   |
| 7.1.3.5    | Correct HARQ process handling / CCCH  | Rel-8       | C224c         | UEs supporting E-UTRA and NOT Category M1   |                        |               |                            |                   |
|            |   |             |               |   | pc_eTDD                |               |                            |                   |
| 7.1.3.5a   | Correct HARQ process handling / CCCH/<br>Enhanced Coverage / CE Mode A                    | Rel-13      | C254a         | UEs supporting E-UTRA and CE Mode A   | pc_eFDD                |               |                            |                   |

| Correct HARQ process handling / Enhanced   Rel-10   Coverage / HARQ-ACK bundling   Rel-14   Code   Rel-14   Code   Rel-14   Code   Rel-15   Coverage / HARQ-ACK bundling   Rel-16   Rel-16   Coverage / HARQ-ACK bundling   Rel-16   Rel-16   Rel-16   Rel-16   Rel-16   Rel-16   Rel-17   Rel-18   Rel-18   Rel-19   Rel-19   Rel-19   Rel-19   Rel-19   Rel-19   Rel-19   Rel-10   | ĺ          |   | 1      |       |   | pc_eTDD |         |  |
|--|------------|---|--------|-------|---|---------|---------|--|
| .1.3.8a Correct HARQ process handling / Enhanced Coverage / HARQ-ACK bundling / Enhanced Rel R   | 7136       | Correct HARO process handling / BCCH  | Rel-8  | C224c | LIEs supporting E-LITRA and NOT Category M1   |         |         |  |
| 1.1.3.61   | 7.1.0.0    | Correct in the process manding / Beer i   | 11010  | OZZTO | Des supporting E of the tand the foategory with   |         |         |  |
| MAC padding   Rel-8   Rel-8   Rel-10   Use supporting E-UTRA   Dec.   PDD   Pol.   PDD   | 7.1.3.6a   |   | Rel-14 | C367  |   |         |         |  |
| 1.3.8   Void   NAC reset / DL   Rel-B   C12   UEs supporting E-UTRA or (CE Mode A and venetr's for intra-frequency neighbouring cells   DC   | 7.1.3.7    |   | Rel-8  | R     | UEs supporting E-UTRA   |         |         |  |
| Section   Control   Cont   | 7.4.0.0    | V-1.1   |        |       |   | pc_eTDD |         |  |
| "event\" for r\"inta-frequency handsore to targetage CE Mode A" and "intra-frequency handsore to targetage CE Mode A" and intra-band contiguous Cal CE Mode A" and DTCH / Peell and Scell / Intra-band CA Aggregation    Ca STDD   |            |   | - I    | 0.10  |   |         |         |  |
| C4 / Correct HARQ process handling / DCCH and DTCH / Peel and Scell / Intra-band Configuous CA  C6 / Correct HARQ process handling / DCCH and DTCH / Peel and Scell / Intra-band CA  C7 / Correct HARQ process handling / DCCH and DTCH / Peel and Scell / Intra-band CA  C8 / Correct HARQ process handling / DCCH and DTCH / Peel and Scell / Intra-band non-Contiguous CA  C8 / Correct HARQ process handling / DCCH and DTCH / Peel and Scell / Intra-band non-Contiguous CA  C8 / Correct HARQ process handling / DCCH and DTCH / Peel and Scell / Intra-band non-Contiguous CA  C9 / Correct HARQ process handling / DCCH and DTCH / Peel and Scell / Intra-band non-Contiguous CA  C9 / Correct HARQ process handling / DCCH and DTCH / Poel and TDD Scell  CCA + Correct HARQ process handling / DCCH and DTCH / FDD PCell and TDD Scell  CCA + Correct HARQ process handling / DCCH and DTCH / FDD PCell and TDD Scell  C9 / CAPCellDuplex-r12 with the second bit setting to **  C9 / CAPCellDuplex-r12 with the second bit setting to **  C8 / CAPCellDuplex-r12 with the first bit setting to **  C8 / CAPCellDuplex-r12 with the first bit setting to **  C8 / CAPCellDuplex-r12 with the first bit setting to **  C8 / CAPCellDuplex-r12 with the first bit setting to **  C8 / CAPCellDuplex-r12 with the first bit setting to **  C8 / CAPCellDuplex-r12 with the first bit setting to **  C8 / CAPCellDuplex-r12 with the first bit setting to **  C8 / CAPCellDuplex-r12 with the first bit setting to **  C9 / CAPCellDuplex-r12 with the first bit setting to **  C9 / CAPCellDuplex-r12 with the first bit setting to **  C9 / CAPCellDuplex-r12 with the first bit setting to **  C9 / CAPCellDuplex-r12 with the first bit setting to **  C9 / CAPCellDuplex-r12 with the first bit setting to **  C9 / CAPCellDuplex-r12 with the first bit setting to **  C9 / CAPCellDuplex-r12 with the first bit setting to **  C9 / CAPCellDuplex-r12 with the first bit setting to **  C9 / CAPCellDuplex-r12 with the first bit setting to **  C9 / CAPCellDuplex-r12 with the first bit setting to **  C9 / CA | 7.1.3.9    | MAC reset / DL  | Rel-8  | C12   | "eventA3 for intra-frequency neighbouring cells<br>in normal coverage CE Mode A" and "intra-<br>frequency handover to target cell in normal |         |         |  |
| and DTCH / Pcell and Scell / Intra-band Contiguous CA Correct HARQ process handling / DCCH and DTCH / Pcell and Scell / Inter-band CA A general Magnegation  |            |   |        |       |   |         |         |  |
|  | 7.1.3.11.1 | and DTCH / Pcell and Scell / Intra-band   | Rel-10 | C132  | UEs supporting E-UTRA and Intra-band contiguous Carrier Aggregation   | pc_eFDD |         |  |
| CA / Correct HARQ process handling / DCCH and DTCH / Pcell and Scell / Inter-band CA   Rel-10   C151   UEs supporting E-UTRA and Inter-band Carrier   pc_eFDD   pc_eTDD   pc_eTDD  |            |   |        |       |   | pc eTDD |         |  |
| CA   Correct HARQ process handling / DCCH and DTCH / Pcell and Scell / Intra-band non-Contiguous CA   CC   CA   CC   CC   CC   CC   CC   | 7.1.3.11.2 |   | Rel-10 | C151  |   |         | Note 11 |  |
| Cand      | İ          |   |        |       |   | pc eTDD |         |  |
| FDD-TDD CA / Correct HARQ process handling / DCCH and DTCH / FDD PCell and TDD SCell   CA and 1UL CA and Support of tdd-FDD- CA-PCellDuplex-r12 with the second bit setting to "1"   UE supporting E-UTRA FDD and TDD and 2DL CA and 1UL CA and Support of tdd-FDD- CA-PCellDuplex-r12 with the second bit setting to "1"   UE supporting E-UTRA FDD and TDD and 2DL CA and 1UL CA and Support of tdd-FDD- CA-PCellDuplex-r12 with the first bit setting to "1"   UE supporting E-UTRA FDD and TDD special subframe configuration / Special subframe pattern 9 with Normal Cyclic Prefix / CRS based transmission scheme   Rel-11   C175   UEs supporting E-UTRA TDD and TDD special subframe configuration / Special subframe pattern 9 with Normal Cyclic Prefix / UE-specific reference signals based transmission scheme   Rel-11   C175   UEs supporting E-UTRA TDD and TDD special subframe configuration / Special subframe pattern 9 with Normal Cyclic Prefix / UE-specific reference signals based transmission scheme   Rel-11   C175   UEs supporting E-UTRA TDD and TDD special subframe configuration / Special subframe configuration / Special subframe configuration / Special subframe configuration / Special subframe pattern 9 with Normal Cyclic Prefix / UE-specific reference signals based transmission scheme   Rel-11   C175   UEs supporting E-UTRA TDD and TDD special subframe configuration / Special subframe configuration / Special subframe configuration / Special subframe configuration / Special subframe signals based transmission scheme   Rel-11   C175   UEs supporting E-UTRA TDD and TDD special subframe configuration / Special subframe configuration / Special subframe configuration / Special subframe configuration / Special subframe configuration / Special subframe configuration / Special subframe configuration / Special subframe configuration / Special subframe configuration / Special subframe configuration / Special subframe configuration / Special subframe configuration / Special subframe configuration / Special subframe configuration / Special   | 7.1.3.11.3 | and DTCH / Pcell and Scell / Intra-band non-  | Rel-11 | C132a |   | pc_eFDD |         |  |
| FDD-TDD CA / Correct HARQ process handling / DCCH and DTCH / FDD PCell and TDD SCell   CA and 1UL CA and Support of tdd-FDD- CA-PCellDuplex-r12 with the second bit setting to "1"   UE supporting E-UTRA FDD and TDD and 2DL CA and 1UL CA and Support of tdd-FDD- CA-PCellDuplex-r12 with the second bit setting to "1"   UE supporting E-UTRA FDD and TDD and 2DL CA and 1UL CA and Support of tdd-FDD- CA-PCellDuplex-r12 with the first bit setting to "1"   UE supporting E-UTRA FDD and TDD special subframe configuration / Special subframe pattern 9 with Normal Cyclic Prefix / CRS based transmission scheme   Rel-11   C175   UEs supporting E-UTRA TDD and TDD special subframe configuration / Special subframe pattern 9 with Normal Cyclic Prefix / UE-specific reference signals based transmission scheme   Rel-11   C175   UEs supporting E-UTRA TDD and TDD special subframe configuration / Special subframe pattern 9 with Normal Cyclic Prefix / UE-specific reference signals based transmission scheme   Rel-11   C175   UEs supporting E-UTRA TDD and TDD special subframe configuration / Special subframe configuration / Special subframe configuration / Special subframe configuration / Special subframe pattern 9 with Normal Cyclic Prefix / UE-specific reference signals based transmission scheme   Rel-11   C175   UEs supporting E-UTRA TDD and TDD special subframe configuration / Special subframe configuration / Special subframe configuration / Special subframe configuration / Special subframe signals based transmission scheme   Rel-11   C175   UEs supporting E-UTRA TDD and TDD special subframe configuration / Special subframe configuration / Special subframe configuration / Special subframe configuration / Special subframe configuration / Special subframe configuration / Special subframe configuration / Special subframe configuration / Special subframe configuration / Special subframe configuration / Special subframe configuration / Special subframe configuration / Special subframe configuration / Special subframe configuration / Special   |            |   |        |       |   | pc eTDD |         |  |
| DCCH and DTCH / TDD PCell and FDD SCell  CA and 1UL CA and Support of tdd-FDD- CA-PCellDuplex-r12 with the first bit setting to "1"  1.3.12 TDD additional special subframe configuration / Special subframe pattern 9 with Normal Cyclic Prefix / CRS based transmission scheme  1.3.12a TDD additional special subframe configuration / Special subframe pattern 7 with Extended Cyclic Prefix / CRS based transmission scheme  1.3.13 TDD additional special subframe configuration / Special subframe pattern 9 with Normal Cyclic Prefix / UE-specific reference signals based transmission scheme  1.3.13 TDD additional special subframe configuration / Special subframe con | 7.1.3.11.4 | FDD-TDD CA / Correct HARQ process handling / DCCH and DTCH / FDD PCell and TDD SCell  | Rel-12 | C235a | CA and 1UL CA and Support of tdd-FDD-<br>CA-PCellDuplex-r12 with the second bit<br>setting to "1"   |         |         |  |
| Special subframe pattern 9 with Normal Cyclic Prefix / CRS based transmission scheme  1.1.3.12a TDD additional special subframe configuration / Special subframe pattern 7 with Extended Cyclic Prefix / CRS based transmission scheme  1.1.3.13 TDD additional special subframe configuration / Special subframe pattern 7 with Extended Cyclic Prefix / UE-specific reference signals based transmission scheme  1.1.3.13 TDD additional special subframe configuration / Special subframe configuration / Special subframe configuration / Special subframe configuration / Special subframe configuration / Special subframe configuration / Special subframe configuration / Special subframe pattern 7 with Extended Cyclic Prefix / UE-specific reference signals based transmission scheme  1.1.3.14 Correct handling of DL assignment / Dynamic Case / EPDCCH  1.1.3.14 Correct handling of DL assignment / Dynamic Case / EPDCCH  1.1.3.15 Special subframe pattern 7 with Extended Cyclic Prefix / UE-specific reference signals based transmission scheme  1.1.3.14 Correct handling of DL assignment / Dynamic Case / EPDCCH  1.1.3.15 Special subframe pattern 7 with Extended Cyclic Prefix / UE-specific reference signals based transmission scheme  1.1.3.14 Correct handling of DL assignment / Dynamic Case / EPDCCH   | 7.1.3.11.5 | FDD-TDD CA / Correct HARQ process handling / DCCH and DTCH / TDD PCell and FDD SCell  | Rel-12 | C234a | CA and 1UL CA and Support of tdd-FDD-<br>CA-PCellDuplex-r12 with the first bit<br>setting to "1"  |         |         |  |
| Special subframe pattern 7 with Extended Cyclic Prefix / CRS based transmission scheme  1.3.13 TDD additional special subframe configuration / Special subframe pattern 9 with Normal Cyclic Prefix / UE-specific reference signals based transmission scheme  1.3.13 TDD additional special subframe configuration / Special subframe configuration / Special subframe configuration / Special subframe pattern 7 with Extended Cyclic Prefix / UE-specific reference signals based transmission scheme  1.3.14 Correct handling of DL assignment / Dynamic case / EPDCCH  Special subframe pattern 7 with Extended Cyclic Prefix / UE-specific reference signals based transmission scheme  1.3.14 Correct handling of DL assignment / Dynamic case / EPDCCH  Subframe config  UEs supporting E-UTRA TDD and TDD special subframe pattern 7 with Extended Cyclic Prefix / UE-specific reference signals based transmission scheme  Correct handling of DL assignment / Dynamic case / EPDCCH   | 7.1.3.12   | Special subframe pattern 9 with Normal Cyclic   | Rel-11 | C175  |   | pc_eTDD | Note 7  |  |
| T.1.3.13 TDD additional special subframe configuration / Special subframe pattern 9 with Normal Cyclic Prefix / UE-specific reference signals based transmission scheme  T.1.3.13 TDD additional special subframe configuration / Special subframe configuration / Special subframe configuration / Special subframe configuration / Special subframe pattern 7 with Extended Cyclic Prefix / UE-specific reference signals based transmission scheme  T.1.3.14 Correct handling of DL assignment / Dynamic case / EPDCCH  T.1.3.15 TDD additional special subframe configuration / Special subframe configuration / Subframe config  T.1.3.16 Correct handling of DL assignment / Dynamic case / EPDCCH  T.1.3.17 TDD additional special subframe configuration / Subframe config  T.1.3.18 UEs supporting E-UTRA TDD and TDD special subframe config  T.1.3.19 Supporting E-UTRA and ePDCCH and NOT Category M1  | 7.1.3.12a  | Special subframe pattern 7 with Extended Cyclic   | Rel-11 | C175  |   | pc_eTDD | Note 7  |  |
| T.1.3.13a TDD additional special subframe configuration / Special subframe pattern 7 with Extended Cyclic Prefix / UE-specific reference signals based transmission scheme T.1.3.14 Correct handling of DL assignment / Dynamic case / EPDCCH  TREIT C175 UEs supporting E-UTRA TDD and TDD special subframe pattern 7 with Extended Cyclic subframe config  UEs supporting E-UTRA TDD and TDD special pc_eTDD  Note 7  Wel-11 C175 UEs supporting E-UTRA and ePDCCH and NOT Category M1   | 7.1.3.13   | TDD additional special subframe configuration /<br>Special subframe pattern 9 with Normal Cyclic<br>Prefix / UE-specific reference signals based                          | Rel-11 | C175  |   | pc_eTDD | Note 7  |  |
| 7.1.3.14 Correct handling of DL assignment / Dynamic case / EPDCCH Rel-11 C188 UEs supporting E-UTRA and ePDCCH and NOT Category M1  | 7.1.3.13a  | TDD additional special subframe configuration /<br>Special subframe pattern 7 with Extended Cyclic<br>Prefix / UE-specific reference signals based<br>transmission scheme | Rel-11 | C175  | subframe config   | pc_eTDD | Note 7  |  |
|  | 7.1.3.14   | Correct handling of DL assignment / Dynamic   | Rel-11 | C188  |   | pc_eFDD |         |  |
|  |            |   |        |       |   | pc_eTDD |         |  |

| 7.4.0.45   | 0 1 11 12 1 1 1 1  | D 144  | 0400     | LIE C ELITRA L DROOM L  | - FDD   |
|------------|--|--------|----------|---|---------|
| 7.1.3.15   | Correct handling of DL assignment / Semi-<br>persistent case / EPDCCH  | Rel-11 | C188     | UEs supporting E-UTRA and ePDCCH and NOT Category M1  | pc_eFDD |
|            | i e  |        |          |   | pc_eTDD |
| 7.1.3.16   | Correct handling of DL assignment / Dynamic case / eIMTA   | Rel-12 | C256     | UEs supporting E-UTRA and eIMTA and NOT Category M1   | pc_eTDD |
| 7.1.3.16a  | CA / Correct handling of DL assignment /<br>Dynamic case / eIMTA / Inter-band CA   | Rel-12 | C264     | UEs supporting E-UTRA and Inter-band Carrier<br>Aggregation and elMTA   | pc_eTDD |
| 7.1.3.17   | CA / PUCCH SCell / Correct HARQ process handling   | Rel-13 | C301     | UEs supporting E-UTRA and DL CA and UL CA and PUCCH SCell   | pc_eFDD |
|            |  |        |          |   | pc_eTDD |
| 7.1.3.18.1 | sTTI combination {slot, slot} / Correct handling of DL assignment / Collision handling   | Rel-15 | C378     | UEs supporting E-UTRA and only {slot, slot} and not {subslot, subslot} combination in downlink and uplink CCs   | pc_eFDD |
| 7.1.3.18.2 | sTTI combination {subslot, subslot} / Correct handling of DL assignment / Collision handling   | Rel-15 | C379     | UEs supporting E-UTRA and {subslot, subslot} combination in downlink and uplink CCs   | pc_eFDD |
|            |  |        |          |   | pc_eTDD |
| 7.1.3.19   | Short TTI / Correct handling of DL assignment / HARQ sharing between PDSCH and slot/subslot-PDSCH  | Rel-15 | C378a    | UEs supporting E-UTRA and {slot, slot} combination in downlink and uplink CCs   | pc_eFDD |
|            |  |        |          |   | pc_eTDD |
| 7.1.3.20   | Short TTI / Correct handling of DL assignment / multiplexing of SPDCCH and slot/subslot-PDSCH  | Rel-15 | C380     | UE supporting E-UTRA and {slot, slot} combination in downlink and uplink CCs and L1-based SPDCCH reuse  | pc_eFDD |
|            |  |        |          |   | pc_eTDD |
| 7.1.3.21   | Short TTI / Correct handling of DL assignment / DMRS sharing   | Rel-15 | C379     | UEs supporting E-UTRA and {subslot, subslot} combination in downlink and uplink CCs and minimum processing timeline                                   | pc_eFDD |
| 7.1.3.22   | Short Processing Time / Correct handling of DL assignment / HARQ process sharing   | Rel-15 | C377     | UE supporting E-UTRA and short processing time  | pc_eFDD |
|            |  |        |          |   | pc_eTDD |
| 7.1.4.1    | Correct handling of UL assignment / Dynamic case   | Rel-8  | R        | UEs supporting E-UTRA   | pc_eFDD |
|            |  |        |          |   | pc_eTDD |
| 7.1.4.1a   | Correct handling of UL assignment / Dynamic case / Skip padding transmissions  | Rel-14 | C325     | UE supporting skip of uplink transmissions if no data is available  | pc_eFDD |
|            |  |        |          |   | pc_eTDD |
| 7.1.4.2    | Correct handling of UL assignment / Semi-<br>persistent case   | Rel-8  | C100F    | UEs supporting E-UTRA and semi-persistence scheduling and Feature Group Indicator 7   | pc_eFDD |
|            |  |        | C100T    |   | pc_eTDD |
| 7.1.4.2a   | Correct handling of UL assignment / Semi-<br>persistent case / Skip padding transmissions /<br>SPS activation and de-activation confirmation | Rel-14 | C326     | UE supporting skip of SPS uplink transmissions if no data is available  | pc_eFDD |
|            |  |        | 1        |   | pc_eTDD |
| 7.1.4.2b   | Correct handling of UL assignment / Semi-<br>persistent case / SPS interval shorter than 10<br>subframes                                     | Rel-14 | C327     | UE supporting SPS interval shorter than 10 subframes  | pc_eFDD |
|            |  |        | <u> </u> |   | pc_eTDD |
| 7.1.4.3    | Logical channel prioritization handling  | Rel-8  | C19F     | UEs supporting E-UTRA and Feature Group<br>Indicator 6 and Feature Group Indicator 7 and<br>NOT (UE Category 0 or UE Category 1 or UE<br>Category M1) | pc_eFDD |

| İ         |  | ΙΓ     | C19T  |   | pc_eTDD            |   |  |
|-----------|--|--------|-------|---|--------------------|---|--|
| 7.1.4.3a  | Logical channel prioritization handling / UE with limited TB size  | Rel-12 | C19aF | UEs supporting E-UTRA and Feature Group<br>Indicator 6 and Feature Group Indicator 7 and<br>(UE Category 0 or UE Category 1 or UE<br>Category M1) | pc_eFDD            |   |  |
|           |  |        | C19aT |   | pc_eTDD            |   |  |
| 7.1.4.4   | Correct handling of MAC control information / Scheduling requests and PUCCH  | Rel-8  | R     | UEs supporting E-UTRA   | pc_eFDD pc_eTDD    | - |  |
| 7.1.4.5   | Correct handling of MAC control information /<br>Scheduling requests and random access<br>procedure  | Rel-8  | R     | UEs supporting E-UTRA   | pc_eFDD            |   |  |
|           |  |        |       |   | pc_eTDD            |   |  |
| 7.1.4.6   | Correct handling of MAC control information /<br>Buffer status / UL data arrive in the UE Tx buffer<br>and retransmission of BSR / Regular BSR | Rel-8  | R     | UEs supporting E-UTRA   | pc_eFDD            |   |  |
|           |  |        |       |   | pc_eTDD            |   |  |
| 7.1.4.7   | Correct handling of MAC control information /<br>Buffer status / UL resources are allocated /<br>Padding BSR                                   | Rel-8  | R     | UEs supporting E-UTRA   | pc_eFDD            |   |  |
|           |  |        |       |   | pc_eTDD            |   |  |
| 7.1.4.7a  | Correct handling of MAC control information /<br>Buffer status / UL resources are allocated /<br>Cancellation of Padding BSR                   | Rel-8  | R     | UEs supporting E-UTRA   | pc_eFDD            |   |  |
|           |  |        |       |   | pc_eTDD            |   |  |
| 7.1.4.8   | Correct handling of MAC control information /<br>Buffer status / Periodic BSR timer expires  | Rel-8  | R     | UEs supporting E-UTRA   | pc_eFDD            |   |  |
|           |  |        |       |   | pc_eTDD            |   |  |
| 7.1.4.9   | Void   |        |       |   |                    |   |  |
| 7.1.4.10  | MAC padding  | Rel-8  | R     | UEs supporting E-UTRA   | pc_eFDD<br>pc_eTDD |   |  |
| 7.1.4.11  | Correct HARQ process handling  | Rel-8  | C224c | UEs supporting E-UTRA and NOT Category M1   | pc_eFDD            |   |  |
|           |  |        |       |   | pc_eTDD            |   |  |
| 7.1.4.11a | Correct HARQ process handling / Semi-persistent case / Non-adaptive retransmission / Fixed Redundancy Version                                  | Rel-14 | C326  | UE supporting skip of SPS uplink transmissions if no data is available  | pc_eFDD            |   |  |
|           |  |        |       |   | pc_eTDD            |   |  |
| 7.1.4.12  | MAC reset / UL   | Rel-8  | C16aF | UEs supporting E-UTRA and Feature Group Indicator 7 and NOT Category M1   | pc_eFDD            |   |  |
|           |  |        | C16aT |   | pc_eTDD            |   |  |
| 7.1.4.12a | MAC Partial reset / UL for Voice and Video   | Rel-14 | C299  | UE supporting PUSCH enhancement for   | pc_eFDD            |   |  |
|           | Enhancement  |        | _     | MMTEL voice and video enhancements mode   | pc_eTDD            |   |  |
| 7.1.4.13  | MAC PDU header handling  | Rel-8  | R     | UEs supporting E-UTRA   | pc_eFDD            |   |  |
| 7.4.4.4   |  | D 1 2  | 000=  |   | pc_eTDD            |   |  |
| 7.1.4.14  | Correct HARQ process handling / TTI bundling   | Rel-8  | C99F  | UEs supporting E-UTRA and TTI bundling and Feature Group Indicator 7 and NOT Category M1  | pc_eFDD            |   |  |
|           |  |        | C99T  |   | pc_eTDD            |   |  |
| 7.1.4.14a | Correct HARQ process handling / feedback for UL data   | Rel-15 | C393  | UEs supporting E-UTRA and TTI bundling and Feature Group Indicator 7 and (CE Mode A or CE Mode B)   | pc_eFDD            |   |  |
|           |  |        | C394  | <b>'</b>  | pc_eTDD            |   |  |

| 7.1.4.15   | UE power headroom reporting / Periodic reporting   | Rel-8   | R     | UEs supporting E-UTRA  | pc_eFDD         |
|------------|--|---------|-------|--|-----------------|
|            | -  |         |       | 9 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 -  | pc eTDD         |
| 7.1.4.16   | UE power headroom reporting / DL pathloss change reporting   | Rel-8   | R     | UEs supporting E-UTRA  | pc_eFDD         |
|            |  |         |       |  | pc_eTDD         |
| 7.1.4.18   | Correct handling of MAC control information /<br>Buffer Status / UL data arrive in the UE Tx buffer /<br>Extended buffer size      | Rel-10  | C224c | UEs supporting E-UTRA and NOT Category M1  | pc_eFDD         |
|            |  |         |       |  | pc_eTDD         |
| 7.1.4.19.1 | CA / UE power headroom reporting / SCell activation and DL pathloss change reporting / Extended PHR / Intra-band Contiguous CA     | Rel-10  | C133  | UEs supporting E-UTRA and Intra-band contiguous Uplink Carrier Aggregation and FGI 113   | pc_eFDD         |
|            |  |         |       |  | pc_eTDD         |
| 7.1.4.19.2 | CA / UE power headroom reporting / SCell activation and DL pathloss change reporting / Extended PHR / Inter-band CA                | Rel-11  | C162  | UEs supporting E-UTRA and Inter-band Uplink<br>Carrier Aggregation and UL (Pcell) supported in<br>each band of Inter-band CA combination under<br>test | pc_eFDD         |
|            |  |         |       |  | pc_eTDD         |
| 7.1.4.19.3 | CA / UE power headroom reporting / SCell activation and DL pathloss change reporting / Extended PHR / Intra-band non-Contiguous CA | Rel-11  | C207  | UEs supporting E-UTRA and Uplink Intra-band non-Contiguous CA  | pc_eFDD         |
|            |  |         |       |  | pc_eTDD         |
| 7.1.4.20.1 | CA / Correct handling of MAC control information   | Rel-10  | C133  | UEs supporting E-UTRA and Intra-band   | pc_eFDD pc_eFDD |
| 7.11.2011  | / Buffer status / Intra-band Contiguous CA   | 1101 10 | 0.00  | contiguous Uplink Carrier Aggregation and FGI  |                 |
|            |  |         |       |  | pc_eTDD         |
| 7.1.4.20.2 | CA / Correct handling of MAC control information / Buffer status / Inter-band CA   | Rel-11  | C162  | UEs supporting E-UTRA and Inter-band Uplink<br>Carrier Aggregation and UL (Pcell) supported in<br>each band of Inter-band CA combination under<br>test | pc_eFDD         |
|            |  |         |       |  | pc_eTDD         |
| 7.1.4.20.3 | CA / Correct handling of MAC control information / Buffer status / Intra-band non-Contiguous CA                                    | Rel-11  | C207  | UEs supporting E-UTRA and Uplink Intra-band non-Contiguous CA  | pc_eFDD         |
|            |  |         |       |  | pc_eTDD         |
| 7.1.4.21   | UE power headroom reporting / Extended PHR   | Rel-10  | R     | UEs supporting E-UTRA  | pc eFDD         |
|            | 1  |         |       | 3  | pc_eTDD         |
| 7.1.4.22   | Correct HARQ process handling / UL MIMO  | Rel-10  | C158  | UE supporting E-UTRA and UL MIMO and NOT Category M1   | pc_eFDD         |
|            |  |         |       |  | pc_eTDD         |
| 7.1.4.23   | Correct HARQ process handling / TTI bundling with enhanced HARQ pattern  | Rel-12  | C227  | UEs supporting E-UTRA FDD and TTI bundling and TTI bundling with enhanced HARQ pattern and Feature Group Indicator 7 and NOT Category M1               | pc_eFDD         |
| 7.1.4.24   | Correct HARQ process handling / TTI bundling without resource allocation restriction   | Rel-12  | C228  | UEs supporting E-UTRA and TTI bundling and NOT (UE Category 0 or Category M1)  | pc_eFDD pc_eTDD |
| 7 1 4 242  | Correct HAPO process bandling / TTI bundling   | Rel-12  | C228a | HE aupporting E HTDA and TTI hundling and  |                 |
| 7.1.4.24a  | Correct HARQ process handling / TTI bundling without resource allocation restriction / UE with limited TB size                     | Kel-12  | CZZ8a | UEs supporting E-UTRA and TTI bundling and UE Category 0   | pc_eFDD         |

|   |  | 1  |        |   | pc_eTDD  |   |  |
|---|--|--|--------|---|----------|---|--|
| 7.1.4.24b                               | Correct HARQ process handling / Enhanced   | Rel-13   | C254a  | UEs supporting E-UTRA and CE mode A         | pc_eFDD  |   |  |
|   | Coverage / CE Mode A   | 1101 10  | 020-ia | OLO Supporting L OTTO Cana OL Mode /        | po_ci bb |   |  |
|   |  |  |        |   | pc_eTDD  |   |  |
| 7.1.4.24c                               | Correct HARQ process handling / Enhanced<br>Coverage / CE Mode B                               | Rel-13   | C255   | UEs supporting E-UTRA and CE mode B         | pc_eFDD  |   |  |
|   |  | 1.0. 10  | 0200   | Ozo oupporting z o rro tana oz modo z       | P0_0. BB |   |  |
|   |  |  |        |   | pc_eTDD  |   |  |
| 7.1.4.24d                               | Correct HARQ process handling / Repetition with  | Rel-14   | C334   | UEs supporting E-UTRA and PUSCH             | pc_eFDD  |   |  |
| / · · · · · · · · · · · · · · · · · · · | asynchronous PUSCH enhancement   | 1.0  |        | enhancement for MMTEL voice and video       | P0_0. BB |   |  |
|   |  |  |        | enhancements mode                           |          |   |  |
| 7.1.4.25.1                              | FDD-TDD CA / Correct HARQ process handling / PUSCH / FDD PCell and TDD SCell                   | Rel-12   | C235   | UE supporting E-UTRA FDD and TDD and 2DL    |          |   |  |
|   |  |  |        | CA and 2UL CA with tdd-FDD-CA-PCellDuplex-  |          |   |  |
|   |  |  |        | r12 with the second bit set to "1 "         |          |   |  |
| 7.1.4.25.2                              | FDD-TDD CA / Correct HARQ process handling /   | Rel-12   | C234   | UE supporting E-UTRA FDD and TDD and 2DL    |          |   |  |
|   | PUSCH / TDD PCell and FDD SCell  |  |        | CA and 2UL CA with tdd-FDD-CA-PCellDuplex-  |          |   |  |
|   |  |  |        | r12 with the first bit set to "1"           |          |   |  |
| 7.1.4.26.1                              | Correct handling of MAC control information  | Rel-12   | C244   | UEs supporting E-UTRA and DC Split DRB      | pc_eFDD  |   |  |
|   | / Buffer status / Split DRB  |  |        |   |          |   |  |
|   |  |  |        |   | pc_eTDD  |   |  |
| 7.1.4.27.1                              | DC power headroom reporting / PSCell activation and DL pathloss change reporting / SCG DRB     | Rel-12   | C245   | UEs supporting E-UTRA and DC SCG DRB        | pc eFDD  |   |  |
|   |  | 11011  | 0_10   |   | F        |   |  |
|   |  |  |        |   | pc_eTDD  |   |  |
| 7.1.4.27.2                              | DC power headroom reporting/ PSCell addition and DL pathloss change reporting / Split DRB      | Rel-12   | C244   | UEs supporting E-UTRA and DC Split DRB      | pc_eFDD  |   |  |
|   |  |  |        |   | . –      |   |  |
|   |  |  |        |   | pc_eTDD  |   |  |
| 7.1.4.28                                | Correct handling of UL assignment / Dynamic case / eIMTA                                       | Rel-12   | C256   | UEs supporting E-UTRA and eIMTA and NOT     | pc_eTDD  |   |  |
|   |  |  |        | Category M1                                 |          |   |  |
| 7.1.4.28a                               | CA / Correct handling of UL assignment /   | Rel-12   | C265   | UEs supporting E-UTRA and Inter-band Uplink | pc_eTDD  |   |  |
|   | Dynamic case / eIMTA / Inter-band CA   |  |        | Carrier Aggregation and eIMTA               |          |   |  |
| 7.1.4.29.1                              | CA / PUCCH SCell / Correct handling of MAC control information / Scheduling requests and PUCCH | Rel-13   | C301   | UEs supporting E-UTRA and DL CA and UL CA   | pc_eFDD  |   |  |
|   |  |  | 0004   | and PUCCH SCell                             | pc_eTDD  |   |  |
|   |  |  |        |   |          |   |  |
| 7.1.4.29.2                              | CA / PUCCH SCell / UE power headroom   | Rel-13   |        | pc_eFDD                                     |          |   |  |
|   | reporting / Periodic reporting   |  |        | and PUCCH SCell                             | pc_eTDD  |   |  |
| 7.1.4.30                                | Void   |  |        |   |          |   |  |
| 7.1.4.31                                | eLAA / Logical channel prioritization handling / laa-UL-Allowed                                | Rel-14   | C330   | UEs supporting E-UTRA and uplink LAA        | pc_eFDD  |   |  |
|   |  |  |        |   |          |   |  |
|   |  |  |        |   | pc_eTDD  |   |  |
| 7.1.4.32.1                              | eLAA / SCell PUSCH / Correct handling of UL  | Rel-14   | C330   | UEs supporting E-UTRA and uplink LAA        | pc_eFDD  | 4 |  |
|   | assignment / DCI0A/0B / One step scheduling  |  | 0.5.5. |   | pc_eTDD  |   |  |
| 7.1.4.32.2                              | eLAA / SCell PUSCH / Correct handling of UL  | Rel-14   | C331   | UEs supporting E-UTRA and uplink LAA and    | pc_eFDD  | 4 |  |
|   | assignment / DCI4A/4B/One step scheduling  | <del>                                     </del> |        | UL MIMO                                     | pc_eTDD  | 1 |  |
| 7.1.4.32.3                              | eLAA / SCell PUSCH / Correct handling of UL  | Rel-14   | C332   | UEs supporting E-UTRA and uplink LAA and    | pc_eFDD  | 4 |  |
|   | assignment / DCI0A/0B / Two step scheduling  |  |        | two step scheduling                         | pc_eTDD  |   |  |
| 7.1.4.32.4                              | eLAA / SCell PUSCH / Correct handling of UL  | Rel-14   | C333   | UEs supporting E-UTRA and uplink LAA and    | pc_eFDD  | _ |  |
|   | assignment / DCI4A/4B / Two step scheduling  |  |        | two step scheduling and UL MIMO             | pc_eTDD  |   |  |
| 7.1.4.33                                | Void   |  |        |   | 1        | 1 |  |
| 7.1.4.34                                | Void   |  |        |   |          | 1 |  |
| 7.1.4.35                                | Void   | 1  |        |   |          |   |  |

| 7.1.4.36   | Void  |         |       |   |          |                                     |  |
|------------|---|---------|-------|---|----------|-------------------------------------|--|
| 7.1.4.37   | Short Processing Time / Correct handling of UL  | Rel-15  | C377  | UE supporting E-UTRA and short processing   | pc_eFDD  |                                     |  |
| 7.11.1.07  | assignment  | TKCI 10 | 0017  | time  | po_cr bb |                                     |  |
|            | accignment  |         |       |   | pc_eTDD  |                                     |  |
| 7.1.4.38.1 | sTTI combination {slot, slot} / Correct handling of UL assignment / Collision handling                          | Rel-15  | C378  | UEs supporting E-UTRA and {slot, slot} combination in downlink and uplink CCs                           | pc_eFDD  |                                     |  |
| 7.1.4.38.2 | sTTI combination {subslot, subslot} / Correct   | Rel-15  | C379  | UEs supporting E-UTRA and {subslot, subslot}  | pc_eFDD  |                                     |  |
| 7.1.4.30.2 | handling of UL assignment / Collision handling  | Kei-13  | 0379  | combination in downlink and uplink CCs  | pc_er DD |                                     |  |
|            |   |         |       |   | pc_eTDD  |                                     |  |
| 7.1.4.39   | Short TTI / Correct handling of UL assignment /   | Rel-15  | C379  | UEs supporting E-UTRA and {subslot, subslot}  | pc_eFDD  |                                     |  |
|            | DMRS sharing  |         | 30.0  | combination in downlink and uplink CCs and minimum processing timeline                                  | po_0. 22 |                                     |  |
| 7.1.4.40   | Short TTI / Correct handling of MAC control   | Rel-15  | C378a | UEs supporting E-UTRA and {slot, slot}  | pc_eFDD  |                                     |  |
| -          | information / Scheduling requests and SPUCCH  |         |       | combination in downlink and uplink CCs  | 1 1      |                                     |  |
|            |   |         |       | ·   | pc_eTDD  |                                     |  |
| 7.1.4.41   | Short TTI / Correct handling of UL assignment / HARQ sharing between PUSCH and slot/subslot-PUSCH               | Rel-15  | C382  | UEs supporting E-UTRA and short processing time and {slot, slot} combination in downlink and uplink CCs | pc_eFDD  |                                     |  |
|            |   |         |       | '   | pc_eTDD  |                                     |  |
| 7.1.4a.1   | Correct downlink reception and uplink   | Rel-13  | C254  | UEs supporting E-UTRA and (CE Mode A or   | pc_eFDD  |                                     |  |
|            | transmission when specific valid subframes are signalled for BL UE  |         |       | CE Mode B)  |          |                                     |  |
|            |   |         |       |   | pc_eTDD  |                                     |  |
| 7.1.5.1    | Inter-TTI PUSCH hopping by uplink grant   | Rel-8   | C224c | UEs supporting E-UTRA and NOT Category M1   | pc_eFDD  |                                     |  |
|            |   |         |       |   | pc_eTDD  |                                     |  |
| 7.1.5.2    | Predefined intra-TTI PUSCH hopping (N_sb=1)   | Rel-8   | C224c | UEs supporting E-UTRA and NOT Category M1   | pc_eFDD  |                                     |  |
|            |   |         |       |   | pc_eTDD  |                                     |  |
| 7.1.5.3    | Predefined intra-TTI PUSCH hopping (N_sb=2/3/4)   | Rel-8   | C58F  | UEs supporting E-UTRA and Feature Group<br>Indicator 21 and NOT Category M1                             | pc_eFDD  |                                     |  |
|            |   |         | C58T  |   | pc_eTDD  |                                     |  |
| 7.1.5.4    | Predefined inter-TTI PUSCH hopping (N_sb=1)   | Rel-8   | C224c | UEs supporting E-UTRA and NOT Category M1   | pc_eFDD  |                                     |  |
|            |   |         |       |   | pc_eTDD  |                                     |  |
| 7.1.5.5    | Predefined inter-TTI PUSCH hopping (N_sb=2/3/4)   | Rel-8   | C58F  | UEs supporting E-UTRA and Feature Group<br>Indicator 21 and NOT Category M1                             | pc_eFDD  |                                     |  |
|            |   |         | C58T  |   | pc_eTDD  |                                     |  |
| 7.1.5.6    | PUSCH Hopping / multi-subframe repetitions  | Rel-14  | C334  | UEs supporting E-UTRA and PUSCH enhancement for MMTEL voice and video enhancements mode                 | pc_eFDD  |                                     |  |
|            |   |         |       |   | pc_eTDD  |                                     |  |
| 7.1.6.1    | DRX operation / Short cycle not configured / Parameters configured by RRC                                       | Rel-8   | C08F  | UEs supporting E-UTRA and Feature Group 5 and NOT Category M1   | pc_eFDD  | If TC 7.1.6.5 is executed this test |  |
|            |   |         | C08T  |   | pc_eTDD  | case is optional.<br>(Note 13)      |  |
| 7.1.6.1a   | DRX operation / Short cycle not configured /<br>Parameters configured by RRC / Enhanced<br>Coverage / CE Mode A | Rel-13  | C08aF | UEs supporting E-UTRA and Feature Group 5 and CE Mode A   | pc_eFDD  |                                     |  |
|            |   |         | C08aT |   | pc_eTDD  |                                     |  |
| 7.1.6.2    | DRX operation / Short cycle not configured / DRX command MAC control element reception                          | Rel-8   | C08bF | UEs supporting E-UTRA and Feature Group 5   | pc_eFDD  |                                     |  |
|            | ·   |         | C08bT |   | pc_eTDD  |                                     |  |
|            | *   | •       |       | •   |          | •                                   |  |

| 7.1.6.3    | DRX operation / Short cycle configured /  | Rel-8  | C216F | UEs supporting E-UTRA and Feature Group 4   | pc eFDD         |
|------------|---|--------|-------|---|-----------------|
|            | Parameters configured by RRC  | 11010  | 02101 | and Feature Group 5 and NOT Category M1   | Po_o, BB        |
|            |   |        | C216T | 7   | pc_eTDD         |
| 7.1.6.4    | DRX operation / Short cycle configured / DRX command MAC control element reception  | Rel-8  | C216F | UEs supporting E-UTRA and Feature Group 4 and Feature Group 5 and NOT Category M1   | pc_eFDD         |
|            |   |        | C216T |   | pc_eTDD         |
| 7.1.6.5    | eDRX operation / Long cycle configured / Parameters configured by RRC   | Rel-13 | C260  | UEs supporting E-UTRA and Extended Long DRX   | pc_eFDD         |
|            |   |        |       |   | pc_eTDD         |
| 7.1.7.1.1  | DL-SCH transport block size selection / DCI format 1 / RA type 0  | Rel-8  | C224c | UEs supporting E-UTRA and NOT Category M1   | pc_eFDD         |
|            |   |        |       |   | pc_eTDD         |
| 7.1.7.1.2  | DL-SCH transport block size selection / DCI format 1 / RA type 1  | Rel-8  | C224c | UEs supporting E-UTRA and NOT Category M1   | pc_eFDD         |
|            |   |        |       |   | pc_eTDD         |
| 7.1.7.1.3  | DL-SCH transport block size selection / DCI format 1A / RA type 2 / Localised VRB   | Rel-8  | C224c | UEs supporting E-UTRA and NOT Category M1   | pc_eFDD         |
|            |   |        |       |   | pc_eTDD         |
| 7.1.7.1.4  | DL-SCH transport block size selection / DCI format 1A / RA type 2 / Distributed VRB   | Rel-8  | C224c | UEs supporting E-UTRA and NOT Category M1   | pc_eFDD         |
|            |   |        |       |   | pc_eTDD         |
| 7.1.7.1.5  | DL-SCH transport block size selection / DCI format 2A / RA type 0 / Two transport blocks enabled / Transport block to codeword swap flag value set to '0' | Rel-8  | C56   | UEs supporting E-UTRA and (UE Category 2 to UE Category 5)  | pc_eFDD         |
|            |   |        |       |   | pc_eTDD         |
| 7.1.7.1.6  | DL-SCH transport block size selection / DCI format 2A / RA type 1 / Two transport blocks enabled / Transport block to codeword swap flag value set to '1' | Rel-8  | C56   | UEs supporting E-UTRA and (UE Category 2 to UE Category 5)  | pc_eFDD         |
|            |   |        |       |   | pc_eTDD         |
| 7.1.7.1.6a | DL-SCH transport block size selection / DCI format 2A / RA type 0 and RA type 1 / Two transport blocks enabled / 3 and 4 Layer Spatial Multiplexing       | Rel-10 | C296  | UEs supporting E-UTRA and ((UE Category 5 to UE Category 7) or (UE Category 9 to UE Category 12) or UE DL Category 15 or UE DL Category 16 or UE DL Category 18 or UE DL Category 19 or UE DL Category 20 or UE DL Category 21) and 4-layer spatial multiplexing. | pc_eFDD pc_eTDD |
| 7.1.7.1.7  | DL-SCH transport block size selection / DCI   | Rel-12 | C248  | UEs supporting E-UTRA and ((UE Category 11  | pc eFDD         |
|            | format 1 / RA type 0 / 256QAM   |        |       | to UE Category 12) or (UE DL Category 11 to UE DL Category 21)) and downlink 256QAM   |                 |
|            |   |        |       |   | pc_eTDD         |
| 7.1.7.1.8  | DL-SCH transport block size selection / DCI format 1 / RA type 1 / 256QAM   | Rel-12 | C248  | UEs supporting E-UTRA and ((UE Category 11 to UE Category 12) or (UE DL Category 11 to UE DL Category 21)) and downlink 256QAM  | pc_eFDD pc_eTDD |
| 7.1.7.1.9  | DL-SCH transport block size selection / DCI   | Rel-12 | C248  | UEs supporting E-UTRA and ((UE Category 11  | pc_eFDD pc_eFDD |
| 7.1.7.1.9  | format 1B / RA type 2 / Localised VRB / 256QAM  | Kel-12 | U240  | to UE Category 12) or (UE DL Category 11 to UE DL Category 21)) and downlink 256QAM   | pc_eruu         |
|            |   |        |       | 0 , ,,  | pc_eTDD         |

| <b> </b> |
|----------|
|          |

|            |  |        |       |   | · · · · · · · · · · · · · · · · · · · |
|------------|--|--------|-------|---|---------------------------------------|
| 7.1.7.2.3a | UL-SCH transport block size selection / DCI format 6-0B/ Uplink resource allocation type 2 / CAT M2  | Rel-14 | C255b | UEs supporting E-UTRA and CE mode B and Category M2   | pc_eFDD                               |
|            |  |        |       |   | pc_eTDD                               |
| 7.1.7.2.4  | UL-SCH transport block size selection / DCI format 0 / UL 256QAM   | Rel-14 | C224d | UE supporting E-UTRA and UL 256QAM  | pc_eFDD                               |
|            |  |        |       |   | pc_eTDD                               |
| 7.1.8.1    | Periodic RI reporting using PUCCH / UE only supports 1 layer for spatial multiplexing in DL / Transmission mode 3/4  | Rel-8  | C103  | UEs supporting E-UTRA and (UE Category 0 or UE Category 1) and NOT Category M1                            | pc_eFDD                               |
|            | Transmission mode 5/4  |        |       |   | pc_eTDD                               |
| 7.1.9.1.1  | CA / Activation/Deactivation of SCells / Activation/Deactivation MAC control element reception / sCellDeactivationTimer / Intra-band Contiguous CA   | Rel-10 | C132  | UEs supporting E-UTRA and Intra-band<br>Contiguous Carrier Aggregation                                    | pc_eFDD                               |
|            | 3  |        |       |   | pc_eTDD                               |
| 7.1.9.1.2  | CA / Activation/Deactivation of SCells /<br>Activation/Deactivation MAC control element<br>reception / sCellDeactivationTimer / Inter-band<br>CA   | Rel-10 | C151  | UEs supporting E-UTRA and Inter-band Carrier Aggregation  | pc_eFDD                               |
|            |  |        |       |   | pc eTDD                               |
| 7.1.9.1.3  | CA / Activation/Deactivation of SCells /<br>Activation/Deactivation MAC control element<br>reception / sCellDeactivationTimer / Intra-band<br>non-Contiguous CA  | Rel-11 | C132a | UEs supporting E-UTRA and Downlink Intra-<br>band non-Contiguous CA Carrier Aggregation                   | pc_eFDD                               |
|            | non comgacas on  |        |       |   | pc eTDD                               |
| 7.1.9.2    | CA / PUCCH SCell / Activation/Deactivation of SCells   | Rel-13 | C301  | UEs supporting E-UTRA and DL CA and UL CA and PUCCH SCell   | pc_eFDD                               |
|            |  |        |       |   | pc_eTDD                               |
| 7.1.10.1   | Sending SR on PUCCH with DMRS generated by using virtual cell identity / nPUCCH-Identity   | Rel-11 | C208  | UEs supporting E-UTRA and UL CoMP and NOT Category M1   | pc_eFDD                               |
|            |  |        |       |   | pc_eTDD                               |
| 7.1.10.2   | Transmitting data on PUSCH with DMRS generated by using virtual cell identity / nPUSCH-Identity  | Rel-11 | C208  |   | pc_eFDD                               |
|            |  |        |       |   | pc_eTDD                               |
| 7.1.11.1   | LAA transmits common control information in PDCCH scrambled with CC-RNTI   | Rel-13 | C280  | UEs supporting E-UTRA and downlink LAA  | pc_eFDD                               |
|            |  |        |       |   | pc_eTDD                               |
| 7.1.12.1   | DataInactivityTimer expiry   | Rel-14 | C295  | UEs supporting E-UTRA and data inactivity monitoring  | pc_eFDD                               |
|            |  |        |       |   | pc_eTDD                               |
| 7.1.13.1.1 | Hibernation of SCells / Hibernation MAC control element reception / sCellHibernationTimer / dormantSCellDeactivationTimer / Intra-band Contiguous CA   | Rel-15 | C373  | UEs supporting E-UTRA and Intra-band Carrier<br>Aggregation and modification of SCell in<br>dormant state | pc_eFDD                               |
|            |  |        |       |   | pc_eTDD                               |
| 7.2.2.1    | UM RLC / Segmentation and reassembly / 5-bit SN / Framing info field   | Rel-8  | C15F  | UEs supporting E-UTRA and Feature Group Indicator 3 and Feature Group Indicator 7                         | pc_eFDD                               |
|            | LINE OF COLUMN TO THE COLUMN T |        | C15T  | LIE II ELIED I I E  | pc_eTDD                               |
| 7.2.2.2    | UM RLC / Segmentation and reassembly / 10-bit SN / Framing info field  | Rel-8  | C16F  | UEs supporting E-UTRA and Feature Group Indicator 7   | pc_eFDD                               |

| İ         |   |         | C16T  | $\neg$  | pc_eTDD            |  |
|-----------|---|---------|-------|---|--------------------|--|
| 7.2.2.3   | UM RLC / Reassembly / 5-bit SN / LI value >         | Rel-8   | C15F  | UEs supporting E-UTRA and Feature Group   | pc_eFDD            |  |
| 7.2.2.0   | PDU size  | 11010   | 0.01  | Indicator 3 and Feature Group Indicator 7   | Po_0: BB           |  |
|           |   |         | C15T  |   | pc_eTDD            |  |
| 7.2.2.4   | UM RLC / Reassembly / 10-bit SN / LI value >        | Rel-8   | C16F  | UEs supporting E-UTRA and Feature Group   | pc_eFDD            |  |
|           | PDU size  |         |       | Indicator 7   | . –                |  |
|           |   |         | C16T  |   | pc_eTDD            |  |
| 7.2.2.5.1 | UM RLC / 5-bit SN / Correct use of sequence         | Rel-8   | C15F  | UEs supporting E-UTRA and Feature Group   | pc_eFDD            |  |
|           | numbering   |         |       | Indicator 3 and Feature Group Indicator 7   |                    |  |
|           |   |         | C15T  |   | pc_eTDD            |  |
| 7.2.2.5.2 | UM RLC / 10-bit SN / Correct use of sequence        | Rel-8   | C16F  | UEs supporting E-UTRA and Feature Group   | pc_eFDD            |  |
|           | numbering   |         | 0.10= | Indicator 7   |                    |  |
|           |   |         | C16T  |   | pc_eTDD            |  |
| 7.2.2.6   | UM RLC / Concatenation, segmentation and            | Rel-8   | C16F  | UEs supporting E-UTRA and Feature Group   | pc_eFDD            |  |
|           | reassembly  |         | C16T  | Indicator 7   | TDD                |  |
| 7.2.2.7   | UM RLC / In sequence delivery of upper layer        | Rel-8   | C16F  | UEs supporting E-UTRA and Feature Group   | pc_eTDD<br>pc_eFDD |  |
| 1.2.2.1   | PDUs without residual loss of RLC PDUs /            | Rei-8   | CTOF  | Indicator 7   | рс_егоо            |  |
|           | Maximum re-ordering delay below <i>t-Reordering</i> |         |       | indicator i   |                    |  |
|           | waximum to ordening delay below t recordening       |         | C16T  | $\dashv$  | pc_eTDD            |  |
| 7.2.2.8   | UM RLC / In sequence delivery of upper layer        | Rel-8   | C16F  | UEs supporting E-UTRA and Feature Group   | pc_eFDD            |  |
| 7.2.2.0   | PDUs without residual loss of RLC PDUs /            | 11010   | 0101  | Indicator 7   | Po_ci BB           |  |
|           | Maximum re-ordering delay exceeds t-Reordering      |         |       | indicator :   |                    |  |
|           | 3   |         | C16T  |   | pc_eTDD            |  |
| 7.2.2.9   | UM RLC / In sequence delivery of upper layer        | Rel-8   | C16F  | UEs supporting E-UTRA and Feature Group   | pc_eFDD            |  |
|           | PDUs with residual loss of RLC PDUs / Maximum       |         |       | Indicator 7   | i –                |  |
|           | re-ordering delay exceeds t-Reordering              |         |       |   |                    |  |
|           |   |         | C16T  |   | pc_eTDD            |  |
| 7.2.2.10  | UM RLC / Duplicate detection of RLC PDUs            | Rel-8   | C16F  | UEs supporting E-UTRA and Feature Group   | pc_eFDD            |  |
|           |   |         |       | Indicator 7   |                    |  |
|           |   |         | C16T  |   | pc_eTDD            |  |
| 7.2.2.11  | UM RLC / RLC re-establishment procedure             | Rel-8   | C362  | UEs supporting E-UTRA and Feature Group   | pc_eFDD            |  |
|           |   |         |       | Indicator 7 or (CE Mode A and "eventA3 for  |                    |  |
|           |   |         |       | intra-frequency neighbouring cells in normal coverage CE Mode A" and "intra-frequency |                    |  |
|           |   |         |       | handover to target cell in normal coverage and  |                    |  |
|           |   |         |       | CE Mode A" and Feature Group Indicator 7)   |                    |  |
|           |   |         | C363  | OE Mode A and realtire Group indicator 1)   | pc_eTDD            |  |
| 7.2.3.1   | AM RLC / Concatenation and reassembly               | Rel-8   | R     | UEs supporting E-UTRA   | pc_eFDD            |  |
|           | This read / dolloateriation and readsormbly         | 1.101.0 | 1.    | o copporting to o receive   | pc_eTDD            |  |
| 7.2.3.2   | AM RLC / Segmentation and reassembly / No           | Rel-8   | R     | UEs supporting E-UTRA   | pc eFDD            |  |
|           | PDU segmentation                                    |         |       |   |                    |  |
|           |   |         |       |   | pc_eTDD            |  |
| 7.2.3.3   | AM RLC / Segmentation and reassembly /              | Rel-8   | R     | UEs supporting E-UTRA   | pc_eFDD            |  |
|           | Framing info field                                  |         |       |   | . =                |  |
|           |   |         |       |   | pc_eTDD            |  |
| 7.2.3.4   | AM RLC / Segmentation and reassembly /              | Rel-8   | R     | UEs supporting E-UTRA   | pc_eFDD            |  |
|           | Different numbers of length indicators              |         |       |   |                    |  |
|           |   |         |       |   | pc_eTDD            |  |
| 7.2.3.5   | AM RLC / Reassembly / LI value > PDU size           | Rel-8   | R     | UEs supporting E-UTRA   | pc_eFDD            |  |
|           |   |         |       |   | pc_eTDD            |  |
| 7.2.3.6   | AM RLC / Correct use of sequence numbering          | Rel-8   | R     | UEs supporting E-UTRA   | pc_eFDD            |  |

| I        |  | 1 1   | I    | 1   | pc eTDD            |   |  |
|----------|--|-------|------|---|--------------------|---|--|
| 7.2.3.7  | AM RLC / Control of transmit window  | Rel-8 | R    | UEs supporting E-UTRA   | pc_eFDD            |   |  |
| 1.2.3.1  | AW REC / Control of transmit window  | Kel-0 | IX.  | OLS Supporting L-OTKA   | pc_erDD            | + |  |
| 7.2.3.8  | AM RLC / Control of receive window   | Rel-8 | R    | UEs supporting E-UTRA   | pc_erDD<br>pc_eFDD |   |  |
| 1.2.3.6  | AM REC / Control of receive window   | Kel-o | K    | DES Supporting E-OTRA   |                    | 4 |  |
| 7000     | AMARI O / Pallia e fan atatua  | Date  |      | LIE- companies E LIEDA  | pc_eTDD            |   |  |
| 7.2.3.9  | AM RLC / Polling for status  | Rel-8 | R    | UEs supporting E-UTRA   | pc_eFDD            |   |  |
|          |  |       |      |   | pc_eTDD            |   |  |
| 7.2.3.10 | AM RLC / Receiver status triggers  | Rel-8 | R    | UEs supporting E-UTRA   | pc_eFDD            |   |  |
|          |  |       |      |   | pc_eTDD            |   |  |
| 7.2.3.11 | Void   |       |      |   |                    |   |  |
| 7.2.3.12 | Void   |       |      |   |                    |   |  |
| 7.2.3.13 | AM RLC / Reconfiguration of RLC parameters by upper layers   | Rel-8 | R    | UEs supporting E-UTRA   | pc_eFDD            |   |  |
|          |  |       |      |   | pc_eTDD            |   |  |
| 7.2.3.14 | AM RLC / In sequence delivery of upper layers PDUs   | Rel-8 | R    | UEs supporting E-UTRA   | pc_eFDD            |   |  |
|          |  |       |      |   | pc eTDD            |   |  |
| 7.2.3.15 | AM RLC / Re-ordering of RLC PDU segments   | Rel-8 | R    | UEs supporting E-UTRA   | pc_eFDD            |   |  |
| 7.2.0.10 | 7 WITTER THE GRADING OF THE OF BE COGNICING  | 110.0 |      | O 25 Supporting 2 S 110 (   | pc_eTDD            |   |  |
| 7.2.3.16 | AM RLC / Re-transmission of RLC PDU without  | Rel-8 | R    | UEs supporting E-UTRA   | pc_eFDD            |   |  |
| 7.2.3.10 | re-segmentation  | Kei-o | K    | OLS Supporting L-OTKA   |                    |   |  |
|          |  |       | _    |   | pc_eTDD            |   |  |
| 7.2.3.17 | AM RLC / Re-segmentation RLC PDU / SO, FI, LSF   | Rel-8 | R    | UEs supporting E-UTRA   | pc_eFDD            |   |  |
|          |  |       |      |   | pc_eTDD            |   |  |
| 7.2.3.18 | AM RLC / Reassembly / AMD PDU reassembly from AMD PDU segments, segmentation Offset and Last Segment Flag fields | Rel-8 | R    | UEs supporting E-UTRA   | pc_eFDD            |   |  |
|          | and East Segment Flag helds  |       |      |   | pc_eTDD            |   |  |
| 7.2.3.19 | Void   |       |      |   | рс_стоо            |   |  |
| 7.2.3.19 | AM RLC / Duplicate detection of RLC PDUs   | Rel-8 | R    | UEs supporting E-UTRA   | pc_eFDD            |   |  |
| 7.2.3.20 | AM REC / Duplicate detection of REC PDOS   | Kel-o | K    | DES Supporting E-OTRA   | pc_eFDD<br>pc_eTDD | _ |  |
| 70001    | AM DLO / DLO (-b.l'-b t -t DDO   | Date  | 040  | LIE- surroughing E LIEDA on (OF Mode A and  | pc_eTDD            |   |  |
| 7.2.3.21 | AM RLC / RLC re-establishment at RRC connection reconfiguration including mobilityControlInfo IE                 | Rel-8 | C12  | UEs supporting E-UTRA or (CE Mode A and "eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A" and "intra-frequency handover to target cell in normal coverage and CE Mode A") | pc_eFDD            |   |  |
|          |  |       |      |   | pc_eTDD            |   |  |
| 7.3.1.1  | Maintenance of PDCP sequence numbers / User plane / RLC AM   | Rel-8 | R    | UEs supporting E-UTRA   | pc_eFDD            |   |  |
|          | [  |       |      |   | pc_eTDD            | 7 |  |
| 7.3.1.2  | Maintenance of PDCP sequence numbers / User plane / RLC UM / Short PDCP SN (7 bits)                              | Rel-8 | C15F | UEs supporting E-UTRA and Feature Group Indicator 3 and Feature Group Indicator 7   | pc_eFDD            |   |  |
|          |  |       | C15T |   | pc_eTDD            | 7 |  |
| 7.3.1.3  | Maintenance of PDCP sequence numbers / User plane / RLC UM / Long PDCP SN (12 bits)                              | Rel-8 | C16F | UEs supporting E-UTRA and Feature Group Indicator 7   | pc_eFDD            |   |  |
|          | Plane / 120 OW / Long I Doi ON (12 bits)   |       | C16T | maioator /  | pc_eTDD            | = |  |
| 7.3.3.1  | Ciphering and deciphering / Correct functionality of EPS AS encryption algorithms / SNOW 3G                      | Rel-8 | R    | UEs supporting E-UTRA   | pc_eFDD            |   |  |
|          | or Ero Ao encryption algorithms / SNOW 3G  |       |      |   | an aTDD            |   |  |
| 1        |  |       |      |   | pc_eTDD            |   |  |

| 7.3.3.2  | Ciphering and deciphering / Correct functionality of EPS UP encryption algorithms / SNOW 3G                                       | Rel-8  | R      | UEs supporting E-UTRA   | pc_eFDD |        |  |
|----------|---|--------|--------|---|---------|--------|--|
|          |   |        |        |   | pc_eTDD |        |  |
| 7.3.3.3  | Ciphering and deciphering / Correct functionality of EPS AS encryption algorithms / AES   | Rel-8  | R      | UEs supporting E-UTRA   | pc_eFDD |        |  |
|          |   |        |        |   | pc_eTDD |        |  |
| 7.3.3.4  | Ciphering and deciphering / Correct functionality of EPS UP encryption algorithms / AES   | Rel-8  | R      | UEs supporting E-UTRA   | pc_eFDD |        |  |
|          |   |        |        |   | pc_eTDD |        |  |
| 7.3.3.5  | Ciphering and deciphering / Correct functionality of EPS AS encryption algorithms / ZUC   | Rel-11 | C215   | UEs supporting E-UTRA and ZUC algorithm   | pc_eFDD | Note 3 |  |
|          |   |        |        |   | pc_eTDD |        |  |
| 7.3.3.6  | Ciphering and deciphering / Correct functionality of EPS UP encryption algorithms / ZUC   | Rel-11 | C215   | UEs supporting E-UTRA and ZUC algorithm   | pc_eFDD | Note 3 |  |
|          |   |        |        |   | pc_eTDD |        |  |
| 7.3.4.1  | Integrity protection / Correct functionality of EPS AS integrity algorithms / SNOW3G  | Rel-8  | R      | UEs supporting E-UTRA   | pc_eFDD |        |  |
|          |   |        |        |   | pc_eTDD |        |  |
| 7.3.4.2  | Integrity protection / Correct functionality of EPS AS integrity algorithms / AES   | Rel-8  | R      | UEs supporting E-UTRA   | pc_eFDD |        |  |
|          |   |        |        |   | pc_eTDD |        |  |
| 7.3.4.3  | Integrity protection / Correct functionality of EPS AS integrity algorithms / ZUC   | Rel-11 | C215   | UEs supporting E-UTRA and ZUC algorithm   | pc_eFDD | Note 3 |  |
|          |   |        |        |   | pc_eTDD |        |  |
| 7.3.5.1  | Void  |        |        |   |         |        |  |
| 7.3.5.2  | PDCP handover / Lossless handover / PDCP sequence number maintenance  | Rel-8  | C12    | UEs supporting E-UTRA or (CE Mode A and<br>"eventA3 for intra-frequency neighbouring cells<br>in normal coverage CE Mode A" and "intra-<br>frequency handover to target cell in normal<br>coverage and CE Mode A")  | pc_eFDD |        |  |
| 7050     | DDOD have day on Albert land as a base day on DDOD  | D-L0   | C362   | UE  | pc_eTDD |        |  |
| 7.3.5.3  | PDCP handover / Non-lossless handover PDCP sequence number maintenance  | Rel-8  |        | UEs supporting E-UTRA and Feature Group Indicator 7 or (CE Mode A and "eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A" and "intra-frequency handover to target cell in normal coverage and CE Mode A" and Feature Group Indicator 7) | pc_eFDD |        |  |
|          |   |        | C363   |   | pc_eTDD |        |  |
| 7.3.5.4  | PDCP handover / Lossless handover / PDCP status report to convey the information on missing or acknowledged PDCP SDUs at handover | Rel-8  | C12    | UEs supporting E-UTRA or (CE Mode A and "eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A" and "intra-frequency handover to target cell in normal coverage and CE Mode A")   | pc_eFDD |        |  |
| <u> </u> |   |        |        |   | pc_eTDD |        |  |
| 7.3.5.5  | PDCP handover / In-order delivery and duplicate elimination in the downlink   | Rel-8  | C12    | UEs supporting E-UTRA or (CE Mode A and "eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A" and "intra-frequency handover to target cell in normal coverage and CE Mode A")   | pc_eFDD |        |  |
| 7.3.6.1  | PDCP Discard  | Rel-8  | C16F   | UEs supporting E-UTRA and Feature Group   | pc eFDD |        |  |
|          |   |        | - · •. | Indicator 7   | 1       |        |  |

| Ī        |   | I      | C16T | $\neg$   | pc_eTDD  |  |
|----------|---|--------|------|--|----------|--|
| 7.3.6.2  | Ethernet header compression and   | Rel-6  | C395 | UEs supporting E-UTRA and RLC UM and                                   | pc_eFDD  |  |
| 7.0.0.2  | decompression / Correct functionality of ethernet header compression and decompression  | INCIO  | 0000 | PDCP ethernet header compression                                       | pc_cr bb |  |
|          |   |        |      |  | pc_eTDD  |  |
| 7.3.7.1  | PDCP Uplink Routing / Split DRB   | Rel-12 | C244 | UEs supporting E-UTRA and DC Split DRB                                 | pc_eFDD  |  |
|          |   |        |      | o a capporang a communication opinion.                                 | pc_eTDD  |  |
| 7.3.7.2  | PDCP Data Recovery / Reconfiguration of Split DRB   | Rel-12 | C244 | UEs supporting E-UTRA and DC Split DRB                                 | pc_eFDD  |  |
|          |   |        |      |  | pc eTDD  |  |
| 7.3.7.3  | PDCP Data Recovery / Reconfiguration of Split DRB to MCG/SCG DRBs   | Rel-12 | C246 | UEs supporting E-UTRA and DC Split DRB and DC SCG DRB                  | pc_eFDD  |  |
|          |   |        |      |  | pc_eTDD  |  |
| 7.3.7.4  | PDCP re-establishment at handover / Split DRB   | Rel-12 | C244 | UEs supporting E-UTRA and DC Split DRB                                 | pc_eFDD  |  |
|          | ·   |        |      |  | pc_eTDD  |  |
| 7.3.7.5  | PDCP re-establishment at handover of MCG/SCG DRBs and at SCG change without handover with SCG DRB change                                  | Rel-12 | C246 | UEs supporting E-UTRA and DC Split DRB and DC SCG DRB                  | pc_eFDD  |  |
|          | Ĭ   |        |      |  | pc_eTDD  |  |
| 7.3.7.6  | PDCP reordering of Split DRB / Maximum re-<br>ordering delay below t-Reordering   | Rel-12 | C244 | UEs supporting E-UTRA and DC Split DRB                                 | pc_eFDD  |  |
|          |   |        |      |  | pc_eTDD  |  |
| 7.3.7.7  | PDCP reordering of Split DRB / t-Reordering timer operations  | Rel-12 | C244 | UEs supporting E-UTRA and DC Split DRB                                 | pc_eFDD  |  |
|          |   |        |      |  | pc_eTDD  |  |
| 7.3.8.1  | Security Aspects / ProSe Direct Communication /<br>Security Information for Confidentiality Protection<br>- Correct Counting and Wrapping | Rel-12 | C238 | UEs supporting E-UTRA FDD and supporting<br>ProSe direct communication | pc_eFDD  |  |
| 7.3.8.2  | Security Aspects / ProSe Direct Communication /<br>Security Information for no Confidentiality<br>Protection                              | Rel-12 | C238 | UEs supporting E-UTRA FDD and supporting<br>ProSe direct communication | pc_eFDD  |  |
| 7.3.8.3  | Void  |        |      |  |          |  |
| 7.3.9.1  | PDCP SDU transmission/ V2X Sidelink   | Rel-14 | C307 | UEs supporting E-UTRA and V2X sidelink                                 | pc_eFDD  |  |
|          | Communication/ No Confidentiality Protection for both Non-IP type and IP type   |        |      | communication  | pc_eTDD  |  |
| 7.3.10.1 | PDCP UDC / No dictionary  | Rel-15 | C352 | UEs supporting the uplink data compression operation                   |          |  |
| 7.3.10.2 | PDCP UDC / Pre-defined dictionary   | Rel-15 | C353 | UEs supporting UL data compression with SIP static dictionary          |          |  |
| 7.3.10.3 | PDCP UDC / Reset  | Rel-15 | C352 | UEs supporting the uplink data compression operation                   |          |  |
| 8        | RRC   |        |      |  |          |  |
| 8.1.1.1  | Void  |        |      |  |          |  |
| 8.1.1.1a | RRC / Direct Indication Information / Notification of BCCH modification in idle mode  | Rel-13 | C254 | UEs supporting E-UTRA and (CE Mode A or CE Mode B)                     | pc_eFDD  |  |
|          |   |        |      |  | pc_eTDD  |  |
| 8.1.1.2  | RRC / Paging for notification of BCCH modification in idle mode   | Rel-8  | R    | UEs supporting E-UTRA  | pc_eFDD  |  |
| r        |   | 1      |      |  | pc_eTDD  |  |
| 8.1.1.2a | RRC / Paging for notification of BCCH modification in idle mode / eDRX cycle longer   | Rel-13 | C262 | UEs supporting E-UTRA and Extended DRX                                 | pc_eFDD  |  |

|          |  |        |       |   | <del>_</del>       | <br> |
|----------|--|--------|-------|---|--------------------|------|
|          | than the modification period / eDRX cycle with   |        |       |   |                    |      |
|          | eDRX Allowed/Not Allowed   |        |       |   |                    |      |
|          |  |        |       |   | pc_eTDD            |      |
| 8.1.1.3  | RRC / Paging for connection in idle mode / Multiple paging records   | Rel-8  | R     | UEs supporting E-UTRA   | pc_eFDD            |      |
|          |  |        |       |   | pc eTDD            |      |
| 8.1.1.4  | RRC / Paging for connection in idle mode / Shared network environment  | Rel-8  | R     | UEs supporting E-UTRA   | pc_eFDD            |      |
|          |  |        |       |   | pc_eTDD            |      |
| 8.1.1.5  | Void   |        |       |   |                    |      |
| 8.1.1.6  | RRC / BCCH modification in connected mode  | Rel-8  | C224c | UEs supporting E-UTRA and NOT Category M1                               | pc_eFDD            |      |
|          |  |        |       |   | pc_eTDD            |      |
| 8.1.1.7  | RRC / Paging / EAB active  | Rel-11 | C194  | UEs supporting E-UTRA and EAB and LAP                                   | pc_eFDD            |      |
| 8.1.1.8  | RRC / Paging / DRX Operation / Enhanced Coverage / WUS   | Rel-15 | C384  | UEs supporting E-UTRA FDD and (CE mode A or CE mode B) and WUS          | pc_eFDD            |      |
| 0.4.4.0  |  | D 145  | 2005  | ,   | 500                |      |
| 8.1.1.9  | RRC / Paging / eDRX Operation / Enhanced Coverage / WUS  | Rel-15 | C385  | UEs supporting E-UTRA FDD and (CE mode A or CE mode B) and eDRX and WUS | pc_eFDD            |      |
|          |  |        |       |   | pc_eTDD            |      |
| 8.1.2.1  | Void   |        |       |   | 1                  |      |
| 8.1.2.2  | RRC connection establishment / Reject with wait time   | Rel-8  | R     | UEs supporting E-UTRA   | pc_eFDD            |      |
|          |  |        |       |   | pc eTDD            |      |
| 8.1.2.3  | RRC connection establishment / Return to idle  | Rel-8  | R     | UEs supporting E-UTRA   | pc_eFDD            |      |
| 0.1.2.0  | state after T300 timeout   | 11010  | 11    | OLO Supporting L O TIVE   | po_01 22           |      |
|          | otato and rood immodit   |        |       |   | pc_eTDD            |      |
| 8.1.2.4  | Void   |        |       |   | P0_0.22            |      |
| 8.1.2.5  | RRC connection establishment / 0% access   | Rel-8  | R     | UEs supporting E-UTRA   | pc_eFDD            |      |
| 0.1.2.0  | probability for MO calls, no restriction for MO signalling   | 11010  | 17    | old supporting L G HVV  | po_01              |      |
|          | orginaling   |        |       |   | pc_eTDD            |      |
| 8.1.2.6  | RRC connection establishment / Non-zero  | Rel-8  | R     | UEs supporting E-UTRA   | pc_eFDD            |      |
| 0.1.2.0  | percent access probability for MO calls, no restriction for MO signalling  | T(C) O | IX.   | OLS supporting L OTTO   | pc_ci              |      |
|          | restriction for two signaturing  |        |       |   | pc_eTDD            |      |
| 8.1.2.7  | RRC connection establishment / 0% access   | Rel-8  | R     | UEs supporting E-UTRA   | pc_erbb<br>pc eFDD |      |
| 0.1.2.7  | probability for AC 0 to 9, AC 10 is barred, AC 11 to 15 are not barred, access for UE with access class in the range 11 to 15 is allowed | iter o | K     | oes supporting E office   | pc_ci              |      |
|          | loass in the range 11 to 13 is allowed   |        |       |   | pc eTDD            |      |
| 8.1.2.8  | RRC connection establishment / Range of access   | Rel-8  | C97   | UEs supporting E-UTRA and Multiple PDN                                  | pc_eTDD<br>pc_eFDD |      |
| 0.1.2.0  | baring time  | Rei-o  | C97   | DES supporting E-OTRA and Multiple PDN                                  | -                  |      |
|          | 2000   | D 10   |       | LUE WESTER  | pc_eTDD            |      |
| 8.1.2.9  | RRC Connection Establishment / 0% access probability for MO calls, non-zero percent access probability for MO signalling                 | Rel-8  | R     | UEs supporting E-UTRA   | pc_eFDD            |      |
|          |  |        |       |   | pc_eTDD            |      |
| 8.1.2.10 | Void   |        |       |   |                    |      |
| 8.1.2.11 | Void   |        |       |   |                    |      |
| 8.1.2.12 | Void   |        |       |   | 1                  |      |
| 1        | 1  | 1      |       | ı   | L                  | l .  |

| 8.1.2.13 | RRC connection establishment / 0% access probability for MO calls, 0% access probability for MO signalling | Rel-8                      | R      | UEs supporting E-UTRA  | pc_eFDD            |        |                |
|----------|--|----------------------------|--------|--|--------------------|--------|----------------|
| 8.1.2.14 | RRC connection establishment / High speed flag   | Rel-9                      | C224c  | UEs supporting E-UTRA and NOT Category M1  | pc_eFDD            | Note 3 |                |
|          |  |                            |        |  | pc_eTDD            |        |                |
| 8.1.2.15 | RRC connection establishment / Extended and spare fields in SI   | Rel-8<br>toRel-<br>15 only | R      | UEs supporting E-UTRA  | pc_eFDD            |        |                |
|          | 14.44  |                            |        |  | pc_eTDD            |        |                |
| 8.1.3.1  | Void   |                            |        |  |                    |        |                |
| 8.1.3.2  | Void   |                            |        |  |                    |        |                |
| 8.1.3.3  | Void   | D 10                       | 0000   | LIE C ELITRA L'ALOT O  | 500                |        |                |
| 8.1.3.4  | RRC connection release / Redirection to another E-UTRAN frequency  | Rel-8                      | C388   | UEs supporting E-UTRA and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED))) | pc_eFDD            |        |                |
|          |  |                            |        |  | pc_eTDD            |        |                |
| 8.1.3.5  | RRC connection release / Success / With priority information   | Rel-8                      | C388   | UEs supporting E-UTRA and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED))) | pc_eFDD            |        |                |
|          |  |                            |        |  | pc_eTDD            |        |                |
| 8.1.3.5a | RRC connection release / Success / With extended priority information                                      | Rel-12                     | C388   | UEs supporting E-UTRA and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED))) | pc_eFDD            |        |                |
| 0.4.0.0  | DDO access of an anti-sec / De discottent force F  | Dalo                       | 004    | LIE- comment of EUTDA and LIEDA and ANOT   | pc_eTDD<br>pc eFDD |        |                |
| 8.1.3.6  | RRC connection release / Redirection from E-<br>UTRAN to UTRAN   | Rel-8                      | C01    | UEs supporting E-UTRA and UTRA and NOT Category M1   | -                  |        |                |
| 0.4.0.0  | 550  | D 10                       | 004    | LIE & ELITON LUTDA LNOT  | pc_eTDD            | N o    | Rel-9 UTRA TDD |
| 8.1.3.6a | RRC connection release / Redirection from E-<br>UTRAN to UTRAN / Pre-redirection info                      | Rel-9                      | C01    | UEs supporting E-UTRA and UTRA and NOT Category M1   | pc_eFDD            | Note 3 | Rel-8 UTRA FDD |
|          |  |                            |        |  | pc_eTDD            |        | Rel-9 UTRA TDD |
| 8.1.3.7  | RRC connection release / Redirection from UTRAN to E-UTRAN   | Rel-8                      | C01    | UEs supporting E-UTRA and UTRA and NOT Category M1   | pc_eFDD            |        |                |
|          |  |                            |        |  | pc_eTDD            |        | Rel-9 UTRA TDD |
| 8.1.3.8  | RRC connection release / Redirection from E-<br>UTRAN to GERAN   | Rel-8                      | C05    | UEs supporting E-UTRA and GERAN and NOT Category M1  | pc_eFDD            |        |                |
|          |  |                            |        |  | pc_eTDD            |        |                |
| 8.1.3.9  | RRC connection release / Redirection from E-<br>UTRAN to CDMA2000-HRPD                                     | Rel-8                      | C06    | UEs supporting E-UTRA and HRPD and NOT Category M1   | pc_eFDD            |        |                |
|          |  |                            |        |  | pc_eTDD            |        |                |
| 8.1.3.10 | RRC connection release / Redirection from E-<br>UTRAN to CDMA2000-1xRTT                                    | Rel-8                      | C07    | UEs supporting E-UTRA and 1xRTT and NOT Category M1  | pc_eFDD pc_eTDD    |        |                |
| 8.1.3.11 | RRC connection release / Redirection to another  | Rel-9                      | C184 a | UEs supporting E-UTRA and more than 1 FDD  | pc_eFDD            | Note 3 |                |
| 0.1.3.11 | E-UTRAN band   | Kel-9                      | C104 a | or TDD E-UTRA band and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ  | рс_егоо            | Note 3 |                |

| Ī         | 1   | 1 1    |        | measurements and inter-frequency RSRP and   |         |  |
|-----------|---|--------|--------|---|---------|--|
|           |   |        |        | RSRQ measurements in RRC_CONNECTED)))   |         |  |
|           |   |        |        | <i>""</i>   | pc_eTDD |  |
| 8.1.3.11a | RRC connection release / Redirection to another E-UTRAN band / Between FDD and TDD  | Rel-9  | C389   | UEs supporting E-UTRA FDD and E-UTRA TDD and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED)))                     |         | Note 3   |
| 8.1.3.12  | RRC connection release / Success / With priority information / Inter-band   | Rel-9  | C184 a | UEs supporting E-UTRA and more than 1 FDD or TDD E-UTRA band and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED))) | pc_eFDD | Note 3 Either TC<br>8.1.3.12 or TC<br>8.1.3.12b shall be<br>executed. (Note 4) |
| 8.1.3.12a | RRC connection release / Success / With priority  | Rel-9  | C389   | UEs supporting E-UTRA FDD and E-UTRA  | po_0122 | Note 3   |
|           | information / Inter-band / Between FDD and TDD  |        |        | TDD and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED)))  |         |  |
| 8.1.3.12b | RRC connection release / Success / With priority information / Inter-band (Single frequency operation in source band)   | Rel-9  | C388   | UEs supporting E-UTRA and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED)))  | pc_eFDD | Note 3Either TC<br>8.1.3.12 or TC<br>8.1.3.12b shall be<br>executed. (Note 4)  |
|           |   |        |        |   | pc_eTDD |  |
| 8.1.3.13  | LTE RRC connection release / Success / With idle mode measurement information from SIB5   | Rel-15 | C372   | UEs supporting E-UTRA and idle mode measurements  | pc_eFDD |  |
|           |   |        |        |   | pc_eTDD |  |
| 8.1.3.14  | LTE RRC connection release / Success / With idle mode measurement information from RRCConnectionRelease   | Rel-15 | C372   | UEs supporting E-UTRA and idle mode measurements  | pc_eFDD |  |
|           |   |        |        |   | pc_eTDD |  |
| 8.1.3.15  | LTE RRC connection release / Success / With idle mode measurement information / No idle mode measurement capability provided                                      | Rel-15 | C372   | UEs supporting E-UTRA and idle mode measurements  | pc_eFDD |  |
|           |   |        |        |   | pc_eTDD |  |
| 8.2.1.1   | RRC connection reconfiguration / Radio bearer establishment for transition from RRC_IDLE to RRC_CONNECTED / Success / Default bearer / Early bearer establishment | Rel-8  | R      | UEs supporting E-UTRA   | pc_eFDD |  |
|           |   |        |        |   | pc_eTDD |  |
| 8.2.1.2   | Void  |        |        |   |         |  |
| 8.2.1.3   | RRC connection reconfiguration / Radio bearer establishment / Success / Dedicated bearer  | Rel-8  | R      | UEs supporting E-UTRA   | pc_eFDD |  |
| 0.04.1    | 1/- '-1   |        |        |   | pc_eTDD |  |
| 8.2.1.4   | Void  RRC connection reconfiguration / Radio bearer   | Dalo   |        | LICO OURDONING C. LICOA   | no oFDD |  |
| 8.2.1.5   | establishment for transition from RRC_IDLE to RRC CONNECTED / Success / Latency check   | Rel-8  | R      | UEs supporting E-UTRA   | pc_eFDD |  |
|           |   |        |        |   | pc_eTDD |  |
| 8.2.1.6   | RRC connection reconfiguration / Radio bearer establishment for transition from RRC_IDLE to   | Rel-8  | R      | UEs supporting E-UTRA   | pc_eFDD |  |

|           |  |        |       |   | T        | 1 | 1      |   |
|-----------|--|--------|-------|---|----------|---|--------|---|
|           | RRC CONNECTED / Success / Latency check / SecurityModeCommand and RRCConnectionReconfiguration transmitted in  |        |       |   |          |   |        |   |
|           | the same TTI   |        |       |   |          |   |        |   |
|           |  |        |       |   | pc eTDD  |   |        |   |
| 8.2.1.7   | RRC connection reconfiguration / Radio bearer establishment / Success / SRB2   | Rel-8  | R     | UEs supporting E-UTRA   | pc_eFDD  |   |        |   |
|           |  |        |       |   | pc_eTDD  |   |        |   |
| 8.2.1.8   | RRC connection reconfiguration / Radio bearer establishment / Success / Dedicated bearer / ROHC configured   | Rel-9  | C120F | UEs supporting E-UTRA and Feature Group Indicator 7 and ROHC profile0x0001 and ROHC profile0x0002 | pc_eFDD  |   | Note 3 |   |
|           |  |        | C120T |   | pc_eTDD  |   |        |   |
| 8.2.2.1   | RRC connection reconfiguration / Radio resource reconfiguration / Success  | Rel-8  | R     | UEs supporting E-UTRA   | pc_eFDD  |   |        |   |
|           |  |        |       |   | pc_eTDD  |   |        |   |
| 8.2.2.2   | RRC connection reconfiguration / SRB/DRB reconfiguration / Success   | Rel-8  | R     | UEs supporting E-UTRA   | pc_eFDD  |   |        |   |
|           |  |        |       |   | pc_eTDD  |   |        |   |
| 8.2.2.3.1 | CA / RRC connection reconfiguration / SCell addition/modification/release / Success / Intraband Contiguous CA  | Rel-10 | C132  | UEs supporting E-UTRA and Intra-band contiguous Carrier Aggregation                               | pc_eFDD  |   |        |   |
|           | 3  |        |       |   | pc_eTDD  |   |        |   |
| 8.2.2.3.2 | CA / RRC connection reconfiguration / SCell addition/modification/release / Success / Interband CA   | Rel-10 | C151  | UEs supporting E-UTRA and Inter-band Carrier Aggregation  | pc_eFDD  |   |        |   |
|           |  |        |       |   | pc_eTDD  |   |        |   |
| 8.2.2.3.3 | CA / RRC connection reconfiguration / SCell addition/ modification/release / Success / Intraband non-contiguous CA   | Rel-11 | C132a | UEs supporting E-UTRA and Downlink Intra-<br>band non-contiguous Carrier Aggregation              | pc_eFDD  |   |        |   |
|           | band non-configuous CA   |        |       |   | pc_eTDD  |   |        |   |
| 8.2.2.4.1 | CA / RRC connection reconfiguration / SCell SI change / Success / Intra-band Contiguous CA   | Rel-10 | C132  | UEs supporting E-UTRA and Intra-band contiguous Carrier Aggregation                               | pc_eFDD  |   |        |   |
|           | onange / Cacces / mila bana comigueus c/t  |        |       | - Contiguous Carrier / tggrogation  | pc_eTDD  |   |        |   |
| 8.2.2.4.2 | CA / RRC connection reconfiguration / SCell SI change / Success / Inter-band CA  | Rel-10 | C151  | UEs supporting E-UTRA and Inter-band Carrier Aggregation  | pc_eFDD  |   |        |   |
|           | emange / Caccess / miles same crit   |        |       | , .gg. egae   | pc_eTDD  |   |        |   |
| 8.2.2.4.3 | CA / RRC connection reconfiguration / SCell SI change / Success / Intra-band non-contiguous CA   | Rel-11 | C132a | UEs supporting E-UTRA and Downlink Intra-<br>band non-contiguous Carrier Aggregation              | pc_eFDD  |   |        |   |
|           |  |        |       |   | pc_eTDD  |   |        |   |
| 8.2.2.5.1 | CA / RRC connection reconfiguration / SCell addition without UL / Success / Intra-band Contiguous CA   | Rel-10 | C132  | UEs supporting E-UTRA and Intra-band contiguous Carrier Aggregation                               | pc_eFDD  |   |        |   |
|           | a  |        |       |   | pc_eTDD  |   |        |   |
| 8.2.2.5.2 | CA / RRC connection reconfiguration / SCell addition without UL / Success / Inter-band CA  | Rel-10 | C151  | UEs supporting E-UTRA and Inter-band Carrier Aggregation  | pc_eFDD  |   |        |   |
|           | The state of the s |        |       | 1.33.23.30.0  | pc_eTDD  |   |        |   |
| 8.2.2.5.3 | CA / RRC connection reconfiguration / SCell addition without UL / Success / Intra-band non-Contiguous CA   | Rel-11 | C132a | UEs supporting E-UTRA and Downlink Intra-<br>band non-contiguous Carrier Aggregation              | pc_eFDD  |   |        |   |
|           | Configuous On  |        |       |   | pc_eTDD  |   |        |   |
|           | 1  |        |       | 1   | IF V_V D |   | 1      | 1 |

| 8.2.2.5a1. | CA / RRC connection reconfiguration / SCell addition without UL / SRS configuration / Periodic                               | Rel-14 | C320  | UEs supporting E-UTRA FDD-TDD DL CA and SRS switching between a band pair.  | pc_eFDD |
|------------|--|--------|-------|---|---------|
|            | / multi-SRS switching  |        | C321  | UEs supporting E-UTRA TDD-TDD DL CA and SRS switching between a band pair.  | pc_eTDD |
| 8.2.2.5a.2 | CA / RRC connection reconfiguration / TDD SCell addition without UL / SRS configuration /                                    | Rel-14 | C320  | UEs supporting E-UTRA FDD-TDD DL CA and SRS switching between a band pair.  | pc_eFDD |
|            | Aperiodic  |        | C321  | UEs supporting E-UTRA TDD-TDD DL CA and SRS switching between a band pair.  | pc_eTDD |
| 8.2.2.5a.3 | CA / RRC connection reconfiguration / TDD SCell addition without UL / SRS configuration / Collision                          | Rel-14 | C320  | UEs supporting E-UTRA FDD-TDD DL CA and SRS switching between a band pair.  | pc_eFDD |
|            | handling / Priority  |        | C321  | UEs supporting E-UTRA TDD-TDD DL CA and SRS switching between a band pair.  | pc_eTDD |
| 8.2.2.5a.4 | CA / RRC connection reconfiguration / TDD SCell addition without UL / SRS configuration / Collision                          | Rel-14 | C320  | UEs supporting E-UTRA FDD-TDD DL CA and SRS switching between a band pair.  | pc_eFDD |
|            | handling / flexible SRS transmitting   |        | C321  | UEs supporting E-UTRA TDD-TDD DL CA and SRS switching between a band pair.  | pc_eTDD |
| 8.2.2.6.1  | RRC connection reconfiguration/ UE Assistance Information/power preference indication setup and release                      | Rel-11 | C187  | UEs supporting E-UTRA and Power Preference Indication   | pc_eFDD |
|            |  |        |       |   | pc_eTDD |
| 8.2.2.6.2  | RRC connection reconfiguration/ UE Assistance Information/power preference indication release on connection re-establishment | Rel-11 | C 187 | UEs supporting E-UTRA and Power Preference Indication   | pc_eFDD |
|            |  |        |       |   | pc_eTDD |
| 8.2.2.6.3  | RRC connection reconfiguration/ UE Assistance Information/T340 running   | Rel-11 | C187  | UEs supporting E-UTRA and Power Preference Indication   | pc_eFDD |
|            |  |        |       |   | pc_eTDD |
| 8.2.2.6.4  | Void   |        |       |   |         |
| 8.2.2.6.5  | Void   |        |       |   |         |
| 8.2.2.6.6  | Void   |        |       |   |         |
| 8.2.2.7.1  | CA / RRC connection reconfiguration / sTAG addition/modification/release / Success / Intraband contiguous CA                 | Rel-11 | C190  | UEs supporting E-UTRA and Intra-band contiguous Uplink Carrier Aggregation and multiple timing advances   | pc_eFDD |
|            |  |        |       |   | pc_eTDD |
| 8.2.2.7.2  | CA / RRC connection reconfiguration / sTAG addition/modification/release / Success / Interband CA                            | Rel-11 | C191  | UEs supporting E-UTRA and Inter-band Uplink<br>Carrier Aggregation and multiple timing<br>advances and UL (Pcell) supported in each<br>band of Inter-band CA combination under test | pc_eFDD |
|            |  |        |       |   | pc_eTDD |
| 8.2.2.7.3  | CA / RRC connection reconfiguration / sTAG addition/modification/release / Success / Intraband non-contiguous CA             | Rel-11 | C192  | UEs supporting E-UTRA and Intra-band non-<br>contiguous Uplink Carrier Aggregation and<br>multiple timing advances  | pc_eFDD |
|            |  |        |       |   | pc_eTDD |
| 8.2.2.8    | RRC connection reconfiguration / SIB1 information / Success  | Rel-11 | C268  | UEs supporting E-UTRA and Support of CRS interference handling and Synchronisation signal and common channel interference handling  | pc_eFDD |
|            | 1000   | 5      |       |   | pc_eTDD |
| 8.2.2.9.1  | RRC connection reconfiguration / PSCell addition and SCG release / SCG / DRB   | Rel-12 | C245  | UEs supporting E-UTRA and DC SCG DRB  | pc_eFDD |
|            |  |        |       |   | pc_eTDD |

|            | Inno  | T = 1.40 |      |  |         | T |
|------------|---|----------|------|--|---------|---|
| 8.2.2.9.2  | RRC connection reconfiguration / PSCell addition and SCG release / Split DRB                                | Rel-12   | C244 | UEs supporting E-UTRA and DC Split DRB   | pc_eFDD |   |
|            | , i   |          |      |  | pc_eTDD |   |
| 8.2.2.9.3  | RRC connection reconfiguration / SCG change without handover / SCG DRB to MCG DRB and SCG DRB modification  | Rel-12   | C245 | UEs supporting E-UTRA and DC SCG DRB   | pc_eFDD |   |
|            |   |          |      |  | pc_eTDD |   |
| 8.2.2.9.4  | Void  |          |      |  |         |   |
| 8.2.2.9.5  | Void  |          |      |  |         |   |
| 8.2.2.10   | elMTA / RRC connection reconfiguration / Radio resource reconfiguration / Success                           | Rel-12   | C256 | UEs supporting E-UTRA and eIMTA and NOT Category M1  | pc_eTDD |   |
| 8.2.2.11   | Short Processing Time / SRS configuration / Aperiodic   | Rel-15   | C377 | UE supporting E-UTRA and short processing time   | pc_eFDD |   |
|            |   |          |      |  | pc_eTDD |   |
| 8.2.2.12   | Short TTI / SRS configuration / TDD / Aperiodic   | Rel-15   | C381 | UEs supporting E-UTRA and {slot, slot} combination in downlink and uplink CCs and SRS trigerring via DCI format 7  | pc_eTDD |   |
| 8.2.2.13.1 | CA / RRC connection reconfiguration / SCell addition in dormant mode / Success / Intra-band Contiguous CA   | Rel-15   | C374 | UEs supporting E-UTRA and Intra-band Carrier<br>Aggregation and addition of SCell in dormant<br>state  | pc_eFDD |   |
|            |   |          |      |  | pc_eTDD |   |
| 8.2.2.14.1 | CA / RRC connection reconfiguration / SCell addition in activated mode / Success / Intra-band Contiguous CA | Rel-15   | C375 | UEs supporting E-UTRA and Intra-band Carrier<br>Aggregation and addition of SCell in activated<br>state  | pc_eFDD |   |
|            |   |          |      |  | pc_eTDD |   |
| 8.2.3.1    | RRC connection reconfiguration / Radio bearer release / Success   | Rel-8    | R    | UEs supporting E-UTRA  | pc_eFDD |   |
|            |   |          |      |  | pc_eTDD |   |
| 8.2.4.1    | RRC connection reconfiguration / Handover / Success / Dedicated preamble                                    | Rel-8    | C12  | (UEs supporting E-UTRA and NOT Category M1) or (UEs supporting E-UTRA and CE Mode A and "eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A" and "intra-frequency handover to target cell in normal coverage and CE Mode A")  | pc_eFDD |   |
|            |   |          |      |  | pc_eTDD |   |
| 8.2.4.2    | RRC connection reconfiguration / Handover / Success / Common preamble                                       | Rel-8    | C12  | (UEs supporting E-UTRA and NOT C ategory M1) or (UEs supporting E-UTRA and CE Mode A and "eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A" and "intra-frequency handover to target cell in normal coverage and CE Mode A") | pc_eFDD |   |
|            |   |          |      |  | pc_eTDD |   |
| 8.2.4.3    | RRC connection reconfiguration / Handover / Success / Intra-cell / Security reconfiguration                 | Rel-8    | R    | UEs supporting E-UTRA  | pc_eFDD |   |
|            |   |          |      |  | pc_eTDD |   |
| 8.2.4.4    | RRC connection reconfiguration / Handover / Failure / Intra-cell / Security reconfiguration                 | Rel-8    | R    | UEs supporting E-UTRA  | pc_eFDD |   |
|            |   |          |      |  | pc_eTDD |   |
| 8.2.4.5    | RRC connection reconfiguration / Handover / All parameters included   | Rel-8    | C12  | (UEs supporting E-UTRA and NOT Category M1) or (UEs supporting E-UTRA and CE Mode A and "eventA3 for intra-frequency neighbouring cells in normal coverage CE  | pc_eFDD |   |

|          |   |       |       | Mode A" and "intra-frequency handover to target cell in normal coverage and CE Mode A"")  |                    |        |  |
|----------|---|-------|-------|---|--------------------|--------|--|
|          |   |       |       |   | pc_eTDD            |        |  |
| 8.2.4.6  | RRC connection reconfiguration / Handover / Success / Inter-frequency               | Rel-8 | C21aF | UEs supporting E-UTRA and Feature Group Indicator 13 and Feature Group Indicator 25 and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED)))  | pc_eFDD            |        |  |
|          |   |       | C21aT |   | pc_eTDD            |        |  |
| 8.2.4.7  | RRC connection reconfiguration / Handover / Failure / Re-establishment successful   | Rel-8 | C12   | (UEs supporting E-UTRA and NOT Category M1) or (UEs supporting E-UTRA and CE Mode A and eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A and intra-frequency handover to target cell in normal coverage and CE Mode A)   | pc_eFDD            |        |  |
|          |   |       |       |   | pc_eTDD            |        |  |
| 8.2.4.8  | RRC connection reconfiguration / Handover / Failure / Re-establishment failure      | Rel-8 | C12   | (UEs supporting E-UTRA and NOT Category M1) or (UEs supporting E-UTRA and CE Mode A and "eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A" and "intra-frequency handover to target cell in normal coverage and CE Mode A")   | pc_eFDD            |        |  |
|          |   |       |       |   | pc_eTDD            |        |  |
| 8.2.4.9  | RRC connection reconfiguration / Handover / Inter-band blind handover / Success     | Rel-8 | C185F | UEs supporting E-UTRA and Feature Group Indicator 13 and Feature Group Indicator 25 and more than 1 FDD or TDD E-UTRA band and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED)))   | pc_eFDD            |        |  |
|          |   | 5.10  | C185T |   | pc_eTDD            |        |  |
| 8.2.4.10 | RRC connection reconfiguration / Handover (between FDD and TDD)                     | Rel-8 | C63   | UEs supporting E-UTRA FDD and E-UTRA TDD and FDD Feature Group Indicator 25 and FDD Feature Group Indicator 30 and TDD Feature Group Indicator 25 and TDD Feature Group Indicator 30 and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED))) |                    |        |  |
| 8.2.4.11 | Void  |       |       |   |                    |        |  |
| 8.2.4.12 | RRC connection reconfiguration / Handover /<br>Setup and release of MIMO            | Rel-8 | C56   | UEs supporting E-UTRA and (UE Category 2 to UE Category 5)  | pc_eFDD<br>pc_eTDD |        |  |
| 8.2.4.13 | RRC connection reconfiguration / Handover / Success (with measurement) / Inter-band | Rel-9 | C185F | UEs supporting E-UTRA and Feature Group Indicator 13 and Feature Group Indicator 25 and more than 1 FDD or TDD E-UTRA band and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED)))   | pc_eFDD            | Note 3 |  |
|          |   | 1     | C185T |   | pc_eTDD            | 1      |  |

| 8.2.4.13a  | RRC connection reconfiguration / Handover / Success (with measurement) / Inter-band / Between FDD and TDD             | Rel-9  | C63          | UEs supporting E-UTRA FDD and E-UTRA TDD and FDD Feature Group Indicator 25 and FDD Feature Group Indicator 30 and TDD Feature Group Indicator 25 and TDD Feature Group Indicator 30 and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED)))  UEs supporting E-UTRA and Feature Group | pc_eFDD          | Note 3 |  |
|------------|---|--------|--------------|--|------------------|--------|--|
| 8.2.4.14   | RRC connection reconfiguration / Handover / Failure / Re-establishment successful / Inter-band                        | Rel-9  |              | Indicator 13 and Feature Group Indicator 13 and Feature Group Indicator 25 and more than 1 FDD or TDD E-UTRA band and NOT Category M1  |                  | Note 3 |  |
| 8.2.4.14a  | RRC connection reconfiguration / Handover / Failure / Re-establishment successful / Inter-band / Between FDD and TDD  | Rel-9  | C185T<br>C63 | UEs supporting E-UTRA FDD and E-UTRA TDD and FDD Feature Group Indicator 25 and FDD Feature Group Indicator 30 and TDD Feature Group Indicator 25 and TDD Feature Group Indicator 30 and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED)))  | pc_eTDD          | Note 3 |  |
| 8.2.4.15   | RRC connection reconfiguration / Handover / Failure / Re-establishment failure / Inter-band                           | Rel-9  | C185F        | UEs supporting E-UTRA and Feature Group Indicator 13 and Feature Group Indicator 25 and more than 1 FDD or TDD E-UTRA band and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED)))  | pc_eFDD          | Note 3 |  |
| 8.2.4.15a  | RRC connection reconfiguration / Handover / Failure / Re-establishment failure / Inter-band / Between FDD and TDD     | Rel-9  | C185T<br>C63 | UEs supporting E-UTRA FDD and E-UTRA TDD and FDD Feature Group Indicator 25 and FDD Feature Group Indicator 30 and TDD Feature Group Indicator 25 and TDD Feature Group Indicator 25 and TDD Feature Group Indicator 30 and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED)))       | pc_eTDD          | Note 3 |  |
| 8.2.4.16.1 | CA / RRC connection reconfiguration / Setup and Change of MIMO / Intra-band Contiguous CA                             | Rel-10 | C176         | UEs supporting E-UTRA and Intra-band contiguous Carrier Aggregation and does not support Category 1  | pc_eFDD pc_eTDD  |        |  |
| 8.2.4.16.2 | CA / RRC connection reconfiguration / Setup and Change of MIMO / Inter-band CA  | Rel-10 | C177         | UEs supporting E-UTRA and Inter-band Carrier<br>Aggregation and does not support Category 1  | pc_eFDD pc_eTDD  |        |  |
| 8.2.4.16.3 | CA / RRC connection reconfiguration / Setup and Change of MIMO / Intra-band non-contiguous CA                         | Rel-11 | C132a        | UEs supporting E-UTRA and Downlink Intra-<br>band non-contiguous Carrier Aggregation   | pc_eFDD          |        |  |
| 8.2.4.17.1 | CA / RRC connection reconfiguration / Handover / Success / PCell Change and SCell addition / Intra-band Contiguous CA | Rel-10 | C132         | UEs supporting E-UTRA and Intra-band contiguous Carrier Aggregation  | pc_eTDD  pc_eTDD |        |  |

| 8.2.4.17.2 | CA / RRC connection reconfiguration / Handover / Success / PCell Change and SCell addition /                              | Rel-10 | C242  | Aggregation and UL (Pcell) supported in each   | pc_eFDD |  |  |
|------------|---|--------|-------|--|---------|--|--|
|            | Inter-band CA   |        |       | band of Inter-band CA combination under test   |         |  |  |
|            |   |        |       |  | pc_eTDD |  |  |
| 8.2.4.17.3 | CA / RRC connection reconfiguration / Handover / Success / PCell Change and SCell addition / Intra-band non-contiguous CA | Rel-11 | C132a | UEs supporting E-UTRA and Downlink Intra-<br>band non-contiguous Carrier Aggregation | pc_eFDD |  |  |
|            |   |        |       |  | pc_eTDD |  |  |
| 8.2.4.18.1 | CA / RRC connection reconfiguration / Handover / Success / SCell release / Intra-band Contiguous CA                       | Rel-10 | C132  | UEs supporting E-UTRA and Intra-band contiguous Carrier Aggregation                  | pc_eFDD |  |  |
|            |   |        |       |  | pc_eTDD |  |  |
| 8.2.4.18.2 | CA / RRC connection reconfiguration / Handover / Success / SCell release / Inter-band CA                                  | Rel-10 | C151  | UEs supporting E-UTRA and Inter-band Carrier Aggregation                             | pc_eFDD |  |  |
|            |   |        |       |  | pc_eTDD |  |  |
| 8.2.4.18.3 | CA / RRC connection reconfiguration / Handover / Success / SCell release / Intra-band non-contiguous CA                   | Rel-11 | C132a | UEs supporting E-UTRA and Downlink Intra-<br>band non-contiguous Carrier Aggregation | pc_eFDD |  |  |
|            |   |        |       |  | pc eTDD |  |  |
| 8.2.4.19.1 | CA / RRC connection reconfiguration / Handover / Success / PCell Change / SCell no Change / Intra-band Contiguous CA      | Rel-10 | C132  | UEs supporting E-UTRA and Intra-band contiguous Carrier Aggregation                  | pc_eFDD |  |  |
|            | milita band confuguodo o/t  |        |       |  | pc eTDD |  |  |
| 8.2.4.19.2 | CA / RRC connection reconfiguration / Handover  | Rel-10 | C151  | UEs supporting E-UTRA and Inter-band Carrier   | pc_eFDD |  |  |
| 0.2.4.10.2 | / Success / PCell Change / SCell no Change / Inter-band CA  | 100110 | 0101  | Aggregation  | po_01   |  |  |
|            |   |        |       |  | pc_eTDD |  |  |
| 8.2.4.19.3 | CA / RRC connection reconfiguration / Handover / Success / PCell Change / SCell no Change / Intra-band non-contiguous CA  | Rel-11 | C132a | UEs supporting E-UTRA and Downlink Intra-<br>band non-contiguous Carrier Aggregation | pc_eFDD |  |  |

| 0.0.4.00.4 | CA / DDC someotics reconfiguration / Handayan  | Dal 40  | C132  | LICe comparing C LICEA and later band  | <b>CDD</b>         | <br>T |
|------------|--|---------|-------|--|--------------------|-------|
| 8.2.4.20.1 | CA / RRC connection reconfiguration / Handover   | Rel-10  | C132  | UEs supporting E-UTRA and Intra-band   | pc_eFDD            |       |
|            | / Success / SCell Change / Intra-band Contiguous   |         |       | contiguous Carrier Aggregation   |                    |       |
|            | CA   |         |       |  | pc_eTDD            |       |
| 0.0.4.00.0 | CA / DDC composition reconfiguration / Headever  | Dal 40  | 0040  | LIFE CONTRACTOR F. LIFDA and later hand Coming   | pc_eFDD            |       |
| 8.2.4.20.2 | CA / RRC connection reconfiguration / Handover / Success / SCell Change / Inter-band CA  | Rel-10  | C242  | UEs supporting E-UTRA and Inter-band Carrier<br>Aggregation and UL (Pcell) supported in each | рс_егоо            |       |
|            | / Success / Scell Charige / Inter-band CA  |         |       | band of Inter-band CA combination under test   |                    |       |
|            |  |         |       | band of inter-band CA combination under test   | pc_eTDD            |       |
| 8.2.4.20.3 | CA / RRC connection reconfiguration / Handover   | Rel-11  | C132a | UEs supporting E-UTRA and Downlink Intra-  | pc_erDD<br>pc eFDD |       |
| 0.2.4.20.3 | / Success / SCell Change Intra-band non-   | Rei-11  | C132a | band non-contiguous Carrier Aggregation  | рс_егоо            |       |
|            | contiguous CA  |         |       | band non-configuous carrier Aggregation  |                    |       |
|            | contiguous OA  |         |       |  |                    |       |
|            |  |         |       |  | pc_eTDD            |       |
| 8.2.4.21.1 | CA / RRC connection reconfiguration / Handover   | Rel-10  | C132  | UEs supporting E-UTRA and Intra-band   | pc_eFDD            |       |
|            | / Success / SCell release / Intra-band Contiguous  |         |       | contiguous Carrier Aggregation   |                    |       |
|            | CA   |         |       |  |                    |       |
|            |  | 5       | 0     |  | pc_eTDD            |       |
| 8.2.4.21.2 | CA / RRC connection reconfiguration / Handover   | Rel-10  | C151  | UEs supporting E-UTRA and Inter-band Carrier   | pc_eFDD            |       |
|            | / Success / SCell release / Inter-band CA  |         |       | Aggregation  | TDD                |       |
| 0.0.4.04.0 | OA / DDOtitititititi   | Dalaa   | 0400- | LIE  | pc_eTDD            |       |
| 8.2.4.21.3 | CA / RRC connection reconfiguration / Handover / Success / SCell release / Intra-band non-   | Rel-11  | C132a | UEs supporting E-UTRA and Downlink Intra-  | pc_eFDD            |       |
|            | contiguous CA  |         |       | band non-contiguous Carrier Aggregation  |                    |       |
|            | contiguous CA  |         |       |  | pc_eTDD            |       |
| 8.2.4.22   | Void   |         |       |  | pc_e1DD            |       |
| 8.2.4.23.1 | CA / RRC connection reconfiguration / Handover   | Rel-10  | C132  | UEs supporting E-UTRA and Intra-band   | pc_eFDD            |       |
| 0.2.4.23.1 | / Failure / Re-establishment successful / Intra-   | Kel-10  | C 132 | contiguous Carrier Aggregation   | pc_erob            |       |
|            | band Contiguous CA   |         |       | Configuous Carrier Aggregation   |                    |       |
|            | band Gonniguous OA   |         |       |  | pc_eTDD            |       |
| 8.2.4.23.2 | CA / RRC connection reconfiguration / Handover   | Rel-10  | C151  | UEs supporting E-UTRA and Inter-band Carrier   | pc_eFDD            |       |
| 0.2.4.20.2 | / Failure / Re-establishment successful / Inter-   | 1101 10 | 0101  | Aggregation  | po_cr bb           |       |
|            | band CA  |         |       | / iggi ogallon   |                    |       |
|            |  |         |       |  | pc_eTDD            |       |
| 8.2.4.23.3 | CA / RRC connection reconfiguration / Handover   | Rel-11  | C132a | UEs supporting E-UTRA and Downlink Intra-  | pc_eFDD            |       |
| 0.2120.0   | / Failure / Re-establishment successful / Intra-   |         |       | band non-Contiguous Carrier Aggregation  |                    |       |
|            | band non-Contiguous CA   |         |       | 39 3   |                    |       |
|            | , and the second |         |       |  | pc_eTDD            |       |
| 8.2.4.24.1 | Void   |         |       |  |                    |       |
| 8.2.4.25.1 | RRC connection reconfiguration / Intra-MeNB  | Rel-12  | C245  | UEs supporting E-UTRA and DC SCG DRB   | pc_eFDD            |       |
|            | Handover / MCG DRB to MCG DRB and MCG  |         |       |  | -                  |       |
|            | DRB to/from SCG DRB  |         |       |  |                    |       |
|            |  |         |       |  | pc_eTDD            |       |
| 8.2.4.25.2 | RRC connection reconfiguration / Intra-MeNB  | Rel-12  | C246  | UEs supporting E-UTRA and DC Split DRB and   | pc_eFDD            |       |
|            | Handover / MCG DRBs to/from Split DRB  |         |       | DC SCG DRB   |                    |       |
|            |  |         |       |  | pc_eTDD            |       |
| 8.2.4.25.3 | RRC connection reconfiguration / Intra-MeNB  | Rel-12  | C244  | UEs supporting E-UTRA and DC Split DRB   | pc_eFDD            |       |
|            | Handover / Split DRB to Split DRB  |         |       |  |                    |       |
|            |  |         |       |  | pc_eTDD            |       |
| 8.2.4.25.4 | RRC connection reconfiguration / Handover with   | Rel-12  | C245  | UEs supporting E-UTRA and DC SCG DRB   | pc_eFDD            |       |
|            | SCG release / MCG/SCG DRBs to MCG DRB  |         |       |  |                    |       |
|            |  |         |       |  | pc_eTDD            |       |

|            |   |        |       |  |         | <br> |
|------------|---|--------|-------|--|---------|------|
| 8.2.4.25.5 | RRC connection reconfiguration / Handover with SCG release / Split DRB to MCG DRB             | Rel-12 | C244  | UEs supporting E-UTRA and DC Split DRB   | pc_eFDD |      |
|            |   |        |       |  | pc_eTDD |      |
| 8.2.4.25.6 | RRC connection reconfiguration / Handover with SCG reconfiguration / SCG DRB to SCG DRB       | Rel-12 | C245  | UEs supporting E-UTRA and DC SCG DRB   | pc_eFDD |      |
|            |   |        |       |  | pc_eTDD |      |
| 8.2.4.25.7 | RRC connection reconfiguration / Handover with SCG reconfiguration / Split DRB to Split DRB   | Rel-12 | C244  | UEs supporting E-UTRA and DC Split DRB   | pc_eFDD |      |
|            |   |        |       |  | pc_eTDD |      |
| 8.2.4.26   | eIMTA / RRC connection reconfiguration / Handover / Success                                   | Rel-12 | C256  | UEs supporting E-UTRA and eIMTA and NOT Category M1  | pc_eTDD |      |
| 8.2.4.27   | RRC connection reconfiguration / Handover /<br>Success / Intra-frequency in Enhanced Coverage | Rel-13 | C254c | UEs supporting E-UTRA and CE mode A and eventA3 for intra-frequency neighbouring cells in normal coverage and intra-frequency handover to target cell in normal coverage | pc_eFDD |      |
|            |   |        |       |  | pc_eTDD |      |
| 8.2.4.28   | eCall Only mode / RRC connection<br>reconfiguration / Inter-frequency Handover /<br>Success   | Rel-14 | C314a | UEs supporting E-UTRA and IMS eCall and eCall only and Automatic type of eCall initiation  | pc_eFDD |      |
|            |   |        |       |  | pc_eTDD |      |
| 8.2.4.29   | UDC/ RRC connection reconfiguration / Handover / Success                                      | Rel-15 | C352  | UEs supporting the uplink data compression operation   |         |      |
| 8.2.4.30.1 | RRC connection reconfiguration / Handover / DAPS Handover / Success                           | Rel-16 | C398  | UEs supporting E-UTRA and intra-frequency DAPS handover  | pc_eFDD |      |
|            |   |        |       |  | pc_eTDD |      |
| 8.2.5.1    | LWA / WLAN Release / WLAN Association /<br>EUTRA RRC_Connected to WLAN (Event W2)             | Rel-13 | C267  | UEs supporting E-UTRA and LWA  | pc_eFDD |      |
|            |   |        |       |  | pc_eTDD |      |
| 8.2.5.2    | LWA / WLAN Release Success / EUTRA<br>RRC_Connected from WLAN (Event W3)                      | Rel-13 | C267  | UEs supporting E-UTRA and LWA  | pc_eFDD |      |
|            | , , , ,   |        |       |  | pc_eTDD |      |
| 8.2.5.4    | LWA / WLAN Association Success / EUTRA<br>RRC_Connected to WLAN (Event W1)                    | Rel-13 | C267  | UEs supporting E-UTRA and LWA  | pc_eFDD |      |
|            |   |        |       |  | pc_eTDD |      |
| 8.2.5.5    | LWIP / WLAN Association Success / EUTRA<br>RRC_Connected to WLAN (Event W1)                   | Rel-13 | C274  | UEs supporting E-UTRA and LWIP   | pc_eFDD |      |
|            | , ,   |        |       |  | pc_eTDD |      |
| 8.2.5.6    | LWIP / WLAN Release / WLAN Association /<br>EUTRA RRC_Connected to WLAN (Event W2)            | Rel-13 | C274  | UEs supporting E-UTRA and LWIP   | pc_eFDD |      |
|            |   |        |       |  | pc_eTDD |      |
| 8.2.5.7    | LWIP / WLAN Release Success / EUTRA<br>RRC_Connected from WLAN (Event W3)                     | Rel-13 | C274  | UEs supporting E-UTRA and LWIP   | pc_eFDD |      |
|            |   |        |       |  | pc eTDD |      |
| 8.2.5.8    | LWA / T351 Expiry   | Rel-13 | C267  | UEs supporting E-UTRA and LWA  | pc_eFDD |      |
|            |   |        |       |  | pc_eTDD |      |
| 8.3.1.1    | Measurement configuration control and reporting / Intra E-UTRAN measurements / Event A1       | Rel-8  | R     | UEs supporting E-UTRA  | pc_eFDD |      |
|            |   |        |       |  | pc_eTDD |      |
| 8.3.1.2    | Measurement configuration control and reporting / Intra E-UTRAN measurements / Event A2       | Rel-8  | R     | UEs supporting E-UTRA  | pc_eFDD |      |
|            |   |        |       |  | pc_eTDD |      |
|            |   |        |       |  |         | <br> |

| 8.3.1.3  | Measurement configuration control and reporting / Intra E-UTRAN measurements / Two simultaneous events A3 (intra and inter-frequency measurements)                                | Rel-8 | C09F         | UEs supporting E-UTRA and Feature Group Indicator 25 or (CE Mode A and "eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A")   | pc_eFDD                 |   |
|----------|---|-------|--------------|---|-------------------------|---|
| 8.3.1.3a | Measurement configuration control and reporting / Intra E-UTRAN measurements / Two simultaneous events A3 (intra and inter-frequency measurements) / RSRQ based measurements      | Rel-9 | C09F         | UEs supporting E-UTRA and Feature Group Indicator 25 or (CE Mode A and "eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A")   | pc_eFDD                 | Note 3  |
| 8.3.1.4  | Measurement configuration control and reporting / Intra E-UTRAN measurements / Periodic reporting (intra and inter-frequency measurements)  | Rel-8 | C09T<br>C11F | UEs supporting E-UTRA and Feature Group Indicator 16 and Feature Group Indicator 25 or (CE Mode A and "eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A")                  | pc_eTDD<br>pc_eFDD      |   |
| 8.3.1.5  | Measurement configuration control and reporting / Intra E-UTRAN measurements / Two simultaneous event A3 (intra-frequency measurements)   | Rel-8 | C11T<br>C18  | UEs supporting E-UTRA or (CE Mode A and "eventA3 for intra-frequency neighbouring cells in normal coverage and CE Mode A")  | pc_eTDD<br>pc_eFDD      |   |
| 8.3.1.6  | Measurement configuration control and reporting / Intra E-UTRAN measurements / Two simultaneous events A2 and A3 (inter-frequency measurements)                                   | Rel-8 | C364         | UEs supporting E-UTRA and Feature Group<br>Indicator 25 or (CE Mode A and "eventA3 for<br>intra-frequency neighbouring cells in normal<br>coverage and CE Mode A" and Feature Group<br>Indicator 25)  | pc_eTDD<br>pc_eFDD      |   |
|          |   | l     | C365         | 7   | pc_eTDD                 |   |
| 8.3.1.7  | Measurement configuration control and reporting / Intra E-UTRAN measurements / Blacklisting   | Rel-8 | C12          | UEs supporting E-UTRA or (CE Mode A and "eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A" and "intra-frequency handover to target cell in normal coverage and CE Mode A") | pc_eFDD                 |   |
| 8.3.1.8  | Measurement configuration control and reporting / Intra E-UTRAN measurements / Handover / IE measurement configuration present  | Rel-8 | C12          | UEs supporting E-UTRA or (CE Mode A and "eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A" and "intra-frequency handover to target cell in normal coverage and CE Mode A") | pc_eTDD pc_eFDD pc_eTDD |   |
| 8.3.1.9  | Measurement configuration control and reporting / Intra E-UTRAN measurements / Intra-frequency handover / IE measurement configuration not present                                | Rel-8 | C12          | UEs supporting E-UTRA or (CE Mode A and "eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A" and "intra-frequency handover to target cell in normal coverage and CE Mode A") | pc_eFDD pc_eFDD         | Either TC 8.3.1.9 or<br>TC 8.3.1.9a shall<br>be executed.<br>(Note 4) |
| 8.3.1.9a | Measurement configuration control and reporting / Intra Frequency measurements / Intra-frequency handover / IE measurement configuration not present / Single Frequency operation | Rel-8 | C224c        | UEs supporting E-UTRA and NOT Category M1<br>This test is 'cells on single frequency only'<br>equivalent of TC 8.3.1.9  | pc_eFDD pc_eFDD         | Either TC 8.3.1.9 or<br>TC 8.3.1.9a shall<br>be executed. (Note<br>4) |
| 8.3.1.10 | Measurement configuration control and reporting / Intra E-UTRAN measurements / Inter-frequency  | Rel-8 | C28F         | UEs supporting E-UTRA and Feature Group Indicator 13 and Feature Group Indicator 25 or  | pc_eFDD                 |   |

|           | handover / IE measurement configuration not present   |       | C28T          | (CE Mode A and "eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A" and "intra-frequency handover to target cell in normal coverage and CE Mode A" and Feature Group Indicator 25)  | pc eTDD            |   |
|-----------|---|-------|---------------|--|--------------------|---|
| 8.3.1.11  | Measurement configuration control and reporting / Intra E-UTRAN measurements / Continuation of the measurements after RRC connection reestablishment                                | Rel-8 | C12           | UEs supporting E-UTRA or (CE Mode A and "eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A" and "intra-frequency handover to target cell in normal coverage and CE Mode A")  | pc_eFDD            | Either TC 8.3.1.11<br>or TC 8.3.1.11a<br>shall be executed.<br>(Note 4) |
| 8.3.1.11a | Measurement configuration control and reporting / Intra Frequency measurements / Continuation of the measurements after RRC connection reestablishment / Single Frequency operation | Rel-8 | C12           | UEs supporting E-UTRA or (CE Mode A and "eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A" and "intra-frequency handover to target cell in normal coverage and CE Mode A").  This test is 'cells on single frequency only' equivalent of TC 8.3.1.11                            | pc_eTDD<br>pc_eFDD | Either TC 8.3.1.11<br>or TC 8.3.1.11a<br>shall be executed.<br>(Note 4) |
| 8.3.1.12  | Measurement configuration control and reporting / Intra E-UTRAN measurements / Two simultaneous events A3 (inter-band measurements)   | Rel-9 | C186F         | UEs supporting E-UTRA and Feature Group Indicator 25 or (CE Mode A and "eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A" and "intra-frequency handover to target cell in normal coverage and CE Mode A" and Feature Group Indicator 25) and more than 1 FDD or TDD E-UTRA band | pc_eTDD<br>pc_eFDD | Note 3  |
| 8.3.1.12a | Measurement configuration control and reporting / Intra E-UTRAN measurements / Two simultaneous events A3 (inter-band measurements) / Between FDD and TDD                           | Rel-9 | C186T<br>C130 | UEs supporting E-UTRA FDD and E-UTRA TDD and FDD Feature Group Indicator 25 and TDD Feature Group Indicator 25 and ((NOT Category M1) OR (Category M1 AND (intrafrequency RSRQ measurements and interfrequency RSRP and RSRQ measurements in RRC_CONNECTED)))  | pc_eTDD            | Note 3  |
| 8.3.1.13  | Measurement configuration control and reporting / Intra E-UTRAN measurements / Periodic reporting (intra-frequency and inter-band measurements)                                     | Rel-9 | C186F         | UEs supporting E-UTRA and Feature Group Indicator 25 or (CE Mode A and "eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A" and "intra-frequency handover to target cell in normal coverage and CE Mode A" and Feature Group Indicator 25) and more than 1 FDD or TDD E-UTRA band | pc_eFDD            | Note 3  |
| 8.3.1.13a | Measurement configuration control and reporting / Intra E-UTRAN measurements / Periodic reporting (intra-frequency and inter-band measurements) / Between FDD and TDD               | Rel-9 | C130          | UEs supporting E-UTRA FDD and E-UTRA TDD and FDD Feature Group Indicator 25 and TDD Feature Group Indicator 25 and ((NOT Category M1) OR (Category M1 AND (intrafrequency RSRQ measurements and interfrequency RSRP and RSRQ measurements in RRC_CONNECTED)))  | рс_етоо            | Note 3  |
| 8.3.1.14  | Measurement configuration control and reporting / Intra E-UTRAN measurements / Two  | Rel-9 | C186F         | UEs supporting E-UTRA and Feature Group Indicator 25 or (CE Mode A and "eventA3 for intra-frequency neighbouring cells in normal   | pc_eFDD            | Note 3  |

|            | simultaneous events A2 and A3 (inter-band measurements)   |         | C186T | coverage CE Mode A" and "intra-frequency<br>handover to target cell in normal coverage and<br>CE Mode A" and Feature Group Indicator 25)<br>and more than 1 FDD or TDD E-UTRA band  | pc_eTDD |        |  |
|------------|---|---------|-------|---|---------|--------|--|
| 8.3.1.14a  | Measurement configuration control and reporting / Intra E-UTRAN measurements / Two simultaneous events A2 and A3 (inter-band measurements) / Between FDD and TDD                        | Rel-9   | C130  | UEs supporting E-UTRA FDD and E-UTRA TDD and FDD Feature Group Indicator 25 and TDD Feature Group Indicator 25 and ((NOT Category M1) OR (Category M1 AND (intrafrequency RSRQ measurements and interfrequency RSRP and RSRQ measurements in RRC_CONNECTED)))   |         | Note 3 |  |
| 8.3.1.15   | Measurement configuration control and reporting / Intra E-UTRAN measurements / Inter-band handover / IE measurement configuration not present   | Rel-9   | C45F  | UEs supporting E-UTRA and Feature Group Indicator 13 and Feature Group Indicator 25 or (CE Mode A and "eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A" and "intra-frequency handover to target cell in normal coverage and CE Mode A" and Feature Group Indicator 25) and more than 1 FDD or TDD E-UTRA band | pc_eFDD | Note 3 |  |
|            |   | <b></b> | C45T  |   | pc_eTDD |        |  |
| 8.3.1.15a  | Measurement configuration control and reporting / Intra E-UTRAN measurements / Inter-band handover / IE measurement configuration not present / Between FDD and TDD                     | Rel-9   | C63   | UEs supporting E-UTRA FDD and E-UTRA TDD and FDD Feature Group Indicator 25 and FDD Feature Group Indicator 30 and TDD Feature Group Indicator 25 and TDD Feature Group Indicator 30 and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED)))     |         | Note 3 |  |
| 8.3.1.16   | Measurement configuration control and reporting / Intra E-UTRAN measurements / Continuation of the measurements after RRC connection reestablishment / Inter-band                       | Rel-9   | C186F | UEs supporting E-UTRA and Feature Group Indicator 25 or (CE Mode A and "eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A" and "intra-frequency handover to target cell in normal coverage and CE Mode A" and Feature Group Indicator 25) and more than 1 FDD or TDD E-UTRA band                                | pc_eFDD | Note 3 |  |
|            |   |         | C186T |   | pc_eTDD |        |  |
| 8.3.1.16a  | Measurement configuration control and reporting / Intra E-UTRAN measurements / Continuation of the measurements after RRC connection reestablishment / Inter-band / Between FDD and TDD | Rel-9   | C63   | UEs supporting E-UTRA FDD and E-UTRA TDD and FDD Feature Group Indicator 25 and FDD Feature Group Indicator 30 and TDD Feature Group Indicator 25 and TDD Feature Group Indicator 30 and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED)))     |         | Note 3 |  |
| 8.3.1.17.1 | CA / Measurement configuration control and reporting / Intra E-UTRAN measurements / Event A6 / Intra-band Contiguous CA   | Rel-10  | C134F | UEs supporting E-UTRA and Intra-band contiguous Carrier Aggregation and Feature Group Indicator 111   | pc_eFDD |        |  |
|            |   |         | C134T |   | pc_eTDD |        |  |
| 8.3.1.17.2 | CA / Measurement configuration control and reporting / Intra E-UTRAN measurements / Event A6 / Inter-band CA  | Rel-10  | C152F | UEs supporting E-UTRA and Inter-band Carrier<br>Aggregation and Feature Group Indicator 111   | pc_eFDD |        |  |
|            |   |         | C152T |   | pc_eTDD |        |  |

| 8.3.1.17.3 | CA / Measurement configuration control and reporting / Intra E-UTRAN measurements / Event A6 / Intra-band non-contiguous CA  | Rel-11 | C134aF | UEs supporting E-UTRA and Downlink Intra-<br>band non-contiguous Carrier Aggregation and<br>Feature Group Indicator 111 | pc_eFDD |       |   |
|------------|--|--------|--------|---|---------|-------|---|
|            |  |        | C134aT |   | pc_eTDD |       |   |
| 8.3.1.18.1 | CA / Measurement configuration control and reporting / Intra E-UTRAN measurements / Additional measurement reporting / Intra-band Contiguous CA  | Rel-10 | C132   | UEs supporting E-UTRA and Intra-band contiguous Carrier Aggregation   | pc_eFDD |       |   |
|            | , and the second |        |        |   | pc_eTDD |       |   |
| 8.3.1.18.2 | CA / Measurement configuration control and reporting / Intra E-UTRAN measurements / Additional measurement reporting / Inter-band CA   | Rel-10 | C151   | UEs supporting E-UTRA and Inter-band Carrier<br>Aggregation   | pc_eFDD |       |   |
|            |  |        |        |   | pc_eTDD |       |   |
| 8.3.1.18.3 | CA / Measurement configuration control and reporting / Intra E-UTRAN measurements / Additional measurement reporting / Intra-band non-contiguous CA  | Rel-11 | C132a  | UEs supporting E-UTRA and Downlink Intra-<br>band non-contiguous Carrier Aggregation                                    | pc_eFDD |       |   |
|            |  |        |        |   | pc_eTDD |       |   |
| 8.3.1.19   | elCIC / Measurement configuration control and reporting / CSI change   | Rel-10 | C154F  | UEs supporting E-UTRA and Feature Group Indicator 115   | pc_eFDD |       |   |
|            |  |        | C154T  |   | pc_eTDD |       |   |
| 8.3.1.20   | Void   |        |        |   |         |       |   |
| 8.3.1.21   | elCIC / Measurement configuration control and<br>reporting / Event A4 Handover / Neighbour RSRP<br>and RSRQ measurement configuration change   | Rel-10 | C154F  | UEs supporting E-UTRA and Feature Group Indicator 115   | pc_eFDD |       |   |
|            |  |        | C154T  |   | pc_eTDD |       |   |
| 8.3.1.22.1 | CA / Measurement configuration control and reporting / Intra E-UTRAN measurements / Event A1 / Event A2 / Intra-band Contiguous CA   | Rel-10 | C132   | UEs supporting E-UTRA and Intra-band contiguous Carrier Aggregation   | pc_eFDD |       |   |
|            |  |        |        |   | pc_eTDD |       |   |
| 8.3.1.22.2 | CA / Measurement configuration control and reporting / Intra E-UTRAN measurements / Event A1 / Event A2 / Inter-band CA  | Rel-10 | C151   | UEs supporting E-UTRA and Inter-band Carrier<br>Aggregation   | pc_eFDD |       |   |
|            |  |        |        |   | pc_eTDD |       |   |
| 8.3.1.22.3 | CA / Measurement configuration control and reporting / Intra E-UTRAN measurements / Event A1/Event A2 / Intra-band non-contiguous CA   | Rel-11 | C132a  | UEs supporting E-UTRA and Downlink Intra-<br>band non-contiguous Carrier Aggregation                                    | pc_eFDD |       |   |
|            |  |        |        |   | pc_eTDD |       |   |
|            |  |        |        |   | •       | •     | • |
|            |  |        |        |   |         |       |   |
| 8.3.1.23   | Measurement configuration control and reporting / Intra E-UTRAN measurements / Event A4  | Rel-9  | C166F  | UEs supporting E-UTRA and Feature Group Indicator 14.   | pc_eFDD | Note3 |   |
|            |  |        | C166T  |   | pc_eTDD |       |   |
| 8.3.1.24   | Measurement configuration control and reporting / Intra E-UTRAN measurements / Event A5  | Rel-9  | C166F  | UEs supporting E-UTRA and Feature Group Indicator 14  | pc_eFDD | Note3 |   |
|            |  |        | C166T  |   | pc_eTDD |       |   |
| 8.3.1.25   | Measurement configuration control and reporting / Intra E-UTRAN measurements / Event A5 / RSRQ based measurements  | Rel-9  | C166F  | UEs supporting E-UTRA and Feature Group Indicator 14  | pc_eFDD | Note3 |   |
|            |  |        | C166T  | 7   | pc_eTDD |       |   |
|            |  |        |        |   |         |       |   |

| 8.3.1.26 | Measurement configuration control and reporting / Intra E-UTRAN measurements / Event A5 (Inter-  | Rel-9  | C167F  | UEs supporting E-UTRA and Feature Group<br>Indicator 14 and25 and ((NOT Category M1)   | pc_eFDD | Note3  |                |
|----------|--|--------|--------|--|---------|--------|----------------|
|          | frequency measurements)  |        |        | OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and  |         |        |                |
|          |  |        | 0.1077 | RSRQ measurements in RRC_CONNECTED)))  | TDD     |        |                |
| 0.04.07  | Management and Countries and and and an advantage  | Dato   | C167T  | U.E. and a still a E U.E.A and Eastern Oncom   | pc_eTDD | Nata   |                |
| 8.3.1.27 | Measurement configuration control and reporting / Intra E-UTRAN measurements / Event A5 (Interfrequency measurements) / RSRQ based measurements  | Rel-9  | C167F  | UEs supporting E-UTRA and Feature Group Indicator 14 and 25 and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED))) | pc_eFDD | Note3  |                |
|          |  |        | C167T  |  | pc_eTDD |        |                |
| 8.3.1.28 | eICIC / Measurement configuration control and<br>reporting / Event A1 / RSRP and RSRQ<br>measurement / Serving ABS   | Rel-10 | C154F  | UEs supporting E-UTRA and Feature Group Indicator 115  | pc_eFDD |        |                |
|          |  |        | C154T  |  | pc_eTDD |        |                |
| 8.3.1.29 | Measurement configuration control and reporting / Intra E-UTRAN measurements / Event C1  | Rel-12 | C251   | UEs supporting E-UTRA and CSI-RS based discovery signals measurement and NOT Category M1   | pc_eFDD |        |                |
|          |  |        |        |  | pc_eTDD |        |                |
| 8.3.1.30 | Measurement configuration control and reporting / Intra E-UTRAN measurements / Event C2  | Rel-12 | C251   | UEs supporting E-UTRA and CSI-RS based discovery signals measurement and NOT Category M1   | pc_eFDD |        |                |
|          |  |        |        |  | pc_eTDD |        |                |
| 8.3.1.31 | Measurement configuration control and reporting / Intra E-UTRAN measurements / Periodic reporting / CSI-RSRP   | Rel-12 | C251   | UEs supporting E-UTRA and CSI-RS based discovery signals measurement and NOT Category M1   | pc_eFDD |        |                |
|          |  |        |        |  | pc_eTDD |        |                |
| 8.3.1.32 | LAA / Measurement configuration control and reporting / Intra E-UTRAN measurements / RSSI Measurement  | Rel-13 | C279   | UEs supporting E-UTRA and downlink LAA and RSSI measurement  | pc_eFDD |        |                |
|          |  |        |        |  | pc_eTDD |        |                |
| 8.3.2.1  | Measurement configuration control and reporting / Inter-RAT measurements / Event B2 / Measurement of GERAN cells   | Rel-8  | C90F   | UEs supporting E-UTRA and GERAN and<br>Feature Group Indicator 23 and NOT Category<br>M1   | pc_eFDD |        |                |
|          |  |        | C90T   |  | pc_eTDD |        |                |
| 8.3.2.2  | Measurement configuration control and reporting / Inter-RAT measurements / Periodic reporting / Measurement of GERAN cells   | Rel-8  | C20F   | UEs supporting E-UTRA, GERAN and Feature<br>Group Indicators 16 and Feature Group<br>Indicator 23 and NOT Category M1  | pc_eFDD |        |                |
|          |  |        | C20T   |  | pc_eTDD |        |                |
| 8.3.2.3  | Measurement configuration control and reporting / Inter-RAT measurements / Event B2 / Measurement of UTRAN cells   | Rel-8  | C91F   | UEs supporting E-UTRA and UTRA and<br>Feature Group Indicator 22 and NOT Category<br>M1  | pc_eFDD |        |                |
|          |  |        | C91T   |  | pc_eTDD |        | Rel-9 UTRA TDD |
| 8.3.2.3a | Measurement configuration control and reporting / Inter-RAT measurements / Event B2 / Measurement of UTRAN cells / RSRQ based measurements   | Rel-9  | C91F   | UEs supporting E-UTRA and UTRA and Feature Group Indicator 22 and NOT Category M1  | pc_eFDD | Note 3 | Rel-8 UTRA FDD |
|          | Thousand the first the fir |        | C91T   | -  | pc_eTDD |        |                |
| 1        | 1  | 1      | 0011   | 1  | Po_0100 |        |                |

| 8.3.2.4  | Measurement configuration control and reporting / Inter-RAT measurements / Periodic reporting / Measurement of UTRAN cells                             | Rel-8 | C13F  | UEs supporting E-UTRA and UTRA and<br>Feature Group Indicator 16 and Feature Group<br>Indicator 22 and NOT Category M1                                    | pc_eFDD |        |                |
|----------|--|-------|-------|---|---------|--------|----------------|
|          |  |       | C13T  |   | pc_eTDD |        | Rel-9 UTRA TDD |
| 8.3.2.5  | Measurement configuration control and reporting / Inter-RAT measurements / Periodic reporting / Measurements of E-UTRAN, UTRAN and GERAN cells         | Rel-8 | C61F  | UEs supporting E-UTRA and UTRA and GERAN and Feature Group Indicator 16 and Feature Group Indicator 22 and Feature Group Indicator 23 and NOT Category M1 | pc_eFDD |        |                |
|          |  |       | C61T  |   | pc_eTDD |        | Rel-9 UTRA TDD |
| 8.3.2.6  | Measurement configuration control and reporting / Inter-RAT measurements / Simultaneous A2 and two B2 / Measurements of E-UTRAN, UTRAN and GERAN cells | Rel-8 | C17F  | UEs supporting E-UTRA and UTRAN and<br>GERAN and Feature Group Indicator 22 and<br>Feature Group Indicator 23 and NOT Category<br>M1                      | pc_eFDD |        |                |
|          |  |       | C17T  |   | pc_eTDD |        | Rel-9 UTRA TDD |
| 8.3.2.7  | Measurement configuration control and reporting / Inter-RAT measurements / Event B2 (measurement HRPD cells)   | Rel-8 | C92F  | UEs supporting E-UTRA and HRPD and<br>Feature Group Indicator 26 and NOT Category<br>M1   | pc_eFDD |        |                |
| İ        | · ·  |       | C92T  |   | pc_eTDD |        |                |
| 8.3.2.8  | Measurement configuration control and reporting / Inter-RAT measurements / Periodic reporting / Measurement of HRPD cells                              | Rel-8 | C24F  | UEs supporting E-UTRA and HRPD and<br>Feature Group Indicator 16 and Feature Group<br>Indicator 26 and NOT Category M1                                    | pc_eFDD |        |                |
|          |  |       | C24T  |   | pc_eTDD |        |                |
| 8.3.2.9  | Measurement configuration control and reporting / Inter-RAT measurements / Event B2 / Measurement of 1xRTT cells                                       | Rel-8 | C93F  | UEs supporting E-UTRA and 1xRTT and Feature Group Indicator 24 and NOT Category M1  | pc_eFDD |        |                |
|          |  |       | C93T  |   | pc_eTDD |        |                |
| 8.3.2.10 | Measurement configuration control and reporting / Inter-RAT measurements / Periodic reporting / Measurement of 1xRTT cells                             | Rel-8 | C25F  | UEs supporting E-UTRA and 1xRTT and<br>Feature Group Indicator 16 and Feature Group<br>Indicator 24 and NOT Category M1                                   | pc_eFDD |        |                |
|          |  |       | C25T  |   | pc_eTDD |        |                |
| 8.3.2.11 | Measurement configuration control and reporting / Inter-RAT measurements / Event B1 / Measurement of UTRAN cells                                       | Rel-9 | C168F | UEs supporting E-UTRA and UTRA and<br>Feature Group Indicator 15 and NOT Category<br>M1   | pc_eFDD | Note 3 | Rel-8 UTRA FDD |
|          |  |       | C168T |   | pc_eTDD |        |                |
| 8.3.3.1  | Measurement configuration control and reporting / SON / ANR / CGI reporting of E-UTRAN cell  | Rel-8 | C14F  | UEs supporting E-UTRA and Feature Group Indicator 5 and Feature Group Indicator 17  | pc_eFDD |        |                |
|          |  |       | C14T  |   | pc_eTDD |        |                |
| 8.3.3.2  | Measurement configuration control and reporting / SON / ANR / CGI reporting of UTRAN cell  | Rel-8 | C39F  | UEs supporting E-UTRA and UTRA and<br>Feature Group Indicator 5 and Feature Group<br>Indicator 19 and Feature Group Indicator 22<br>and NOT Category M1   | pc_eFDD |        |                |
|          |  |       | C39T  |   | pc_eTDD |        | Rel-9 UTRA TDD |
| 8.3.3.3  | Measurement configuration control and reporting / SON / ANR / CGI reporting of GERAN cell  | Rel-8 | C40F  | UEs supporting E-UTRA and GERAN and<br>Feature Group Indicator 5 and Feature Group<br>Indicator 19 and Feature Group Indicator 23<br>and NOT Category M1  | pc_eFDD |        |                |
|          |  |       | C40T  |   | pc_eTDD |        |                |
|          |  | Rel-9 | C206F | UEs supporting E-UTRA and GERAN and<br>Feature Group Indicator 5 and Feature Group<br>Indicator 34 and Feature Group Indicator 23                         | pc_eFDD |        |                |
|          |  | 1     | C206T | ¬ '   | pc_eTDD |        |                |

| 8.3.3.4 | Measurement configuration control and reporting / SON / ANR / CGI reporting of HRPD cell                     | Rel-8  | C44F  | UEs supporting E-UTRA and HRPD and<br>Feature Group Indicator 5 and Feature Group<br>Indicator 19 and Feature Group Indicator 26<br>and NOT Category M1  | pc_eFDD |     |             |
|---------|--|--------|-------|--|---------|-----|-------------|
|         |  |        | C44T  |  | pc_eTDD |     |             |
| 8.3.3.5 | Void   |        |       |  |         |     |             |
| 8.3.4.1 | Intra-frequency SI acquisition / CSG cell and non-<br>CSG cell   | Rel-9  | C80a  | UEs supporting E-UTRA and Reading the SI of<br>the neighbouring Intra-frequency cell using<br>autonomous gaps and reporting and allowed<br>CSG list and NOT Category M1                                    | pc_eFDD |     |             |
|         |  |        |       |  | pc_eTDD |     |             |
| 8.3.4.2 | Inter-frequency SI acquisition / Non-member hybrid cell  | Rel-9  | C118F | UEs supporting E-UTRA and allowed CSG list<br>and Reading the SI of the neighbouring Inter-<br>frequency cell using autonomous gaps and<br>reporting and Feature Group Indicator 25 and<br>NOT Category M1 | pc_eFDD |     |             |
|         |  |        | C118T |  | pc_eTDD |     |             |
| 8.3.4.3 | Inter-frequency SI acquisition / Member hybrid cell  | Rel-9  | C118F | UEs supporting E-UTRA and allowed CSG list<br>and Reading the SI of the neighbouring Inter-<br>frequency cell using autonomous gaps and<br>reporting and Feature Group Indicator 25 and<br>NOT Category M1 | pc_eFDD |     |             |
|         |  |        | C118T |  | pc_eTDD |     |             |
| 8.3.4.4 | Inter-RAT SI acquisition / RRC_CONNECTED / UMTS member CSG cell  | Rel-9  | C119F | UEs supporting E-UTRA and UTRA and allowed CSG list and Reading the SI of the UMTS neighbouring cell using autonomous gaps and reporting and Feature Group Indicator 22 and NOT Category M1                | pc_eFDD | Rel | -8 UTRA FDD |
|         |  |        | C119T | 7  | pc_eTDD | Rel | -9 UTRA TDD |
| 8.3.4.5 | Inter-frequency E-UTRAN FDD - FDD / CSG<br>Proximity Indication  | Rel-9  | C170  | UEs supporting FDD E-UTRA and Inter<br>Frequency Proximity Indication and NOT<br>Category M1   | pc_eFDD |     |             |
| 8.3.5.1 | RRC connection reconfiguration/ QoE Measurement Collection /QoE measurement setup and report and release     | Rel-15 | C355  | UEs supporting E-UTRA and QoE<br>Measurement Collection for Streaming Service  | pc_eFDD |     |             |
|         |  |        |       |  | pc_eTDD |     |             |
| 8.3.5.2 | RRC connection reconfiguration/ Qoemtsi Measurement Collection /QoE measurement setup and report and release | Rel-15 | C356  | UEs supporting E-UTRA and QoE<br>Measurement Collection for MTSI service   | pc_eFDD |     |             |
|         |  |        |       |  | pc_eTDD |     |             |
| 8.4.1.1 | Void   |        |       |  |         |     |             |
| 8.4.1.2 | Inter-RAT handover / From E-UTRA to UTRA PS / Data   | Rel-8  | C36F  | UEs supporting E-UTRA and UTRA and Feature Group Indicator 8 and Feature Group Indicator 22 and NOT Category M1  | pc_eFDD |     |             |
|         |  |        | C36T  |  | pc_eTDD | Rel | -9 UTRA TDD |
| 8.4.1.3 | Void   |        |       |  |         |     |             |
| 8.4.1.4 | Inter-RAT handover / From E-UTRA to UTRA<br>HSDPA / Data   | Rel-8  | C36F  | UEs supporting E-UTRA and UTRA and Feature Group Indicator 8 and Feature Group Indicator 22 and NOT Category M1  | pc_eFDD |     | OLUTDA TOO  |
|         |  | D 10   | C36T  |  | pc_eTDD | Rel | -9 UTRA TDD |
| 8.4.1.5 | Inter-RAT Handover / from E-UTRA to UTRA(HSUPA/HSDPA) / Data   | Rel-8  | C117F | UEs supporting E-UTRA and UTRA and HS-<br>PDSCH and E-DPDCH and Feature Group  | pc_eFDD |     |             |

|           |  | 1          |        | Indicator 8 and Feature Group Indicator 22 and   | 1       | -              |
|-----------|--|------------|--------|--|---------|----------------|
|           |  |            |        | NOT Category M1  |         |                |
|           |  |            | C117T  |  | pc_eTDD | Rel-9 UTRA TDD |
| 8.4.2.1   | Void   |            |        |  |         |                |
| 8.4.2.2   | Inter-RAT handover / From UTRA PS to E-UTRA / Data   | Rel-8      | C37    | UEs supporting E-UTRA and UTRA and inter-<br>RAT PS handover to E-UTRA from UTRA and<br>EUTRA Feature Group Indicator 2 and NOT<br>Category M1   | pc_eFDD |                |
| 0.400     | W - 1  |            |        |  | pc_eTDD | Rel-9 UTRA TDD |
| 8.4.2.3   | Void   | Date       | 007    | UE   |         | <del> </del>   |
| 8.4.2.4   | Inter-RAT handover / From UTRA HSPA to E-<br>UTRA / Data   | Rel-8      | C37    | UEs supporting E-UTRA and UTRA and inter-<br>RAT PS handover to E-UTRA from UTRA and<br>EUTRA Feature Group Indicator 2 and NOT<br>Category M1   | pc_eFDD |                |
|           |  |            |        |  | pc_eTDD | Rel-9 UTRA TDD |
| 8.4.2.5   | Void   |            |        |  |         |                |
| 8.4.2.6   | Void   | <u> </u>   |        |  | Ţ       | Ţ              |
| 8.4.2.7.1 | CA / RRC connection reconfiguration / Handover UTRAN to E-UTRAN/ Success / SCell addition / Intra-band Contiguous CA     | Rel-10     | C155F  | UEs supporting E-UTRA and UTRA and Intra-<br>band Contiguous CA Carrier Aggregation and<br>Feature Group Indicator 112 and inter-RAT PS<br>handover to E-UTRA from UTRA and EUTRA<br>Feature Group Indicator 2 and NOT Category<br>M1          | pc_eFDD | Rel-8 UTRA FDD |
|           |  |            | C155T  |  | pc eTDD | Rel-9 UTRA TDD |
| 8.4.2.7.2 | CA / RRC connection reconfiguration / Handover UTRAN to E-UTRAN/ Success / SCell addition / Inter-band CA                | Rel<br>-10 | C155aF | UEs supporting E-UTRA and UTRA and Interband Contiguous CA Carrier Aggregation and Feature Group Indicator 112 and inter-RAT PS handover to E-UTRA from UTRA and EUTRA Feature Group Indicator 2 and NOT Category M1                           | pc_eFDD | Rel-8 UTRA FDD |
|           |  |            | C155aT |  | pc_eTDD | Rel-9 UTRA TDD |
| 8.4.2.7.3 | CA / RRC connection reconfiguration / Handover UTRAN to E-UTRAN/ Success / SCell addition / Intra-band non-contiguous CA | Rel-11     | C155bF | UEs supporting E-UTRA and UTRA and<br>Downlink Intra-band non-contiguous Carrier<br>Aggregation and Feature Group Indicator 112<br>and inter-RAT PS handover to E-UTRA from<br>UTRA and EUTRA Feature Group Indicator 2<br>and NOT Category M1 | pc_eFDD | Rel-8 UTRA FDD |
|           |  |            | C155bT |  | pc_eTDD | Rel-9 UTRA TDD |
| 8.4.3.1   | Inter-RAT handover / From E-UTRA to GPRS / PS HO   | Rel-8      | C107F  | UEs supporting E-UTRA and GERAN and PS handover from E-UTRAN to GERAN and Feature Group Indicator 23 and NOT Category M1   | pc_eFDD |                |
|           |  |            | C107T  |  | pc_eTDD |                |
| 8.4.3.2   | Inter-RAT cell change order / From E-UTRA data RRC_CONNECTED to GPRS / Without NACC                                      | Rel-8      | C38F   | UEs supporting E-UTRA and GERAN and<br>Feature Group Indicator 10 and Feature Group<br>Indicator 23 and NOT Category M1  | pc_eFDD |                |
|           |  |            | C38T   |  | pc_eTDD |                |
| 8.4.3.3   | Inter-RAT cell change order / From E-UTRA data to GPRS / With NACC   | Rel-8      | C38F   | UEs supporting E-UTRA and GERAN and<br>Feature Group Indicator 10 and Feature Group<br>Indicator 23 and NOT Category M1  | pc_eFDD |                |
|           |  |            | C38T   |  | pc_eTDD |                |
| 8.4.4.1   | Void   |            |        |  |         |                |

| 8.4.4.2  | Void   | 1 1    |              |  |         |  |  |
|----------|--|--------|--------------|--|---------|--|--|
| 8.4.4.3  | Void   |        |              |  |         |  |  |
| 8.4.5.1  | Void   |        |              |  |         |  |  |
| 8.4.5.2  | Void   |        |              |  |         |  |  |
| 8.4.5.3  |  |        |              |  |         |  |  |
| 8.4.5.3  | Void   |        |              |  |         |  |  |
| 8.4.5.4  | Pre-registration at HRPD and inter-RAT handover / From E-UTRA to HRPD Active / Data                          | Rel-8  | C42F<br>C42T | UEs supporting E-UTRA and HRPD and<br>Feature Group Indicator 12 and Feature Group<br>Indicator 26 and NOT Category M1 | pc_eFDD |  |  |
| 8.4.7.1  | Void   |        | 0421         |  | ро_ствв |  |  |
| 8.4.7.3  | Void   |        |              |  |         |  |  |
| 8.4.7.4  | Void   |        |              |  |         |  |  |
| 8.4.7.5  | Void   |        |              |  |         |  |  |
| 8.4.7.6  | Void   |        |              |  |         |  |  |
| 8.4.7.7  | Void   | -      |              |  |         |  |  |
|          |  |        |              |  |         |  |  |
| 8.4.7.8  | Void   |        |              |  |         |  |  |
| 8.4.7.9  | Void   |        |              |  |         |  |  |
| 8.4.7.10 | Void   |        |              |  |         |  |  |
| 8.4.8.1  | WLAN Offload / Offload Success / EUTRA<br>RRC_Connected to/from WLAN (Qrxlevmeas,<br>BackhaulRateUlWLAN)     | Rel-12 | C225         | UEs supporting E-UTRA and WLAN and allowed offload to and from WLAN and NOT Category M1                                | pc_eFDD |  |  |
|          |  |        |              |  | pc_eTDD |  |  |
| 8.4.8.2  | WLAN Offload / Offload Success / EUTRA<br>RRC_Connected to/from WLAN (Qrxlevmeas,<br>ChannelUtilizationWLAN) | Rel-12 | C225         | UEs supporting E-UTRA and WLAN and allowed offload to and from WLAN and NOT Category M1                                | pc_eFDD |  |  |
|          | ,  |        |              |  | pc_eTDD |  |  |
| 8.4.8.3  | WLAN Offload / Offload Success / EUTRA<br>RRC_Connected to/from WLAN (Qqualmeas,<br>BeaconRSSI)              | Rel-12 | C225         | UEs supporting E-UTRA and WLAN and allowed offload to and from WLAN and NOT Category M1                                | pc_eFDD |  |  |
|          | ·  |        |              |  | pc_eTDD |  |  |
| 8.4.8.4  | WLAN Offload / Offload Success / EUTRA<br>RRC_Connected to/from WLAN (Qqualmeas,<br>BackhaulRateDIWLAN) / CA | Rel-12 | C225a        | UEs supporting E-UTRA with Carrier Aggregation and WLAN and allowed offload to and from WLAN and NOT Category M1       | pc_eFDD |  |  |
|          |  |        |              |  | pc_eTDD |  |  |
| 8.4.8.5  | WLAN Offload / T350 expiry   | Rel-12 | C225         | UEs supporting E-UTRA and WLAN and allowed offload to and from WLAN and NOT Category M1                                | pc_eFDD |  |  |
|          |  |        |              |  | pc_eTDD |  |  |
| 8.4.8.6  | WLAN Offload / Offload Success / EUTRA<br>RRC_Connected to/from WLAN (ANDSF and<br>RAN rules co-existence)   | Rel-12 | C225         | UEs supporting E-UTRA and WLAN and allowed offload to and from WLAN and NOT Category M1                                | pc_eFDD |  |  |
|          |  |        |              |  | pc_eTDD |  |  |
| 8.5.1.1  | Radio link failure / RRC connection re-<br>establishment success   | Rel-8  | R            | UEs supporting E-UTRA  | pc_eFDD |  |  |
| 0.5.4.0  | De d'e l'el fe'hwe / TOO4 eew're   | Date   |              | LIE  | pc_eTDD |  |  |
| 8.5.1.2  | Radio link failure / T301 expiry   | Rel-8  | R            | UEs supporting E-UTRA  | pc_eFDD |  |  |
| 0.5.4.0  |  | D 10   |              | LIE & ELITOA   | pc_eTDD |  |  |
| 8.5.1.3  | Radio link failure / T311 expiry   | Rel-8  | R            | UEs supporting E-UTRA  | pc_eFDD |  |  |
|          |  |        |              |  | pc_eTDD |  |  |

| 8.5.1.4   | Radio link failure / RRC connection re-<br>establishment reject   | Rel-8  | R     | UEs supporting E-UTRA  | pc_eFDD         |                |
|-----------|---|--------|-------|--|-----------------|----------------|
|           | ·   |        |       |  | pc_eTDD         |                |
| 8.5.1.5   | Radio link failure / Radio link recovery while T310 is running  | Rel-8  | R     | UEs supporting E-UTRA  | pc_eFDD         |                |
|           |   |        |       |  | pc_eTDD         |                |
| 8.5.1.6   | Radio link failure / T311 expiry / Dedicated RLF timer  | Rel-9  | R     | UEs supporting E-UTRA  | pc_eFDD         |                |
|           |   |        |       |  | pc_eTDD         |                |
| 8.5.1.7.1 | CA / No Radio Link Failure on SCell / RRC<br>Connection Continues on PCell / Intra-band<br>Contiguous CA                                  | Rel-10 | C132  | UEs supporting E-UTRA and Intra-band contiguous Carrier Aggregation  | pc_eFDD         |                |
|           |   |        |       |  | pc_eTDD         |                |
| 8.5.1.7.2 | CA / No Radio Link Failure on SCell / RRC<br>Connection Continues on PCell / Inter-band CA  | Rel-10 | C151  | UEs supporting E-UTRA and Inter-band Carrier Aggregation   | pc_eFDD         |                |
|           |   |        |       |  | pc_eTDD         |                |
| 8.5.1.7.3 | CA / No Radio Link Failure on SCell / RRC<br>Connection Continues on PCell / Intra-band non-<br>Contiguous CA                             | Rel-11 | C132a | UEs supporting E-UTRA and Downlink Intra-<br>band non-contiguous Carrier Aggregation   | pc_eFDD         |                |
|           | 3   |        |       |  | pc eTDD         |                |
| 8.5.1.8.1 | Radio link failure on PSCell / UE supports SCG DRB  | Rel-12 | C245  | UEs supporting E-UTRA and DC SCG DRB   | pc_eFDD         |                |
|           |   |        |       |  | pc_eTDD         |                |
| 8.5.1.8.2 | Radio link failure on PSCell / UE supports Split DRB  | Rel-12 | C244  | UEs supporting E-UTRA and DC Split DRB   | pc_eFDD         |                |
|           |   |        |       |  | pc_eTDD         |                |
| 8.5.1.9   | Radio link failure / RRC connection re-<br>establishment success/ Release configured<br>UDC   | Rel-15 | C352  | UEs supporting the uplink data compression operation   | pc_0.52         |                |
| 8.5.2.1   | Redirection to E-UTRAN / From UTRAN upon reception of RRC CONNECTION REJECT   | Rel-8  | C01   | UEs supporting E-UTRA and UTRA and NOT Category M1   | pc_eFDD         |                |
|           | '   |        |       |  | pc eTDD         | Rel-9 UTRA TDD |
| 8.5.4.1   | UE capability transfer / Success  | Rel-8  | R     | UEs supporting E-UTRA  | pc_eFDD         |                |
|           |   |        |       |  | pc_eTDD         |                |
| 8.5.4.2   | Network-requested CA Band Combination<br>Capability Signalling / Number of UE supported<br>CA band combinations less than or equal to 128 | Rel-11 | C221  | UEs supporting E-UTRA and (Intra-band contiguous Carrier Aggregation or Intra-band non-contiguous Carrier Aggregation or Interband Carrier Aggregation) and reception of requestedFrequencyBands and less than or equal to 128 CA band combinations. | pc_eFDD         |                |
|           |   |        |       |  | pc_eTDD         |                |
| 8.5.4.3   | Network-requested CA Band Combination<br>Capability Signalling / Number of UE supported<br>CA band combinations exceeds 128               | Rel-11 | C222  | UEs supporting E-UTRA and (Intra-band contiguous Carrier Aggregation or Intra-band non-contiguous Carrier Aggregation or Interband Carrier Aggregation) and reception of requestedFrequencyBands and more than 128 CA band combinations.             | pc_eFDD         |                |
| 0 5 1 1   | UE Canability Transfer/ Syssess/ UE Cat 0/ UE   | Dol 40 | C004  | LIEG cupporting E LITPA and LIE Cotogon: 0   |                 |                |
| 8.5.4.4   | UE Capability Transfer/ Success/ UE Cat 0/ UE Paging Info   | Rel-12 | C224  | UEs supporting E-UTRA and UE Category 0  | pc_eFDD pc_eTDD |                |
|           |   |        |       |  | Ipc_e i DD      | 1              |

| 8.6.1.1  | Immediate MDT / Reporting / Location information   | Rel-10   | C147 | UEs supporting E-UTRA and standalone GNSS receiver to provide detailed location information and NOT Category M1 | pc_eFDD pc_eTDD |  |
|----------|--|----------|------|---|-----------------|--|
| 8.6.1.2  | Immediate MDT / Reporting / Location information / Request from eNB / Event A2   | Rel-11   | C147 | UEs supporting E-UTRA and standalone GNSS receiver to provide detailed location information and NOT Category M1 | pc_eFDD         |  |
|          |  |          |      |   | pc_eTDD         |  |
| 8.6.1.3  | Immediate MDT / Measurement / Latency metrics for UL PDCP Packet Delay per QCI   | Rel-13   | C282 | UEs supporting E-UTRA and PDCP Packet Delay per QCI   | pc_eFDD         |  |
|          |  |          |      |   | pc_eTDD         |  |
| 8.6.1.4  | Void   |          |      |   |                 |  |
| 8.6.1.5  | Void   | D-140    | C137 | HE  | pc eFDD         |  |
| 8.6.2.1  | Logged MDT / Intra-frequency measurement, logging and reporting  | Rel-10   | C137 | UEs supporting E-UTRA and logged measurements in RRC_IDLE and NOT Category M1                                   |                 |  |
|          |  |          |      |   | pc_eTDD         |  |
| 8.6.2.2  | Logged MDT / Inter-frequency measurement, logging and reporting  | Rel-10   | C137 | UEs supporting E-UTRA and logged measurements in RRC_IDLE and NOT Category M1                                   | pc_eFDD         |  |
|          |  |          |      |   | pc_eTDD         |  |
| 8.6.2.3  | Logged MDT / Logging and reporting / Limiting area scope   | Rel-10   | C137 | UEs supporting E-UTRA and logged measurements in RRC_IDLE and NOT Category M1                                   | pc_eFDD         |  |
|          |  |          |      |   | pc_eTDD         |  |
| 8.6.2.3a | Logged MDT / Logging and reporting / Limiting area scope / TAC list with PLMN identity   | Rel-11   | C137 | UEs supporting E-UTRA and logged measurements in RRC_IDLE and NOT Category M1                                   | pc_eFDD         |  |
|          |  |          |      |   | pc_eTDD         |  |
| 8.6.2.4  | Logged MDT / Logging and reporting / Indication of logged measurements at E-UTRA handover  | Rel-10   | C137 | UEs supporting E-UTRA and logged measurements in RRC_IDLE and NOT Category M1                                   | pc_eFDD         |  |
|          |  |          |      |   | pc_eTDD         |  |
|          |  |          |      |   |                 |  |
| 8.6.2.5  | Logged MDT / Logging and reporting / Indication of logged measurements at E-UTRA reestablishment   | Rel-10   | C137 | UEs supporting E-UTRA and logged measurements in RRC_IDLE and NOT Category M1                                   | pc_eFDD         |  |
|          |  |          |      |   | pc_eTDD         |  |
| 8.6.2.6  | Logged MDT / Release of logged MDT measurement configuration / Expire of duration timer  | Rel-10   | C137 | UEs supporting E-UTRA and logged measurements in RRC_IDLE and NOT Category M1                                   | pc_eFDD         |  |
|          |  | <u> </u> |      |   | pc_eTDD         |  |
| 8.6.2.7  | Logged MDT / Release of logged MDT measurement configuration / Reception of new logged measurement configuration, Detach or UE power off | Rel-10   | C137 | UEs supporting E-UTRA and logged measurements in RRC_IDLE and NOT Category M1                                   | pc_eFDD         |  |
|          |  |          |      |   | pc_eTDD         |  |
| 8.6.2.8  | Logged MDT / Maintaining logged measurement configuration / UE state transitions and mobility  | Rel-10   | C137 | UEs supporting E-UTRA and logged measurements in RRC_IDLE and NOT Category M1                                   | pc_eFDD         |  |

| 1        |   |        |             |  | pc_eTDD |                |
|----------|---|--------|-------------|--|---------|----------------|
| 8.6.2.9  | Logged MDT / Location information   | Rel-10 | C203a       | UEs supporting E-UTRA and measurements in RRC_IDLE and standalone GNSS receiver to provide detailed location information and NOT Category M1                             | pc_eTDD |                |
|          |   |        |             |  | pc_eFDD |                |
| 8.6.2.10 | Logged MDT / Logging and reporting / Reporting at RRC connection establishment / PLMN list    | Rel-11 | C137        | UEs supporting E-UTRA and logged measurements in RRC_IDLE and NOT Category M1  | pc_eFDD |                |
|          |   |        |             |  | pc_eTDD |                |
| 8.6.2.11 | Logged MDT / Logging and reporting / Reporting at intra LTE handover / PLMN list              | Rel-11 | C137        | UEs supporting E-UTRA and logged measurements in RRC_IDLE and NOT Category M1  | pc_eFDD |                |
|          |   |        |             |  | pc_eTDD |                |
| 8.6.2.12 | Logged MDT / Logging and reporting / Reporting at RRC connection re-establishment / PLMN list | Rel-11 | C137        | UEs supporting E-UTRA and logged measurements in RRC_IDLE and NOT Category M1  | pc_eFDD |                |
| 2 2 2 12 | N. I.   |        |             |  | pc_eTDD |                |
| 8.6.2.13 | Void  |        |             |  |         |                |
| 8.6.2.14 | Void  |        |             |  |         |                |
| 8.6.2.15 | Void  |        |             |  |         |                |
| 8.6.3.1  | Logged MDT / UTRAN Inter-RAT measurement, logging and reporting                               | Rel-10 | C138        | UEs supporting E-UTRA and UTRA and logged measurements in RRC_IDLE and inter-RAT PS handover to E-UTRA from UTRA and EUTRA Feature Group Indicator 2 and NOT Category M1 | pc_eFDD | Rel-8 UTRA FDD |
|          |   |        |             | 3 ,  | pc_eTDD | Rel-9 UTRA TDD |
| 8.6.3.2  | Logged MDT / GERAN Inter-RAT measurement, logging and reporting                               | Rel-10 | Rel-10 C163 | UEs supporting E-UTRA and GSM and logged measurements in RRC_IDLE and inter-RAT PS handover to E-UTRA from GSM and NOT Category M1                                       | pc_eFDD | Rel-8 GERAN    |
|          |   |        |             |  | pc_eTDD | Rel-8 GERAN    |
| 8.6.3.3  | Logged MDT / CDMA2000 Inter-RAT measurement, logging and reporting                            | Rel-10 | C165        | UEs supporting E-UTRA and HRPD and logged measurements in RRC_IDLE and NOT Category M1   | pc_eFDD |                |
|          |   |        |             |  | pc_eTDD |                |
| 8.6.3.4  | Logged MDT / Logging and reporting / Reporting at UTRAN Inter-RAT handover / PLMN list        | Rel-11 | C138        | UEs supporting E-UTRA and UTRA and logged measurements in RRC_IDLE and inter-RAT PS handover to E-UTRA from UTRA and EUTRA Feature Group Indicator 2 and NOT Category M1 | pc_eFDD | Rel-8 UTRA FDD |
|          |   |        |             |  | pc_eTDD | Rel-9 UTRA TDD |
| 8.6.3.5  | Logged MDT / Logging and reporting / Bluetooth measurement collection                         | Rel-15 | C358        | UEs supporting E-UTRA and Blluetooth<br>Measurement Collection in logged MDT   | pc_eFDD |                |
|          |   |        |             |  | pc_eTDD |                |
| 8.6.3.6  | Logged MDT / Logging and reporting / WLAN measurement collection                              | Rel-15 | C359        | UEs supporting E-UTRA and WLAN Measurement Collection in logged MDT  | pc_eFDD |                |
|          |   |        | 00-:        | LIE II ELITE   | pc_eTDD |                |
| 8.6.4.1  | Radio Link Failure logging / Reporting of Intra-<br>frequency measurements                    | Rel-10 | C224c       | UEs supporting E-UTRA and NOT Category M1  | pc_eFDD |                |
|          |   |        |             |  | pc_eTDD |                |

| 8.6.4.2  | Radio Link Failure logging / Reporting of Inter-<br>frequency measurements                                   | Rel-10 | C10F  | UEs supporting E-UTRA and Feature Group<br>Indicator 25 and NOT Category M1  | pc_eFDD                                 |                |
|----------|--|--------|-------|--|---|----------------|
|          | ,  |        | C10T  |  | pc_eTDD                                 |                |
| 8.6.4.3  | Radio Link Failure logging / Reporting at RRC connection establishment and reestablishment                   | Rel-10 | C224c | UEs supporting E-UTRA and NOT Category M1  | pc_eFDD                                 |                |
|          |  |        |       |  | pc_eTDD                                 |                |
| 8.6.4.4  | Radio Link Failure logging / Reporting at E-<br>UTRA handover  | Rel-10 | C184  | UEs supporting E-UTRA and more than 1 FDD or TDD E-UTRA band and NOT Category M1   | pc_eFDD                                 |                |
|          |  |        |       |  | pc_eTDD                                 |                |
| 8.6.4.5  | Radio Link Failure logging / Reporting of ECGI of the PCell  | Rel-10 | C224c | UEs supporting E-UTRA and NOT Category M1  | pc_eFDD                                 |                |
|          |  |        |       |  | pc_eTDD                                 |                |
| 8.6.4.6  | Void   |        |       |  |   |                |
| 8.6.4.7  | Radio Link Failure logging / Location information  | Rel-10 | C147  | UEs supporting E-UTRA and standalone<br>GNSS receiver to provide detailed location<br>information and NOT Category M1                                      | pc_eTDD                                 |                |
|          |  |        |       |  | pc_eFDD                                 |                |
| 8.6.4.8  | Radio Link Failure logging / Logging and reporting / Reporting at RRC connection establishment / PLMN list   | Rel-11 | C224c | UEs supporting E-UTRA and NOT Category<br>M1   | pc_eFDD                                 |                |
|          |  |        |       |  | pc_eTDD                                 |                |
| 8.6.4.9  | Radio Link Failure logging / Logging and reporting / Reporting at intra LTE handover / PLMN list             | Rel-11 | C224c | UEs supporting E-UTRA and NOT Category<br>M1   | pc_eFDD                                 |                |
|          |  |        |       |  | pc_eTDD                                 |                |
| 8.6.4.10 | Radio Link Failure logging / Logging and reporting / Reporting at RRC connection reestablishment / PLMN list | Rel-11 | C224c | UEs supporting E-UTRA and NOT Category<br>M1   | pc_eFDD                                 |                |
|          |  |        |       |  | pc_eTDD                                 |                |
| 8.6.4.11 | Radio Link Failure logging / Logging and reporting / Dropped QCI   | Rel-13 | C270  | UEs supporting E-UTRA and QCI1 indication in Radio Link Failure Report   |   |                |
| 8.6.4.12 | Void   |        |       |  | + |                |
| 8.6.4.13 | Void   | İ      | !<br> |  |   |                |
| 8.6.5.1  | Radio Link Failure logging / Reporting at UTRAN Inter-RAT handover   | Rel-10 | C146  | UEs supporting E-UTRA and UTRA and inter-<br>RAT PS handover to E-UTRA from UTRA and<br>NOT Category M1  | pc_eFDD                                 | Rel-8 UTRA FDD |
|          |  |        |       |  | pc_eTDD                                 | Rel-9 UTRA TDD |
| 8.6.5.1a | Radio Link Failure logging / Reporting at UTRAN Inter-RAT handover / PLMN list                               | Rel-11 | C205  | UEs supporting E-UTRA and UTRA and inter-<br>RAT PS handover to E-UTRA from UTRA and<br>Radio Link Failure Report for inter-RAT MRO<br>and NOT Category M1 | pc_eFDD                                 | Rel-8 UTRA FDD |
|          |  |        |       |  | pc_eTDD                                 | Rel-9 UTRA TDD |
| 8.6.5.2  | Radio Link Failure logging / Reporting at GERAN Inter-RAT handover   | Rel-10 | C148F | UEs supporting E-UTRA and Feature Group<br>Indicator 23 and NOT Category M1  | pc_eFDD                                 | Rel-8 GERAN    |
|          |  |        | C148T |  | pc_eTDD                                 | Rel-8 GERAN    |
| 8.6.5.3  | Radio Link Failure logging / Reporting CDMA2000 neighbour cell information                                   | Rel-10 | C06   | UEs supporting E-UTRA and HRPD and NOT Category M1   | pc_eFDD                                 |                |
|          |  |        |       |  | pc_eTDD                                 |                |
| 8.6.5.4  | Void   |        |       |  |   |                |

| 8.6.5.5 | Radio Link Failure logging / Logging and reporting /Bluetooth measurement collection                        | Rel-15 | C358  | UEs supporting E-UTRA and Blluetooth<br>Measurement Collection in logged MDT   | pc_eFDD |                |
|---------|---|--------|-------|--|---------|----------------|
|         |   |        |       |  | pc_eTDD |                |
| 8.6.5.6 | Radio Link Failure logging / Logging and reporting / WLAN measurement collection                            | Rel-15 | C359  | UEs supporting E-UTRA and WLAN Measurement Collection in logged MDT  | pc_eFDD |                |
|         |   |        |       |  | pc_eTDD |                |
| 8.6.6.1 | Handover Failure logging / Reporting of Intra-<br>frequency measurements                                    | Rel-10 | C224c | UEs supporting E-UTRA and NOT Category M1  | pc_eFDD |                |
|         |   |        |       |  | pc_eTDD |                |
| 8.6.6.2 | Handover Failure logging / Reporting of Inter-<br>frequency measurements                                    | Rel-10 | C21F  | UEs supporting E-UTRA and Feature Group<br>Indicator 13 and Feature Group Indicator 25<br>and NOT Category M1                                  | pc_eFDD |                |
|         |   |        | C21T  | ,  | pc_eTDD |                |
| 8.6.6.3 | Void  |        |       |  | F       |                |
| 8.6.6.4 | Handover Failure logging / Location information   | Rel-10 | C147  | UEs supporting E-UTRA and standalone<br>GNSS receiver to provide detailed location<br>information and NOT Category M1                          | pc_eTDD |                |
|         |   |        |       |  | pc_eFDD |                |
| 8.6.6.5 | Handover Failure logging / Logging and reporting / Reporting at RRC connection establishment / PLMN list    | Rel-11 | C224c | UEs supporting E-UTRA and NOT Category M1  | pc_eFDD |                |
|         |   |        |       |  | pc_eTDD |                |
| 8.6.6.6 | Handover Failure logging / Logging and reporting / Reporting at intra LTE handover / PLMN list              | Rel-11 | C21F  | UEs supporting E-UTRA and Feature Group<br>Indicator 13 and Feature Group Indicator 25<br>and NOT Category M1                                  | pc_eFDD |                |
|         |   | •      | C21T  |  | pc_eTDD |                |
| 8.6.6.7 | Handover Failure logging / Logging and reporting / Reporting at RRC connection re-establishment / PLMN list | Rel-11 | C10F  | UEs supporting E-UTRA and Feature Group<br>Indicator 25 and NOT Category M1  | pc_eFDD |                |
|         |   | •      | C10T  |  | pc_eTDD |                |
| 8.6.7.1 | Handover Failure logging / Reporting of UTRAN Inter-RAT measurements  | Rel-10 | C01   | UEs supporting E-UTRA and UTRA and NOT Category M1   | pc_eFDD | Rel-8 UTRA FDD |
|         |   |        |       | 3.7  | pc_eTDD | Rel-9 UTRA TDD |
| 8.6.7.2 | Handover Failure logging / Reporting of GERAN Inter-RAT measurements  | Rel-10 | C90F  | UEs supporting E-UTRA and GERAN and Feature Group Indicator 23 and NOT Category M1   | pc_eFDD | Rel-8 GERAN    |
|         |   | •      | C90T  |  | pc_eTDD | Rel-8 GERAN    |
| 8.6.7.3 | Handover Failure logging / Reporting of CDMA2000 Inter-RAT measurements                                     | Rel-10 | C06   | UEs supporting E-UTRA and HRPD and NOT Category M1   | pc_eFDD |                |
|         |   |        |       |  | pc_eTDD |                |
| 8.6.7.4 | Handover Failure logging / Reporting at UTRAN Inter-RAT handover / PLMN list                                | Rel-11 | C37   | UEs supporting E-UTRA and UTRA and inter-<br>RAT PS handover to E-UTRA from UTRA and<br>EUTRA Feature Group Indicator 2 and NOT<br>Category M1 | pc_eFDD | Rel-8 UTRA FDD |
|         |   |        |       |  | pc_eTDD | Rel-9 UTRA TDD |
| 8.6.8.1 | Connection Establishment Failure logging /<br>Logging and reporting / T300 expiry                           | Rel-11 | C224c | UEs supporting E-UTRA and NOT Category M1  | pc_eFDD |                |
|         |   |        |       |  | pc_eTDD |                |
| 8.6.8.2 | Connection Establishment Failure logging /<br>Logging and reporting / Reporting at intra-LTE<br>handover    | Rel-11 | C21F  | UEs supporting E-UTRA and Feature Group<br>Indicator 13 and Feature Group Indicator 25<br>and NOT Category M1                                  | pc_eFDD |                |
|         |   |        | C21T  | 7  | pc eTDD |                |

| 8.6.8.3  | Connection Establishment Failure logging / Logging and reporting / Reporting at RRC connection re-establishment       | Rel-11   | C224c | UEs supporting E-UTRA and NOT Category M1  | pc_eFDD |                |
|----------|---|----------|-------|--|---------|----------------|
|          |   |          |       |  | pc_eTDD |                |
| 8.6.8.4  | Connection Establishment Failure logging / Logging and reporting / Location Information                               | Rel-11   | C147  | UEs supporting E-UTRA and standalone<br>GNSS receiver to provide detailed location<br>information and NOT Category M1                          | pc_eFDD |                |
|          |   |          |       |  | pc_eTDD |                |
| 8.6.8.5  | Connection Establishment Failure logging /<br>Logging and reporting / Reporting of Intra-<br>frequency measurements   | Rel-11   | C224c | UEs supporting E-UTRA and NOT Category<br>M1   | pc_eFDD |                |
|          |   |          |       |  | pc_eTDD |                |
| 8.6.8.6  | Connection Establishment Failure logging /<br>Logging and reporting / Reporting of Inter-<br>frequency measurements   | Rel-11   | C224c | UEs supporting E-UTRA and NOT Category M1  | pc_eFDD |                |
|          |   |          |       |  | pc_eTDD |                |
| 8.6.8.7  | Void  |          |       |  |         |                |
| 8.6.8.8  | Void  |          |       |  |         |                |
| 8.6.9.1  | Connection Establishment Failure logging /<br>Logging and reporting / Reporting at UTRAN<br>Inter-RAT handover        | Rel-11   | C37   | UEs supporting E-UTRA and UTRA and inter-<br>RAT PS handover to E-UTRA from UTRA and<br>EUTRA Feature Group Indicator 2 and NOT<br>Category M1 | pc_eFDD | Rel-8 UTRA FDD |
|          |   |          |       |  | pc_eTDD | Rel-9 UTRA TDD |
| 8.6.9.2  | Connection Establishment Failure logging /<br>Logging and reporting / Reporting of UTRAN<br>Inter-RAT measurements    | Rel-11   | C01   | UEs supporting E-UTRA and UTRA and NOT Category M1   | pc_eFDD | Rel-8 UTRA FDD |
|          |   |          |       |  | pc_eTDD | Rel-9 UTRA TDD |
| 8.6.9.3  | Connection Establishment Failure logging /<br>Logging and reporting / Reporting of GERAN<br>Inter-RAT measurements    | Rel-11   | C05   | UEs supporting E-UTRA and GERAN and NOT Category M1  | pc_eFDD | Rel-8 GERAN    |
|          |   |          |       |  | pc_eTDD | Rel-8 GERAN    |
| 8.6.9.4  | Connection Establishment Failure logging /<br>Logging and reporting / Reporting of CDMA2000<br>Inter-RAT measurements | Rel-11   | C06   | UEs supporting E-UTRA and HRPD and NOT Category M1   | pc_eFDD | 110.0002111111 |
|          |   |          |       |  | pc_eTDD |                |
| 8.6.9.5  | Connection Establishment Failure logging /<br>Logging and reporting / Bluetooth measurement<br>collection             | Rel-15   | C358  | UEs supporting E-UTRA and Blluetooth<br>Measurement Collection in logged MDT   | pc_eFDD |                |
|          |   |          |       |  | pc_eTDD |                |
| 8.6.9.6  | Connection Establishment Failure logging /<br>Logging and reporting / WLAN measurement<br>collection                  | Rel-15   | C359  | UEs supporting E-UTRA and WLAN<br>Measurement Collection in logged MDT   | pc_eFDD |                |
|          |   |          |       |  | pc_eTDD |                |
| 8.6.10.1 | Inter-RAT Immediate MDT / Reporting / Location information / Event B2   | Rel-11   | C180  | UEs supporting E-UTRA and UTRA and standalone GNSS receiver to provide detailed location information and NOT Category M1                       | pc_eFDD | Rel-8 UTRA FDD |
|          |   |          |       |  | pc_eTDD | Rel-9 UTRA TDD |
| 8.6.10.2 | Inter-RAT Immediate MDT / Reporting /Bluetooth measurement collection   | Rel-15   | C360  | UEs supporting E-UTRA and Blluetooth<br>Measurement Collection in Immediate MDT  | pc_eFDD |                |
|          |   | <u> </u> |       | 115 11 5 11 5 1 1 1 1 1 1 1 1 1 1 1 1 1  | pc_eTDD |                |
| 8.6.10.3 | Inter-RAT Immediate MDT / Reporting /WLAN measurement collection  | Rel-15   | C361  | UEs supporting E-UTRA and WLAN Measurement Collection in Immediate MDT   | pc_eFDD |                |

| 1        |  |        |      |  | pc_eTDD |        |  |
|----------|--|--------|------|--|---------|--------|--|
| 8.6.11.1 | RACH Optimisation  | Rel-11 | C181 | UEs supporting E-UTRA and delivery of rachReport upon request from the network and NOT Category M1 | pc_eFDD | Note 7 |  |
|          |  |        |      | 3 ,  | pc_eTDD |        |  |
| 8.7.1    | Inter-RAT / UTRAN ANR measurement, logging and reporting / E-UTRAN cell  | Rel-10 | C145 | UEs supporting E-UTRA and supporting UTRAN ANR and NOT Category M1                                 | pc_eFDD |        |  |
|          |  |        |      |  | pc_eTDD |        |  |
| 8.9.1    | Aerial UE / UE has flight path information available / UE information  | Rel-15 | C370 | UEs supporting E-UTRA and flight path plan reporting   | pc_eFDD |        |  |
|          |  |        |      |  | pc_eTDD |        |  |
| 8.9.2    | Aerial UE / Measurement configuration control and reporting / Event H1   | Rel-15 | C368 | UEs supporting E-UTRA and height-based measurement reporting and using GNSS for height measurement | pc_eFDD |        |  |
|          |  |        |      |  | pc_eTDD |        |  |
| 8.9.3    | Aerial UE / Measurement configuration control and reporting / Event H2   | Rel-15 | C368 | UEs supporting E-UTRA and height-based measurement reporting and using GNSS for height measurement | pc_eFDD |        |  |
|          |  |        |      |  | pc_eTDD |        |  |
| 8.9.4    | Aerial UE / Measurement configuration control<br>and reporting / numberOfTriggeringCells<br>configured / Event A3                                  | Rel-15 |      | UEs supporting E-UTRA and supporting measurement reporting triggered based on number of cells      | pc_eFDD |        |  |
|          |  |        |      |  | pc_eTDD |        |  |
| 8.9.4a   | Aerial UE / Measurement configuration control<br>and reporting / numberOfTriggeringCells<br>configured / Event A3 (Inter-frequency<br>measurement) | Rel-15 | C369 | UEs supporting E-UTRA and supporting measurement reporting triggerred based on number of cells     | pc_eFDD |        |  |
|          | ,  |        |      |  | pc_eTDD |        |  |
| 8.9.5    | Aerial UE / Measurement configuration control<br>and reporting / numberOfTriggeringCells<br>configured / Event A4                                  | Rel-15 | C369 | UEs supporting E-UTRA and supporting measurement reporting triggerred based on number of cells     | pc_eFDD |        |  |
|          | -  |        |      |  | pc_eTDD |        |  |
| 8.9.5a   | Aerial UE / Measurement configuration control and reporting / numberOfTriggeringCells configured / Event A4 (Inter-frequency measurements)         | Rel-15 | n    | UEs supporting E-UTRA and supporting measurement reporting triggerred based on number of cells     | pc_eFDD |        |  |
|          | ,  |        |      |  | pc_eTDD |        |  |
| 8.9.6    | Aerial UE / Measurement configuration control and reporting / numberOfTriggeringCells  | Rel-15 | C369 | UEs supporting E-UTRA and supporting measurement reporting triggerred based on number of cells     | pc_eFDD |        |  |
|          | configured / Event A5  |        |      | Trumber of cells   | pc eTDD |        |  |
|          |  |        |      |  | hc_e.nn |        |  |

| 9       | EPS mobility management   |       |   |                       |         |  |  |
|---------|---|-------|---|-----------------------|---------|--|--|
| 9.1.1.1 | Void  |       |   |                       |         |  |  |
| 9.1.1.2 | Void  |       |   |                       |         |  |  |
| 9.1.2.1 | Void  |       |   |                       |         |  |  |
| 9.1.2.2 | Void  |       |   |                       |         |  |  |
| 9.1.2.3 | Authentication not accepted by the network/ GUTI used / Authentication reject and re-authentication | Rel-8 | R | UEs supporting E-UTRA | pc_eFDD |  |  |
|         |   |       |   |                       | pc_eTDD |  |  |

| 9.1.2.4    | Authentication not accepted by the UE / MAC   | Rel-8  | R    | UEs supporting E-UTRA  | pc_eFDD   |  |
|------------|---|--------|------|--|-----------|--|
|            | code failure  |        |      |  | ·         |  |
|            |   |        |      |  | pc_eTDD   |  |
| 9.1.2.5    | Authentication not accepted by the UE / SQN failure   | Rel-8  | R    | UEs supporting E-UTRA  | pc_eFDD   |  |
|            |   |        |      |  | pc_eTDD   |  |
| 9.1.2.6    | Abnormal cases / Network failing the authentication check   | Rel-8  | R    | UEs supporting E-UTRA  | pc_eFDD   |  |
|            | 1   |        |      | 115  | pc_eTDD   |  |
| 9.1.2.7    | Authentication not accepted by the UE/ non-EPS authentication unacceptable  | Rel-8  | R    | UEs supporting E-UTRA  | pc_eFDD   |  |
| 0.4.0.4    | NAO '' I I I I I  | D 10   |      | LIE C ELITRA   | pc_eTDD   |  |
| 9.1.3.1    | NAS security mode command accepted by the UE  | Rel-8  | R    | UEs supporting E-UTRA  | pc_eFDD   |  |
|            |   | L      |      |  | pc_eTDD   |  |
| 9.1.3.2    | NAS security mode command not accepted by the UE  | Rel-8  | R    | UEs supporting E-UTRA  | pc_eFDD   |  |
|            |   |        |      |  | pc_eTDD   |  |
| 9.1.3.3    | No emergency bearer service / NAS security mode command with EIA0 not accepted by the UE  | Rel-9  | R    | UEs supporting E-UTRA  | pc_eFDD   |  |
|            |   |        |      |  | pc_eTDD   |  |
| 9.1.4.1    | Void  |        |      |  |           |  |
| 9.1.4.2    | Identification procedure / IMEI / IMEISV requested  | Rel-8  | R    | UEs supporting E-UTRA  | pc_eFDD   |  |
|            |   |        |      |  | pc_eTDD   |  |
| 9.1.5.1    | EMM information procedure   | Rel-8  | C51  | UEs supporting E-UTRA and supporting the EMM information message                                 | pc_eFDD   |  |
|            |   |        |      |  | pc_eTDD   |  |
| 9.1.5.2    | EMM information procedure not supported by the UE   | Rel-8  | C46  | UEs supporting E-UTRA and does not support the EMM information message                           | pc_eFDD   |  |
|            |   |        |      |  | pc_eTDD   |  |
| 9.2.1.1.1  | Attach / Success / Valid GUTI   | Rel-8  | C04  | UEs supporting E-UTRA and EPS attach (with or without pre-configuration)                         | pc_eFDD   |  |
|            |   |        |      |  | pc_eTDD   |  |
| 9.2.1.1.1a | Attach Procedure / Success / Last visited TAI, TAI list and equivalent PLMN list handling   | Rel-8  | R    | UEs supporting E-UTRA  | pc_eFDD   | Either TC<br>9.2.1.1.1a or TC<br>9.2.1.1.1b shall be<br>executed. (Note 4) |
|            |   |        |      |  | pc_eTDD   |  |
| 9.2.1.1.1b | Attach Procedure / Success / Last visited TAI,<br>TAI list and equivalent PLMN list handling / Single<br>Frequency operation                    | Rel-8  | R    | UEs supporting E-UTRA. This test is 'cells on single frequency only' equivalent of TC 9.2.1.1.1a | pc_eFDD   | Either TC<br>9.2.1.1.1a or TC<br>9.2.1.1.1b shall be<br>executed. (Note 4) |
|            |   |        |      |  | pc_eTDD   | . ,  |
| 9.2.1.1.2  | Attach Procedure / Success / With IMSI / GUTI reallocation  | Rel-8  | C04  | UEs supporting E-UTRA and EPS attach (with or without pre-configuration)                         | pc_eFDD   |  |
|            |   |        |      |  | pc_eTDD   |  |
| 9.2.1.1.2a | Attach Procedure / AttachWithIMSI configured /<br>Selected PLMN is neither the registered PLMN<br>nor in the list of equivalent PLMNs / Success | Rel-10 | C173 | UEs supporting E-UTRA and AttachWithIMSI   | pc_eFDD   |  |
|            | The in the list of equivalent i Living / Ouccess  |        |      |  | pc eTDD   |  |
| 1          |   |        |      |  | Po_e i DD |  |

| 9.2.1.1.3  | Attach Procedure / Success / Request for   | Dol 0  | C68  | UEs supporting E-UTRA and Mobility   | pc eFDD  |              |                     | -              |
|------------|--|--------|------|--|----------|--------------|---------------------|----------------|
| 9.2.1.1.3  | obtaining the IPv6 address of the home agent   | Rel-8  | C68  | management based on Dual-Stack Mobile IPv6   | рс_егоо  |              |                     |                |
|            | obtaining the IPv6 address of the nome agent   |        |      | management based on Dual-Stack Mobile IPV6   |          |              |                     |                |
|            |  |        |      | and being configured to request the IPv6   |          |              |                     |                |
|            |  |        |      | address of the Home Agent during Attach  |          |              |                     |                |
|            |  |        |      | procedure and NOT Category M1  |          |              |                     |                |
|            |  |        |      |  | pc_eTDD  |              |                     |                |
| 9.2.1.1.4  | Attach Procedure / Success / Request for   | Rel-8  | C69  | UEs supporting E-UTRA and Mobility   | pc_eFDD  |              |                     |                |
|            | obtaining the IPv4 address of the home agent   |        |      | management based on Dual-Stack Mobile IPv6   |          |              |                     |                |
|            |  |        |      | and being configured to request the IPv4   |          |              |                     |                |
|            |  |        |      | address of the Home Agent during Attach  |          |              |                     |                |
|            |  |        |      | procedure and NOT Category M1  |          |              |                     |                |
|            |  |        |      |  | pc_eTDD  |              |                     |                |
| 9.2.1.1.5  | Void   |        |      |  |          |              |                     |                |
| 9.2.1.1.6  | Void   |        |      |  |          |              |                     |                |
| 9.2.1.1.7  | Attach Procedure / Success / List of equivalent  | Rel-8  | C04  | UEs supporting E-UTRA and EPS attach (with   | pc_eFDD  |              | Either TC 9.2.1.1.7 |                |
|            | PLMNs in the ATTACH ACCEPT message   |        |      | or without pre-configuration)  |          |              | or TC 9.2.1.1.7a    |                |
|            |  |        |      |  |          |              | shall be executed.  |                |
|            |  |        |      |  |          |              | (Note 4)            |                |
|            |  |        |      |  | pc_eTDD  |              |                     |                |
| 9.2.1.1.7a | Attach Procedure / Success / List of equivalent  | Rel-8  | C04  | UEs supporting E-UTRA and EPS attach (with   | pc_eFDD  |              | Either TC 9.2.1.1.7 |                |
|            | PLMNs in the ATTACH ACCEPT message /   |        |      | or without pre-configuration)  |          |              | or TC 9.2.1.1.7a    |                |
|            | Single Frequency operation   |        |      |  |          |              | shall be executed.  |                |
|            |  |        |      |  |          |              | (Note 4)            |                |
|            |  |        |      |  | pc_eTDD  |              | 1                   |                |
| 9.2.1.1.7b | Attach / Success / native GUMMEI   | Rel-10 | C04  | UEs supporting E-UTRA and EPS attach (with   | pc eFDD  |              |                     |                |
|            |  |        |      | or without pre-configuration)  | . –      |              |                     |                |
|            |  |        |      |  | pc_eTDD  |              |                     |                |
| 9.2.1.1.7c | Attach / Success / PSM   | Rel-12 | C247 | UEs supporting E-UTRA and EPS attach (with   | pc_eFDD  |              | Note 17             |                |
| 9.2.1.1.70 | Attach / Success / PSW   | Rei-12 | C247 | or without pre-configuration) and Power Saving   | рс_егоо  |              | Note 17             |                |
|            |  |        |      |  |          |              |                     |                |
|            |  |        |      | Mode   |          |              |                     |                |
|            |  |        |      |  | pc_eTDD  |              |                     |                |
| 9.2.1.1.7d | Attach / Success / DCN   | Rel-14 | C04  | UEs supporting E-UTRA and EPS attach (with   | pc_eFDD  |              |                     |                |
|            |  |        |      | or without pre-configuration)  | pc_eTDD  |              |                     |                |
| 9.2.1.1.8  | Void   |        |      |  |          |              |                     |                |
| 9.2.1.1.9  | Attach / Rejected / IMSI invalid   | Rel-8  | C04  | UEs supporting E-UTRA and EPS attach (with   | pc_eFDD  |              |                     |                |
|            |  |        |      | or without pre-configuration)  |          |              |                     |                |
|            |  |        |      |  | pc_eTDD  |              |                     |                |
| 9.2.1.1.10 | Attach / Rejected / Illegal ME   | Rel-8  | C04  | UEs supporting E-UTRA and EPS attach (with   | pc_eFDD  |              |                     |                |
|            |  |        |      | or without pre-configuration)  |          |              |                     |                |
|            |  |        |      |  | pc_eTDD  |              |                     |                |
| 9.2.1.1.11 | Attach / Rejected / EPS services and non-EPS   | Rel-8  | C04  | UEs supporting E-UTRA and EPS attach (with   | pc_eFDD, | px_RATComb_  | 1 Execution (Note   |                |
|            | services not allowed   |        |      | or without pre-configuration)  | pc_UTRA, | Tested,      | 1)                  |                |
|            |  |        |      | , ,  | pc_GERAN | px_SinglePLM |                     |                |
|            |  |        |      |  | ľ        | N_Tested     |                     |                |
|            |  |        |      |  | pc_eTDD, | 1            |                     | Rel-9 UTRA TDD |
|            |  |        |      |  | pc_UTRA, |              |                     |                |
|            |  |        |      |  | pc_GERAN |              |                     |                |
| 9.2.1.1.12 | Attach / Rejected / EPS services not allowed   | Rel-8  | C04  | UEs supporting E-UTRA and EPS attach (with   | pc_eFDD, | px_RATComb_  | 1 Execution (Note   |                |
|            | The state of the s | 1.51.0 |      | or without pre-configuration)  | pc_UTRA, | Tested.      | 1)                  |                |
|            |  |        |      | The state of the s | pc_GERAN | px_SinglePLM | ''                  |                |
|            |  |        |      |  |          | N Tested     |                     |                |
| I          | 1  | 1 1    |      | 1  |          | 11_10316U    | 1                   |                |

|             |   |       |      |   | pc_eTDD,<br>pc_UTRA, |   | Rel-9 UTRA TDD |
|-------------|---|-------|------|---|----------------------|---|----------------|
|             |   |       |      |   | pc_GERAN             |   |                |
| 9.2.1.1.13  | Attach / Rejected / PLMN not allowed  | Rel-8 | C04  | UEs supporting E-UTRA and EPS attach (with or without pre-configuration)  | pc_eFDD              | Either TC<br>9.2.1.1.13 or TC<br>9.2.1.1.13a shall be<br>executed. (Note 4) |                |
|             |   |       |      |   | pc eTDD              | , ,   |                |
| 9.2.1.1.13a | Attach / Rejected / PLMN not allowed / Single Frequency operation   | Rel-8 | C04  | UEs supporting E-UTRA and EPS attach (with or without pre-configuration). This test is 'cells on single frequency only' equivalent of TC 9.2.1.1.13 | pc_eFDD              | Either TC<br>9.2.1.1.13 or TC<br>9.2.1.1.13a shall be<br>executed. (Note 4) |                |
|             |   |       |      |   | pc_eTDD              |   |                |
| 9.2.1.1.14  | Attach / Rejected / Tracking area not allowed   | Rel-8 | C04  | UEs supporting E-UTRA and EPS attach (with or without pre-configuration)  | pc_eFDD              |   |                |
|             |   |       |      |   | pc_eTDD              |   |                |
| 9.2.1.1.15  | Attach / Rejected / Roaming not allowed in this tracking area   | Rel-8 | C04  | UEs supporting E-UTRA and EPS attach (with or without pre-configuration)  | pc_eFDD              | Either TC<br>9.2.1.1.15 or TC<br>9.2.1.1.15a shall be<br>executed. (Note 4) |                |
|             |   |       |      |   | pc_eTDD              |   |                |
| 9.2.1.1.15a | Attach / Rejected / Roaming not allowed in this tracking area / Single Frequency operation  | Rel-8 | C04  | UEs supporting E-UTRA and EPS attach (with or without pre-configuration). This test is 'cells on single frequency only' equivalent of TC 9.2.1.1.15 | pc_eFDD              | Either TC<br>9.2.1.1.15 or TC<br>9.2.1.1.15a shall be<br>executed. (Note 4) |                |
|             |   |       |      |   | pc_eTDD              | , ,   |                |
| 9.2.1.1.16  | Attach / Rejected / EPS services not allowed in this PLMN   | Rel-8 | C04  | UEs supporting E-UTRA and EPS attach (with or without pre-configuration)  | pc_eFDD              | Either TC<br>9.2.1.1.16 or TC<br>9.2.1.1.16a shall be<br>executed. (Note 4) |                |
|             |   |       |      |   | pc_eTDD              |   |                |
| 9.2.1.1.16a | Attach / Rejected / EPS services not allowed in this PLMN / Single Frequency operation  | Rel-8 | C04  | UEs supporting E-UTRA and EPS attach (with or without pre-configuration). This test is 'cells on single frequency only' equivalent of TC 9.2.1.1.16 | pc_eFDD              | Either TC<br>9.2.1.1.16 or TC<br>9.2.1.1.16a shall be<br>executed. (Note 4) |                |
|             |   |       |      |   | pc_eTDD              |   |                |
| 9.2.1.1.17  | Attach / Rejected / No suitable cells in tracking area  | Rel-8 | C04  | UEs supporting E-UTRA and EPS attach (with or without pre-configuration)  | pc_eFDD              |   |                |
|             |   |       |      |   | pc_eTDD              |   |                |
| 9.2.1.1.18  | Attach / Rejected / Not authorized for this CSG   | Rel-8 | C286 | UEs supporting E-UTRA and allowed CSG list<br>and EPS attach (with or without pre-<br>configuration) and NOT Category M1                            | pc_eFDD              |   |                |
|             |   |       |      |   | pc_eTDD              |   |                |
| 9.2.1.1.19  | Attach / Abnormal case / Failure due to non integrity protection  | Rel-8 | R    | UEs supporting E-UTRA   | pc_eFDD              |   |                |
|             |   |       |      |   | pc_eTDD              |   |                |
|             | Attach / Abnormal case / Access barred because of access class barring or NAS signalling connection establishment rejected by the network | Rel-8 | C04  | UEs supporting E-UTRA and EPS attach (with or without pre-configuration)  | pc_eFDD              |   |                |
|             |   |       |      |   | pc eTDD              |   | +              |
| 1           |   | 1     |      | 1   | IPC_CIDD             |   | 1              |

| 9.2.1.1.21  | Void   |                            |      |   |         |  |
|-------------|--|----------------------------|------|---|---------|--|
| 9.2.1.1.22  | Attach / Abnormal case / Unsuccessful attach after 5 attempts                          | Rel-8                      | C04  | UEs supporting E-UTRA and EPS attach (with or without pre-configuration)  | pc_eFDD |  |
|             | arter 5 attempts   |                            |      | or without pre-configuration)   | pc_eTDD |  |
| 9.2.1.1.23  | Attach / Abnormal case / Repeated rejects for network failures                         | Rel-8                      | C04  | UEs supporting E-UTRA and EPS attach (with or without configuration)  | pc_eFDD |  |
|             | network failures   |                            |      | or without configuration)   | pc eTDD |  |
| 9.2.1.1.24  | Attach / Abnormal case / Change of cell into a   | Rel-8                      | R    | UEs supporting E-UTRA   | pc_eFDD |  |
| 9.2.1.1.24  | new tracking area  | Kei-o                      | K    | DES Supporting E-OTKA   |         |  |
|             |  |                            |      |   | pc_eTDD |  |
| 9.2.1.1.25  | Attach / Abnormal case / Mobile originated detach required                             | Rel-8                      | R    | UEs supporting E-UTRA   | pc_eFDD |  |
|             | ·  |                            |      |   | pc_eTDD |  |
| 9.2.1.1.26  | Attach / Abnormal case / Detach procedure collision                                    | Rel-8                      | R    | UEs supporting E-UTRA   | pc_eFDD |  |
|             |  |                            |      |   | pc_eTDD |  |
| 9.2.1.1.27  | Attach / Abnormal case / Network reject with<br>Extended Wait Timer                    | Rel-10                     | C250 | UEs supporting E-UTRA and LAP and EPS attach (with or without pre-configuration)  | pc_eFDD |  |
|             |  |                            |      |   | pc_eTDD |  |
| 9.2.1.1.27a | Attach Procedure / EAB broadcast handling / ExtendedAccessBarring configured in the UE | Rel-11                     | C261 | UEs supporting E-UTRA and EAB and LAP and EPS attach (with or without pre-configuration)  | pc_eFDD |  |
|             |  |                            |      |   | pc_eTDD |  |
| 9.2.1.1.27b | Attach / EAB / CE-level based access barring   | Rel-15                     | C386 | UEs supporting E-UTRA and EAB and EPS attach (with or without pre-configuration) and (CE mode A or CE mode B)   | pc_eFDD |  |
|             |  |                            |      |   | pc_eTDD |  |
| 9.2.1.1.28  | Attach / Success / IMS   | Rel-8                      | C210 | UEs supporting E-UTRA and VoLTE in GSMA   | pc_eFDD |  |
|             |  |                            |      | PRD IR.92: "IMS Profile for Voice and SMS" and UE Configured with IMS APN as default APN or to provide IMS APN.   | pc_eTDD |  |
| 9.2.1.1.28a | Attach / Success / IMS / Second PDN  | Rel-8                      | C211 | UEs supporting E-UTRA and VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS" and UE Configured to provide IMS APN as the second PDN connection.   | pc_eFDD |  |
|             |  |                            |      |   | pc_eTDD |  |
| 9.2.1.1.28b | Attach / Success / IMS / New P-CSCF Discovery using PCO                                | Rel-8                      | C210 | UEs supporting E-UTRA and VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS" and UE Configured with IMS APN as default APN or to provide IMS APN. | pc_eFDD |  |
|             |  |                            |      |   | pc_eTDD |  |
| 9.2.1.1.29  | Attach / Rejected / IMEI not accepted  | Rel-9                      | C366 | UEs supporting E-UTRA and IMS emergency call and no USIM test execution   | pc_eFDD |  |
|             |  |                            |      |   | pc_eTDD |  |
| 9.2.1.1.30  | Void   |                            |      |   |         |  |
| 9.2.1.1.31  | Attach / Success / Extended and spare fields in UE Network Capability                  | Rel-8 to<br>Rel-12<br>only | R    | UEs supporting E-UTRA   | pc_eFDD |  |
| 9.2.1.2.1   | Combined attach procedure / Success / EPS and non-EPS services                         | Rel-8                      | C02a | UEs supporting E-UTRA and combined EPS/IMSI attach (with or without preconfiguration) and NOT Category M1   | pc_eFDD |  |

|            |   |        |      |  | pc_eTDD  |                       |   |                |
|------------|---|--------|------|--|--|-----------------------|---|----------------|
| 9.2.1.2.1b | Combined attach procedure / Success / SMS only  | Rel-8  | C128 | UEs supporting E-UTRA and UTRA or/and E-<br>UTRA and GERAN, and combined EPS/IMSI<br>attach and NOT Category M1  | pc_eFDD,<br>pc_UTRA,<br>pc_GERAN<br>pc_eTDD,<br>pc_UTRA,<br>pc_GERAN | px_RATComb_<br>Tested | 1 or 2 Executions<br>(Note 2 AND Note<br>6) | Rel-9 UTRA TDD |
| 9.2.1.2.1c | Combined attach procedure / Success / EPS and CS Fallback not preferred                 | Rel-8  | C86a | UEs supporting E-UTRA and UTRA and combined EPS/IMSI attach (with or without preconfiguration) and CS fallback and configured to CS/PS mode 1 (voice centric) and NOT Category M1                            | pc_eFDD  |                       |   |                |
|            |   |        |      |  | pc_eTDD  |                       |   | Rel-9 UTRA TDD |
| 9.2.1.2.1d | Combined attach procedure / Success / EPS and CS Fallback not preferred/data centric UE | Rel-8  | C87b | UEs supporting E-UTRA and UTRA and combined EPS/IMSI attach (with or without preconfiguration) and CS fallback (and implicitly SMSoverSGs) and configured to CS/PS mode 2 (data centric) and NOT Category M1 | pc_eFDD  |                       |   |                |
|            |   |        |      |  | pc_eTDD  |                       |   | Rel-9 UTRA TDD |
| 9.2.1.2.2  | Combined attach procedure / Success / EPS services only / IMSI unknown in HSS           | Rel-8  | C02  | UEs supporting E-UTRA and combined EPS/IMSI attach (with or without preconfiguration)  | pc_eFDD  |                       |   |                |
|            |   |        |      | g. d. ,  | pc_eTDD  |                       |   |                |
| 9.2.1.2.3  | Successful combined attach procedure / EPS service only / MSC temporarily not reachable | Rel-8  | C02a | UEs supporting E-UTRA and combined EPS/IMSI attach (with or without preconfiguration) and NOT Category M1  | pc_eFDD  |                       |   |                |
|            |   |        |      |  | pc_eTDD  |                       |   |                |
| 9.2.1.2.4  | Successful combined attach procedure / EPS service only / CS domain not available       | Rel-8  | C125 | UEs supporting E-UTRA and combined<br>EPS/IMSI attach (with or without pre-<br>configuration) and (CS/PS Mode 2 or CS/PS<br>Mode 1 with IMS Voice Support) and NOT<br>Category M1                            | pc_eFDD  |                       |   |                |
|            |   |        |      |  | pc_eTDD  |                       |   |                |
| 9.2.1.2.4a | Successful combined attach procedure / EPS service only / Congestion                    | Rel-11 | C02a | UEs supporting E-UTRA and combined EPS/IMSI attach (with or without preconfiguration) and NOT Category M1  | pc_eFDD  |                       |   |                |
|            |   |        |      |  | pc_eTDD  |                       |   |                |
| 9.2.1.2.5  | Combined attach / Rejected / IMSI invalid   | Rel-8  | C128 | UEs supporting E-UTRA and UTRA or/and E-<br>UTRA and GERAN, and combined EPS/IMSI<br>attach (with or without pre-configuration) and<br>NOT Category M1   | pc_eFDD,<br>pc_UTRA,<br>pc_GERAN                                     | px_RATComb_<br>Tested | 1 Execution (Note 2)                        |                |
|            |   |        |      |  | pc_eTDD,<br>pc_UTRA,<br>pc_GERAN                                     |                       |   | Rel-9 UTRA TDD |
| 9.2.1.2.6  | Combined attach / Rejected / Illegal ME   | Rel-8  | C128 | UEs supporting E-UTRA and UTRA or/and E-<br>UTRA and GERAN, and, combined EPS/IMSI<br>attach (with or without pre-configuration) and<br>NOT Category M1  | pc_eFDD,<br>pc_UTRA,<br>pc_GERAN                                     | px_RATComb_<br>Tested | 1 Execution (Note 2)                        |                |
|            |   |        |      |  | pc_eTDD,<br>pc_UTRA,<br>pc_GERAN                                     |                       |   | Rel-9 UTRA TDD |

| 9.2.1.2.7  | Combined attach / Rejected / EPS services and non-EPS services not allowed | Rel-8 | C128 | UEs supporting E-UTRA and UTRA or/and E-<br>UTRA and GERAN, and, combined EPS/IMSI<br>attach (with or without pre-configuration) and<br>NOT Category M1  | pc_eFDD,<br>pc_UTRA,<br>pc_GERAN | px_RATComb_<br>Tested | 1 Execution (Note 2) |                |
|------------|--|-------|------|--|----------------------------------|-----------------------|----------------------|----------------|
|            |  |       |      |  | pc_eTDD,<br>pc_UTRA,<br>pc_GERAN |                       |                      | Rel-9 UTRA TDD |
| 9.2.1.2.8  | Combined attach / Rejected / EPS services not allowed                      | Rel-8 | C128 | UEs supporting E-UTRA and UTRA or/and E-<br>UTRA and GERAN, and, combined EPS/IMSI<br>attach (with or without pre-configuration) and<br>NOT Category M1  | pc_eFDD,<br>pc_UTRA,<br>pc_GERAN | px_RATComb_<br>Tested | 1 Execution (Note 2) |                |
|            |  |       |      |  | pc_eTDD,<br>pc_UTRA,<br>pc_GERAN |                       |                      | Rel-9 UTRA TDD |
| 9.2.1.2.9  | Combined attach / Rejected / PLMN not allowed                              | Rel-8 | C128 | UEs supporting E-UTRA and UTRAN or/and E-<br>UTRA and GERAN, and, combined EPS/IMSI<br>attach (with or without pre-configuration) and<br>NOT Category M1 | pc_eFDD,<br>pc_UTRA,<br>pc_GERAN | px_RATComb_<br>Tested | 1 Execution (Note 2) |                |
|            |  |       |      |  | pc_eTDD,<br>pc_UTRA,<br>pc_GERAN |                       |                      | Rel-9 UTRA TDD |
| 9.2.1.2.10 | Combined attach / Rejected / Tracking area not allowed                     | Rel-8 | C02a | UEs supporting E-UTRA and combined<br>EPS/IMSI attach (with or without pre-<br>configuration) and NOT Category M1  | pc_eFDD                          |                       |                      |                |
|            |  |       |      |  | pc_eTDD                          |                       |                      |                |
| 9.2.1.2.11 | Combined attach / Rejected / Roaming not allowed in this tracking area     | Rel-8 | C128 | UEs supporting E-UTRA and UTRA or/and E-<br>UTRA and GERAN, and, combined EPS/IMSI<br>attach (with or without pre-configuration) and<br>NOT Category M1  | pc_eFDD,<br>pc_UTRA,<br>pc_GERAN | px_RATComb_<br>Tested | 1 Execution (Note 2) |                |
|            |  |       |      |  | pc_eTDD,<br>pc_UTRA,<br>pc_GERAN |                       |                      | Rel-9 UTRA TDD |
| 9.2.1.2.12 | Combined attach / Rejected / EPS services not allowed in this PLMN         | Rel-8 | C02a | UEs supporting E-UTRA and combined EPS/IMSI attach (with or without preconfiguration) and NOT Category M1  | pc_eFDD                          |                       |                      |                |
|            |  |       |      |  | pc_eTDD                          |                       |                      |                |
| 9.2.1.2.13 | Combined attach / Rejected / No suitable cells in tracking area            | Rel-8 | C128 | UEs supporting E-UTRA and UTRA or/and E-<br>UTRA and GERAN, and, combined EPS/IMSI<br>attach (with or without pre-configuration) and<br>NOT Category M1  | pc_eFDD,<br>pc_UTRA,<br>pc_GERAN | px_RATComb_<br>Tested | 1 Execution (Note 2) |                |
|            |  |       |      |  | pc_eTDD,<br>pc_UTRA,<br>pc_GERAN |                       |                      | Rel-9 UTRA TDD |
| 9.2.1.2.14 | Combined attach / Rejected / Not authorized for this CSG                   | Rel-8 | C123 | UEs supporting E-UTRA and allowed CSG list and combined EPS/IMSI attach (with or without pre-configuration) and NOT Category M1                          | pc_eFDD                          |                       |                      |                |
|            |  |       |      |  | pc_eTDD                          |                       |                      | 1              |

| 9.2.1.2.15 | Combined attach / Abnormal case / Handling of the EPS attach attempt counter                   | Rel-8 | C128 | UEs supporting E-UTRA and UTRA or/and E-<br>UTRA and GERAN, and, combined EPS/IMSI<br>attach (with or without pre-configuration) and<br>NOT Category M1                                   | pc_eFDD,<br>pc_UTRA,<br>pc_GERAN   | px_RATComb_<br>Tested | 1 Execution (Note 2) |                |
|------------|--|-------|------|---|--|-----------------------|----------------------|----------------|
|            |  |       |      |   | pc_eTDD,<br>pc_UTRA,<br>pc_GERAN   |                       |                      | Rel-9 UTRA TDD |
| 9.2.2.1.1  | UE initiated detach / UE switched off  | Rel-8 | C53  | UEs supporting E-UTRA and switch on/off   | pc_eFDD<br>pc_eTDD   |                       |                      |                |
| 9.2.2.1.2  | UE initiated detach / USIM removed from the UE   | Rel-8 | C03  | UEs supporting E-UTRA and USIM removal without power down   | pc_eFDD,<br>pc_USIM_Rem<br>oval  |                       |                      |                |
|            |  |       |      |   | pc_eTDD,<br>pc_USIM_Rem<br>oval  |                       |                      |                |
| 9.2.2.1.3  | UE initiated detach / EPS capability of the UE is disabled                                     | Rel-8 | C153 | UEs supporting E-UTRA and UTRA or/and E-<br>UTRA and GERAN, and, combined EPS/IMSI<br>attach (with or without pre-configuration) and<br>disabling the EPS services and NOT Category<br>M1 | pc_eFDD,<br>pc_UTRA,<br>pc_GERAN<br>pc_EPS_Disabl<br>e,<br>pc_Dynamic_G<br>ERAN_Rel_do | px_RATComb_<br>Tested | 1 Execution (Note 2) |                |
|            |  |       |      |   | wngrade pc_eTDD. pc_UTRA, pc_GERAN pc_EPS_Disabl e                                     | _                     |                      |                |
| 9.2.2.1.4  | UE initiated detach / detach for non-EPS services  | Rel-8 | C106 | UEs supporting E-UTRA and detach for non-<br>EPS services, and combined EPS/IMSI attach   | pc_eFDD,<br>pc_IMSI_Detac<br>h<br>pc_eTDD,   |                       |                      |                |
|            |  |       |      |   | pc_IMSI_Detac  |                       |                      |                |
| 9.2.2.1.5  | Void   |       |      |   |  |                       |                      |                |
| 9.2.2.1.6  | UE initiated detach / Abnormal case / Local detach after 5 attempts due to no network response | Rel-8 | R    | UEs supporting E-UTRA   | pc_eFDD  |                       |                      |                |
|            |  |       |      |   | pc_eTDD  |                       |                      |                |
| 9.2.2.1.7  | UE initiated detach / Abnormal case / Detach procedure collision                               | Rel-8 | R    | UEs supporting E-UTRA   | pc_eFDD,<br>pc_Re_Attach_<br>AfterDetachColl   |                       |                      |                |
|            |  |       |      |   | pc_eTDD,<br>pc_Re_Attach_<br>AfterDetachColl   |                       |                      |                |
| 9.2.2.1.8  | UE initiated detach / Abnormal case / Detach and EMM common procedure collision                | Rel-8 | C53  | UEs supporting E-UTRA and switch on/off   | pc_eFDD<br>pc_eTDD   |                       |                      |                |
| 9.2.2.1.9  | UE initiated detach / Abnormal case / Change of cell into a new tracking area                  | Rel-8 | C12  | UEs supporting E-UTRA or (CE Mode A and<br>"eventA3 for intra-frequency neighbouring cells<br>in normal coverage CE Mode A" and "intra-   | pc_eFDD  |                       |                      |                |

|            |   |        |      | frequency handover to target cell in normal   |         |         |                |
|------------|---|--------|------|---|---------|---------|----------------|
|            |   |        |      | coverage and CE Mode A")  |         |         |                |
|            |   |        |      |   | pc_eTDD |         |                |
| 9.2.2.1.10 | UE initiated detach / Mapped security context   | Rel-8  | C01  | UEs supporting E-UTRA and UTRA and NOT Category M1  | pc_eFDD |         |                |
|            |   |        |      |   | pc_eTDD |         | Rel-9 UTRA TDD |
| 9.2.2.2.1  | NW initiated detach / Re-attach required  | Rel-8  | R    | UEs supporting E-UTRA   | pc_eFDD |         |                |
|            | '   |        |      |   | pc_eTDD |         |                |
| 9.2.2.2.2  | NW initiated detach / IMSI detach   | Rel-8  | C02a | UEs supporting E-UTRA and combined EPS/IMSI attach (with or without preconfiguration) and NOT Category M1 | pc_eFDD |         |                |
|            |   |        |      |   | pc_eTDD |         |                |
| 9.2.2.2.3  | Void  |        |      |   |         |         |                |
| 9.2.2.2.4  | Void  |        |      |   |         |         |                |
| 9.2.2.2.5  | Void  |        |      |   |         |         |                |
| 9.2.2.2.6  | Void  |        |      |   |         |         |                |
| 9.2.2.2.7  | Void  |        |      |   |         |         |                |
| 9.2.2.2.8  | Void  |        |      |   |         |         |                |
| 9.2.2.2.9  | Void  |        |      |   |         |         |                |
| 9.2.2.2.10 | Void  |        |      |   |         |         |                |
| 9.2.2.2.11 | Void  |        |      |   |         |         |                |
| 9.2.2.2.12 | Void  |        |      |   |         |         |                |
| 9.2.2.2.13 | Void  |        |      |   |         |         |                |
| 9.2.2.2.14 | NW initiated detach / Abnormal case / EMM cause not included                                      | Rel-8  | R    | UEs supporting E-UTRA   | pc_eFDD |         |                |
|            |   |        |      |   | pc_eTDD |         |                |
| 9.2.3.1.1  | Normal tracking area update / Accepted  | Rel-8  | C04  | UEs supporting E-UTRA and EPS attach (with or without pre-configuration)                                  | pc_eFDD |         |                |
|            |   |        |      |   | pc_eTDD |         |                |
| 9.2.3.1.1a | Normal tracking area update / Accepted / PSM  | Rel-12 | C247 | UEs supporting E-UTRA and EPS attach (with or without pre-configuration) and Power Saving Mode            | pc_eFDD | Note 17 |                |
|            |   |        |      |   | pc_eTDD |         |                |
| 9.2.3.1.1b | Normal tracking area update / Accepted / DCN  | Rel-14 | C04  | UEs supporting E-UTRA and EPS attach (with  | pc_eFDD |         |                |
|            |   |        |      | or without pre-configuration)   | pc_eTDD |         |                |
| 9.2.3.1.2  | Void  |        |      |   |         |         |                |
| 9.2.3.1.3  | Void  |        |      |   |         |         |                |
| 9.2.3.1.4  | Normal tracking area update / List of equivalent PLMNs in the TRACKING AREA UPDATE ACCEPT message | Rel-8  | R    | UEs supporting E-UTRA   | pc_eFDD |         |                |
|            |   |        |      |   | pc eTDD |         |                |
| 9.2.3.1.5  | Periodic tracking area update / Accepted  | Rel-8  | R    | UEs supporting E-UTRA   | pc eFDD |         |                |
|            | 3 J   |        |      |   | pc_eTDD |         |                |
| 9.2.3.1.5a | Periodic tracking area update / Accepted / Perdevice timer  | Rel-10 | C174 | UEs supporting E-UTRA and T3412 Extended IE   | pc_eFDD |         |                |
|            |   |        |      |   | pc_eTDD |         |                |
| 9.2.3.1.5b | Periodic tracking area update / Accepted / PSM / T3412 Extended Value                             | Rel-12 | C247 | UEs supporting E-UTRA and EPS attach (with or without pre-configuration) and Power Saving Mode            | pc_eFDD | Note 17 |                |
|            |   |        |      |   | pc eTDD |         |                |
|            |   |        |      |   | IF      |         | 1              |

| 9.2.3.1.6  | Normal tracking area update / UE with ISR active moves to E-UTRAN   | Rel-8  | C27  | UEs supporting E-UTRA and UTRA or/and E-<br>UTRA and GERAN, and, ISR and NOT<br>Category M1                  | pc_eFDD,<br>pc_UTRA,<br>pc_GERAN<br>pc_eTDD,<br>pc_UTRA,<br>pc_GERAN | px_RATComb_<br>Tested | 1 Execution (Note 2) | Rel-9 UTRA TDD |
|------------|---|--------|------|--|--|-----------------------|----------------------|----------------|
| 9.2.3.1.7  | Void  |        |      |  |  |                       |                      |                |
| 9.2.3.1.8  | UE receives an indication that the RRC connection was released with cause "load balancing TAU required"   | Rel-8  | R    | UEs supporting E-UTRA  | pc_eFDD  |                       |                      |                |
|            |   |        |      |  | pc_eTDD  |                       |                      |                |
|            | Normal tracking area update / low priority override   | Rel-11 | C195 | UEs supporting E-UTRA and LAP and LAP override and EPS attach (with or without preconfiguration)             | pc_eFDD  |                       |                      |                |
|            |   |        |      |  | pc_eTDD  |                       |                      |                |
| 9.2.3.1.8b | Normal tracking area update / EAB broadcast handling / ExtendedAccessBarring configured in the UE / ExtendedAccessBarring and Override_ExtendedAccessBarring configured in the UE | Rel-11 | C197 | UEs supporting E-UTRA and EAB and EAB override and LAP and EPS attach (with or without pre-configuration)    | pc_eFDD  |                       |                      |                |
|            |   |        |      |  | pc eTDD  |                       |                      |                |
|            | Normal tracking area update / Correct handling of CSG list  | Rel-8  | C143 | UEs supporting E-UTRA and allowed CSG list<br>and manual CSG selection and EPS attach and<br>NOT Category M1 | pc_eFDD  |                       |                      |                |
|            |   |        |      |  | pc_eTDD  |                       |                      |                |

| 9.2.3.1.9a | Normal tracking area update / NAS signalling connection recovery | Rel-8 | R   |  | pc_eFDD pc_eTDD  |  |                         |                |
|------------|--|-------|-----|--|--|--|-------------------------|----------------|
| 9.2.3.1.10 | Normal tracking area update /<br>Rejected / IMSI invalid         | Rel-8 | C04 | UEs supporting E-UTRA and EPS attach (with or without pre-configuration) | pc_eFDD,<br>pc_UTRA,<br>pc_GERAN                                     | px_RATComb_T<br>ested,<br>px_SinglePLMN<br>_Tested | 1 Execution (Note<br>1) |                |
|            |  |       |     |  | pc_eTDD,<br>pc_UTRA,<br>pc_GERAN                                     |  |                         | Rel-9 UTRA TDD |
| 9.2.3.1.11 | Normal tracking area update /<br>Rejected / Illegal ME           | Rel-8 | C04 | UEs supporting E-UTRA and EPS attach (with or without pre-configuration) | pc_eFDD,<br>pc_UTRA,<br>pc_GERAN<br>pc_eTDD,<br>pc_UTRA,<br>pc_GERAN | px_RATComb_T ested                                 | 1 Execution (Note 1)    | Rel-9 UTRA TDD |

| 9.2.3.1.12  | Normal tracking area update /<br>Rejected / EPS service not allowed                          | Rel-8 | C04 |   | pc_eFDD,<br>pc_UTRA,<br>pc_GERAN | px_RATComb_T ested                                 | 1 Execution (Note 1)  |                |
|-------------|--|-------|-----|---|----------------------------------|--|---|----------------|
|             |  |       |     |   | pc_eTDD,<br>pc_UTRA,<br>pc_GERAN |  |   | Rel-9 UTRA TDD |
| 9.2.3.1.13  | Normal tracking area update /<br>Rejected / UE identity cannot be<br>derived by the network  | Rel-8 | C04 | UEs supporting E-UTRA and EPS attach (with or without pre-configuration)  | pc_eFDD                          |  |   |                |
|             |  |       |     |   | pc_eTDD                          |  |   |                |
| 9.2.3.1.14  | Normal tracking area update /<br>Rejected / UE implicitly detached                           | Rel-8 | C04 | or without pre-configuration)   | pc_eFDD                          |  |   |                |
|             |  |       |     |   | pc_eTDD                          |  |   |                |
| 9.2.3.1.15  | Normal tracking area update /<br>Rejected / PLMN not allowed                                 | Rel-8 | C04 | UEs supporting E-UTRA and EPS attach (with or without pre-configuration)  | pc_eFDD,<br>pc_UTRA,<br>pc_GERAN | px_RATComb_T<br>ested                              | 1 Execution (Note<br>1) Either TC<br>9.2.3.1.15 or TC<br>9.2.3.1.15a shall be<br>executed. (Note 4) |                |
|             |  |       |     |   | pc_eTDD,<br>pc_UTRA,<br>pc_GERAN |  | , ,   | Rel-9 UTRA TDD |
| 9.2.3.1.15a | Normal tracking area update /<br>Rejected / PLMN not allowed /<br>Single Frequency operation | Rel-8 | C04 | UEs supporting E-UTRA and EPS attach (with or without pre-configuration). This test is 'cells on single frequency only' equivalent of TC 9.2.3.1.15 | pc_eFDD,<br>pc_UTRA,<br>pc_GERAN | px_RATComb_T<br>ested                              | 1 Execution (Note<br>1) Either TC<br>9.2.3.1.15 or TC<br>9.2.3.1.15a shall be<br>executed. (Note 4) |                |
|             |  |       |     |   | pc_eTDD,<br>pc_UTRA,<br>pc_GERAN |  | ,   | Rel-9 UTRA TDD |
| 9.2.3.1.16  | Normal tracking area update /<br>Rejected / Tracking area not allowed                        | Rel-8 | C04 |   | pc_eFDD                          |  |   |                |
|             |  |       |     |   | pc_eTDD                          |  |   |                |
| 9.2.3.1.17  | Normal tracking area update /<br>Rejected / Roaming not allowed in<br>this tracking area     | Rel-8 | C04 |   | pc_eFDD,<br>pc_UTRA,<br>pc_GERAN | px_RATComb_T<br>ested,<br>px_SinglePLMN<br>_Tested | 1 Execution (Note<br>1)   |                |
|             |  |       |     |   | pc_eTDD,<br>pc_UTRA,<br>pc_GERAN |  |   | Rel-9 UTRA TDD |
| R           | Normal tracking area update /<br>Rejected / EPS services not allowed<br>in this PLMN         | Rel-8 | C04 | UEs supporting E-UTRA and EPS attach (with or without pre-configuration)  | pc_eFDD,<br>pc_UTRA,<br>pc_GERAN | px_RATComb_T<br>ested                              | 1 Execution (Note<br>1) Either TC<br>9.2.3.1.18 or TC<br>9.2.3.1.18a shall be<br>executed. (Note 4) |                |
|             |  |       |     |   | pc_eTDD,<br>pc_UTRA,<br>pc_GERAN |  |   | Rel-9 UTRA TDD |

| 9.2.3.1.18a | Normal tracking area update /<br>Rejected / EPS services not allowed<br>in this PLMN / Single Frequency<br>operation   | Rel-8  | C04 | UEs supporting E-UTRA and EPS attach (with or without pre-configuration). This test is 'cells on single frequency only' equivalent of TC 9.2.3.1.18 | pc_eFDD, pc_UTRA, pc_GERAN  pc_eTDD, pc_UTRA, pc GERAN | px_RATComb_T ested | 1 Execution (Note<br>1) Either TC<br>9.2.3.1.18 or TC<br>9.2.3.1.18a shall be<br>executed. (Note 4) | Rel-9 UTRA TDD |
|-------------|--|--------|-----|---|--|--------------------|---|----------------|
| 9.2.3.1.19  | Normal tracking area update /<br>Rejected / No suitable cells in<br>tracking area  | Rel-8  | C04 | UEs supporting E-UTRA and EPS attach (with or without pre-configuration)  | pc_eFDD  |                    |   |                |
| 9.2.3.1.20  | Normal tracking area update /<br>Rejected / Not authorized for this<br>CSG   | Rel-8  | C47 | UEs supporting E-UTRA and EPS attach (with or without configuration) and allowed CSG list   | pc_eTDD pc_eFDD pc_eTDD                                |                    |   |                |
| 9.2.3.1.20a | Normal tracking area update /<br>Rejected / Congestion   | Rel-10 | R   | UEs supporting E-UTRA   | pc_eFDD pc_eFDD  |                    |   |                |
| 9.2.3.1.21  | Void   |        |     |   | ро_ствв  |                    |   |                |
| 9.2.3.1.22  | Normal tracking area update / Abnormal case / access barred due to access class control or NAS signalling connection establishment rejected by the network   | Rel-8  | R   | UEs supporting E-UTRA   | pc_eFDD  |                    |   |                |
| 9.2.3.1.23  | Normal tracking area update /<br>Abnormal case / Success after<br>several attempts due to no network<br>response / TA belongs to TAI list<br>and status is UPDATED / TA does<br>not belong to TAI list or status is not<br>UPDATED | Rel-8  | R   | UEs supporting E-UTRA   | pc_eFDD  |                    |   |                |
| 9.2.3.1.24  | Void   |        |     |   | pc_crbb  |                    |   |                |
| 9.2.3.1.25  | Normal tracking area update /<br>Abnormal case / Failure after 5<br>attempts due to no network<br>response   | Rel-8  | C04 | UEs supporting E-UTRA and EPS attach (with or without configuration)  | pc_eFDD  |                    |   |                |
| 9.2.3.1.26  | Normal tracking area update / Abnormal case / TRACKING AREA UPDATE REJECT  | Rel-8  | C04 | UEs supporting E-UTRA and EPS attach (with or without configuration)  | pc_eFDD  |                    |   |                |
|             |  |        |     |   | pc_eTDD  |                    |   |                |
| 9.2.3.1.27  | Normal tracking area update /<br>Abnormal case / Change of cell into<br>a new tracking area  | Rel-8  | R   | UEs supporting E-UTRA   | pc_eFDD pc_eFDD  |                    |   |                |
| 9.2.3.1.28  | Normal tracking area update /<br>Abnormal case / Tracking area<br>updating and detach procedure<br>collision   | Rel-8  | R   | UEs supporting E-UTRA   | pc_eFDD  |                    |   |                |

|            |  |        |            |   | pc_eTDD                          |                       |   |                |
|------------|--|--------|------------|---|----------------------------------|-----------------------|---|----------------|
| 9.2.3.2.1  | Combined tracking area update /<br>Successful  | Rel-8  | C02a       | UEs supporting E-UTRA and combined<br>EPS/IMSI attach (with or without pre-<br>configuration) and NOT Category M1   | pc_eFDD                          |                       |   |                |
|            |  |        |            |   | pc_eTDD                          |                       |   |                |
| 9.2.3.2.1a | Combined tracking area update /<br>Successful / Check of last visited<br>TAI and handling of TAI list, LAI and<br>TMSI | Rel-8  | C121       | UEs supporting E-UTRA and combined EPS/IMSI attach (with or without preconfiguration) and UTRA and NOT Category M1  | pc_eFDD                          |                       |   |                |
|            |  |        |            |   | pc_eTDD                          |                       |   | Rel-9 UTRA TDD |
| 9.2.3.2.1b | Combined tracking area update /<br>Success / SMS only  | Rel-8  | C128       | UEs supporting E-UTRA and UTRA or/and E-<br>UTRA and GERAN, and combined EPS/IMSI<br>attach and NOT Category M1   | pc_eFDD,<br>pc_UTRA,<br>pc_GERAN | px_RATComb_T<br>ested | 1 or 2 Executions<br>(Note 2 AND Note<br>6) |                |
|            |  |        |            |   | pc_eTDD,<br>pc_UTRA,<br>pc_GERAN |                       | ,   | Rel-9 UTRA TDD |
| 9.2.3.2.1c | Combined tracking area update /<br>Success / CS Fallback not preferred   | Rel-8  | C287       | UEs supporting E-UTRA and UTRA and combined EPS/IMSI attach (with or without pre-configuration) and CS fallback (and implicitly SMSoverSGs) and configured to CS/PS Mode 2 (data centric) and NOT Category M1 | pc_eFDD                          |                       |   |                |
|            |  |        |            |   | pc_eTDD                          |                       |   | Rel-9 UTRA TDD |
| 9.2.3.2.2  | Combined tracking area update /<br>Successful for EPS services only /<br>IMSI unknown in HSS                           | Rel-8  | C02a       | UEs supporting E-UTRA and combined<br>EPS/IMSI attach (with or without pre-<br>configuration) and NOT Category M1   | pc_eFDD                          |                       |   |                |
|            |  |        |            |   | pc_eTDD                          |                       |   |                |
| 9.2.3.2.3  | Combined tracking area update /<br>Successful for EPS services only /<br>MSC temporarily not reachable                 | Rel-8  | C128       | UEs supporting E-UTRA and UTRA or/and E-<br>UTRA and GERAN, and, combined EPS/IMSI<br>attach (with or without pre-configuration) and<br>NOT Category M1   | pc_eFDD,<br>pc_UTRA,<br>pc_GERAN | px_RATComb_T<br>ested | 1 or 2 Executions<br>(Note 2 AND Note<br>6) |                |
|            |  |        |            |   | pc_eTDD,<br>pc_UTRA,<br>pc_GERAN |                       |   | Rel-9 UTRA TDD |
| 9.2.3.2.4  | Combined tracking area update /<br>Successful for EPS services only /<br>CS domain not available                       | Rel-8  | C125       | UEs supporting E-UTRA and combined<br>EPS/IMSI attach (with or without pre-<br>configuration) and (CS/PS Mode 2 or CS/PS<br>Mode 1 with IMS Voice Support and NOT<br>Category M1                              | pc_eFDD                          |                       |   |                |
|            |  |        |            |   | pc_eTDD                          |                       |   |                |
| 9.2.3.2.4a | Combined tracking area update /<br>Successful for EPS services only /<br>Congestion                                    | Rel-11 | C02a       | UEs supporting E-UTRA and combined<br>EPS/IMSI attach (with or without pre-<br>configuration) and NOT Category M1   | pc_eFDD                          |                       |   |                |
|            |  |        |            |   | pc_eTDD                          |                       |   |                |
| 0.2.3.2.5  | Combined tracking area update /<br>Rejected / IMSI invalid   | Rel-8  | Rel-8 C128 | UEs supporting E-UTRA and UTRA or/and E- p<br>UTRA and GERAN, and, combined EPS/IMSI p  | pc_eFDD,<br>pc_UTRA,<br>pc_GERAN | px_RATComb_T ested    | 1 Execution (Note 2)                        |                |
|            |  |        |            |   | pc_eTDD,<br>pc_UTRA,<br>pc_GERAN |                       |   | Rel-9 UTRA TDD |

| 9.2.3.2.6  | Combined tracking area update /<br>Rejected / Illegal ME  | Rel-8 | C128 | UEs supporting E-UTRA and UTRA or/and E-<br>UTRA and GERAN, and, combined EPS/IMSI<br>attach (with or without pre-configuration) and<br>NOT Category M1 | pc_eFDD,<br>pc_UTRA,<br>pc_GERAN            | px_RATComb_T<br>ested | 1 Execution (Note 2)               |                |
|------------|---|-------|------|---|---|-----------------------|------------------------------------|----------------|
|            |   |       |      |   | pc_eTDD,<br>pc_UTRA,<br>pc_GERAN            |                       |                                    | Rel-9 UTRA TDD |
| 9.2.3.2.7  | Combined tracking area update /<br>Rejected / EPS services and non-<br>EPS services not allowed | Rel-8 | C128 | UEs supporting E-UTRA and UTRA or/and E-<br>UTRA and GERAN, and, combined EPS/IMSI<br>attach (with or without configuration) and NOT<br>Category M1     | pc_eFDD,<br>pc_UTRA,<br>pc_GERAN            | px_RATComb_T<br>ested | 1 Execution (Note 2)               |                |
|            |   |       |      |   | pc_eTDD,<br>pc_UTRA,<br>pc_GERAN            |                       |                                    | Rel-9 UTRA TDD |
| 9.2.3.2.8  | Combined tracking area update /<br>Rejected / EPS services not allowed                          | Rel-8 | C128 | UEs supporting E-UTRA and UTRA or/and E-<br>UTRA and GERAN, and, combined EPS/IMSI<br>attach (with or without configuration) and NOT                    | pc_eFDD,<br>pc_UTRA,<br>pc_GERAN            | px_RATComb_T ested    | 1 Execution (Note 2<br>AND Note 5) |                |
|            |   |       |      | Category M1   | pc_eTDD,<br>pc_UTRA,<br>pc_GERAN            |                       |                                    | Rel-9 UTRA TDD |
| 9.2.3.2.9  | Combined tracking area update /<br>Rejected / UE identity cannot be<br>derived by the network   | Rel-8 | C128 | UEs supporting E-UTRA and UTRA or/and E-<br>UTRA and GERAN, and, combined EPS/IMSI<br>attach (with or without pre-configuration) and<br>NOT Category M1 | pc_eFDD,<br>pc_UTRA,<br>pc_GERAN            | px_RATComb_T<br>ested | 1 Execution (Note 2)               |                |
|            |   |       |      |   | pc_eTDD,<br>pc_UTRA,<br>pc_GERAN            |                       |                                    | Rel-9 UTRA TDD |
| 9.2.3.2.10 | Combined tracking area update /<br>Rejected / UE implicitly detached                            | Rel-8 | C02a | UEs supporting E-UTRA and combined<br>EPS/IMSI attach (with or without pre-<br>configuration) and NOT Category M1                                       | pc_eFDD                                     |                       |                                    |                |
| 9.2.3.2.11 | Combined tracking area update /<br>Rejected / PLMN not allowed                                  | Rel-8 | C128 | UEs supporting E-UTRA and UTRA or/and E-<br>UTRA and GERAN, and, combined EPS/IMSI<br>attach (with or without pre-configuration) and<br>NOT Category M1 | pc_eTDD<br>pc_eFDD,<br>pc_UTRA,<br>pc_GERAN | px_RATComb_T ested    | 1 Execution (Note 2)               |                |
|            |   |       |      |   | pc_eTDD,<br>pc_UTRA,<br>pc_GERAN            |                       |                                    | Rel-9 UTRA TDD |
| 9.2.3.2.12 | Combined tracking area update /<br>Rejected / Tracking area not allowed                         | Rel-8 | C02a | UEs supporting E-UTRA and combined<br>EPS/IMSI attach (with or without pre-<br>configuration) and NOT Category M1                                       | pc_eFDD                                     |                       |                                    |                |
| 9.2.3.2.13 | Combined tracking area update /<br>Rejected / Roaming not allowed in<br>this tracking area      | Rel-8 | C128 | UEs supporting E-UTRA and UTRA or/and E-<br>UTRA and GERAN, and, combined EPS/IMSI<br>attach (with or without pre-configuration) and<br>NOT Category M1 | pc_eTDD<br>pc_eFDD,<br>pc_UTRA,<br>pc_GERAN | px_RATComb_T ested    | 1 Execution (Note 2),              |                |
|            |   |       |      |   | pc_eTDD,<br>pc_UTRA,<br>pc_GERAN            |                       |                                    | Rel-9 UTRA TDD |
| 9.2.3.2.14 | Combined tracking area update /<br>Rejected / EPS services not allowed<br>in the PLMN           | Rel-8 | C128 | UEs supporting E-UTRA and UTRA or/and E-<br>UTRA and GERAN, and, combined EPS/IMSI  | pc_eFDD,<br>pc_UTRA,<br>pc_GERAN            | px_RATComb_T<br>ested | 1 Execution (Note 2)               |                |

|            |   |       |       | attach (with or without pre-configuration) and NOT Category M1   |                                  |                       |                      |                |
|------------|---|-------|-------|--|----------------------------------|-----------------------|----------------------|----------------|
|            |   |       |       |  | pc_eTDD,<br>pc_UTRA,<br>pc_GERAN |                       |                      | Rel-9 UTRA TDD |
| 9.2.3.2.15 | Combined tracking area update /<br>Rejected / No suitable cells in<br>tracking area   | Rel-8 | C02a  | UEs supporting E-UTRA and combined EPS/IMSI attach (with or without preconfiguration) and NOT Category M1  | pc_eFDD                          |                       |                      |                |
|            |   |       | 0.100 | 115 11 5 11 5 1 1 1 1 1 1 1 1 1 1 1 1 1  | pc_eTDD                          |                       |                      |                |
| 9.2.3.2.16 | Combined tracking area update /<br>Rejected / Not authorized for this<br>CSG  | Rel-8 | C123  | UEs supporting E-UTRA and allowed CSG list<br>and combined EPS/IMSI attach (with or<br>without pre-configuration) and NOT Category<br>M1               | pc_eFDD                          |                       |                      |                |
|            |   |       |       |  | pc_eTDD                          |                       |                      |                |
| 9.2.3.2.17 | Combined tracking area update /<br>Abnormal case / handling of the<br>EPS tracking area updating attempt<br>counter                 | Rel-8 | C141  | UEs supporting E-UTRA and combined<br>EPS/IMSI attach (with or without pre-<br>configuration) and CS/PS Mode 2 (data<br>centric) and NOT Category M1   | pc_eFDD                          |                       |                      |                |
|            |   |       |       |  | pc_eTDD                          |                       |                      |                |
| 9.2.3.3.1  | First lu mode to S1 mode inter-<br>system change after attach   | Rel-8 | C01   | UEs supporting E-UTRA and UTRA and NOT Category M1   | pc_eFDD                          |                       |                      |                |
|            |   |       |       |  | pc_eTDD                          |                       |                      | Rel-9 UTRA TDD |
| 9.2.3.3.2  | lu mode to S1 mode intersystem change / ISR is active / Expiry of T3312 in E-UTRAN or T3412 in UTRAN and further intersystem change | Rel-8 | C59   | UEs supporting E-UTRAN and UTRA and ISR and NOT Category M1  | pc_eFDD                          |                       | 1 Execution (Note 5) |                |
|            |   |       |       |  | pc_eTDD                          |                       |                      | Rel-9 UTRA TDD |
| 9.2.3.3.3  | lu mode to S1 mode intersystem<br>change / Periodic TAU and RAU/<br>ISR activated, T3423 expired                                    | Rel-8 | C59   | UEs supporting E-UTRAN and UTRA and ISR and NOT Category M1  | pc_eFDD                          |                       |                      |                |
|            |   |       |       |  | pc_eTDD                          |                       |                      | Rel-9 UTRA TDD |
| 9.2.3.3.4  | First S1 mode to lu mode intersystem change after attach  | Rel-8 | C01   | UEs supporting E-UTRA and UTRA and NOT Category M1   | pc_eFDD                          |                       |                      |                |
|            |   |       |       |  | pc_eTDD                          |                       |                      | Rel-9 UTRA TDD |
| 9.2.3.3.5  | Periodic routing area update  | Rel-8 | C27   | UEs supporting E-UTRA and UTRA or/and E-<br>UTRA and GERAN, and, ISR and NOT<br>Category M1  | pc_eFDD,<br>pc_UTRA,<br>pc_GERAN | px_RATComb_T<br>ested | 1 Execution (Note 2) |                |
|            |   |       |       |  | pc_eTDD,<br>pc_UTRA,<br>pc_GERAN |                       |                      | Rel-9 UTRA TDD |
| 9.2.3.3.5a | Periodic Location Update  | Rel-8 | C128  | UEs supporting E-UTRA and UTRA or/and E-<br>UTRA and GERAN, and combined EPS/IMSI<br>attach (with or without pre-configuration) and<br>NOT Category M1 | pc_eFDD,<br>pc_UTRA,<br>pc_GERAN | px_RATComb_T ested    | 1 Execution (Note 2) |                |
|            |   |       |       |  | pc_eTDD,<br>pc_UTRA,<br>pc_GERAN |                       |                      | Rel-9 UTRA TDD |

| 9.2.3.4.1 | TAU/RAU procedure for inter-<br>system cell reselection between<br>A/Gb and S1 modes  | Rel-8  | C05  | UEs supporting E-UTRA and GERAN and NOT Category M1           | pc_eFDD  |                       |                      |                |
|-----------|---|--------|------|---|----------|-----------------------|----------------------|----------------|
|           |   |        |      |   | pc_eTDD  |                       |                      |                |
| 9.2.4.1.1 | Attach & Normal tracking area update Procedure / Success / without Idle eDRX parameters / With Idle eDRX parameters           | Rel-13 | C262 | UEs supporting E-UTRA and Extended DRX                        | pc_eFDD  |                       |                      |                |
|           |   |        |      |   | pc_eTDD  |                       |                      |                |
| 9.2.4.1.2 | Attach & Normal tracking area update Procedure / Success / With and without Idle eDRX and PSM parameters                      | Rel-13 | C253 | UEs supporting E-UTRA and Extended DRX and Power Saving Mode  | pc_eFDD  |                       |                      |                |
|           |   |        |      |   | pc_eTDD  |                       |                      |                |
| 9.2.4.1.3 | Attach & Normal tracking area Procedure / Success / Emergency Calls/ without Idle eDRX parameters / With Idle eDRX parameters | Rel-13 | C263 | UEs supporting E-UTRA and Extended DRX and IMS emergency call | pc_eFDD  |                       |                      |                |
|           |   |        |      |   | pc_eTDD  |                       |                      |                |
| 9.3.1.1   | Service request initiated by UE for user data   | Rel-8  | R    | UEs supporting E-UTRA   | pc_eFDD  |                       |                      |                |
|           |   |        |      |   | pc_eTDD  |                       |                      |                |
| 9.3.1.2   | Void  |        |      |   | <u> </u> |                       |                      |                |
| 9.3.1.3   | Service request / Mobile originating CS fallback  | Rel-8  | C26  | UEs supporting E-UTRA and CS fallback and NOT Category M1     | pc_eFDD  |                       |                      |                |
|           |   |        |      |   | pc_eTDD  |                       |                      |                |
| 9.3.1.4   | Service request / Rejected / IMSI invalid   | Rel-8  | R    | UEs supporting E-UTRA   | pc_eFDD  | px_RATComb_T ested    | 1 Execution (Note 1) |                |
|           |   |        |      |   | pc_eTDD  |                       |                      | Rel-9 UTRA TDD |
| 9.3.1.5   | Service request / Rejected / Illegal ME   | Rel-8  | R    | UEs supporting E-UTRA   | pc_eFDD  | px_RATComb_T<br>ested | 1 Execution (Note 1) |                |
|           |   |        |      |   | pc_eTDD  |                       |                      | Rel-9 UTRA TDD |
| 9.3.1.6   | Service request / Rejected / EPS services not allowed   | Rel-8  | R    | UEs supporting E-UTRA   | pc_eFDD  | px_RATComb_T<br>ested | 1 Execution (Note 1) |                |
|           |   |        |      |   | pc_eTDD  |                       |                      | Rel-9 UTRA TDD |
| 9.3.1.7   | Service request / Rejected / UE identity cannot be derived by the network   | Rel-8  | R    | UEs supporting E-UTRA   | pc_eFDD  |                       |                      |                |
|           |   |        |      |   | pc_eTDD  |                       |                      |                |
| 9.3.1.7a  | Service request / Rejected / UE implicitly detached   | Rel-8  | R    | UEs supporting E-UTRA   | pc_eFDD  |                       |                      |                |
|           |   |        |      |   | pc_eTDD  |                       |                      |                |
| 9.3.1.8   | Void  |        |      |   |          |                       |                      |                |
| 9.3.1.9   | Void  |        |      |   |          |                       |                      |                |
| 9.3.1.10  | Void  |        |      |   |          |                       |                      |                |
| 9.3.1.11  | Void  |        |      |   |          |                       |                      |                |
| 9.3.1.12  | Void  |        |      |   |          |                       |                      |                |
| 9.3.1.12a | Extended service request / Rejected / CS domain temporarily not available   | Rel-8  | C26  | UEs supporting E-UTRA and CS fallback and NOT Category M1     | pc_eFDD  |                       |                      |                |
|           |   |        |      |   | pc_eTDD  |                       |                      |                |
| 9.3.1.13  | Void  |        |      |   |          |                       |                      |                |

| 9.3.1.14 | Void   | 1 1    |      |  |                    |        |  |
|----------|--|--------|------|--|--------------------|--------|--|
| 9.3.1.15 | Void   |        |      |  |                    |        |  |
| 9.3.1.16 | Service request / Abnormal case /<br>Switch off  | Rel-8  | C283 | UEs supporting E-UTRA and switch on/off and NOT supporting IMS | pc_eFDD            |        |  |
|          |  |        |      |  | pc_eTDD            |        |  |
| 9.3.1.17 | Service request / Abnormal case / Procedure collision                                      | Rel-8  | R    | UEs supporting E-UTRA  | pc_eFDD            |        |  |
|          |  |        |      |  | pc_eTDD            |        |  |
| 9.3.1.18 | Service request / Rejected / Not authorized for this CSG                                   | Rel-8  | C156 | UEs supporting E-UTRA and allowed CSG list and NOT Category M1 | pc_eFDD            |        |  |
| 0.0.0.4  | Davis a series de la constant  | Dalo   |      | LIFE AND AND AND AND AND AND AND AND AND AND                   | pc_eTDD<br>pc_eFDD |        |  |
| 9.3.2.1  | Paging procedure   | Rel-8  | R    | UEs supporting E-UTRA  | pc_eFDD<br>pc eTDD |        |  |
| 9.3.2.2  | Paging for CS fallback / Idle mode   | Rel-8  | C26  | UEs supporting E-UTRA and CS fallback and                      | pc_eFDD            |        |  |
|          |  |        |      | NOT Category M1  | TDD                |        |  |
| 0.2.2.20 | Paging for CS fallback / Connected   | Dal 0  | C26  | UEs supporting E-UTRA and CS fallback and                      | pc_eTDD<br>pc_eFDD |        |  |
| 9.3.2.2a | mode   | Rel-8  | C26  | NOT Category M1  |                    |        |  |
|          |  |        |      |  | pc_eTDD            |        |  |
| 9.4.1    | Integrity protection / Correct<br>functionality of EPS NAS integrity<br>algorithm / SNOW3G | Rel-8  | R    | UEs supporting E-UTRA  | pc_eFDD            |        |  |
|          |  |        |      |  | pc_eTDD            |        |  |
| 9.4.2    | Integrity protection / Correct functionality of EPS NAS integrity algorithm / AES          | Rel-8  | R    | UEs supporting E-UTRA  | pc_eFDD            |        |  |
|          |  |        |      |  | pc_eTDD            |        |  |
| 9.4.3    | Ciphering and deciphering / Correct functionality of EPS NAS encryption algorithm / SNOW3G | Rel-8  | R    | UEs supporting E-UTRA  | pc_eFDD            |        |  |
|          |  |        |      |  | pc_eTDD            |        |  |
| 9.4.4    | Ciphering and deciphering / Correct functionality of EPS NAS encryption algorithm / AES    | Rel-8  | R    | UEs supporting E-UTRA  | pc_eFDD            |        |  |
|          | Ů  |        |      |  | pc_eTDD            |        |  |
| 9.4.5    | Integrity protection / Correct functionality of EPS NAS integrity algorithm / ZUC          | Rel-11 | C215 | UEs supporting E-UTRA and ZUC algorithm                        | pc_eFDD            | Note 3 |  |
|          | a.go   |        |      |  | pc_eTDD            |        |  |
| 9.4.6    | Ciphering and deciphering / Correct functionality of EPS NAS encryption algorithm / ZUC    | Rel-11 | C215 | UEs supporting E-UTRA and ZUC algorithm                        | pc_eFDD            | Note 3 |  |
|          | algorium / 200   |        |      |  | pc_eTDD            |        |  |
| 10       | EPS session management   |        |      |  |                    |        |  |
| 10.2.1   | Dedicated EPS bearer context activation / Success  | Rel-8  | R    | UEs supporting E-UTRA  | pc_eFDD            |        |  |
|          |  |        |      |  | pc_eTDD            |        |  |
| 10.2.2   | Dedicated EPS bearer context with QCI 66 activation / Success                              | Rel-14 | C357 | UEs supporting E-UTRA and QCI 66                               | pc_eFDD            |        |  |
|          |  |        |      |  | pc_eTDD            |        |  |
| 10.3.1   | EPS bearer context modification / Success  | Rel-8  | R    | UEs supporting E-UTRA  | pc_eFDD            |        |  |

|         |   | 1      |      |   | pc eTDD |  |  |
|---------|---|--------|------|---|---------|--|--|
| 10.4.1  | EPS bearer context deactivation / Success   | Rel-8  | C97  | UEs supporting E-UTRA and Multiple PDN  | pc_eFDD |  |  |
|         | Cusses  |        |      |   | pc_eTDD |  |  |
| 10.4.2  | EPS bearer context deactivation / Re-establishment  | Rel-8  | C209 | UEs supporting E-UTRA and VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS" and UE Configured to provide IMS APN as the second PDN connection or UE configured to provide Internet as the second PDN connection. | pc_eFDD |  |  |
|         |   |        |      |   | pc_eTDD |  |  |
| 10.5.1  | UE requested PDN connectivity accepted by the network   | Rel-8  | C97  | UEs supporting E-UTRA and Multiple PDN  | pc_eFDD |  |  |
|         |   |        |      |   | pc_eTDD |  |  |
| 10.5.1a | UE requested PDN connectivity accepted / Dual priority / T3396 override                       | Rel-11 | C204 | UEs supporting E-UTRA and Multiple PDN and LAP and LAP override   | pc_eFDD |  |  |
|         |   |        |      |   | pc_eTDD |  |  |
| 10.5.1b | UE requested PDN connectivity accepted / Dual priority / T3346 override                       | Rel-11 | C204 | UEs supporting E-UTRA and Multiple PDN and LAP and LAP override   | pc_eFDD |  |  |
|         |   |        |      |   | pc_eTDD |  |  |
| 10.5.2  | Void  |        |      |   |         |  |  |
| 10.5.3  | UE requested PDN connectivity not accepted  | Rel-8  | C97  | UEs supporting E-UTRA and Multiple PDN  | pc_eFDD |  |  |
|         |   |        |      |   | pc_eTDD |  |  |
| 10.5.4  | UE requested PDN connectivity not accepted / Network reject with Extended Wait Timer          | Rel-10 | C178 | UEs supporting E-UTRA and LAP   | pc_eFDD |  |  |
|         |   |        |      |   | pc_eTDD |  |  |
| 10.6.1  | UE requested PDN disconnect procedure accepted by the network                                 | Rel-8  | C97A | UEs supporting E-UTRA and Multiple PDN and User initiated PDN disconnect  | pc_eFDD |  |  |
|         |   |        |      |   | pc_eTDD |  |  |
| 10.6.2  | Void  |        |      |   |         |  |  |
| 10.7.1  | UE requested bearer resource allocation accepted by the network / New EPS bearer context      | Rel-8  | C54  | UEs supporting E-UTRA and ESM UE requested bearer resource allocation procedure   | pc_eFDD |  |  |
|         |   |        |      |   | pc_eTDD |  |  |
| 10.7.2  | UE requested bearer resource allocation accepted by the network / Existing EPS bearer context | Rel-8  | C54  | UEs supporting E-UTRA and ESM UE requested bearer resource modification procedure   | pc_eFDD |  |  |
|         |   |        |      |   | pc_eTDD |  |  |
| 10.7.3  | UE requested bearer resource allocation not accepted by the network                           | Rel-8  | C54  | UEs supporting E-UTRA and ESM UE requested bearer resource allocation procedure   | pc_eFDD |  |  |
|         |   |        |      |   | pc_eTDD |  |  |
| 10.7.4  | UE requested bearer resource allocation / Expiry of timer T3480                               | Rel-8  | C54  | UEs supporting E-UTRA and ESM UE requested bearer resource allocation procedure   | pc_eFDD |  |  |
|         |   |        |      |   | pc_eTDD |  |  |

| 10.7.5 | UE requested bearer resource<br>allocation / BEARER RESOURCE<br>ALLOCATION REJECT message<br>including cause #43 "invalid EPS<br>bearer identity"            | Rel-8  | C98      | UEs supporting E-UTRA and ESM UE requested bearer resource allocation procedure and Multiple PDN   | pc_eFDD |   |  |
|--------|--|--------|----------|--|---------|---|--|
| 10.8.1 | UE requested bearer resource modification accepted by the network / New EPS bearer context   | Rel-8  | C55      | UEs supporting E-UTRA and ESM UE requested bearer resource modification procedure and UE requested modification of network allocated TFTs                          | pc_eFDD |   |  |
|        |  |        |          |  | pc_eTDD |   |  |
| 10.8.2 | UE requested bearer resource modification accepted by the network / Existing EPS bearer context  | Rel-8  | C55      | UEs supporting E-UTRA and ESM UE requested bearer resource modification procedure and UE requested modification of network allocated TFTs                          | pc_eFDD |   |  |
|        |  |        |          |  | pc_eTDD |   |  |
| 10.8.3 | UE requested bearer resource modification not accepted by the network  | Rel-8  | C55      | UEs supporting E-UTRA and ESM UE requested bearer resource modification procedure and UE requested modification of network allocated TFTs                          | pc_eFDD |   |  |
|        |  |        |          |  | pc_eTDD |   |  |
| 10.8.4 | UE requested bearer resource modification / Cause #36 "regular deactivation"   | Rel-8  | C55      | UEs supporting E-UTRA and ESM UE requested bearer resource modification procedure and UE requested modification of network allocated TFTs                          | pc_eFDD |   |  |
|        |  |        |          | noment anosates 11 15  | pc_eTDD |   |  |
| 10.8.5 | UE requested bearer resource<br>modification / BEARER RESOURCE<br>MODIFICATION REJECT message<br>including cause #43 "invalid EPS<br>bearer identity"        | Rel-8  | C55      | UEs supporting E-UTRA and ESM UE requested bearer resource modification procedure and UE requested modification of network allocated TFTs                          | pc_eFDD |   |  |
|        |  |        |          |  | pc_eTDD |   |  |
| 10.8.6 | UE requested bearer resource modification / Collision of a UE requested bearer resource modification procedure and EPS bearer context deactivation procedure | Rel-8  | C55      | UEs supporting E-UTRA and ESM UE requested bearer resource modification procedure and UE requested modification of network allocated TFTs                          | pc_eFDD |   |  |
|        |  |        |          |  | pc_eTDD |   |  |
| 10.8.7 | UE requested bearer resource modification / Expiry of timer T3481  | Rel-8  | C55      | UEs supporting E-UTRA and ESM UE requested bearer resource modification procedure and UE requested modification of network allocated TFTs                          | pc_eFDD |   |  |
|        |  |        | 1        |  | pc_eTDD |   |  |
| 10.8.8 | UE requested bearer resource modification / Dual priority / low priority override  | Rel-11 | C196     | UEs supporting E-UTRA and ESM UE requested bearer resource modification procedure and UE requested modification of network allocated TFTs and LAP and LAP override | pc_eFDD |   |  |
| 10.0.1 | LIC routing of unlink pookets  | Dalo   | <u> </u> | UEs supporting E-UTRA  | pc_eFDD |   |  |
| 10.9.1 | UE routing of uplink packets   | Rel-8  | R        | UES SUPPORING E-UTKA   |         |   |  |
|        |  |        | 1        |  | pc_eTDD | 1 |  |

| 11     | General tests  |       |      |  |   |                 |  |
|--------|--|-------|------|--|---|-----------------|--|
| 11.1.1 | MT-SMS over SGs / Idle mode  | Rel-8 | C22  | UEs supporting E-UTRA and MT SMS over SGs, and combined EPS/IMSI attach (with or without pre-configuration) and UE configured to not use SMS over IP | pc_eFDD   |                 |  |
| 44.4.0 | MT ONO source OOs / Astissassas da   | Date  | 000  | LIE  | pc_eTDD   |                 |  |
| 11.1.2 | MT-SMS over SGs / Active mode  | Rel-8 | C22  | UEs supporting E-UTRA and MT SMS over SGs, and combined EPS/IMSI attach (with or without pre-configuration) and UE configured to not use SMS over IP | pc_eFDD   |                 |  |
|        |  |       |      |  | pc_eTDD   |                 |  |
| 11.1.3 | MO-SMS over SGs / Idle mode  | Rel-8 | C23  | UEs supporting E-UTRA and MO SMS over SGs, and combined EPS/IMSI attach (with or without pre-configuration) and UE configured to not use SMS over IP | pc_eFDD   | Note 14         |  |
|        |  |       |      |  | pc_eTDD   |                 |  |
| 11.1.4 | MO-SMS over SGs / Active mode  | Rel-8 | C23  | UEs supporting E-UTRA and MO SMS over SGs, and combined EPS/IMSI attach (with or without pre-configuration) and UE configured to not use SMS over IP | pc_eFDD   | Note 14         |  |
|        |  |       |      |  | pc_eTDD   |                 |  |
| 11.1.5 | Multiple MO-SMS over SGs / Idle mode   | Rel-9 | C164 | UEs supporting E-UTRA and concatenated multiple MO SMS over SGs and UE configured to not use SMS over IP   | pc_eFDD   | Note 3, Note 14 |  |
|        |  |       |      |  | pc_eTDD   |                 |  |
| 11.1.6 | Multiple MO-SMS over SGs / Active mode   | Rel-9 | C164 | UEs supporting E-UTRA and concatenated multiple MO SMS over SGs and UE configured to not use SMS over IP   | pc_eFDD   | Note 3, Note 14 |  |
|        |  |       |      |  | pc_eTDD   |                 |  |
| 11.2.1 | Emergency bearer services / Normal cell / NORMAL-SERVICE / Local Emergency Numbers List sent in the Attach / PDN connect new emergency EPS bearer context / Service request / Emergency PDN disconnect   | Rel-9 | C71  | UEs supporting E-UTRA and IMS emergency call   | pc_eFDD,<br>pc_eTDD,<br>pc_IPv4,<br>pc_IPv6,<br>pb_IPv4_DHCPv<br>4_AAUP |                 |  |
| 11.2.2 | Emergency bearer services / Normal cell / LIMITED-SERVICE / Attach / PDN connect   | Rel-9 | C71  | UEs supporting E-UTRA and IMS emergency call   | pc_eFDD   |                 |  |
|        |  |       |      |  | pc_eTDD   |                 |  |
| 11.2.3 | Emergency bearer services / CSG cell / LIMITED-SERVICE / Attach / Security mode control procedure without prior authentication / PDN connect / Service request / PDN disconnect / Detach upon UE switched off / Temporary storage of EMM information   | Rel-9 | C71a | UEs supporting E-UTRA and IMS emergency call and allowed CSG list and manual CSG selection and NOT Category M1                                       | pc_eFDD   |                 |  |
| 11.0.1 | Francisco La company de la Com | Dalio | 0000 | LIFE automostics F. LITPA and IA40 and   | pc_eTDD   |                 |  |
| 11.2.4 | Emergency bearer services / Normal cell / NO-IMSI / Attach / No EPS security context / PDN connect /   | Rel-9 | C366 | UEs supporting E-UTRA and IMS emergency call and no USIM test execution  | pc_eFDD   |                 |  |

|         | O / T' TO 440  | 1     |       |   | T               |  | T                                |
|---------|--|-------|-------|---|-----------------|--|----------------------------------|
|         | Service request / Timer T3412 expires  |       |       |   |                 |  |                                  |
|         | expires  |       |       |   | pc_eTDD         |  |                                  |
| 11.2.5  | Emergency bearer services / Normal   | Rel-9 | C71   | UEs supporting E-UTRA and IMS emergency   | pc_erbb         |  |                                  |
| 11.2.6  | cell / NORMAL-SERVICE / Local Emergency Numbers List NOT sent in the Attach / PDN connect new emergency EPS bearer context / Authentication SQN code failure - MME aborts authentication continues using current security context / Service request  Handling of Local Emergency | Rel-9 | C71   | Call  UEs supporting E-UTRA and IMS emergency   | pc_eTDD pc_eFDD |  |                                  |
| 11.2.0  | Numbers List provided during Attach and Normal tracking area update procedures   | 11010 | 0.1   | call  | po_0: 22        |  |                                  |
|         | ľ  |       |       |   | pc_eTDD         |  |                                  |
| 11.2.7  | UE has PDN connection for<br>emergency bearer services / Normal<br>tracking area update / Accepted /<br>Local Emergency Numbers List is<br>not sent by the network / Handling of<br>the lists of forbidden tracking areas  | Rel-9 | C71   | UEs supporting E-UTRA and IMS emergency call  | pc_eFDD         |  |                                  |
|         |  |       |       |   | pc_eTDD         |  |                                  |
| 11.2.8  | Attach for emergency bearer<br>services / Rejected / No suitable<br>cells in tracking area / Emergency<br>call using the CS domain / UTRA or<br>GERAN  | Rel-9 | C109a | UEs supporting E-UTRA and IMS emergency call and establishing the emergency call using the CS domain in UTRA or GERAN and NOT Category M1 | pc_eFDD         | 1 Execution (Note<br>2) Either TC 11.2.8<br>or TC 11.2.8a shall<br>be executed | Rel-8 UTRA FDD or<br>Rel-8 GERAN |
|         |  |       |       |   | pc_eTDD         |  | Rel-9 UTRA TDD or<br>Rel-8 GERAN |
| 11.2.8a | Attach for emergency bearer<br>services / Rejected / No suitable<br>cells in tracking area / Emergency<br>call using the CS domain /<br>CDMA2000 1xRTT   | Rel-9 | C172  | UEs supporting E-UTRA and IMS emergency call and establishing the emergency call using the CS domain in 1xRTT and NOT Category M1         | pc_eFDD         | Either TC 11.2.8 or TC 11.2.8a shall be executed                               |                                  |
| 11.2.9  | Void   |       |       |   | pc_e1DD         |  |                                  |
| 11.2.10 | LIMITED-SERVICE / EPS does not   | Rel-9 | C71b  | UEs supporting E-UTRA and UTRA and IMS  | pc_eFDD         |  |                                  |
|         | support IMS Emergency / Emergency call using the CS domain   | 1.0.0 | C. 15 | emergency call and NOT Category M1  |                 |  |                                  |
|         |  |       |       |   | pc_eTDD         |  |                                  |
| 11.2.11 | LIMITED-SERVICE / Inter-system<br>mobility / E-UTRA to UTRA CS /<br>SRVCC Emergency Call Handover<br>to UTRAN  | Rel-9 | C139  | UEs supporting E-UTRA and UTRA and SRVCC and IMS emergency call and FGI 27 and NOT Category M1  | pc_eFDD         |  |                                  |
|         |  |       |       |   | pc_eTDD         |  |                                  |
|         |  |       |       |   |                 |  |                                  |

| 11.2.12 | LIMITED-SERVICE / Inter-system mobility / E-UTRA to GSM CS / SRVCC Emergency Call Handover to GERAN  | Rel-9  | C231 | UEs supporting E-UTRA and GERAN and SRVCC and IMS emergency call and FGI 9 and NOT Category M1            | pc_eFDD |  |          |
|---------|--|--------|------|---|---------|--|----------|
| 11.3    | eCall over IMS   |        |      |   | pc_eTDD |  |          |
| 11.3.1  | eCall Only mode / T3444 / eCall  | Rel-14 | C314 | UEs supporting E-UTRA and IMS eCall and   | pc_eFDD |  |          |
|         | inactivity procedure / Removal of<br>eCall only restriction after an eCall<br>over IMS   |        |      | eCall only and Manual type of eCall initiation  | pc_eTDD |  |          |
| 11.3.2  | eCall Only mode / T3445 / eCall  | Rel-14 | C315 | UEs supporting E-UTRA and IMS eCall and   | pc_eFDD |  |          |
|         | inactivity procedure / Removal of<br>eCall only restriction after a call to<br>URI for test service  |        |      | eCall only and Manual type of eCall initiation and capable of triggering a Test eCall                     | pc_eTDD |  |          |
| 11.3.3  | eCall capable / EPS supports IMS   | Rel-14 | C316 | UEs supporting E-UTRA and UTRA or   | pc_eFDD |  |          |
|         | voice over PS session / EPS supports emergency service / eCall over IMS is not supported / eCall using the CS domain / emergency call over IMS if eCall using the CS domain is not available / UTRA or GERAN |        |      | GERAN and IMS eCall and eCall Capable and<br>Automatic type of eCall initiation and IMS<br>emergency call | pc_eTDD |  |          |
| 11.3.4  | eCall Only mode / EPS supports   | Rel-14 | C317 | UEs supporting E-UTRA and UTRA or   | pc_eFDD |  |          |
|         | IMS voice over PS session / EPS does not support emergency service / eCall over IMS is not supported / eCall using CS domain / eCall failure if CS domain is not available                                   |        |      | GERAN and IMS eCall and eCall only and Automatic type of eCall initiation                                 | pc_eTDD |  |          |
| 11.3.5  | eCall Only mode / EPS supports   | Rel-14 | C317 | UEs supporting E-UTRA and UTRA or   | pc_eFDD |  |          |
|         | IMS voice over PS session / EPS supports emergency service / eCall over IMS is supported / RACH failure in EUTRA cell / eCall using the CS domain  |        |      | GERAN and IMS eCall and eCall only and Automatic type of eCall initiation                                 | pc_eTDD |  |          |
| 11.3.6  | eCall Only mode / Limited service  | Rel-14 | C315 | UEs supporting E-UTRA and IMS eCall and   | pc_eFDD |  |          |
|         | state / Call to URI for test service<br>should not be attempted / eCall over<br>IMS should be attempted  |        |      | eCall only and Manual type of eCall initiation and capable of triggering a Test eCall                     | pc_eTDD |  |          |
| 11.3.7  | eCall Only mode / SRVCC  | Rel-14 | C318 | UEs supporting E-UTRA and UTRA and IMS  | pc_eFDD |  |          |
|         | Handover to CS domain / UTRAN / MSD Update / Success   |        |      | eCall and eCall only and Manual type of eCall initiation  | pc_eTDD |  |          |
| 11.3.8  | eCall Only mode / SRVCC  | Rel-14 | C319 | UEs supporting E-UTRA and GERAN and IMS   | pc_eFDD |  |          |
|         | Handover to CS domain / GERAN / MSD Update / Success   |        |      | eCall and eCall only and Manual type of eCall initiation  | pc_eTDD |  |          |
| 12      | E-UTRA radio bearer tests  |        |      |   |         |  |          |
| 12.2.1  | Data transfer of E-UTRA radio bearer combinations 1, 3, 6 and 9  | Rel-8  | R    | UEs supporting E-UTRA   | pc_eFDD |  |          |
| 10.0.0  | D  | D : 2  | 0::= | LIE & ELITER SE   | pc_eTDD |  |          |
| 12.2.2  | Data transfer of E-UTRA radio bearer combinations 2, 4, 7 and 10   | Rel-8  | C16F | UEs supporting E-UTRA and Feature Group Indicator 7   | pc_eFDD |  |          |
|         |  |        | C16T |   | pc_eTDD |  | <u> </u> |

| 12.2.3  | Data transfer of E-UTRA radio  | Rel-8  | C32F | UEs supporting E-UTRA and Feature Group   | pc_eFDD  |        |                |
|---------|--|--------|------|---|----------|--------|----------------|
| 12.2.3  | bearer combinations 5, 8, 11 and 12  | 1161-0 | 0321 | Indicator 7 and Feature Group Indicator 20  | pc_er DD |        |                |
|         |  |        | C32T | Indicator 7 and 1 sature croup maleator 25  | pc_eTDD  |        |                |
| 12.2.4  | Data transfer of E-UTRA radio bearer combination 13  | Rel-8  | C33F | UEs supporting E-UTRA and Feature Group Indicator 20  | pc_eFDD  |        |                |
|         |  |        | C33T | 7   | pc_eTDD  |        |                |
| 12.3.1  | Data transfer of E-UTRA radio<br>bearer combinations 1, 3, 6 and 9 /<br>MIMO   | Rel-8  | C56  | UEs supporting E-UTRA and (UE Category 2 to UE Category 5) and NOT Category M1  | pc_eFDD  |        |                |
|         |  |        |      |   | pc_eTDD  |        |                |
| 12.3.2  | Data transfer of E-UTRA radio<br>bearer combinations 2, 4, 7 and 10 /<br>MIMO  | Rel-8  | C29F | UEs supporting E-UTRA and Feature Group<br>Indicator 7 and (UE Category 2 or UE<br>Category 3 or UE Category 4 or UE Category<br>5) and NOT Category M1                                   | pc_eFDD  |        |                |
|         |  |        | C29T |   | pc_eTDD  |        |                |
| 12.3.3  | Data transfer of E-UTRA radio<br>bearer combinations 5, 8, 11 and 12<br>/ MIMO   | Rel-8  | C31F | UEs supporting E-UTRA and Feature Group<br>Indicator 7 and Feature Group Indicator 20<br>and (UE Category 2 or UE Category 3 or UE<br>Category 4 or UE Category 5) and NOT<br>Category M1 | pc_eFDD  |        |                |
|         |  |        | C31T | 7 * '   | pc_eTDD  |        |                |
| 12.3.4  | Data transfer of E-UTRA radio bearer combination 13 / MIMO   | Rel-8  | C30F | UEs supporting E-UTRA and Feature Group<br>Indicator 20 and (UE Category 2 or UE<br>Category 3 or UE Category 4 or UE Category<br>5) and NOT Category M1                                  | pc_eFDD  |        |                |
|         |  |        | C30T | 7   | pc_eTDD  |        |                |
| 13      | Multi layer Procedures   |        |      |   |          |        |                |
| 13.1.1  | Activation and deactivation of additional data radio bearer in E-UTRA  | Rel-8  | R    | UEs supporting E-UTRA   | pc_eFDD  |        |                |
|         |  |        |      |   | pc_eTDD  |        |                |
| 13.1.2  | Call setup from E-UTRAN<br>RRC_IDLE / CS fallback to UTRAN<br>with redirection / MO call                                 | Rel-8  | C48  | UEs supporting E-UTRA and UTRA and CS fallback and speech and NOT Category M1   | pc_eFDD  |        |                |
|         |  |        |      |   | pc_eTDD  |        | Rel-9 UTRA TDD |
| 13.1.2a | Call setup from E-UTRAN<br>RRC_IDLE / CS fallback to UTRAN<br>with redirection including System<br>Information / MO call | Rel-9  | C104 | UEs supporting E-UTRA and UTRA and CS fallback and use of the UTRA system information provided by RRCConnectionRelease upon redirection and speech and NOT Category M1                    | pc_eFDD  | Note 3 | Rel-8 UTRA FDD |
|         |  |        |      |   | pc_eTDD  |        | Rel-9 UTRA TDD |
| 13.1.3  | Call setup from E-UTRAN<br>RRC_CONNECTED / CS fallback to<br>UTRAN with redirection / MT call                            | Rel-8  | C84  | UEs supporting E-UTRA and UTRA and CS fallback and speech and PS domain services and CS domain services simultaneously and NOT Category M1  | pc_eFDD  |        |                |
|         |  |        |      |   | pc_eTDD  |        | Rel-9 UTRA TDD |
| 13.1.4  | Call setup from E-UTRAN<br>RRC_IDLE / CS fallback to UTRAN<br>with handover / MT call                                    | Rel-8  | C81F | UEs supporting E-UTRA and UTRA and CS fallback and Feature Group Indicator 8 and speech and PS domain services and CS   | pc_eFDD  |        |                |
|         | marriandovor, imi dan  |        |      | domain services simultaneously and NOT Category M1  |          |        |                |

| 13.1.5  | Call setup from E-UTRAN  | Rel-8 | C81F  | UEs supporting E-UTRA, UTRA, CS fallback   | pc_eFDD |    |            |
|---------|--|-------|-------|--|---------|----|------------|
|         | RRC_CONNECTED / CS fallback to UTRAN with handover / MO call   |       |       | and Feature Group Indicator 8 and speech<br>and PS domain services and CS domain<br>services simultaneously and NOT Category<br>M1                           |         |    |            |
|         |  |       | C81T  |  | pc_eTDD | Re | I-9 UTRA T |
| 1       | Void   |       | 3011  |  | 50_0155 |    | 10011011   |
| 13.1.7  | Call setup from E-UTRA RRC_IDLE / CS fallback to GSM with redirection / MT call                                    | Rel-8 | C57   | UEs supporting E-UTRA and GERAN and CS fallback and speech and NOT Category M1   | pc_eFDD |    |            |
|         |  |       |       |  | pc_eTDD |    |            |
| 13.1.8  | Call setup from E-UTRA<br>RRC_CONNECTED / CS fallback to<br>GSM with redirection / MO call                         | Rel-8 | C60   | UEs supporting E-UTRA and GERAN and CS fallback and speech and NOT Category M1   | pc_eFDD |    |            |
|         |  |       |       |  | pc_eTDD |    |            |
| 13.1.9  | Call setup from E-UTRA RRC_IDLE / CS fallback to GSM with CCO without NACC / MO call                               | Rel-8 | C96F  | UEs supporting E-UTRA and GERAN and CS fallback and Feature Group Indicator 10 and speech and NOT Category M1  | pc_eFDD |    |            |
|         |  |       | C96T  |  | pc_eTDD |    |            |
| 13.1.10 | Call setup from E-UTRA<br>RRC_CONNECTED / CS fallback to<br>GSM with CCO without NACC / MT<br>call                 | Rel-8 | C96F  | UEs supporting E-UTRA and GERAN and CS fallback and Feature Group Indicator 10 and speech and NOT Category M1  | pc_eFDD |    |            |
|         |  |       | C96T  |  | pc_eTDD |    |            |
| 13.1.11 | Call setup from E-UTRA RRC_IDLE / CS fallback to GSM with PSHO / EDTM not supported / MT call                      | Rel-8 | C110F | UEs supporting E-UTRA and GERAN and CS fallback and PS handover from E-UTRAN to GERAN and Feature Group Indicator 23 and speech and NOT Category M1          | pc_eFDD |    |            |
|         |  |       | C110T |  | pc_eTDD |    |            |
| 13.1.12 | Call setup from E-UTRA RRC_CONNECTED / CS fallback to GSM with PSHO / EDTM not supported / MO call                 | Rel-8 | C110F | UEs supporting E-UTRA and GERAN and CS fallback and PS handover from E-UTRAN to GERAN and Feature Group Indicator 23 and speech and NOT Category M1          | pc_eFDD |    |            |
|         |  |       | C110T |  | pc_eTDD |    |            |
| 13.1.13 | Call setup from E-UTRA RRC_IDLE / CS fallback to GSM with PSHO / EDTM supported / MT call                          | Rel-8 | C111F | UEs supporting E-UTRA and GERAN and EDTM and CS fallback and PS handover from E-UTRAN to GERAN and Feature Group Indicator 23 and speech and NOT Category M1 | pc_eFDD |    |            |
|         |  |       | C111T |  | pc_eTDD |    |            |
| 13.1.14 | Void   | D / - | 0.10  | UE C EUTEA COTO  | FDD     |    |            |
| 13.1.15 | Call setup from E-UTRAN<br>RRC_IDLE / CS fallback to UTRAN<br>with redirection / MT call / UTRAN<br>cell is barred | Rel-8 | C48   | UEs supporting E-UTRA and UTRA and CS fallback and speech and NOT Category M1  | pc_eFDD |    |            |
|         |  |       |       |  | pc_eTDD | Re | I-9 UTRA 1 |
| 13.1.16 | Emergency call setup from E-<br>UTRAN RRC_IDLE / CS fallback to<br>UTRAN with handover                             | Rel-8 | C105F | UEs supporting E-UTRA and UTRA and CS fallback and Feature Group Indicator 8 and speech and NOT Category M1  | pc_eFDD |    |            |
|         |  |       |       |  |         |    |            |
| 13.1.17 | Void   |       | C105T |  | pc_eTDD | Re | I-9 UTRA T |

| 13.1.19  | Emergency call setup from E-<br>UTRAN RRC_IDLE / IMS VoPS<br>supported / EMC BS not supported /<br>CS fallback to UTRAN or GERAN<br>with redirection                 | Rel-9    | C249  | UEs supporting E-UTRA and (UTRA or GERAN) and combined EPS/IMSI attach and CS fallback and CS speech and VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS" and NOT Category M1                 | pc_eFDD pc_eTDD |                |
|----------|--|----------|-------|---|-----------------|----------------|
| 13.1.20  | Emergency call setup from E-<br>UTRAN RRC_IDLE / IMS VoPS not<br>supported / EMC BS supported / CS<br>fallback to UTRAN or GERAN with<br>redirection                 | Rel-9    | C249  | UEs supporting E-UTRA and (UTRA or GERAN) and combined EPS/IMSI attach and CS fallback and CS speech and VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS" and NOT Category M1                 | pc_eFDD         |                |
| 13.1.21  | Emergency Call setup from E-UTRA<br>RRC_IDLE but IMS voice not<br>available / IMS VoPS supported /<br>EMC BS supported / UE performs<br>emergency call via CS domain | Rel-9    | C249  | UEs supporting E-UTRA and (UTRA or GERAN) and combined EPS/IMSI attach and CS fallback and CS speech and VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS" and NOT Category M1                 | pc_eFDD         |                |
|          |  |          |       |   | pc_eTDD         |                |
| 13.1.22  | MCPTT / Attach / Call setup CO   | Rel-14   | C397  | UEs supporting E-UTRA and MCPTT Client  | pc_eFDD         |                |
|          |  |          |       |   | pc_eTDD         |                |
| 13.2.1   | RRC connection reconfiguration / E-UTRA to E-UTRA  | Rel-8    | C12   | UEs supporting E-UTRA or (CE Mode A and "eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A" and "intra-frequency handover to target cell in normal coverage and CE Mode A") | pc_eFDD         |                |
|          |  |          |       |   | pc_eTDD         |                |
| 13.3.1.1 | Intra-system connection re-<br>establishment / Radio link recovery<br>while T310 is running  | Rel-8    | R     | UEs supporting E-UTRA   | pc_eFDD         |                |
|          |  |          |       |   | pc_eTDD         |                |
| 13.3.1.2 | Intra-system connection re-<br>establishment / Re-establishment of<br>a new connection when further data<br>is to be transferred                                     | Rel-8    | R     | UEs supporting E-UTRA   | pc_eFDD         |                |
|          |  |          |       |   | pc_eTDD         |                |
| 13.3.1.3 | RRC connection reconfiguration /<br>Full configuration / DRB<br>establishment  | Rel-9    | R     | UEs supporting E-UTRA   | pc_eFDD         |                |
|          |  |          |       |   | pc_eTDD         |                |
| 13.3.2.1 | Inter-system connection re-<br>establishment / E-UTRAN to UTRAN<br>/ Further data are to be transferred  | Rel-8    | C01   | UEs Supporting E-UTRA and UTRA and NOT Category M1  | pc_eFDD         |                |
|          |  |          |       |   | pc_eTDD         | Rel-9 UTRA TDD |
| 13.3.2.2 | Inter-system connection re-<br>establishment / E-UTRAN to GPRS /<br>Further data are to be transferred   | Rel-8    | C05   | UEs Supporting E-UTRA and GERAN and NOT Category M1   | pc_eFDD         |                |
|          |  |          |       |   | pc_eTDD         |                |
| 13.4.1.1 | Void   | <u> </u> |       |   | 1 500           |                |
| 13.4.1.2 | Inter-frequency mobility / E-UTRA to E-UTRA packet   | Rel-8    | C21aF | UEs supporting E-UTRA and Feature Group<br>Indicator 13 and Feature Group Indicator 25<br>and ((NOT Category M1) OR (Category M1<br>AND (intra-frequency RSRQ measurements                            | pc_eFDD         |                |

3.4.2.3

|          |   |       |       | and inter-frequency RSRP and RSRQ  |                    |        |                |
|----------|---|-------|-------|--|--------------------|--------|----------------|
|          |   |       |       | measurements in RRC_CONNECTED)))   |                    |        |                |
|          |   |       | C21aT |  | pc_eTDD            |        |                |
| 13.4.1.3 | Intra-system mobility / E-UTRA FDD to E-UTRA TDD to E-UTRA FDD packet                   | Rel-8 | C63   | UEs supporting E-UTRA FDD and E-UTRA TDD and FDD Feature Group Indicator 25and FDD Feature Group Indicator 30 and TDD Feature Group Indicator 25 and TDD Feature Group Indicator 30 and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC CONNECTED))) |                    |        |                |
| 13.4.1.4 | Inter-band mobility / E-UTRA to E-<br>UTRA packet                                       | Rel-9 | C185F | UEs supporting E-UTRA and Feature Group Indicator 13 and Feature Group Indicator 25 and more than 1 FDD or TDD E-UTRA band and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED)))  | pc_eFDD            | Note 3 |                |
| 40.445   | DDC   | Date  | C185T | HE   | pc_eTDD<br>pc_eFDD |        |                |
| 13.4.1.5 | RRC connection reconfiguration /<br>Handover/ Full configuration / DRB<br>establishment | Rel-9 | C12   | UEs supporting E-UTRA or (CE Mode A and "eventA3 for intra-frequency neighbouring cells in normal coverage CE Mode A" and "intra-frequency handover to target cell in normal coverage and CE Mode A")  |                    |        |                |
|          |   | 5     | 000=  |  | pc_eTDD            |        |                |
| 13.4.2.1 | Inter-system mobility / E-UTRA to UTRA packet   | Rel-8 | C36F  | UEs supporting E-UTRA and UTRA and<br>Feature Group Indicator 8 and Feature Group<br>Indicator 22 and NOT Category M1  | pc_eFDD            |        |                |
|          |   |       | C36T  |  | pc_eTDD            |        | Rel-9 UTRA TDD |
| 13.4.2.2 | Inter-system mobility / E-UTRAN to GPRS packet  | Rel-8 | C107F | UEs supporting E-UTRA and GERAN and PS handover from E-UTRAN to GERAN and Feature Group Indicator 23 and NOT Category M1   | pc_eFDD            |        |                |
|          |   |       | C107T |  | pc_eTDD            |        |                |
|          | Void  |       |       |  |                    |        |                |
| 13.4.2.4 | Inter-system mobility / Service based redirection from UTRA to E-UTRA                   | Rel-8 | C01   | UEs supporting E-UTRA and UTRA and NOT Category M1   | pc_eFDD            |        |                |
|          |   |       |       |  | pc_eTDD            |        | Rel-9 UTRA TDD |
| 13.4.2.5 | Inter-system mobility / Service<br>based redirection from GSM/GPRS<br>to E-UTRA         | Rel-8 | C114  | UEs supporting E-UTRA and GERAN and CCN towards E-UTRAN and E-UTRAN Neighbour Cell measurement reporting and Network controlled cell reselection to E-UTRAN and NOT Category M1  | pc_eFDD            |        |                |
| 10 100   |   | 5     | 000   | LUE U ELITA LOEDIU   | pc_eTDD            |        |                |
| 13.4.2.6 | Inter-RAT PS Handover / from<br>GPRS Packet_transfer to E-UTRA<br>cell                  | Rel-8 | C89   | UEs supporting E-UTRA and GERAN and<br>GERAN to E-UTRAN PS Handover and NOT<br>Category M1   | pc_eFDD            |        |                |
|          | 1   | 1     | i     |  | pc_eTDD            |        |                |

| 13.4.2.7 | Inter-RAT PS Handover /<br>Synchronised / From GPRS<br>Packet_transfer to E-UTRA cell<br>(CCN mode)     | Rel-8  | C89            | UEs supporting E-UTRA and GERAN and GERAN to E-UTRAN PS Handover and NOT Category M1  | pc_eFDD            |   |                                  |
|----------|---|--------|----------------|---|--------------------|---|----------------------------------|
| 13.4.2.8 | Inter-RAT PS Handover /<br>Synchronised / From GPRS<br>Packet_transfer to E-UTRA cell<br>(NC2 mode)     | Rel-8  | C89            | UEs supporting E-UTRA and GERAN and GERAN to E-UTRAN PS Handover and NOT Category M1  | pc_eFDD            |   |                                  |
| 13.4.3.1 | Inter-system mobility / E-UTRA voice to UTRA CS voice / SRVCC   | Rel-8  | C112F          | UEs supporting E-UTRA and UTRA and<br>Feature Group Indicator 7 and Feature Group<br>Indicator 8 and Feature Group Indicator 22<br>and Feature Group Indicator 27 and SRVCC<br>and IM S voice and NOT Category M1                                 | pc_eFDD            |   |                                  |
| 13.4.3.2 | Inter-system mobility / E-UTRA PS<br>voice + PS data to UTRA CS voice +<br>PS data / SRVCC              | Rel-8  | C112T<br>C112F | UEs supporting E-UTRA and UTRA and<br>Feature Group Indicator 7 and Feature Group<br>Indicator 8 and Feature Group Indicator 22<br>and Feature Group Indicator 27 and SRVCC<br>and IM S voice and NOT Category M1                                 | pc_eTDD<br>pc_eFDD |   | Rel-9 UTRA TDD                   |
| 13.4.3.3 | Inter-system mobility / E-UTRA voice to GSM CS voice / SRVCC  | Rel-8  | C112T<br>C144F | UEs supporting E-UTRA and GERAN and Feature Group Indicator 7 and Feature Group Indicator 9 and Feature Group Indicator 23 and SRVCC from E-UTRAN to GERAN/UTRAN and VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS" and NOT Category M1 | pc_eTDD<br>pc_eFDD |   | Rel-9 UTRA TDD                   |
| 13.4.3.4 | Inter-system mobility / E-UTRA voice to UTRA CS voice / Unsuccessful case / Retry on old cell / SRVCC   | Rel-8  | C144T<br>C112F | UEs supporting E-UTRA and UTRA and<br>Feature Group Indicator 7 and Feature Group<br>Indicator 8 and Feature Group Indicator 22<br>and Feature Group Indicator 27 and SRVCC<br>and IM S voice and NOT Category M1                                 | pc_eTDD<br>pc_eFDD |   |                                  |
| 13.4.3.5 | Inter-system mobility / E-UTRA voice to GSM CS voice / Unsuccessful case / Retry on old cell / SRVCC    | Rel-8  | C112T<br>C144F | UEs supporting E-UTRA and GERAN and Feature Group Indicator 7 and Feature Group Indicator 9 and Feature Group Indicator 23 and SRVCC from E-UTRAN to GERAN/UTRAN and VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS" and NOT Category M1 | pc_eTDD<br>pc_eFDD |   | Rel-9 UTRA TDD                   |
| 13.4.3.6 | Inter-system mobility / E-UTRA PS<br>voice + PS Data / HO cancelled /<br>Notification procedure / SRVCC | Rel-9  | C144T<br>C160F | UEs supporting E-UTRA and UTRA and Feature Group Indicator 7, 8, 22 and 27 and SRVCC and IMS voice and Notification procedure and NOT Category M1   | pc_eTDD<br>pc_eFDD | Note 3, Either TC<br>13.4.3.6 or TC<br>13.4.3.41 shall be<br>executed. (Note 9) | Rel-8 UTRA FDD                   |
| 13.4.3.7 | Inter-system mobility / E-UTRA voice to UTRA CS voice / aSRVCC / MO call                                | Rel-10 | C160T<br>C159F | UEs supporting E-UTRA and UTRA and<br>Feature Group Indicator 27 and IMS voice and<br>aSRVCC and NOT Category M1  | pc_eTDD<br>pc_eFDD | Note 3  | Rel-9 UTRA TDD<br>Rel-8 UTRA FDD |

|           |   |        | C159T |  | pc_eTDD |        | Rel-9 UTRA TDD |
|-----------|---|--------|-------|--|---------|--------|----------------|
| 13.4.3.8  | Inter-system mobility / E-UTRA<br>voice to UTRA CS voice / aSRVCC /<br>MO call / Forked responses                             | Rel-10 | C159F | UEs supporting E-UTRA and UTRA and<br>Feature Group Indicator 27 and IMS voice and<br>aSRVCC and NOT Category M1                               | pc_eFDD | Note 3 | Rel-8 UTRA FDD |
|           |   |        | C159T |  | pc_eTDD |        | Rel-9 UTRA TDD |
| 13.4.3.9  | Inter-system mobility / E-UTRA<br>voice to UTRA CS voice / aSRVCC /<br>MO call / SRVCC HO failure                             | Rel-10 | C159F | UEs supporting E-UTRA and UTRA and<br>Feature Group Indicator 27 and IMS voice and<br>aSRVCC and NOT Category M1                               | pc_eFDD | Note 3 | Rel-8 UTRA FDD |
|           |   |        | C159T |  | pc_eTDD |        | Rel-9 UTRA TDD |
| 13.4.3.10 | Inter-system mobility / E-UTRA voice to UTRA CS voice / aSRVCC / MT call  | Rel-10 | C159F | UEs supporting E-UTRA and UTRA and<br>Feature Group Indicator 27 and IMS voice and<br>aSRVCC and NOT Category M1                               | pc_eFDD | Note 3 | Rel-8 UTRA FDD |
|           |   |        | C159T |  | pc_eTDD |        | Rel-9 UTRA TDD |
| 13.4.3.11 | Inter-system mobility / E-UTRA<br>voice to UTRA CS voice / aSRVCC /<br>MT call / SRVCC HO failure                             | Rel-10 | C159F | UEs supporting E-UTRA and UTRA and<br>Feature Group Indicator 27 and IMS voice and<br>aSRVCC and NOT Category M1                               | pc_eFDD | Note 3 | Rel-8 UTRA FDD |
| l         |   |        | C159T |  | pc_eTDD |        | Rel-9 UTRA TDD |
| 13.4.3.12 | Void  |        | -     |  |         |        |                |
| 13.4.3.13 | Inter-system mobility / E-UTRA voice to UTRA CS voice / aSRVCC / MT call / SRVCC HO cancelled / User answers in PS domain     | Rel-10 | C161F | UEs supporting E-UTRA and UTRA and<br>Feature Group Indicator 27 and IMS voice and<br>aSRVCC and Notification procedure and NOT<br>Category M1 | pc_eFDD | Note 3 | Rel-8 UTRA FDD |
|           |   |        | C161T |  | pc_eTDD |        | Rel-9 UTRA TDD |
| 13.4.3.14 | Inter-system mobility / E-UTRA PS<br>voice + PS data to UTRA CS voice +<br>PS data / aSRVCC / MO call                         | Rel-10 | C159F | UEs supporting E-UTRA and UTRA and<br>Feature Group Indicator 27 and IMS voice and<br>aSRVCC and NOT Category M1                               | pc_eFDD | Note 3 | Rel-8 UTRA FDD |
|           |   |        | C159T | <u> </u>   | pc_eTDD |        | Rel-9 UTRA TDD |
| 13.4.3.15 | Inter-system mobility / E-UTRA PS<br>voice + PS data to UTRA CS voice +<br>PS data / aSRVCC / MO call /<br>SRVCC HO cancelled | Rel-10 | C161F | UEs supporting E-UTRA and UTRA and<br>Feature Group Indicator 27 and IMS voice and<br>aSRVCC and Notification procedure and NOT<br>Category M1 | pc_eFDD | Note 3 | Rel-8 UTRA FDD |
|           |   |        | C161T |  | pc_eTDD |        | Rel-9 UTRA TDD |
| 13.4.3.16 | Inter-system mobility / E-UTRA PS<br>voice + PS data to UTRA CS voice +<br>PS data / aSRVCC / MT call                         | Rel-10 | C159F | UEs supporting E-UTRA and UTRA and<br>Feature Group Indicator 27 and IMS voice and<br>aSRVCC and NOT Category M1                               | pc_eFDD | Note 3 | Rel-8 UTRA FDD |
|           |   |        | C159T |  | pc_eTDD |        | Rel-9 UTRA TDD |
| 13.4.3.17 | Void  |        |       |  |         |        |                |
| 13.4.3.18 | Inter-system mobility / E-UTRA PS<br>voice + PS data to UTRA CS voice +<br>PS data / bSRVCC / MO call                         | Rel-12 | C201F | UEs supporting E-UTRA and UTRA and<br>Feature Group Indicator 27 and IMS voice and<br>bSRVCC and NOT Category M1                               | pc_eFDD | Note 3 | Rel-8 UTRA FDD |
|           |   |        | C201T |  | pc_eTDD |        | Rel-9 UTRA TDD |
| 13.4.3.19 | Inter-system mobility / E-UTRA PS<br>voice + PS data to UTRA CS voice +<br>PS data / bSRVCC / MO call /<br>SRVCC HO cancelled | Rel-12 | C202F | UEs supporting E-UTRA and UTRA and Feature Group Indicator 27 and IMS voice and bSRVCC and Notification procedure and NOT Category M1          | pc_eFDD | Note 3 | Rel-8 UTRA FDD |
|           |   |        | C202T |  | pc_eTDD |        | Rel-9 UTRA TDD |
| 13.4.3.20 | Inter-system mobility / E-UTRA<br>voice to UTRA CS voice / bSRVCC /<br>MO call / SRVCC HO failure                             | Rel-12 | C201F | UEs supporting E-UTRA and UTRA and<br>Feature Group Indicator 27 and IMS voice and<br>bSRVCC and NOT Category M1                               | pc_eFDD | Note 3 | Rel-8 UTRA FDD |
|           |   |        | C201T |  | pc_eTDD |        | Rel-9 UTRA TDD |

| 13.4.3.21 | Inter-system mobility / E-UTRA PS<br>voice to GSM CS voice / bSRVCC /<br>MO call                      | Rel-12 | C198F          | UEs supporting E-UTRA and GERAN and Feature Group Indicator 7, 9 and 23 and SRVCC from E-UTRAN to GERAN/UTRAN and VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS" AND bSRVCC and NOT Category M1                            | pc_eFDD            | Note 3 |
|-----------|---|--------|----------------|--|--------------------|--------|
|           |   |        | C198T          |  | pc_eTDD            |        |
| 13.4.3.22 | Inter-system mobility / E-UTRA PS<br>voice to GSM CS voice / bSRVCC /<br>MO call / SRVCC HO cancelled | Rel-12 | C199F          | UEs supporting E-UTRA and GERAN and Feature Group Indicator 7, 9 and 23 and SRVCC from E-UTRAN to GERAN/UTRAN and VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS" AND bSRVCC AND Notification procedure and NOT Category M1 | pc_eFDD            | Note 3 |
|           |   |        | C199T          |  | pc_eTDD            |        |
| 13.4.3.23 | Inter-system mobility / E-UTRA<br>voice to GSM CS voice / bSRVCC /<br>MO call / SRVCC HO failure      | Rel-12 | C198F          | UEs supporting E-UTRA and GERAN and<br>Feature Group Indicator 7, 9 and 23 and<br>SRVCC from E-UTRAN to GERAN/UTRAN<br>and VoLTE in GSMA PRD IR.92: "IMS Profile<br>for Voice and SMS" AND bSRVCC and NOT<br>Category M1             | pc_eFDD            | Note 3 |
|           |   |        | C198T          |  | pc_eTDD            |        |
| 13.4.3.24 | Inter-system mobility / E-UTRA<br>voice to GSM CS voice / aSRVCC /<br>MO call                         | Rel-10 | C193F          | UEs supporting E-UTRA and GERAN and Feature Group Indicator 7, 9 and 23 and SRVCC from E-UTRAN to GERAN/UTRAN and VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS" AND aSRVCC and NOT Category M1                            | pc_eFDD            | Note 3 |
|           |   |        | C193T          |  | pc_eTDD            |        |
| 13.4.3.25 | Inter-system mobility / E-UTRA<br>voice to GSM CS voice / aSRVCC /<br>MO call / Forked responses      | Rel-10 | C193F          | UEs supporting E-UTRA and GERAN and Feature Group Indicator 7, 9 and 23 and SRVCC from E-UTRAN to GERAN/UTRAN and VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS" AND aSRVCC and NOT Category M1                            | pc_eFDD            | Note 3 |
|           |   |        | C193T          |  | pc_eTDD            |        |
| 13.4.3.26 | Inter-system mobility / E-UTRA<br>voice to GSM CS voice / aSRVCC /<br>MO call / SRVCC HO failure      | Rel-10 | C193F          | UEs supporting E-UTRA and GERAN and Feature Group Indicator 7, 9 and 23 and SRVCC from E-UTRAN to GERAN/UTRAN and VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS" AND aSRVCC and NOT Category M1                            | pc_eFDD            | Note 3 |
| 10 10 05  |   | D 1 12 | C193T          | LUE II ELIEDA LOEDINI  | pc_eTDD            |        |
| 13.4.3.27 | Inter-system mobility / E-UTRA voice to GSM CS voice / aSRVCC / MT call                               | Rel-10 | C193F<br>C193T | UEs supporting E-UTRA and GERAN and Feature Group Indicator 7, 9 and 23 and SRVCC from E-UTRAN to GERAN/UTRAN and VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS" AND aSRVCC and NOT Category M1                            | pc_eFDD pc_eTDD    | Note 3 |
| 13.4.3.28 | Inter-system mobility / E-UTRA  | Rel-10 | C1931<br>C193F | UEs supporting E-UTRA and GERAN and  | pc_eTDD<br>pc_eFDD | Note 3 |
| 13.4.3.28 | voice to GERAN CS voice / aSRVCC / MT call / SRVCC HO failure   | Kei-10 | C 193F         | Feature Group Indicator 7, 9 and 23 and SRVCC from E-UTRAN to GERAN/UTRAN and VoLTE in GSMA PRD IR.92: "IMS Profile  | pc_eruu            | Note 3 |

|                        |   |        |       | for Voice and SMS" AND aSRVCC and NOT Category M1  |         |        |  |
|------------------------|---|--------|-------|--|---------|--------|--|
|                        |   |        | C193T |  | pc_eTDD |        |  |
| 13.4.3.29<br>13.4.3.30 | Void Inter-system mobility / E-UTRA voice to GSM CS voice / aSRVCC / MT call / SRVCC HO cancelled / User answers in PS domain | Rel-10 | C200F | UEs supporting E-UTRA and GERAN and Feature Group Indicator 7, 9 and 23 and SRVCC from E-UTRAN to GERAN/UTRAN and VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS" AND aSRVCC AND Notification procedure and NOT Category M1 | pc_eFDD | Note 3 |  |
|                        |   |        | C200T |  | pc_eTDD |        |  |
| 13.4.3.31              | Inter-system mobility / GERAN CS voice to E-UTRA voice / rSRVCC   | Rel-11 | C219  | UEs supporting E-UTRA and GERAN and IMS voice and rSRVCC and NOT Category M1   | pc_eFDD |        |  |
|                        |   |        |       |  | pc_eTDD |        |  |
| 13.4.3.32              | Inter-system mobility / UTRA CS voice to E-UTRA voice / rSRVCC  | Rel-11 | C217  | UEs supporting E-UTRA and UTRA and IMS voice and rSRVCC and NOT Category M1  | pc_eFDD |        |  |
|                        |   |        |       |  | pc_eTDD |        |  |
| 13.4.3.33              | Inter-system mobility / GERAN CS<br>voice to E-UTRA voice / alerting /<br>rSRVCC / MO call                                    | Rel-11 | C220  | UEs supporting E-UTRA and GERAN and IMS voice and rSRVCC and rSRVCC in alerting state and NOT Category M1  | pc_eFDD |        |  |
|                        |   |        |       |  | pc_eTDD |        |  |
| 13.4.3.34              | Inter-system mobility / UTRA CS<br>voice to E-UTRA voice / alerting /<br>rSRVCC / MO call                                     | Rel-11 | C218  | UEs supporting E-UTRA and UTRA and IMS voice and rSRVCC and rSRVCC in alerting state and NOT Category M1   | pc_eFDD |        |  |
|                        |   |        |       |  | pc_eTDD |        |  |
| 13.4.3.35              | Inter-system mobility / GERAN CS<br>voice to E-UTRA voice / alerting /<br>rSRVCC / MT call                                    | Rel-11 | C220  | UEs supporting E-UTRA and GERAN and IMS voice and rSRVCC and rSRVCC in alerting state and NOT Category M1  | pc_eFDD |        |  |
|                        |   |        |       |  | pc_eTDD |        |  |
| 13.4.3.36              | Inter-system mobility / UTRA CS<br>voice to E-UTRA voice / alerting /<br>rSRVCC / MT call                                     | Rel-11 | C218  | UEs supporting E-UTRA and UTRA and IMS voice and rSRVCC and rSRVCC in alerting state and NOT Category M1   | pc_eFDD |        |  |
|                        |   |        |       |  | pc_eTDD |        |  |
| 13.4.3.37              | Inter-system mobility / GERAN CS<br>voice to E-UTRA voice / rSRVCC /<br>HO cancelled  | Rel-11 | C219  | UEs supporting E-UTRA and GERAN and IMS voice and rSRVCC and NOT Category M1   | pc_eFDD |        |  |
|                        |   |        |       |  | pc_eTDD |        |  |
| 13.4.3.38              | Inter-system mobility / UTRA CS voice to E-UTRA voice / rSRVCC / HO cancelled   | Rel-11 | C217  | UEs supporting E-UTRA and UTRA and IMS voice and rSRVCC and NOT Category M1  | pc_eFDD |        |  |
|                        |   |        |       |  | pc_eTDD |        |  |
| 13.4.3.39              | Inter-system mobility / UTRA CS<br>voice + PS data to E-UTRA voice +<br>PS data / rSRVCC                                      | Rel-11 | C217  | UEs supporting E-UTRA and UTRA and IMS voice and IMS and rSRVCC and NOT Category M1  | pc_eFDD |        |  |
|                        |   |        |       |  | pc_eTDD |        |  |
| 13.4.3.40              | Inter-system mobility / UTRA CS voice to E-UTRA voice / rSRVCC / Multiple voice calls with mid-call feature                   | Rel-11 | C232  | UEs supporting E-UTRA and UTRA and IMS voice and IMS and rSRVCC and multiple PDN and NOT Category M1   | pc_eFDD |        |  |
|                        | leatule   |        |       |  | pc_eTDD |        |  |
|                        |   |        |       |  | hc_e.nn |        |  |

| 13.4.3.41            | Inter-system mobility / E-UTRA PS voice to GSM CS voice / HO cancelled / Notification procedure / SRVCC | Rel-9  | C144F | UEs supporting E-UTRA and GERAN and Feature Group Indicator 7 and Feature Group Indicator 9 and Feature Group Indicator 23 and SRVCC from E-UTRAN to GERAN/UTRAN and VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS" and NOT Category M1 | pc_eFDD | Either TC 13.4.3.6<br>or TC 13.4.3.41<br>shall be executed<br>(Note 9) |
|----------------------|---|--------|-------|---|---------|--|
| 10 1 1 1             | \/-\!-\!  |        | C144T |   | pc_eTDD |  |
| 13.4.4.1             | Void<br>Void  |        |       |   |         |  |
| 13.4.4.2<br>13.4.4.3 | Void  |        |       |   |         |  |
| 13.4.4.4             | Void  |        |       |   |         |  |
| 13.4.4.5             | Void  |        |       |   |         |  |
| 13.5.1               | MTSI MO speech call / SSAC / 0% access probability for MTSI MO speech call                              | Rel-9  | C236  | UEs supporting E-UTRA and Initiating session and MTSI speech  |         |  |
|                      |   |        |       |   | pc_eTDD |  |
| 13.5.1a              | MTSI MO speech call / SSAC in<br>Connected mode / 0% access<br>probability for MTSI MO speech call      | Rel-12 | C236  | UEs supporting E-UTRA and Initiating session and MTSI speech  | pc_eFDD | Note 7   |
|                      |   |        |       |   | pc_eTDD |  |
| 13.5.1b              | Void  |        |       |   |         |  |
| 13.5.2               | MTSI MO video call / SSAC / 0% access probability for MTSI MO video call                                | Rel-9  | C237  | UEs supporting E-UTRA and Initiating session and MTSI speech and MTSI video and NOT Category M1   | pc_eFDD |  |
|                      |   |        |       | , , , , , , , , , , , , , , , , , , ,   | pc_eTDD |  |
| 13.5.2a              | MTSI MO video call / SSAC in<br>Connected mode / 0% access<br>probability for MTSI MO video call        | Rel-12 | C237  | UEs supporting E-UTRA and Initiating session and MTSI speech and MTSI video and NOT Category M1   | pc_eFDD | Note 7   |
|                      |   |        |       |   | pc_eTDD |  |
| 13.5.2b              | Void  |        |       |   |         |  |
| 13.5.3               | Emergency call / Success / SSAC / 0% access probability for MTSI MO speech call                         | Rel-9  | C71   | UEs supporting E-UTRA and IMS emergency call  | pc_eFDD |  |
|                      |   |        |       |   | pc_eTDD |  |
| 13.5.3a              | Emergency call / Success / SSAC in<br>Connected mode / 0% access<br>probability for MTSI MO speech call | Rel-12 | C71   | UEs supporting E-UTRA and IMS emergency call  | pc_eFDD | Note 7   |
|                      |   |        |       |   | pc_eTDD |  |
| 13.5.4               | MTSI MO speech call / SCM / 0% access probability skip for MTSI MO speech call                          | Rel-12 | C183  | UEs supporting E-UTRA and (PRD IR.92: "IMS Profile for Voice and SMS" or PRD NG.108: "IMS Profile for Voice and SMS for UE category M1")  | pc_eFDD | Note 17  |
|                      |   |        |       |   | pc_eTDD |  |
| 13.5.5               | MTSI MO video call / SCM / 0% access probability skip for MTSI MO video call                            | Rel-12 | C223  | UE supporting E-UTRA and MTSI Video call and NOT Category M1  | pc_eFDD | Note 17  |
|                      |   |        |       |   | pc_eTDD |  |
| 13.5.6               | MTSI MO SMS / SCM / 0% access probability skip for MTSI MO SMS over IP                                  | Rel-12 | C183  | UEs supporting E-UTRA and (PRD IR.92: "IMS Profile for Voice and SMS" or PRD NG.108: "IMS Profile for Voice and SMS for UE category M1")  | pc_eFDD | Note 17  |

| 1     | 1  |       |      |  | pc_eTDD         |   |
|-------|--|-------|------|--|-----------------|---|
| 14    | ETWS   |       |      |  |                 |   |
| 14.1  | ETWS reception in RRC_IDLE state / Duplicate detection   | Rel-8 | C64  | UEs supporting E-UTRA and ETWS reception   | pc_eFDD         |   |
|       |  |       |      |  | pc_eTDD         |   |
| 14.2  | ETWS reception in<br>RRC_CONNECTED state /<br>Duplicate detection                              | Rel-8 | C64a | UEs supporting E-UTRA and ETWS reception and NOT Category M1   | pc_eFDD pc_eTDD |   |
| 14.3  | Void   |       |      |  | pc_e1DD         |   |
| 15    | Mobility management based on   |       |      |  |                 |   |
|       | DSMIPv6 (Dual-Stack Mobile IPv6)   |       |      |  |                 |   |
| 15.1  | Discovery of the Home Agent via DNS  | Rel-8 | C34  | UEs supporting E-UTRA and Mobility management based on Dual-Stack Mobile IPv6 and being configured to discover the Home Agent address via DNS    | pc_eFDD         |   |
|       |  |       |      |  | pc_eTDD         |   |
| 15.2  | Discovery of the Home Agent via DHCP   | Rel-8 | C49  | UEs supporting E-UTRA and Mobility management based on Dual-Stack Mobile IPv6 and being configured to discover the Home Agent address via DHCPv6 | pc_eFDD         |   |
|       |  |       |      |  | pc_eTDD         |   |
| 15.3  | Void   |       |      |  |                 |   |
| 15.4  | Security association establishment with Home Agent reallocation procedure                      | Rel-8 | C35  | UEs supporting E-UTRA and Mobility management based on Dual-Stack Mobile IPv6  | pc_eFDD         |   |
|       | ľ  |       |      |  | pc_eTDD         |   |
| 15.5  | Security association establishment without Home Agent reallocation procedure                   | Rel-8 | C35  | UEs supporting E-UTRA and Mobility management based on Dual-Stack Mobile IPv6  | pc_eFDD         |   |
|       |  |       |      |  | pc_eTDD         |   |
| 15.6  | Registration of a new IPv6 CoA (Binding Update/Acknowledgment procedure in IPv6 network)       | Rel-8 | C35  | UEs supporting E-UTRA and Mobility management based on Dual-Stack Mobile IPv6  | pc_eFDD         |   |
|       |  |       |      |  | pc_eTDD         |   |
| 15.7  | Registration of a new IPv4 CoA<br>(Binding Update/Acknowledgment<br>procedure in IPv4 network) | Rel-8 | C35  | UEs supporting E-UTRA and Mobility management based on Dual-Stack Mobile IPv6  | pc_eFDD         |   |
|       | ,  |       |      |  | pc_eTDD         |   |
| 15.8  | Re-registration of IPv6 CoA  | Rel-8 | C35  | UEs supporting E-UTRA and Mobility management based on Dual-Stack Mobile IPv6  | pc_eFDD         |   |
|       |  |       |      |  | pc_eTDD         |   |
| 15.9  | Re-registration of IPv4 CoA  | Rel-8 | C35  | UEs supporting E-UTRA and Mobility management based on Dual-Stack Mobile IPv6  | pc_eFDD         |   |
|       |  |       |      |  | pc_eTDD         |   |
| 15.10 | Return to home link  | Rel-8 | C35  | UEs supporting E-UTRA and Mobility management based on Dual-Stack Mobile IPv6  | pc_eFDD         |   |
|       |  |       |      |  | pc_eTDD         |   |
|       | •  |       |      | •  |                 | • |

| 15.11  | Dual-Stack Mobile IPv6 detach in IPv6 network   | Rel-8  | C35   | UEs supporting E-UTRA and Mobility management based on Dual-Stack Mobile IPv6 | pc_eFDD |          |
|--------|---|--------|-------|---|---------|----------|
|        |   |        |       |   | pc_eTDD |          |
| 15.12  | Dual-Stack Mobile IPv6 detach in IPv4 network   | Rel-8  | C35   | UEs supporting E-UTRA and Mobility management based on Dual-Stack Mobile IPv6 | pc_eFDD |          |
|        |   |        |       |   | pc_eTDD |          |
|        | Home (e)NB related  |        |       |   |         |          |
|        | Void  |        |       |   |         |          |
|        | Void  |        |       |   |         |          |
| 17     | MBMS in LTE   |        |       |   |         |          |
| 17.1.1 | MCCH information acquisition/ UE is switched on   | Rel-9  | C113  | UEs supporting E-UTRA and MBMS  | pc_eFDD |          |
|        |   |        |       |   | pc_eTDD |          |
| 17.1.2 | MCCH information acquisition/ cell reselection to a cell in a new MBSFN area                      | Rel-9  | C113  | UEs supporting E-UTRA and MBMS  | pc_eFDD |          |
|        |   |        |       |   | pc_eTDD |          |
| 17.1.3 | MCCH information acquisition/ UE handover to a cell in a new MBSFN area                           | Rel-9  | C113  | UEs supporting E-UTRA and MBMS  | pc_eFDD |          |
|        |   |        |       |   | pc_eTDD |          |
| 17.1.4 | MCCH information acquisition/ UE is receiving an MBMS service                                     | Rel-9  | C113  | UEs supporting E-UTRA and MBMS  | pc_eFDD |          |
|        | 3   |        |       |   | pc_eTDD |          |
| 17.1.5 | MCCH information acquisition/ UE is not receiving MBMS data                                       | Rel-9  | C113  | UEs supporting E-UTRA and MBMS  | pc_eFDD |          |
|        |   |        |       |   | pc_eTDD |          |
| 17.2.1 | UE Acquire the MBMS data based on the SIB13 and MCCH message /MCCH and MTCH are on the same MCH   | Rel-9  | C113  | UEs supporting E-UTRA and MBMS  | pc_eFDD |          |
|        |   |        |       |   | pc_eTDD |          |
| 17.2.2 | UE Acquire the MBMS data based on the SIB13 and MCCH message /MCCH and MTCH are on different MCHs | Rel-9  | C113  | UEs supporting E-UTRA and MBMS  | pc_eFDD |          |
|        |   |        |       |   | pc_eTDD |          |
| 17.2.3 | UE receives the MBMS data when this data is in the beginning of the MSP                           | Rel-9  | C113  | UEs supporting E-UTRA and MBMS  | pc_eFDD |          |
|        |   |        |       |   | pc_eTDD |          |
| 17.2.4 | Reception of PDCCH DCI format 0 and PHICH in MBSFN subframes                                      | Rel-9  | C224c | UEs supporting E-UTRA and NOT Category M1                                     | pc_eFDD |          |
|        |   |        |       |   | pc_eTDD |          |
| 17.3.1 | MBMS Counting / UE not receiving MBMS service   | Rel-10 | C113  | UEs supporting E-UTRA and MBMS  | pc_eFDD |          |
|        |   |        |       |   | pc_eTDD |          |
| 17.3.2 | MBMS Counting / UE receiving MBMS service   | Rel-10 | C113  | UEs supporting E-UTRA and MBMS  | pc_eFDD |          |
|        |   |        |       |   | pc_eTDD | <u> </u> |

| 17.4.1   | Cell reselection to intra-frequency   | Rel-11 | C113a  | UEs supporting E-UTRA and MBMS and   | pc_eFDD  | Either TC 17.4.1 or  |
|----------|---|--------|--------|--|----------|--|
|          | cell to continue MBMS service reception   | 110111 | 01100  | MBMS service continuity  | po_0: 22 | TC 17.4.1a shall be executed. (Note 8)                           |
|          | reception   |        |        |  | pc_eTDD  | excedited. (Note 6)  |
| 17.4.1a  | Cell reselection to intra-frequency<br>cell to continue MBMS service<br>reception / Single Frequency<br>operation (inter-band neighbouring<br>cell) | Rel-11 | C113a  | UEs supporting E-UTRA and MBMS and MBMS service continuity. This test is 'cells on single frequency only' equivalent of TC 17.4.1                                      | pc_eFDD  | Either TC 17.4.1 or<br>TC 17.4.1a shall be<br>executed. (Note 8) |
| .=       |   | 5      | 2112   | 115 1150   | pc_eTDD  |  |
| 17.4.2   | Cell reselection to inter- frequency cell to start MBMS service reception   | Rel-11 | C113a  | UEs supporting E-UTRA and MBMS and MBMS service continuity   | pc_eFDD  |  |
|          |   |        |        |  | pc_eTDD  |  |
| 17.4.2a  | Cell reselection to inter-band cell to start MBMS service reception   | Rel-11 | C113a  | UEs supporting E-UTRA and MBMS and MBMS service continuity   | pc_eFDD  |  |
| .=       |   | 5      | 011015 |  | pc_eTDD  |  |
| 17.4.3   | Handover to inter-frequency cell to start MBMS service reception  | Rel-11 | C113bF | UEs supporting E-UTRA and Feature Group<br>Indicator 13 and Feature Group Indicator 25<br>and MBMS and MBMS service continuity   | pc_eFDD  |  |
|          |   |        | C113bT |  | pc_eTDD  |  |
| 17.4.3a  | Handover to inter-band cell to start MBMS service reception   | Rel-11 | C113bF | UEs supporting E-UTRA and Feature Group<br>Indicator 13 and Feature Group Indicator 25<br>and MBMS and MBMS service continuity   | pc_eFDD  |  |
|          |   |        | C113bT |  | pc_eTDD  |  |
| 17.4.4   | Handover to intra-frequency cell to continue MBMS service reception   | Rel-11 | C113a  | UEs supporting E-UTRA and MBMS and MBMS service continuity   | pc_eFDD  |  |
|          |   |        |        |  | pc_eTDD  |  |
| 17.4.5   | Conditional retransmission of MBMS Interest Indication after handover   | Rel-11 | C113a  | UEs supporting E-UTRA and MBMS and MBMS service continuity   | pc_eFDD  |  |
|          |   |        |        |  | pc_eTDD  |  |
| 17.4.6   | MBMS Interest Indication retransmission after returning from cell not broadcasting SIB15  | Rel-11 | C113a  | UEs supporting E-UTRA and MBMS and MBMS service continuity   | pc_eFDD  |  |
|          |   |        |        |  | pc_eTDD  |  |
| 17.4.7   | MBMS Interest Indication after Radio Link Failure   | Rel-11 | C113a  | UEs supporting E-UTRA and MBMS and MBMS service continuity   | pc_eFDD  |  |
|          |   |        |        |  | pc_eTDD  |  |
| 17.4.8   | Continued MBMS service reception<br>after E-UTRAN release of unicast<br>bearer  | Rel-11 | C113a  | UEs supporting E-UTRA and MBMS and MBMS service continuity   | pc_eFDD  |  |
|          |   |        |        |  | pc_eTDD  |  |
| 17.4.9.1 | CA / Start MBMS reception on Non-<br>Serving Cell / Continue MBMS<br>reception on SCell after SCell<br>addition / Intra-band Contiguous CA          | Rel-11 | C113cF | UEs supporting E-UTRA and Intra-band contiguous Carrier Aggregation and Feature Group Indicator 13 and Feature Group Indicator 25 and MBMS and MBMS service continuity | pc_eFDD  |  |
|          |   |        | C113cT |  | pc_eTDD  |  |
| 17.4.9.2 | CA / Start MBMS reception on Non-<br>Serving Cell / Continue MBMS<br>reception on SCell after SCell<br>addition / Inter-band CA                     | Rel-11 | C113dF | UEs supporting E-UTRA and Inter-band<br>Carrier Aggregation and Feature Group<br>Indicator 13 and Feature Group Indicator 25<br>and MBMS and MBMS service continuity   | pc_eFDD  |  |
|          |   | ]      | C113dT |  | pc_eTDD  |  |
|          |   |        |        |  |          |  |

| 17.4.10.1 | CA / Start MBMS reception on SCell  | Rel-11 | C113e  | UEs supporting E-UTRA and Intra-band   | pc_eFDD |        |  |
|-----------|---|--------|--------|--|---------|--------|--|
|           | / Continue MBMS reception on Non-<br>Serving after SCell release / Intra-<br>band Contiguous CA   |        |        | contiguous Carrier Aggregation and MBMS and MBMS service continuity  |         |        |  |
|           | Zana Conagada O/ (  |        |        |  | pc eTDD |        |  |
| 17.4.10.2 | CA / Start MBMS reception on SCell<br>/ Continue MBMS reception on Non-<br>Serving after SCell release / Inter-<br>band CA  | Rel-11 | C113f  | UEs supporting E-UTRA and Inter-band<br>Carrier Aggregation and MBMS and MBMS<br>service continuity  | pc_eFDD |        |  |
|           |   |        |        |  | pc_eTDD |        |  |
| 17.4.11.1 | CA / Start MBMS reception on PCell<br>/ Continue MBMS reception after<br>swap of SCell and PCell / Intra-band<br>Contiguous CA  | Rel-11 | C113cF | UEs supporting E-UTRA and Intra-band contiguous Carrier Aggregation and Feature Group Indicator 13 and Feature Group Indicator 25 and MBMS and MBMS service continuity | pc_eFDD |        |  |
|           |   |        | C113cT |  | pc_eTDD |        |  |
| 17.4.11.2 | CA / Start MBMS reception on PCell<br>/ Continue MBMS reception after<br>swap of SCell and PCell / Inter-band<br>CA   | Rel-11 | C113gF | UEs supporting E-UTRA and Inter-band<br>Carrier Aggregation and Feature Group<br>Indicator 13 and Feature Group Indicator 25<br>and MBMS and MBMS service continuity   | pc_eFDD |        |  |
|           |   |        | C113gT |  | pc_eTDD |        |  |
| 18        | PWS   |        | _      |  |         |        |  |
| 18.1.1    | PWS reception in RRC_IDLE state / Duplicate detection   | Rel-9  | C129   | UEs supporting E-UTRA and CMAS   | pc_eFDD | Note 3 |  |
| 18.1.2    | PWS reception in<br>RRC_CONNECTED state /<br>Duplicate detection  | Rel-9  | C129a  | UEs supporting E-UTRA and CMAS and NOT Category M1   | pc_eFDD | Note 3 |  |
| 18.1.3    | PWS reception in<br>RRC_CONNECTED State/Power<br>On   | Rel-9  | C129a  | UEs supporting E-UTRA and CMAS and NOT Category M1   | pc_eFDD | Note 3 |  |
| 19        | Device to Device Proximity Service  |        |        |  |         |        |  |
| 19.1.1    | ProSe direct Communication /Pre-<br>configured authorisation / UE in<br>RRC_IDLE on an E-UTRAN cell<br>operating on the carrier frequency<br>provisioned for ProSe direct service<br>/ Utilisation of the resources of<br>(serving) cells/PLMNs /<br>Transmission | Rel-12 | C238   | UEs supporting E-UTRA FDD and supporting ProSe direct communication  | pc_eFDD |        |  |
| 19.1.2    | ProSe direct Communication /Pre-<br>configured authorisation / UE in<br>RRC_IDLE on an E-UTRAN cell<br>operating on the carrier frequency<br>provisioned for ProSe direct service<br>/ Utilisation of the resources of<br>(serving) cells/PLMNs / Reception       | Rel-12 | C238   | UEs supporting E-UTRA FDD and supporting ProSe direct communication  | pc_eFDD |        |  |
| 19.1.3    | ProSe Direct Communication/Pre-<br>configured authorisation / UE in<br>RRC_CONNECTED on an E-<br>UTRAN cell operating on the carrier<br>frequency provisioned for ProSe<br>direct service / Utilisation of the  | Rel-12 | C238   | UEs supporting E-UTRA FDD and supporting ProSe direct communication  | pc_eFDD |        |  |

|                  | 1  |        |      |   |         | 1 | , |
|------------------|--|--------|------|---|---------|---|---|
|                  | resources of (serving) cells/PLMNs /<br>Transmission / RRC connection<br>reconfiguration with/without<br>mobilityControlInfo / RRC<br>connection re-establishment  |        |      |   |         |   |   |
| 19.1.4           | ProSe Direct Communication/Preconfigured authorisation / UE in RRC_CONNECTED on an E-UTRAN cell operating on the carrier frequency provisioned for ProSe direct service / Utilisation of the resources of (serving) cells/PLMNs / Reception / RRC connection reconfiguration with mobilityControlInfo / RRC connection re-establishment  ProSe Direct Communication/Pre- | Rel-12 | C238 | UEs supporting E-UTRA FDD and supporting ProSe direct communication  UEs supporting E-UTRA FDD and supporting       | pc_eFDD |   |   |
| 19.1.5           | configured authorisation / UE camped on an E-UTRAN cell not operating on the carrier frequency provisioned for ProSe direct service / Utilisation of the resources of (not serving) cells/PLMNs / Transmission and Reception   |        |      | ProSe direct communication. Note: This test is not applicable to bands which have 'cells on single frequency only'. |         |   |   |
| 19.1.6           | ProSe Direct Communication/Preconfigured authorisation / UE out of coverage on the frequency used for sidelink communication / Transmission and Reception / Operation with/without SyncRef UE / Usage information report list sending procedure  | Rel-12 | C238 | UEs supporting E-UTRA FDD and supporting ProSe direct communication   | pc_eFDD |   |   |
| 19.1.7<br>19.1.8 | Void ProSe Direct Communication/Security Aspects / Release of PDN Connection used to receive MIKEY Messages/ Correct Key Request Message/ MIKEY Verification Message   | Rel-12 | C238 | UEs supporting E-UTRA FDD and supporting ProSe direct communication   | pc_eFDD |   |   |
| 19.1.9           | ProSe Direct Communication/Preconfigured authorisation / UE out of coverage on the frequency used for sidelink communication / Isolated one-to-one ProSe direct communication / Success/Direct link keepalive/Release upon User request / MO   | Rel-13 | C238 | UEs supporting E-UTRA FDD and supporting ProSe direct communication   | pc_eFDD |   |   |
| 19.1.10          | ProSe Direct Communication/Pre-<br>configured authorisation / UE out of<br>coverage on the frequency used for<br>sidelink communication / Isolated<br>one-to-one ProSe direct<br>communication / Success/Direct link   | Rel-13 | C238 | UEs supporting E-UTRA FDD and supporting ProSe direct communication   | pc_eFDD |   |   |

|        | keepalive/Release upon User request / MT   |        |      |  |   |  |
|--------|--|--------|------|--|---|--|
| 19.2.1 | ProSe Direct Discovery Monitoring/Pre-configured authorisation / Monitoring / Handling of validity timers / Utilisation of the resources of different cells/PLMNs  | Rel-12 | C240 | UEs supporting E-UTRA and ProSe direct discovery   | pc_eFDD,<br>pc_disc_public_s<br>afety   |  |
|        |  |        |      |  | pc_eTDD,<br>pc_disc_public_s<br>afety   |  |
| 19.2.2 | ProSe Direct Discovery Announcing/Pre-configured authorisation / Announcing and SLSS transmission in RRC_IDLE / Handling of validity timers / Utilisation of the resources of different cells/PLMNs                        | Rel-12 | C240 | UEs supporting E-UTRA and ProSe direct discovery   | pc_eFDD,<br>pc_disc_public_s<br>afety   |  |
|        |  |        |      |  | pc_eTDD,<br>pc_disc_public_s<br>afety   |  |
| 19.2.3 | ProSe Direct Discovery Announcing/Pre-configured authorisation / Announcing and SLSS transmission in RRC_CONNECTED / RRC connection reconfiguration with/without the mobilityControlInfo / RRC connection re-establishment | Rel-12 | C240 | UEs supporting E-UTRA and ProSe direct discovery   | pc_eFDD, pc_disc_public_s afety, pc_discSchedule dResourceAlloc, pc_discUESelect edResourceAlloc pc_eTDD, |  |
|        |  |        |      |  | pc_disc_public_s afety, pc_discSchedule dResourceAlloc, pc_discUESelect edResourceAlloc                   |  |
| 19.2.4 | Void   |        |      |  |   |  |
| 19.2.5 | Void   |        |      |  |   |  |
| 19.2.6 | One-to-many ProSe direct<br>communication/Pre-configured<br>authorisation/Off-network / ProSe<br>Direct Discovery for public safety<br>use / Announcing UE procedure for<br>group member discovery                         | Rel-13 | C324 | UEs supporting E-UTRA and ProSe direct discovery for public safety use and Announcing for group member discovery | pc_eFDD, pc_disc_public_s afety pc_ProSeAnnFor GroupMemberDi scovery                                      |  |
| 19.2.7 | One-to-many ProSe direct<br>communication/Pre-configured<br>authorisation/Off-network / ProSe<br>Direct Discovery for public safety<br>use / Discoverer UE procedure for<br>group member discovery                         | Rel-13 | C240 | UEs supporting E-UTRA and ProSe direct discovery for public safety use   | pc_eFDD,<br>pc_disc_public_s<br>afety   |  |
| 19.2.8 | One-to-many ProSe direct<br>communication/Pre-configured<br>authorisation/Off-network / ProSe<br>Direct Discovery for public safety  | Rel-13 | C240 | UEs supporting E-UTRA and ProSe direct discovery for public safety use   | pc_eFDD,<br>pc_disc_public_s<br>afety   |  |

| UE to ePDG  20.1 Void of PDG and Tunnel setablishment  |         | use / Discoveree UE procedure for group member discovery |        |      |   |         |   |  |
|--|---------|--|--------|------|---|---------|---|--|
| Selection of ePOG and Tunnel establishment e | 20      | Tunnel management procedures                             |        |      |   |         |   |  |
| Selection of ePOG and Tunnel establishment e | 20.1    | Void   |        |      |   |         |   |  |
| "IMS Priofile for Voice, Video and SMS over Wi-Fit"   Wi-Fit   W   | 20.2    |  | Rel-11 |      | "IMS Profile for Voice, Video and SMS over Wi-Fi"             |         |   |  |
| SC-PTM in LTE  | 20.3    | UE initiated disconnection                               | Rel-11 | C269 | "IMS Profile for Voice, Video and SMS over Wi-Fi"             |         |   |  |
| Sc.McCH information acquisition   Rel-13   C259   UEs supporting E-UTRA and SC-PTM   Dc. eFDD   D   | 20.4    | ePDG initiated disconnection                             | Rel-11 | C269 | "IMS Profile for Voice, Video and SMS over                    |         |   |  |
| UE is switched on confined acquisition/ cell reselection to a cell broadcasting SIB20 21.1.2 SC-MCCH information acquisition/ cell reselection to a cell broadcasting SIB20 21.1.3 SC-MCCH information acquisition/ UE handover to a cell broadcasting SIB20 21.1.4 SC-MCCH information acquisition/ UE handover to a cell broadcasting SIB20 21.1.5 SC-MCCH information acquisition/ UE is receiving an SC-PTM service reception / Single SiB20 21.1.5 SC-MCCH information acquisition/ UE is receiving an SC-PTM service reception / Single SiB20 21.1.6 SC-MCCH information acquisition/ Rel-13 C259 UEs supporting E-UTRA and SC-PTM pc. eFDD pc. eTD | 21      |  |        |      |   |         |   |  |
| 21.1.2 SC-MCCH information acquisition/ ell reselection to a cell broadcasting SIB20  21.1.3 SC-MCCH information acquisition/ UE handover to a cell broadcasting SIB20  21.1.4 SC-MCCH information acquisition/ UE is receiving a SC-PTM service perception SC-PTM service reception  21.1.5 SC-MCCH information acquisition/ UE is not receiving a SC-PTM service perception SC-PTM service perception  21.1.6 SC-MCCH information acquisition/ UE is not receiving SC-PTM data SC-PTM data SC-MCCH information acquisition/ Enhanced Coverage SC-PTM service perception SC-PTM ser | 21.1.1  |  | Rel-13 | C259 | UEs supporting E-UTRA and SC-PTM                              |         |   |  |
| cell reselection to a cell broadcasting SIB20 21.1.3   SC-MCCH information acquisition/ UE handover to a cell broadcasting SIB20 21.1.4   SC-MCCH information acquisition/ SIB20   SC-MCCH information acquisition/ UE is receiving an SC-PTM service   SC-MCCH information acquisition/ UE is receiving an SC-PTM service   SC-MCCH information acquisition/ UE is receiving an SC-PTM service   SC-MCCH information acquisition/ UE is not receiving SC-PTM data   SC-MCCH information acquisition/ UE is not receiving SC-PTM data   SC-MCCH information acquisition/ UE is not receiving SC-PTM data   SC-MCCH information acquisition/ UE is not receiving SC-PTM data   SC-MCCH information acquisition/ Enhanced Coverage   Rel-13   SC-MCCH information acquisition/ Enhanced Coverage   Rel-14   SC-MCCH information acquisition/ Enhanced Coverage   Paging   Rel-14   C354   UE supporting E-UTRA and SC-PTM and   SC-PTM   SC |         |  |        |      |   |         | · |  |
| broadcasting SIB20 21.1.3 SC-MCCH Information acquisition/ UE handover to a cell broadcasting SIB20 21.1.4 SC-MCCH information acquisition/ UE is receiving an SC-PTM service 21.1.5 SC-MCCH information acquisition/ UE is receiving an SC-PTM service 21.1.6 SC-MCCH information acquisition/ UE is not receiving SC-PTM data 21.1.6 SC-MCCH information acquisition/ UE is not receiving SC-PTM data 21.1.6 SC-MCCH information acquisition/ UE is not receiving SC-PTM data 21.1.6 SC-MCCH information acquisition / Enhanced Coverage (CE mode A or CE mode B) (CE mode A or CE mode B | 21.1.2  |  | Rel-13 | C259 | UEs supporting E-UTRA and SC-PTM                              |         |   |  |
| UE handover to a cell broadcasting SIB20   |         | broadcasting SIB20                                       |        |      |   | pc_eTDD |   |  |
| SIB20  SIB20  C259  UE supporting E-UTRA and SC-PTM  DE is receiving an SC-PTM service  21.1.5  SC-MCCH information acquisition/ UE is receiving SC-PTM data  21.1.6  SC-MCCH information acquisition/ UE is not receiving SC-PTM data  21.1.6  SC-MCCH information acquisition/ UE is not receiving SC-PTM data  21.1.6  SC-MCCH information acquisition/ Enhanced Coverage  (CE mode A or CE mode B)  DC _EFDD  DC _ | 21.1.3  |  | Rel-13 | C259 | UEs supporting E-UTRA and SC-PTM                              |         |   |  |
| UE is receiving an SC-PTM service   C259   UEs supporting E-UTRA and SC-PTM   DC eFDD   C21.1.5   SC-MCCH information acquisition / UE is not receiving SC-PTM data   UEs supporting E-UTRA and SC-PTM   DC eFDD   DC eFDD   C21.1.6   SC-MCCH information acquisition / Enhanced Coverage   C259   UEs supporting E-UTRA and SC-PTM and   DC eFDD   C21.1.7   SC-MCCH information acquisition / Enhanced Coverage   Paging   DC eFDD      |         | SIB20  |        |      |   | -       |   |  |
| SC-MCCH information acquisition   Rel-13   C259   UEs supporting E-UTRA and SC-PTM   Dc_eTDD   Dc_eTDD   | 21.1.4  | SC-MCCH information acquisition/                         | Rel-13 | C259 | UEs supporting E-UTRA and SC-PTM                              |         |   |  |
| UE is not receiving SC-PTM data 21.1.6 SC-MCCH information acquisition / Enhanced Coverage 21.1.7 SC-MCCH information acquisition / Enhanced Coverage (CE mode A or CE mode B) 21.1.7 SC-MCCH information acquisition / Enhanced Coverage (Paging precedence) 21.1.7 ENANCED ENTA ENTA ENTA ENTA ENTA ENTA ENTA ENTA   |         | UE is receiving an SC-PTM service                        |        |      |   | pc_eTDD |   |  |
| 21.1.6 SC-MCCH information acquisition / Enhanced Coverage 21.1.7 SC-MCCH information acquisition / Enhanced Coverage 21.1.7 SC-MCCH information acquisition / Enhanced Coverage / Paging precedence 21.2.1 DRX operation / Parameters configured by RRC 21.2.2 DRX operation / Parameters configured by RRC / Coverage 21.2.2 DRX operation / Parameters configured by RRC / Coverage 21.3.1 Cell reselection to intra-frequency reception / Scil reselection to intra-frequency cell to continue SC-PTM service reception / Single Frequency operation / Single Frequency cell to start SC-PTM service reception / | 21.1.5  |  | Rel-13 | C259 | UEs supporting E-UTRA and SC-PTM                              | pc_eFDD |   |  |
| Enhanced Coverage   CE mode A or CE mode B)   Dc_eTDD    21.1.7   SC-MCCH information acquisition / Enhanced Coverage / Paging precedence   CE mode A or CE mode B)   Dc_eTDD    21.2.1   DRX operation / Parameters   CE mode B mode A or CE mode B mode A or CE mode B)   Dc_eTDD    21.2.2   DRX operation / Parameters   CE mode B mode A or CE mode B |         |  |        |      |   |         |   |  |
| 21.1.7   SC-MCCH information acquisition / Enhanced Coverage / Paging precedence 21.2.1   DRX operation / Parameters configured by RRC   DRX operation / Parameters configured by RRC   DRX operation / Parameters configured by RRC   C354   UEs supporting E-UTRA and SC-PTM   DRX operation / Parameters configured by RRC   DRX operation / Parameters configured by RRC   Enhanced Coverage   Rel-14   C354   UEs supporting E-UTRA and SC-PTM and (CE mode A or CE mode B)   DRX operation / Parameters configured by RRC / Enhanced Coverage   Rel-13   C259   UEs supporting E-UTRA and SC-PTM and (CE mode A or CE mode B)   DRX operation to intra-frequency cell to continue SC-PTM service reception   Rel-13   C259   UEs supporting E-UTRA and SC-PTM   DRX operation (inter-band neighbouring cell)   DRX operation (inter-frequency cell to start SC-PTM service reception   Single Frequency cell to start SC-PTM service reception   Single Frequency cell to start SC-PTM service reception   C259   UEs supporting E-UTRA and SC-PTM   DRX operation (inter-band neighbouring cell)   DRX operation (inter-band cell to Rel-13   C259   UEs supporting E-UTRA and SC-PTM   DRX operation   DRX operation (inter-band cell to Rel-13   C259   UEs supporting E-UTRA and SC-PTM   DRX operation   DRX operation (inter-band cell to Rel-13   C259   UEs supporting E-UTRA and SC-PTM   DRX operation   DRX o | 21.1.6  | SC-MCCH information acquisition /                        | Rel-14 | C354 | UEs supporting E-UTRA and SC-PTM and                          | pc_eFDD |   |  |
| Enhanced Coverage / Paging precedence  21.2.1 DRX operation / Parameters configured by RRC  21.2.2 DRX operation / Parameters configured by RRC  21.2.3 DRX operation / Parameters configured by RRC  21.2.4 DRX operation / Parameters configured by RRC / Enhanced Coverage  21.3.1 Cell reselection to intra-frequency reception  21.3.1 Cell reselection to intra-frequency cell to continue SC-PTM service reception / Single Frequency operation (inter-band neighbouring cell)  21.3.2 Cell reselection to intra-frequency cell to start SC-PTM service reception  21.3.2 Cell reselection to intra-frequency cell to start SC-PTM service reception  21.3.2 Cell reselection to intra-frequency cell to start SC-PTM service reception / Single Frequency cell SC-PTM service reception / Single Frequency cell SC-PTM service reception / Single Frequency cell SC-PTM service reception / Single Frequency cell SC-PTM service reception / Single Frequency cell SC-PT |         |  |        |      |   |         |   |  |
| precedence    DRX operation / Parameters configured by RRC   DRX operation / Parameters configured by RRC   DRX operation / Parameters configured by RRC   Enhanced Coverage   Rel-14   C354   UEs supporting E-UTRA and SC-PTM and (CE mode A or CE mode B)   DC_eFDD   | 21.1.7  |  | Rel-14 | C354 |   |         |   |  |
| configured by RRC  21.2.2 DRX operation / Parameters configured by RRC / Enhanced Coverage  Rel-14 C354 UEs supporting E-UTRA and SC-PTM and (CE mode A or CE mode B)  21.3.1 Cell reselection to intra-frequency cell to continue SC-PTM service reception  21.3.1a Cell reselection to intra-frequency cell to continue SC-PTM service reception  21.3.1a Cell reselection to intra-frequency cell to continue SC-PTM service reception / Single Frequency operation (inter-band neighbouring cell)  21.3.2 Cell reselection to inter-frequency cell to start SC-PTM service reception  21.3.2 Cell reselection to inter-frequency cell to start SC-PTM service reception  21.3.2 Cell reselection to inter-frequency cell to start SC-PTM service reception  21.3.2 Cell reselection to inter-frequency cell to start SC-PTM service reception  21.3.2 Cell reselection to inter-frequency cell to start SC-PTM service reception  21.3.2 Cell reselection to inter-band cell to Rel-13 C259 UEs supporting E-UTRA and SC-PTM pc_eFDD  21.3.2 Cell reselection to inter-band cell to Rel-13 C259 UEs supporting E-UTRA and SC-PTM pc_eFDD   |         | precedence   |        |      | ,   | . –     |   |  |
| DRX operation / Parameters configured by RRC / Enhanced Coverage  21.3.1 Cell reselection to intra-frequency cell to continue SC-PTM service reception  21.3.1a Cell reselection to intra-frequency cell to continue SC-PTM service reception / Single Frequency operation (inter-band neighbouring cell)  21.3.2 Cell reselection to inter-frequency cell to start SC-PTM service reception  21.3.2 Cell reselection to inter-frequency cell to continue SC-PTM service reception / Single Frequency operation (inter-band neighbouring cell)  21.3.2 Cell reselection to inter-frequency cell to start SC-PTM service reception  21.3.2 Cell reselection to inter-frequency cell to start SC-PTM service reception  21.3.2 Cell reselection to inter-frequency cell to start SC-PTM service reception  22.3.2 Cell reselection to inter-band cell to Rel-13 C259 UEs supporting E-UTRA and SC-PTM pc_eFDD  22.3.2 Cell reselection to inter-band cell to Rel-13 C259 UEs supporting E-UTRA and SC-PTM pc_eFDD  | 21.2.1  |  | Rel-13 | C259 | UEs supporting E-UTRA and SC-PTM                              |         |   |  |
| configured by RRC / Enhanced Coverage  Cell reselection to intra-frequency cell to continue SC-PTM service reception  21.3.1a  Cell reselection to intra-frequency cell to continue SC-PTM service reception  Cell reselection to intra-frequency cell to continue SC-PTM service reception / Single Frequency operation (inter-band neighbouring cell)  21.3.2 Cell reselection to inter-frequency Cell to start SC-PTM service reception  Cell reselection to inter-frequency Cell to start SC-PTM service reception  Cell reselection to inter-frequency Cell to start SC-PTM service reception  Cell reselection to inter-band cell to Cell reselection to int |         |  |        |      |   |         |   |  |
| Cell reselection to intra-frequency cell to continue SC-PTM service reception  | 21.2.2  | configured by RRC / Enhanced                             | Rel-14 | C354 | UEs supporting E-UTRA and SC-PTM and (CE mode A or CE mode B) |         |   |  |
| cell to continue SC-PTM service reception  21.3.1a Cell reselection to intra-frequency cell to continue SC-PTM service reception / Single Frequency operation (inter-band neighbouring cell)  21.3.2 Cell reselection to inter-frequency cell to start SC-PTM service reception  21.3.2 Cell reselection to inter-frequency cell to start SC-PTM service reception  21.3.2 Cell reselection to inter-frequency cell to start SC-PTM service reception  21.3.2 Cell reselection to inter-band cell to Rel-13 C259 UEs supporting E-UTRA and SC-PTM pc_eTDD  21.3.2 Cell reselection to inter-band cell to Rel-13 C259 UEs supporting E-UTRA and SC-PTM pc_eTDD  |         |  |        |      |   |         |   |  |
| reception  21.3.1a Cell reselection to intra-frequency cell to continue SC-PTM service reception / Single Frequency operation (inter-band neighbouring cell)  21.3.2 Cell reselection to inter-frequency cell to start SC-PTM service reception  21.3.2 Cell reselection to inter-frequency cell to start SC-PTM service reception  21.3.2 Cell reselection to inter-band cell to Rel-13 C259 UEs supporting E-UTRA and SC-PTM pc_eTDD  21.3.2 Cell reselection to inter-band cell to Rel-13 C259 UEs supporting E-UTRA and SC-PTM pc_eTDD   | 21.3.1  |  | Rel-13 | C259 | UEs supporting E-UTRA and SC-PTM                              |         |   |  |
| cell to continue SC-PTM service reception / Single Frequency operation (inter-band neighbouring cell)  21.3.2 Cell reselection to inter-frequency cell to start SC-PTM service reception  21.3.2 Cell reselection to inter-band cell to Rel-13 C259 UEs supporting E-UTRA and SC-PTM pc_eTDD  21.3.2 Cell reselection to inter-band cell to Rel-13 C259 UEs supporting E-UTRA and SC-PTM pc_eFDD   |         | reception  |        |      |   | pc_eTDD |   |  |
| reception / Single Frequency operation (inter-band neighbouring cell)  21.3.2 Cell reselection to inter-frequency cell to start SC-PTM service reception  21.3.2 Cell reselection to inter-band cell to Rel-13 C259 UEs supporting E-UTRA and SC-PTM pc_eTDD  21.3.2a Cell reselection to inter-band cell to Rel-13 C259 UEs supporting E-UTRA and SC-PTM pc_eFDD  | 21.3.1a |  | Rel-13 | C259 | UEs supporting E-UTRA and SC-PTM                              |         |   |  |
| operation (inter-band neighbouring cell)  21.3.2 Cell reselection to inter-frequency cell to start SC-PTM service reception  21.3.2 Cell reselection to inter-band cell to Rel-13 C259 UEs supporting E-UTRA and SC-PTM pc_eTDD  21.3.2a Cell reselection to inter-band cell to Rel-13 C259 UEs supporting E-UTRA and SC-PTM pc_eFDD   |         |  |        |      |   | pc_eTDD |   |  |
| cell to start SC-PTM service reception pc_eTDD  21.3.2a Cell reselection to inter-band cell to Rel-13 C259 UEs supporting E-UTRA and SC-PTM pc_eFDD  |         | operation (inter-band neighbouring                       |        |      |   |         |   |  |
| cell to start SC-PTM service reception pc_eTDD  21.3.2a Cell reselection to inter-band cell to Rel-13 C259 UEs supporting E-UTRA and SC-PTM pc_eFDD  | 21.3.2  | Cell reselection to inter-frequency                      | Rel-13 | C259 | UEs supporting E-UTRA and SC-PTM                              | pc_eFDD |   |  |
| 21.3.2a Cell reselection to inter-band cell to Rel-13 C259 UEs supporting E-UTRA and SC-PTM pc_eFDD  |         | cell to start SC-PTM service                             |        |      |   |         |   |  |
|  | 21.3.2a |  | Rel-13 | C259 | UEs supporting E-UTRA and SC-PTM                              | pc eFDD |   |  |
|  |         | start SC-PTM service reception                           |        |      |   | pc_eTDD |   |  |

| 21.3.2c   | Cell reselection to inter-frequency            | Rel-14  | C354   | UEs supporting E-UTRA and SC-PTM and        | pc_eFDD            |   | 1 |   |
|-----------|--|---------|--------|---|--------------------|---|---|---|
| 21.3.20   | cell using Qoffset <sub>SCPTM</sub> / Enhanced | Kei- 14 | C354   | (CE mode A or CE mode B)                    | pc_eFDD<br>pc eTDD |   |   |   |
|           | Coverage                                       |         |        | ,   | r -= -             |   |   |   |
| 21.3.3    | Handover to inter-frequency cell to            | Rel-13  | C259   | UEs supporting E-UTRA and SC-PTM            | pc_eFDD            |   |   |   |
|           | start SC-PTM service reception                 |         |        |   | pc_eTDD            |   |   |   |
| 21.3.3a   | Handover to inter-band cell to start           | Rel-13  | C259   | UEs supporting E-UTRA and SC-PTM            | pc_eFDD            |   |   |   |
|           | SC-PTM service reception                       |         |        | 3   | pc_eTDD            |   |   |   |
| 21.3.4    | Handover to intra-frequency cell to            | Rel-13  | C259   | UEs supporting E-UTRA and SC-PTM            | pc_eFDD            |   |   |   |
|           | continue SC-PTM service reception              |         | 0200   | o supporting a contract and contribution    | pc_eTDD            |   |   |   |
| 21.3.5    | Conditional retransmission of MBMS             | Rel-13  | C259   | UEs supporting E-UTRA and SC-PTM            | pc_eFDD            |   |   |   |
| 21.0.0    | Interest Indication after handover             | 1101 10 | 0200   | OES supporting E STIVI and SST TW           | pc_eTDD            |   |   |   |
| 21.3.6    | MBMS Interest Indication                       | Rel-13  | C259   | UEs supporting E-UTRA and SC-PTM            | pc_eFDD            |   |   |   |
| 21.3.0    | retransmission after returning from            | Kel-13  | 0239   | OLS Supporting L-OTKA and SO-F TWI          | pc_erDD            |   |   |   |
|           | cell not broadcasting SIB15                    |         |        |   | pc_e1DD            |   |   |   |
| 21.3.7    | MBMS Interest Indication                       | Rel-13  | C259   | UEs supporting E-UTRA and SC-PTM            | pc_eFDD            |   |   |   |
| 21.5.7    | retransmission after returning from            | 1.61-13 | 0239   | OLS supporting L-OTIVA and SO-1 Tivi        | pc_erDD            |   |   |   |
|           | cell not broadcasting SIB20                    |         |        |   | pc_e1DD            |   |   |   |
| 21.3.8    | MBMS Interest Indication after                 | Rel-13  | C259   | UEs supporting E-UTRA and SC-PTM            | pc_eFDD            |   |   |   |
| 21.5.0    | Radio Link Failure                             | IXCI-13 | 0233   | OLS supporting L OTTA and SOT TW            | pc_eTDD            |   |   |   |
| 21.3.9    | Continued SC-PTM service                       | Rel-13  | C259   | UEs supporting E-UTRA and SC-PTM            | pc_eFDD            |   |   |   |
| 21.3.9    | reception after E-UTRAN release of             | Kel-13  | C259   | DES Supporting E-01 KA and SC-P Tivi        | pc_eFDD<br>pc_eTDD |   |   |   |
|           | unicast bearer                                 |         |        |   | pc_eTDD            |   |   |   |
| 21.3.10.1 | CA / Start SC-PTM reception on                 | Rel-13  | C259cF | UEs supporting E-UTRA and Intra-band        | pc_eFDD            |   |   |   |
|           | Non-Serving Cell / Continue SC-                |         | C259cT | contiguous Carrier Aggregation and Feature  | pc_eTDD            |   |   |   |
|           | PTM reception on SCell after SCell             |         |        | Group Indicator 13 and Feature Group        | . –                |   |   |   |
|           | addition / Intra-band Contiguous CA            |         |        | Indicator 25 and SC-PTM and reception of    |                    |   |   |   |
|           |  |         |        | SCPTM on SCell and on NonServingCell        |                    |   |   |   |
| 21.3.10.2 | CA / Start SC-PTM reception on                 | Rel-13  | C259dF | UEs supporting E-UTRA and Inter-band        | pc_eFDD            |   |   |   |
|           | Non-Serving Cell / Continue SC-                |         | C259dT | Carrier Aggregation and Feature Group       | pc_eTDD            |   |   |   |
|           | PTM reception on SCell after SCell             |         |        | Indicator 13 and Feature Group Indicator 25 |                    |   |   |   |
|           | addition / Inter-band CA                       |         |        | and SC-PTM and reception of SCPTM on        |                    |   |   |   |
|           |  |         |        | SCell and on NonServingCell                 |                    |   |   |   |
| 21.3.11.1 | CA / Start SC-PTM reception on                 | Rel-13  | C259e  | UEs supporting E-UTRA and Intra-band        | pc_eFDD            |   |   |   |
|           | SCell / Continue SC-PTM reception              |         |        | contiguous Carrier Aggregation and SC-PTM   | pc_eTDD            |   |   |   |
|           | on Non-Serving after SCell release /           |         |        | and reception of SCPTM on SCell and on      | . –                |   |   |   |
|           | Intra-band Contiguous CA                       |         |        | NonServingCell                              |                    |   |   |   |
| 21.3.11.2 | CA / Start SC-PTM reception on                 | Rel-13  | C259f  | UEs supporting E-UTRA and Inter-band        | pc_eFDD            |   |   |   |
|           | SCell / Continue SC-PTM reception              |         |        | Carrier Aggregation and SC-PTM and          | pc_eTDD            |   |   |   |
|           | on Non-Serving after SCell release /           |         |        | reception of SCPTM on SCell and on          | . –                |   |   |   |
|           | Inter-band CA                                  |         |        | NonServingCell                              |                    |   |   |   |
| 21.3.12.1 | CA / Start SC-PTM reception on                 | Rel-13  | C259gF | UEs supporting E-UTRA and Intra-band        | pc_eFDD            |   |   |   |
| 1         | PCell / Continue SC-PTM reception              |         | C259gT | contiguous Carrier Aggregation and Feature  | pc_eTDD            |   |   |   |
| 1         | after swap of SCell and PCell / Intra-         |         |        | Group Indicator 13 and Feature Group        | ļ. —               |   |   |   |
| 1         | band Contiguous CA                             |         | 1      | Indicator 25 and SC-PTM and reception of    |                    |   |   |   |
| 1         | Ĭ  |         |        | SCPTM on SCell                              |                    |   |   |   |
| 21.3.12.2 | CA / Start SC-PTM reception on                 | Rel-13  | C259hF | UEs supporting E-UTRA and Inter-band        | pc_eFDD            |   |   |   |
| 1         | PCell / Continue SC-PTM reception              |         | C259hT | Carrier Aggregation and Feature Group       | pc eTDD            |   |   |   |
|           | after swap of SCell and PCell / Inter-         |         |        | Indicator 13 and Feature Group Indicator 25 |                    |   |   |   |
|           | band CA  |         | 1      | and SC-PTM and reception of SCPTM on        |                    |   |   |   |
|           |  |         |        | SCell                                       |                    |   |   |   |
| 21.3.13   | SC-PTM Stop Indication / Enhanced              | Rel-14  | C354   | UEs supporting E-UTRA and SC-PTM            | pc_eFDD            |   |   |   |
| 1         | Coverage                                       |         |        | and (CE mode A or CE mode B)                | pc_eTDD            |   |   | 1 |
|           | 1  | 1       | 1      | and (OE mode // or OE mode D)               | Ibo_e i DD         | 1 | i | 1 |

| 22       | NB-IoT  |        |       |  |   |  |         |  |
|----------|---|--------|-------|--|---|--|---------|--|
| 22.1.1   | NB-IoT / Control Plane CloT EPS optimisation for EPS services   | Rel-13 | C266  | UEs supporting NB-IoT  | pc_NonIP_PDN, pc_IP_PDN, pc_NB_S1_only pc_NonIP_Link_ MTU_Parameter pc_IPv4_Link_M TU_Parameter pc_APN_RateCo ntrol | px_DoAttachWit<br>houtPDN,<br>px_nonSMSTran<br>sport_CP_CloT,<br>px_SMSTranspo<br>rt_CP_CloT,<br>px_ModifyBearer<br>Resources, | Note 18 |  |
| 22.2.1   | NB-IoT / PLMN selection of RPLMN,<br>HPLMN/EHPLMN, UPLMN and<br>OPLMN / Automatic mode  | Rel-13 | C266  | UEs supporting NB-IoT  |   |  |         |  |
| 22.2.2   | NB-IoT / PLMN selection of RPLMN,<br>HPLMN / EHPLMN, UPLMN and<br>OPLMN / Manual mode   | Rel-13 | C266a | UEs supporting NB-IoT and Manual Mode PLMN Selection exception |   |  |         |  |
| 22.2.3   | NB-IoT / PLMN selection / Periodic reselection / MinimumPeriodicSearchTimer   | Rel-13 | C266  | UEs supporting NB-IoT  |   |  |         |  |
| 22.2.4   | NB-IoT / Cell selection / Qrxlevmin<br>and Qqualmin / Serving cell<br>becomes non-suitable (S<0 or<br>barred or Srxlev > 0 and Squal < 0) | Rel-13 | C266  | UEs supporting NB-IoT  |   |  |         |  |
| 22.2.5   | NB-IoT / Intra-frequency Cell<br>reselection / Qhyst, Qoffset,<br>Treselection and Cell-specific<br>reselection parameters                | Rel-13 | C266  | UEs supporting NB-IoT  |   |  |         |  |
| 22.2.6   | NB-IoT / Cell reselection using cell status and cell reservations / Access control class 0 to 9   | Rel-13 | C266  | UEs supporting NB-IoT  |   |  |         |  |
| 22.2.7   | NB-IoT / Cell reselection using cell<br>status and cell reservations / Access<br>control class 11 to 15                                   | Rel-13 | C266  | UEs supporting NB-IoT  |   |  |         |  |
| 22.2.8   | NB-IoT / Cell reselection in shared network environment   | Rel-13 | C266  | UEs supporting NB-IoT  |   |  |         |  |
| 22.2.9   | NB-IoT / Inter-frequency cell reselection   | Rel-13 | C266  | UEs supporting NB-IoT  |   |  |         |  |
| 22.2.10  | NB-IoT / Cell reselection / MFBI  | Rel-13 | C266  | UEs supporting NB-IoT  |   |  |         |  |
| 22.2.11  | NB-IoT / Wake-up signalling / DRX   | Rel-15 | C390  | UEs supporting NB-IoT and WUS                                  | pc_NB_FDD   |  |         |  |
| 22.2.12  | NB-IoT / Wake-up signalling / eDRX  | Rel-15 | C391  | UEs supporting NB-IoT and Extended DRX and WUS                 | pc_NB_FDD   |  |         |  |
| 22.3.1.1 | NB-IoT / RACH Procedure /<br>Preamble Selected by MAC /<br>Temporary C-RNTI   | Rel-13 | C266  | UEs supporting NB-IoT  |   |  |         |  |
| 22.3.1.2 | NB-IoT / Correct Handling of DL<br>MAC PDU / Assignment / HARQ<br>process / TimeAlignmentTimer<br>expiry                                  | Rel-13 | C266  | UEs supporting NB-IoT  |   |  |         |  |
| 22.3.1.3 | NB-IoT / Correct Handling of UL<br>MAC PDU / Assignment / HARQ<br>process/Padding   | Rel-13 | C266  | UEs supporting NB-IoT  |   |  |         |  |

| 22.3.1.4  | NB-IoT / Correct handling of MAC control information / Buffer status   | Rel-13 | C266 | UEs supporting NB-IoT  |           |  |  |
|-----------|--|--------|------|--|-----------|--|--|
| 22.3.1.5  | NB-IoT / DRX operation / DRX cycle configured / Parameters configured by RRC / DRX command MAC control element reception               | Rel-13 | C266 | UEs supporting NB-IoT  |           |  |  |
| 22.3.1.6  | NB-IoT / DL-SCH / UL-SCH<br>transport block size selection / DCI<br>format N1/ N0  | Rel-13 | C266 | UEs supporting NB-IoT  |           |  |  |
| 22.3.1.6a | NB-IoT / DL-SCH / UL-SCH<br>transport block size selection / DCI<br>format N1/ N0 / Category NB2                                       | Rel-14 | C347 | UEs supporting NB-IoT and Category NB2   |           |  |  |
| 22.3.1.7  | NB-IoT / RACH Procedure /<br>Contention free random access<br>(CFRA)   | Rel-14 | C266 | UEs supporting NB-IoT  |           |  |  |
| 22.3.1.8  | NB-IoT / RACH Procedure / Non-<br>anchor carrier   | Rel-14 | C348 | UEs supporting NB-IoT and NPRACH on non-<br>anchor carrier                                   |           |  |  |
| 22.3.1.9  | NB-IoT / Correct HARQ process / 2<br>HARQ processes  | Rel-14 | C339 | UEs supporting NB-IoT and 2 HARQ processes in DL and UL and Category NB2                     |           |  |  |
| 22.3.1.10 | NB-IoT / RACH Procedure / Early contention resolution  | Rel-14 | C266 | UEs supporting NB-IoT  |           |  |  |
| 22.3.1.11 | NB-IoT / Scheduling Request /<br>Without HARQ ACK  | Rel-15 | C392 | ACK  | pc_NB_FDD |  |  |
| 22.3.2.1  | NB-IoT / AM RLC / Correct use of sequence numbering / Concatenation and reassembly / Polling for status                                | Rel-13 | C266 | UEs supporting NB-IoT  |           |  |  |
| 22.3.2.2  | NB-IoT / AM RLC / Receiver status triggers   | Rel-13 | C266 | UEs supporting NB-IoT  |           |  |  |
| 22.3.2.3  | NB-IoT / AM RLC / In sequence<br>delivery of upper layers PDUs/<br>Different numbers of length<br>indicators                           | Rel-13 | C266 | UEs supporting NB-IoT  |           |  |  |
| 22.3.2.4  | NB-IoT / AM RLC / Re-segmentation<br>RLC PDU / SO, FI, LSF / Re-<br>transmission of RLC PDU  | Rel-13 | C266 | UEs supporting NB-IoT  |           |  |  |
| 22.3.2.5  | NB-IoT / AM RLC / Segmentation<br>and Reassembly / AMD PDU<br>reassembly from AMD PDU<br>segments / Re-ordering of RLC PDU<br>segments | Rel-13 | C266 | UEs supporting NB-IoT  |           |  |  |
| 22.3.2.6  | NB-IoT / UM RLC / Correct use<br>of sequence numbering /<br>Concatenation, segmentation<br>and reassembly / SC-MCCH<br>and SC-MTCH     | Rel-14 | C351 | UEs supporting NB-IoT and SC-PTM and Feature Group Indicator 3 and Feature Group Indicator 7 |           |  |  |
| 22.3.2.7  | NB-IoT / AM RLC / Receiver status<br>triggers / Non-zero t-Reordering<br>configured  | Rel-14 | C339 | UEs supporting NB-IoT and 2 HARQ processes in DL and UL and Category NB2                     |           |  |  |

22.4.3

|          | ND 1 = (1111 D) 0 (0)  | 1 - 1 - 1 |      | THE REPORT OF   | 1 | T | 1 |
|----------|--|-----------|------|---|---|---|---|
| 22.3.2.8 | NB-IoT / UM RLC / Correct use of sequence numbering / Concatenation, segmentation and reassembly / Duplicate detection                     | Rel-15    | C377 | UEs supporting NB-IoT and RLC UM mode   |   |   |   |
| 22.3.3.1 | NB-IoT / Maintenance of PDCP<br>sequence numbers / User plane /<br>RLC AM  | Rel-13    | C290 | UEs supporting NB-IoT and S1-U Data<br>Transfer   |   |   |   |
| 22.3.3.2 | NB-IoT / Integrity protection /<br>Ciphering and deciphering / Correct<br>functionality of EPS AS and UP<br>encryption algorithms / SNOW3G | Rel-13    | C290 | UEs supporting NB-IoT and S1-U Data Transfer  |   |   |   |
| 22.3.3.3 | NB-IoT / Integrity protection /<br>Ciphering and deciphering / Correct<br>functionality of EPS AS and UP<br>encryption algorithms / AES    | Rel-13    | C290 | UEs supporting NB-IoT and S1-U Data Transfer  |   |   |   |
| 22.3.3.4 | NB-IoT / Integrity protection /<br>Ciphering and deciphering / Correct<br>functionality of EPS AS and UP<br>encryption algorithms / ZUC    | Rel-13    | C291 | UEs supporting NB-IoT and S1-U Data<br>Transfer and ZUC algorithm   |   |   |   |
| 22.3.3.5 | NB-IoT / PDCP re-establishment /<br>stored UE AS context is used and<br>drb-ContinueROHC is configured                                     | Rel-13    | C396 | UEs supporting NB-IoT and User plane CloT Optimisation in NB-S1 mode and (ROHC profile0x0002 or ROHC profile0x0003 or ROHC profile0x0006 or ROHC profile0x0006 or ROHC profile0x0102 or ROHC profile0x0103 or ROHC profile0x0104) |   |   |   |
| 22.3.3.6 | NB-IoT / PDCP Discard  | Rel-13    | C290 | UEs supporting NB-IoT and S1-U Data Transfer  |   |   |   |
| 22.4.1   | NB-IoT / Notification of BCCH<br>modification in idle mode / eDRX<br>cycle longer than the modification<br>period                          | Rel-13    | C273 | UEs supporting NB-IoT and Extended DRX  |   |   |   |
| 22.4.2   | NB-IoT / RRC / Paging for connection in idle mode / Multiple paging records / Shared network environment                                   | Rel-13    | C266 | UEs supporting NB-IoT   |   |   |   |
|          | Void   |           |      |   |   |   |   |
| 22.4.4   | NB-IoT / RRC connection<br>establishment / Paging / Access<br>Barring for UE with AC 0 to 9 / ab-<br>Category a, b and c                   | Rel-13    | C266 | UEs supporting NB-IoT   |   |   |   |
| 22.4.5   | NB-IoT / RRC connection<br>establishment / Paging / Access<br>Barring for UE with AC 11 to 15 / ab-<br>Category a, b and c                 | Rel-13    | C266 | UEs supporting NB-IoT   |   |   |   |
| 22.4.6   | NB-IoT / RRC / Paging for<br>notification of BCCH modification in<br>idle mode / Direct indication for SI<br>update                        | Rel-13    | C266 | UEs supporting NB-IoT   |   |   |   |
| 22.4.7   | NB-IoT / RRC connection release with extendedWait / extendedWait   | Rel-13    | C266 | UEs supporting NB-IoT   |   |   |   |

|          | !:   | 1 1     |      |   | I | 1 | 1 |  |
|----------|--|---------|------|---|---|---|---|--|
|          | ignored / RRC connection                                 |         |      |   |   |   |   |  |
|          | establishment / Reject with extendedWait                 |         |      |   |   |   |   |  |
| 22.4.8   | NB-IoT / RRC connection                                  | Rel-13  | C266 | UEs supporting NB-IoT                               |   |   |   |  |
| 22.4.0   | establishment / Access Barring for                       | IXel-13 | 0200 | OLS Supporting ND-101                               |   |   |   |  |
|          | UE with AC 0 to 9 / MO exception                         |         |      |   |   |   |   |  |
|          | data / ab-Category a, b and c                            |         |      |   |   |   |   |  |
| 22.4.9   | NB-IoT / RRC connection                                  | Rel-13  | C266 | UEs supporting NB-IoT                               |   |   |   |  |
|          | establishment / Access Barring for                       |         |      |   |   |   |   |  |
|          | UE with AC 11 to 15 / MO exception                       |         |      |   |   |   |   |  |
|          | data / ab-Category a, b and c                            |         |      |   |   |   |   |  |
| 22.4.10  | Void   |         |      |   |   |   |   |  |
| 22.4.11  | NB-IoT / RRC connection release /                        | Rel-13  | C266 | UEs supporting NB-IoT                               |   |   |   |  |
|          | Redirection to another NB-IoT                            |         |      |   |   |   |   |  |
|          | frequency  |         |      |   |   |   |   |  |
| 22.4.12  | NB-IoT / RRC connection release /                        | Rel-13  | C266 | UEs supporting NB-IoT                               |   |   |   |  |
|          | Redirection to another NB-IoT band                       | D 1 10  |      |   |   |   |   |  |
| 22.4.13  | NB-IoT / UE capability transfer /                        | Rel-13  | C266 | UEs supporting NB-IoT                               |   |   |   |  |
| 00.4.4.4 | Success  | D.I.40  | 0000 | UE  |   |   |   |  |
| 22.4.14  | NB-IoT / RRC Connection<br>Establishment / Multi-Carrier | Rel-13  | C288 | UEs supporting NB-IoT and multi-carrier             |   |   |   |  |
| 22.4.15  | NB-IoT / RRC connection suspend-                         | Rel-13  | C271 | operation UEs supporting NB-IoT and User plane CloT |   |   |   |  |
| 22.4.13  | resume / Success / different cell                        | Kel-13  | 0271 | Optimisation in NB-S1 mode                          |   |   |   |  |
| 22.4.16  | NB-IoT / RRC connection suspend-                         | Rel-13  | C271 | UEs supporting NB-IoT and User plane CIoT           |   |   |   |  |
| 22.4.10  | resume / Failure / Network reject                        | IXCI-13 | 0271 | Optimisation in NB-S1 mode                          |   |   |   |  |
| 22.4.17  | Void   | 1       |      |   |   |   |   |  |
| 22.4.18  | NB-IoT / RRC connection                                  | Rel-13  | C290 | UEs supporting NB-IoT and S1-U Data                 |   |   |   |  |
|          | reconfiguration / SRB                                    |         |      | Transfer  |   |   |   |  |
|          | reconfiguration / Success                                |         |      |   |   |   |   |  |
| 22.4.19  | Void   |         |      |   |   |   |   |  |
| 22.4.19a | NB-IoT / Radio link failure / T301                       | Rel-14  | C322 | UEs supporting NB-IoT and RRC connection            |   |   |   |  |
|          | expiry / T311 expiry / RRC                               |         |      | re-establishment                                    |   |   |   |  |
|          | connection re-establishment                              |         |      |   |   |   |   |  |

| 2.4.20  | NB-IoT / Radio link failure / RRC connection re-<br>establishment reject                                       | Rel-13                   | C290 | UEs supporting NB-IoT and S1-U Data Transfer                          |  |  |
|---------|--|--------------------------|------|---|--|--|
| 2.4.20a | NB-IoT / Radio link failure / RRC connection re-<br>establishment reject / RRC connection re-<br>establishment | Rel-14                   | C322 | UEs supporting NB-IoT and RRC connection re-establishment             |  |  |
| 2.4.21  | NB-IoT / Radio link failure / Radio link recovery while T310 is running  | Rel-13                   | C290 | UEs supporting NB-IoT and S1-U Data Transfer                          |  |  |
| 2.4.22  | NB-IoT / Radio link failure / T301 expiry / T311 expiry / Dedicated RLF timer (UP/S1-U)                        | Rel-13                   | C290 | UEs supporting NB-IoT and S1-U Data Transfer                          |  |  |
| 2.4.23  | NB-IoT / Radio link failure / T310 expiry / Dedicated RLF timer (CP CIoT)                                      | Rel-13                   | C266 | UEs supporting NB-IoT   |  |  |
| 2.4.24  | NB-IoT / RRC / Paging for connection in idle mode / Non-anchor carrier   | Rel-14                   | C349 | UEs supporting NB-IoT and paging on non-<br>anchor carriers in NB-IoT |  |  |
| 2.4.25  | NB-IoT / SC-MCCH information acquisition   | Rel-14                   | C350 | UEs supporting NB-IoT and SC-PTM in Idle mode                         |  |  |
| 2.4.26  | NB-IoT / RRC connection establishment /<br>Extended and spare fields in SI                                     | Rel-13 toRel-<br>15 only | C266 | UEs supporting NB-IoT   |  |  |

| 2.4.27 | NB-IoT / RRC connection establishment /  | Rel-15 | C266 | UEs supporting NB-IoT | <br> |  |
|--------|--|--------|------|-----------------------|------|--|
|        | Access barring enhancement   | Kel-15 |      |                       |      |  |
| 2.5.1  | NB-IoT / Authentication not accepted by the network, GUTI used / Authentication not accepted by the UE, SQN failure / Authentication not accepted by the UE, non-EPS authentication unacceptable / Network failing the authentication check  | Rel-13 | C266 | UEs supporting NB-IoT |      |  |
| 2.5.2  | NB-IoT / NAS Security / Handling of null integrity protection and null ciphering algorithms / NAS count reset to zero / Security mode command with not matching replayed security capabilities / Provision of IMEISV and IMEI  | Rel-13 | C266 | UEs supporting NB-IoT |      |  |
| 2.5.3  | NB-IoT / NW initiated detach Re-attach required / UE initiated detach Abnormal case EMM common procedure collision / UE initiated detach Abnormal case Local detach after 5 attempts due to no network response  | Rel-13 | C266 | UEs supporting NB-IoT |      |  |
| 2.5.4  | NB-IoT / Attach to new PLMN IMSI / Network reject with Extended Wait Timer / Paging with IMSI / Attach Rejected Illegal ME/UE / Detach upon switch-off   | Rel-13 | C266 | UEs supporting NB-IoT |      |  |
| 2.5.5  | NB-IoT / Attach Procedure / Success / List of<br>equivalent PLMNs in the ATTACH ACCEPT<br>message / Attach / Rejected / PLMN not<br>allowed  | Rel-13 | C266 | UEs supporting NB-IoT |      |  |
| 2.5.6  | NB-IoT / Attach Abnormal cases / Unsuccessful attach or Repeated rejects for network failures / Change of cell into a new tracking area / EPS services not allowed / Failure due to non integrity protection /UE initiated detach USIM removed from the UE / Detach procedure collision.                           | Rel-13 | C266 | UEs supporting NB-IoT |      |  |
| 2.5.7a | NB-IoT / Normal tracking area update List of equivalent PLMNs in the TRACKING AREA UPDATE ACCEPT message / Normal tracking area update Rejected (IMSI invalid / Illegal ME / UE identity cannot be derived by the network / UE implicitly detached / PLMN not allowed  | Rel-13 | C266 | UEs supporting NB-IoT |      |  |
| 2.5.7b | NB-IoT / Normal tracking area update Rejected (Tracking area not allowed / No suitable cells in tracking area / Roaming not allowed in this tracking area / Congestion) / UE initiated detach Abnormal case Change of cell into a new tracking area  | Rel-13 | C266 | UEs supporting NB-IoT |      |  |
| 2.5.8  | NB-IoT / TRACKING AREA UPDATE REJECT / Change of cell into a new tracking area / Access barred due to access class control or NAS signalling connection establishment rejected by the network / Success or fail after several attempts due to no network response / TA belongs to TAI list and status is UPDATED / | Rel-13 | C266 | UEs supporting NB-IoT |      |  |

|        |   |        | 1    |  | Т | 1 | 1 | 1 |
|--------|---|--------|------|--|---|---|---|---|
|        | Tracking area updating and detach procedure collision.  |        |      |  |   |   |   |   |
| 2.5.9  | NB-IoT / UE in NB-S1 mode supporting CIoT Optimizations / Paging with not matching identity / Control Plane Service request Rejected (IMSI invalid / Illegal ME / EPS services not allowed / UE identity cannot be derived by the network / UE implicitly detached) | Rel-13 | C266 | UEs supporting NB-IoT  |   |   |   |   |
| 2.5.10 | NB-IoT / EPS NAS integrity and encryption /<br>SNOW 3G  | Rel-13 | C266 | UEs supporting NB-IoT  |   |   |   |   |
| 2.5.11 | NB-IoT / EPS NAS integrity and encryption / AES   | Rel-13 | C266 | UEs supporting NB-IoT  |   |   |   |   |
| 2.5.12 | NB-IoT / EPS NAS integrity and encryption / ZUC   | Rel-13 | C272 | UEs supporting NB-IoT and ZUC algorithms   |   |   |   |   |
| 2.5.13 | NB-IoT / Attach Procedure / Success / Last<br>visited TAI, TAI list and equivalent PLMN list<br>handling  | Rel-13 | C266 | UEs supporting NB-IoT  |   |   |   |   |
| 2.5.14 | NB-IoT / Attach / Rejected / Tracking Area not allowed / Roaming not allowed in this tracking area / No suitable cells in tracking area   | Rel-13 | C266 | UEs supporting NB-IoT  |   |   |   |   |
| 2.5.15 | NB-IoT / Normal tracking area update / low priority override  | Rel-13 | C275 | UEs supporting NB-IoT and LAP and LAP override   |   |   |   |   |
| 2.5.16 | NB-IoT / Normal tracking area update /<br>Rejected / EPS service not allowed / EPS<br>services not allowed in this PLMN   | Rel-13 | C266 | UEs supporting NB-IoT  |   |   |   |   |
| 2.5.17 | NB-IoT / Attach Success /Normal tracking area update accepted / Periodic tracking area update T3412 Extended Value / PSM  | Rel-13 | C266 | UEs supporting NB-IoT  |   |   |   |   |
| 2.5.18 | NB-IoT / Attach & Normal tracking area update Procedure / Success / without Idle eDRX parameters / With Idle eDRX parameters / With and without Idle eDRX and PSM parameters  | Rel-13 | C266 | UEs supporting NB-IoT  |   |   |   |   |
| 2.5.19 | Void  |        |      |  |   |   |   |   |
| 2.5.20 | NB-IoT/ UE in NB-S1 mode supporting control plane data back-off timer / Service reject with extended wait time CP data / Release with extended wait time CP data / Attach accept with extended wait time CP data  | Rel-14 | C341 | UEs supporting NB-IoT  |   |   |   |   |
| 2.5.21 | NB-IoT/APN rate control for MO exception data   | Rel-14 | C342 | UEs supporting NB-IoT and APN rate control<br>and additional APN rate control for exception<br>data                  |   |   |   |   |
| 2.5.22 | NB-IoT / Tracking area update/Inter-RAT change between NB-IoT and E-UTRA  | Rel-14 | C323 | UEs supporting NB-S1 and WB-S1   |   |   |   |   |
| 2.6.1  | NB-IoT / UE routing of uplinks packets / User<br>Plane / UE requested PDN disconnect<br>procedure accepted by the network   | Rel-13 | C290 | UEs supporting NB-IoT, and S1-U Data<br>Transfer   |   |   |   |   |
| 2.6.1a | NB-IoT / UE routing of uplinks packets / Control Plane  | Rel-13 | C266 | UEs supporting NB-IoT  |   |   |   |   |
| 2.6.2  | NB-IoT / UE requested bearer resource<br>modification accepted by the network / Default<br>EPS bearer context   | Rel-13 | C293 | UEs supporting NB-IoT ESM UE requested<br>bearer resource modification procedure, and<br>requesting PDN of type "IP" |   |   |   |   |

| 2.6.3 | NB-IoT / UE requested bearer resource<br>modification error handling (Resource<br>modification not accepted by the network) /<br>Expiry of timer T3481/ Default EPS bearer<br>context                       | Rel-13 | C293 | UEs supporting NB-IoT, ESM UE requested bearer resource modification procedure and requesting PDN of type "IP"                                  |   |         |  |
|-------|---|--------|------|---|---|---------|--|
| 2.6.5 | NB-IoT / UE requested PDN connectivity procedure not accepted / UE requested PDN connectivity accepted Dual priority T3396 override UE requested PDN connectivity accepted / Dual priority / T3346 override | Rel-13 | C277 | UEs supporting NB-IoT and Multiple PDN and LAP and LAP override   |   |         |  |
| }     | CloT optimization for E-UTRA  |        |      |   |   |         |  |
| 3.1.1 | CloT / Control Plane MO and MT IP and non-IP<br>Data Transfer / Serving PLMN Rate Control /<br>APN Rate Control   | Rel-13 | C284 | UEs supporting E-UTRA and Control Plane<br>CloT in WB-S1 mode   | pc_eFDD, pc_IPv4_Link_ MTU_Paramete r, pc_APN_RateC ontrol                | Note 19 |  |
|       |   |        |      |   | pc_eTDD,<br>pc_IPv4_Link_<br>MTU_Paramete<br>r,<br>pc_APN_RateC<br>ontrol |         |  |
| 3.1.2 | CIoT Optimization / Control Plane / MT and MO<br>SMS Data Transfer  | Rel-13 | C284 | UEs supporting E-UTRA and Control Plane<br>CloT in WB-S1 mode   | pc_eFDD pc_eTDD   | Note 19 |  |
| 3.1.3 | CloT Optimization / Control Plane / EDT   | Rel-15 | C376 | UEs supporting E-UTRA and Control Plane<br>CloT and Control Plane EDT   | pc_eFDD pc_eFDD pc_eTDD   | Note 19 |  |
| 3.2.1 | CloT Optimization / User Plane  | Rel-13 | C285 | UEs supporting E-UTRA and User Plane CloT optimisation in WB-S1 mode  | pc_eFDD   | Note 19 |  |
|       |   |        |      |   | pc_eTDD   |         |  |
| 3.2.2 | CloT / RRC connection suspend-resume /<br>Success / different cell  | Rel-13 | C285 | UEs supporting E-UTRA and User Plane CloT optimisation in WB-S1 mode  | pc_eFDD   | Note 19 |  |
|       | 0.7(000   | D 1 10 |      |   | pc_eTDD   | N       |  |
| 3.2.3 | CIoT / RRC connection suspend-resume /<br>Network reject / different cell   | Rel-13 | C285 | UEs supporting E-UTRA and User Plane CloT optimisation in WB-S1 mode  | pc_eFDD   | Note 19 |  |
| 10.4  | Ola T. On the harding / Hann Blance / EDT   | D-145  | 0007 | HE  | pc_eTDD   | Note 40 |  |
| 3.2.4 | CloT Optimization / User Plane / EDT  | Rel-15 | C387 | UEs supporting E-UTRA and User Plane CloT optimisation in WB-S1 mode and User Plane EDT   | pc_eFDD   | Note 19 |  |
|       |   |        |      |   | pc_eTDD   |         |  |
|       | V2X   |        |      |   |   |         |  |
| l.1.1 | authorisation / UE in RRC_IDLE on an E-<br>UTRAN cell operating on the anchor carrier<br>frequency provisioned for V2X configuration /<br>Utilisation of the resources of (serving)                         | Rel-14 | C309 | UEs supporting E-UTRA and V2X sidelink communication and transmitting PSCCH/PSSCH using UE autonomous resource selection mode with full sensing | pc_eFDD<br>pc_eTDD  |         |  |
| 1.1.1 | V2X Sidelink Communication / Pre-configured authorisation / UE in RRC_IDLE on an E-UTRAN cell operating on the anchor carrier frequency provisioned for V2X configuration /                                 | Rel-14 | C309 | PSCCH/PSSCH using UE autonomous   | pc_eFDD<br>pc_eTDD  |         |  |

| i.1.2 | V2X Sidelink Communication / Pre-configured authorisation / Utilisation of the pre-configured resources / Transmission  | Rel-14 | C303 | UEs supporting V2X sidelink communication and transmitting PSCCH/PSSCH using UE autonomous resource selection mode with full sensing |         |  |  |
|-------|---|--------|------|--|---------|--|--|
| 1.1.3 | V2X Sidelink Communication/ Pre-configured  | Rel-14 | C307 | UEs supporting E-UTRA and V2X sidelink   | pc_eFDD |  |  |
|       | authorisation / UE in RRC_IDLE on an E-<br>UTRAN cell operating on the anchor carrier<br>frequency provisioned for V2X configuration /<br>Utilisation of the resources of (serving)<br>cells/PLMNs / Reception                              |        |      | communication  | pc_eTDD |  |  |
| 1.1.4 | V2X Sidelink Communication/ Pre-configured authorisation / Utilisation of the pre-configured resources / Reception  | Rel-14 | C302 | UEs supporting V2X sidelink communication  |         |  |  |
| .1.5  | V2X Sidelink Communication / Pre-configured   | Rel-14 | C308 | UEs supporting E-UTRA and V2X sidelink   | pc_eFDD |  |  |
|       | authorisation / UE in RRC_CONNECTED on an E-UTRAN cell operating on the anchor carrier frequency provisioned for V2X configuration / utilisation of the resources of (serving) cells/PLMNs / Transmission / RRC connection re-establishment |        |      | communication and transmitting PSCCH/PSSCH using dynamic scheduling  | pc_eTDD |  |  |

| 1.1.6      | V2X Sidelink Communication / Pre-configured  | Rel-14  | C308     | UEs supporting E-UTRA and V2X sidelink                                       | pc_eFDD            |  | 1        |
|------------|--|---------|----------|--|--------------------|--|----------|
| r. 1.U     | authorisation / UE in RRC_CONNECTED on an  | NOI-14  | U306     | communication and transmitting   | pc_eFDD<br>pc eTDD |  | +        |
|            | E-UTRAN cell operating on the anchor carrier   |         |          | PSCCH/PSSCH using dynamic scheduling   | pc_e1DD            |  |          |
|            | frequency provisioned for V2X configuration /  |         |          | Today in Coor i doing dynamic concading                                      |                    |  |          |
|            | Utilisation of the resources of (serving)  |         |          |  |                    |  |          |
|            | cells/PLMNs / Transmission / RRC connection  |         |          |  |                    |  |          |
|            | reconfiguration with/without v2x-  |         |          |  |                    |  |          |
|            | CommTxPoolExceptional in   |         |          |  |                    |  |          |
|            | mobilityControlInfoV2X / Handover  |         |          |  |                    |  |          |
| 1.1.7      | V2X Sidelink Communication / Pre-configured  | Rel-14  | C308     | UEs supporting E-UTRA and V2X sidelink                                       | pc_eFDD            |  |          |
|            | authorisation / UE in RRC_CONNECTED on an  |         |          | communication and transmitting   | pc eTDD            |  |          |
|            | E-UTRAN cell operating on the anchor carrier   |         |          | PSCCH/PSSCH using dynamic scheduling   | P0_0122            |  |          |
|            | frequency provisioned for V2X configuration /  |         |          |  |                    |  |          |
|            | Utilisation of the resources of (serving)  |         |          |  |                    |  |          |
|            | cells/PLMNs / reception / RRC connection   |         |          |  |                    |  |          |
|            | reconfiguration with v2x-CommRxPool in   |         |          |  |                    |  |          |
|            | mobilityControlInfoV2X / handover  |         |          |  |                    |  |          |
| 1.1.8      | V2X Sidelink Communication / Pre-configured  | Rel-14  | C312     | UEs supporting E-UTRA and V2X sidelink                                       | pc_eFDD            |  |          |
|            | authorisation / UE camped on an E-UTRAN cell   |         |          | communication and zone based transmission                                    | pc_eTDD            |  |          |
|            | operating on the anchor carrier frequency  |         |          | resource pool selection  | , –                |  |          |
|            | provisioned for V2X configuration / Utilisation of                                       |         |          |  |                    |  |          |
|            | the resources of cells/PLMNs / Transmission  |         |          |  |                    |  |          |
|            | based on zoning  |         |          |  |                    |  |          |
| l.1.9      | V2X Sidelink Communication / Pre-configured  | Rel-14  | C306     | UEs supporting V2X sidelink communication                                    |                    |  |          |
|            | authorisation / Utilisation of the pre-configured  |         |          | and zone based transmission resource pool                                    |                    |  |          |
|            | resources / Transmission based on zoning   |         |          | selection  |                    |  |          |
| l.1.10     | V2X Sidelink Communication / Pre-configured  | Rel-14  | C308     | UEs supporting E-UTRA and V2X sidelink                                       | pc_eFDD            |  |          |
|            | authorisation / UE in RRC_CONNECTED on an  |         |          | communication and transmitting   | pc_eTDD            |  |          |
|            | E-UTRAN cell operating on the anchor carrier   |         |          | PSCCH/PSSCH using dynamic scheduling   |                    |  |          |
|            | frequency for V2X configuration/ UE is   |         |          |  |                    |  |          |
|            | scheduled to transmit V2X messages on the  |         |          |  |                    |  |          |
|            | frequency used for V2X sidelink communication  |         |          |  |                    |  |          |
|            | / Inter-frequency scheduled Transmission   | Dalata  | 0044     | HE   |                    |  |          |
| l.1.11     | V2X Sidelink Communication / Pre-configured authorisation / UE in RRC_Connected on an E- | Rel-14  | C311     | UEs supporting E-UTRA and V2X sidelink communication and CBR measurement and | pc_eFDD            |  |          |
|            | UTRAN cell operating on the carrier frequency  |         |          |  | pc_eTDD            |  |          |
|            | for V2X configuration/ UE measures CBR of  |         |          | reporting  |                    |  |          |
|            | configured Tx resource pools and report CBR  |         |          |  |                    |  |          |
|            | results to eNB   |         |          |  |                    |  |          |
| .1.12      | V2X Sidelink Communication / Pre-configured  | Rel-14  | C311     | UEs supporting E-UTRA and V2X sidelink                                       | pc_eFDD            |  | +        |
| r. 1 . 1 4 | authorisation / UE in RRC IDLE on an E-  | 1101-14 | 5511     | communication and CBR measurement and  | pc_eTDD            |  | +        |
|            | UTRAN cell operating on the anchor carrier   |         |          | reporting  | pc_e i DD          |  |          |
|            | frequency for V2X configuration/ UE transmits  |         |          | reporting  |                    |  |          |
|            | V2X sidelink communication using Tx  |         |          |  |                    |  |          |
|            | parameters based on measured CBR and   |         |          |  |                    |  |          |
|            | PPP  |         |          |  |                    |  |          |
| 1.1.13     | V2X Sidelink Communication / Pre-configured  | Rel-14  | C308     | UEs supporting E-UTRA and V2X sidelink                                       | pc_eFDD            |  | 1        |
|            | authorisation / UE in RRC_Connected on an E-   |         |          | communication and transmitting   | pc_eTDD            |  |          |
|            | UTRAN cell operating on the anchor carrier   |         |          | PSCCH/PSSCH using dynamic scheduling   | 1                  |  |          |
|            | frequency for V2X configuration/ Utilisation of  |         |          | 9 ,  |                    |  |          |
|            | the SL SPS resources configured by eNB /   |         |          |  |                    |  |          |
|            | Transmission   |         | <u> </u> |  |                    |  | <u> </u> |
| .1.14      |  | Rel-14  | C310     |  | pc_eFDD            |  |          |

|        | V2X Sidelink Communication / Pre-configured authorisation / UE in RRC_IDLE/RRC_Connected on an E-UTRAN cell operating on the carrier frequency for V2X configuration / SLSS and MasterInformationBlock-SL-V2X message Transmission   |        |      | UEs supporting E-UTRA and V2X sidelink communication and SLSS transmission /reception for V2X sidelink communication   | pc_eTDD            |  |  |
|--------|--|--------|------|--|--------------------|--|--|
| i.1.15 | V2X Sidelink Communication / Pre-configured authorisation / UE out of coverage on the frequency used for V2X sidelink communication and without inter-frequency V2X configuration on anchor carriers/ Operation with/without SyncRef UE / SLSS and MasterInformationBlock-SL-V2X message Transmission / syncPriority in SL-V2X-Preconfiguration is set to gnss | Rel-14 | C304 | UEs supporting V2X sidelink communication and SLSS transmission /reception for V2X sidelink communication  |                    |  |  |
| l.1.16 | V2X Sidelink Communication / Pre-configured authorisation / Utilisation of the pre-configured resources / CBR measurement  | Rel-14 | C305 | UEs supporting V2X sidelink communication and CBR measurement and reporting  |                    |  |  |
| l.1.17 | V2X Sidelink Communication / Pre-configured authorisation / UE in RRC_IDLE on an E-UTRAN cell operating on the anchor carrier frequency provisioned for V2X configuration / UE uses Tx resource pool which is associated with the synchronization reference source selected  | Rel-14 | C307 | UEs supporting E-UTRA and V2X sidelink communication   | pc_eFDD<br>pc_eTDD |  |  |
| i.1.18 | V2X Sidelink Communication / Pre-configured authorisation / UE out of coverage on the frequency used for V2X sidelink communication and without inter-frequency V2X configuration on anchor carriers/ operation with/without SyncRef UE / SLSS and MasterInformationBlock-SL-V2X message transmission / syncPriority in SL-V2X-Preconfiguration is set to eNB  | Rel-14 | C304 | UEs supporting V2X sidelink communication and SLSS transmission /reception for V2X sidelink communication  |                    |  |  |
| l.1.19 | V2X Sidelink Communication / Pre-configured authorisation / Utilisation of the pre-configured resources / CBR measurement / Transmission based on CR limit   | Rel-14 | C328 | UEs supporting V2X sidelink communication and CBR measurement and reporting and transmitting PSCCH/PSSCH using UE autonomous resource selection mode with full sensing |                    |  |  |
| i.1.20 | V2X Sidelink Communication / Pre-configured authorisation / UE in limited service state on the anchor carrier frequency provisioned for V2X configuration / Transmission   | Rel-14 | C307 | UEs supporting E-UTRA and V2X sidelink communication   | pc_eTDD            |  |  |
| l.2.1  | P2X Sidelink Communication / Pre-configured authorisation / UE in RRC_IDLE on an E-UTRAN cell operating on the anchor carrier frequency provisioned for V2X configuration / Utilisation of the resources of (serving) cells/PLMNs / Transmission / Partial sensing   | Rel-14 | C343 | Pedestrian UEs supporting E-UTRA and V2X sidelink communication and transmitting PSCCH/PSSCH using UE autonomous resource selection mode with partial sensing          | pc_eFDD            |  |  |

|       | į į   |        | Ì    | I  | pc eTDD         |  |
|-------|---|--------|------|--|-----------------|--|
|       |   |        |      |  | ρυ_6100         |  |
| l.2.2 | P2X Sidelink Communication / Pre-configured authorisation / UE in RRC_IDLE on an E-UTRAN cell operating on the anchor carrier frequency provisioned for V2X configuration / Utilisation of the resources of (serving) cells/PLMNs / Transmission / Random selection | Rel-14 | C344 | Pedestrian UEs supporting E-UTRA and V2X sidelink communication and not supporting PSCCH/PSSCH transmission using UE autonomous resource selection mode with partial sensing | pc_eFDD pc_eTDD |  |
| l.2.3 | P2X Sidelink Communication / Pre-configured authorisation / Utilisation of the pre-configured resources / Transmission  | Rel-14 | C345 | Pedestrian UEs supporting V2X sidelink communication   |                 |  |
| l.2.4 | P2X Sidelink Communication / Pre-configured authorisation / UE in RRC_IDLE on an E-UTRAN cell operating on the anchor carrier frequency for V2X configuration/ UE transmits V2X sidelink communication using Tx parameters based on PPPP and configured CBR         | Rel-14 | C346 | Pedestrian UEs supporting E-UTRA and V2X sidelink communication  | pc_eFDD         |  |
|       |   |        |      |  | pc_eTDD         |  |
| l.3.1 | V2X Uplink Communication / UE in RRC_Connected on an E-UTRAN cell / Utilisation of the UL SPS resources configured by eNB / Transmission  | Rel-14 | C336 | UEs supporting E-UTRA and V2X communication Via Uu and multiple uplink SPS   | pc_eFDD         |  |
|       | ,   |        |      |  | pc_eTDD         |  |
| 1.3.2 | V2X Downlink Communication / UE in IDLE on<br>an E-UTRAN cell / UE receives the V2X data<br>via MBMS  | Rel-14 | C337 | UEs supporting E-UTRA and MBMS and V2X communication Via Uu  | pc_eFDD         |  |
|       | wa meme   |        |      |  | pc_eTDD         |  |
| 1.3.3 | V2X Downlink Communication / UE in IDLE on<br>an E-UTRAN cell / UE receives the V2X data<br>via SC-PTM  | Rel-14 | C338 | UEs supporting E-UTRA and SC-PTM and V2X communication Via Uu  | pc_eFDD         |  |
|       |   |        |      |  | pc_eTDD         |  |
|       |   |        |      |  |                 |  |

Table 4-1a: Applicability of tests Conditions

| C01    | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A                             |
|--------|--|
| C01a   | IF (A.4.1-1/1 OR A.4.1-1/2) AND [8]A.1/1 AND (A.4.5-2/3 OR A.4.5-2/4) AND NOT (A.4.3.2-2A/1) THEN R        |
| Cola   | ELSE N/A   |
| C01b   | IF (A.4.1-1/1 OR A.4.1-1/2) AND [8]A.1/1 AND A.4.5-2/4 AND NOT (A.4.3.2-2A/1) THEN R ELSE N/A              |
| C02    | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-2/2 THEN R ELSE N/A  |
| C02a   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-2/2 AND NOT (A.4.3.2-2A/1) THEN R ELSE N/A                           |
| C03    | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/1 THEN R ELSE N/A  |
| C04    | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-2/1 THEN R ELSE N/A  |
| C05    | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/7 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A                             |
| C06    | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/3 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A                             |
| C07    | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/4 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A                             |
| C08F   | IF A.4.1-1/1 AND A.4.5-1a/5 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A   |
|        | IF A.4.1-1/1 AND A.4.5-1a/5 AND A.4.4-1/122 THEN R ELSE N/A  |
|        | IF A.4.1-1/1 AND A.4.5-1a/5 THEN R ELSE N/A  |
| C08T   | IF A.4.1-1/2 AND A.4.5-1b/5 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A   |
|        | IF A.4.1-1/2 AND A.4.5-1b/5 AND A.4.4-1/122 THEN R ELSE N/A  |
|        | IF A.4.1-1/2 AND A.4.5-1b/5 THEN R ELSE N/A  |
| C09F   | IF (A.4.1-1/1 AND A.4.5-1a/25) OR (A.4.4-1/122 AND A.4.4-1A/14) THEN R ELSE N/A                            |
| C09T   | IF (A.4.1-1/2 AND A.4.5-1b/25) OR (A.4.4-1/122 AND A.4.4-1A/14) THEN R ELSE N/A                            |
| C10F   | IF A.4.1-1/1 AND A.4.5-1a/25 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A  |
| C10T   | IF A.4.1-1/2 AND A.4.5-1b/25 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A  |
| C11F   | IF (A.4.1-1/1 AND A.4.5-1a/16 AND A.4.5-1a/25) OR (A.4.4-1/122 AND A.4.4-1A/14) THEN R ELSE N/A            |
| C11T   | IF (A.4.1-1/2 AND A.4.5-1b/16 AND A.4.5-1b/25) OR (A.4.4-1/122 AND A.4.4-1A/14) THEN R ELSE N/A            |
| C12    | IF ( (A.4.1-1/1 OR A.4.1-1/2) AND NOT A.4.3.2-2A/1 OR ((A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/122 AND A.4.4- |
|        | 1A/14 AND A.4.4-1A/15) THEN R ELSE N/A   |
| C13F   | IF A.4.1-1/1 AND A.4.1-1/6 AND A.4.5-1a/16 AND A.4.5-1a/22 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A            |
|        | IF A.4.1-1/2 AND A.4.1-1/6 AND A.4.5-1b/16 AND A.4.5-1b/22 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A            |
|        | IF A.4.1-1/1 AND A.4.5-1a/5 AND A.4.5-1a/17 THEN R ELSE N/A  |
| C14T   | IF A.4.1-1/2 AND A.4.5-1b/5 AND A.4.5-1b/17 THEN R ELSE N/A  |
|        | IF A.4.1-1/1 AND A.4.5-1a/3 AND A.4.5-1a/7 THEN R ELSE N/A   |
| C15T   | IF A.4.1-1/2 AND A.4.5-1b/3 AND A.4.5-1b/7 THEN R ELSE N/A   |
| C16F   | IF A.4.1-1/1 AND A.4.5-1a/7 THEN R ELSE N/A  |
|        | IF A.4.1-1/1 AND A.4.5-1a/7 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A   |
| C16T   | IF A.4.1-1/2 AND A.4.5-1b/7 THEN R ELSE N/A  |
|        | IF A.4.1-1/2 AND A.4.5-1b/7 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A   |
| C17F   | IF A.4.1-1/1 AND A.4.1-1/6 AND A.4.1-1/7 AND A.4.5-1a/22 AND A.4.5-1a/23 AND NOT A.4.3.2-2A/1 THEN R       |
|        | ELSE N/A   |
| C17T   | IF A.4.1-1/2 AND A.4.1-1/6 AND A.4.1-1/7 AND A.4.5-1b/22 AND A.4.5-1b/23 AND NOT A.4.3.2-2A/1 THEN R       |
|        | ELSE N/A   |
| C18    | IF (A.4.1-1/1 OR A.4.1-1/2) OR (A.4.4-1/122 AND A.4.4-1A/14) THEN R ELSE N/A                               |
| C19F   | IF A.4.1-1/1 AND A.4.5-1a/6 AND A.4.5-1a/7 AND NOT (A.4.3.2-2/1 OR A.4.3.2-1/1 OR A.4.3.2-2A/1) THEN R     |
| 0.10 = | ELSE N/A   |
| C19aF  | IF A.4.1-1/1 AND A.4.5-1a/6 AND A.4.5-1a/7 AND (A.4.3.2-2/1 OR A.4.3.2-1/1 OR A.4.3.2-2A/1) THEN R ELSE    |
| 040T   | N/A  |
| C19T   | IF A.4.1-1/2 AND A.4.5-1b/6 AND A.4.5-1b/7 AND NOT (A.4.3.2-2/1 OR A.4.3.2-1/1 OR A.4.3.2-2A/1) THEN R     |
|        | ELSE N/A   |

| C19aT | IF A.4.1-1/2 AND A.4.5-1b/6 AND A.4.5-1b/7 AND (A.4.3.2-2/1 OR A.4.3.2-1/1 OR A.4.3.2-2A/1) THEN R ELSE                           |
|-------|---|
|       | N/A   |
| C20F  | IF A.4.1-1/1 AND A.4.1-1/7 AND A.4.5-1a/16 AND A.4.5-1a/23 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A                                   |
| C20T  | IF A.4.1-1/2 AND A.4.1-1/7 AND A.4.5-1b/16 AND A.4.5-1b/23 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A                                   |
| C21F  | IF A.4.1-1/1 AND A.4.5-1a/13 AND A.4.5-1a/25 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A   |
| C21T  | IF A.4.1-1/2 AND A.4.5-1b/13 AND A.4.5-1b/25 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A   |
| C21aF | IF A.4.1-1/1 AND A.4.5-1a/13 AND A.4.5-1a/25 AND ((NOT A.4.3.2-2A/1) OR (A.4.3.2-2A/1 AND A.4.4-1A/16))                           |
|       | THEN R ELSE N/A   |
| C21aT | IF A.4.1-1/2 AND A.4.5-1b/13 AND A.4.5-1b/25 AND ((NOT A.4.3.2-2A/1) OR (A.4.3.2-2A/1 AND A.4.4-1A/16))                           |
|       | THEN R ELSE N/A   |
| C22   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/3 AND A.4.4-2/2 AND NOT (A.4.4-2/32) THEN R ELSE N/A                                      |
| C23   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/4 AND A.4.4-2/2 AND NOT (A.4.4-2/32) THEN R ELSE N/A                                      |
| C24F  | IF A.4.1-1/1 AND A.4.1-1/3 AND A.4.5-1a/16 AND A.4.5-1a/26 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A                                   |
| C24T  | IF A.4.1-1/2 AND A.4.1-1/3 AND A.4.5-1b/16 AND A.4.5-1b/26 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A                                   |
| C25F  | IF A.4.1-1/1 AND A.4.1-1/4 AND A.4.5-1a/16 AND A.4.5-1a/24 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A                                   |
| C25T  | IF A.4.1-1/2 AND A.4.1-1/4 AND A.4.5-1b/16 AND A.4.5-1b/24 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A                                   |
| C26   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.2.1.1-1/1 AND NOT (A.4.3.2-2A/1) THEN R ELSE N/A  |
| C27   | IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.1-1/6 OR A.4.1-1/7) AND A.4.4-1/5 AND NOT A.4.3.2-2A/1 THEN R                                |
|       | ELSE N/A  |
| C28F  | IF (A.4.1-1/1 AND A.4.5-1a/13 AND A.4.5-1a/25) OR (A.4.4-1/122 AND A.4.4-1A/14 AND A.4.4-1A/15 AND                                |
|       | A.4.5-1a/25) THEN R ELSE N/A  |
| C28T  | IF (A.4.1-1/2 AND A.4.5-1b/13 AND A.4.5-1b/25) OR (A.4.4-1/122 AND A.4.4-1A/14 AND A.4.4-1A/15 AND                                |
|       | A.4.5-1b/25) THEN R ELSE N/A  |
| C29F  | IF A.4.1-1/1 AND A.4.5-1a/7 AND (A.4.3.2-1/2 OR A.4.3.2-1/3 OR A.4.3.2-1/4 OR A.4.3.2-1/5) AND NOT                                |
| COOT  | A.4.3.2-2A/1 THEN R ELSE N/A  |
| C29T  | IF A.4.1-1/2 AND A.4.5-1b/7 AND (A.4.3.2-1/2 OR A.4.3.2-1/3 OR A.4.3.2-1/4 OR A.4.3.2-1/5) AND NOT                                |
| C30F  | A.4.3.2-2A/1 THEN R ELSE N/A IF A.4.1-1/1 AND A.4.5-1a/20 AND (A.4.3.2-1/2 OR A.4.3.2-1/3 OR A.4.3.2-1/4 OR A.4.3.2-1/5) AND NOT  |
| CSUF  | · · · · · · · · · · · · · · · · · · ·   |
| C30T  | A.4.3.2-2A/1 THEN R ELSE N/A  IF A.4.1-1/2 AND A.4.5-1b/20 AND (A.4.3.2-1/2 OR A.4.3.2-1/3 OR A.4.3.2-1/4 OR A.4.3.2-1/5) AND NOT |
| 0301  | A.4.3.2-2A/1 THEN R ELSE N/A  |
| C31F  | IF A.4.1-1/1 AND A.4.5-1a/7 AND A.4.5-1a/20 AND (A.4.3.2-1/2 OR A.4.3.2-1/3 OR A.4.3.2-1/4 OR A.4.3.2-1/5)                        |
| 0311  | AND NOT A.4.3.2-2A/1 THEN R ELSE N/A  |
| C31T  | IF A.4.1-1/2 AND A.4.5-1b/7 AND A.4.5-1b/20 AND (A.4.3.2-1/2 OR A.4.3.2-1/3 OR A.4.3.2-1/4 OR A.4.3.2-1/5)                        |
| 0011  | AND NOT A.4.3.2-2A/1 THEN R ELSE N/A  |
| C32F  | IF A.4.1-1/1 AND A.4.5-1a/7 AND A.4.5-1a/20 THEN R ELSE N/A   |
| C32T  | IF A.4.1-1/2 AND A.4.5-1b/7 AND A.4.5-1b/20 THEN R ELSE N/A   |
| C33F  | IF A.4.1-1/1 AND A.4.5-1a/20 THEN R ELSE N/A  |
| C33T  | IF A.4.1-1/2 AND A.4.5-1b/20 THEN R ELSE N/A  |
| C34   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/6 AND A.4.4-1/7 THEN R ELSE N/A   |
| C35   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/6 THEN R ELSE N/A   |
| C36F  | IF A.4.1-1/1 AND A.4.1-1/6 AND A.4.5-1a/8 AND A.4.5-1a/22 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A                                    |
| C36T  | IF A.4.1-1/2 AND A.4.1-1/6 AND A.4.5-1b/8 AND A.4.5-1b/22 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A                                    |
| C37   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND (A.4.4-1/8 OR A.4.4-1/53) AND A.4.5-2/2 AND NOT A.4.3.2-                            |
|       | 2A/1 THEN R ELSE N/A  |
| C38F  | IF A.4.1-1/1 AND A.4.1-1/7 AND A.4.5-1a/10 AND A.4.5-1a/23 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A                                   |
|       |   |

| C38T | IF A.4.1-1/2 AND A.4.1-1/7 AND A.4.5-1b/10 AND A.4.5-1b/23 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A             |
|------|---|
| C39F | IF A.4.1-1/1 AND A.4.1-1/6 AND A.4.5-1a/5 AND A.4.5-1a/19 AND A.4.5-1a/22 AND NOT A.4.3.2-2A/1 THEN R       |
|      | ELSE N/A  |
| C39T | IF A.4.1-1/2 AND A.4.1-1/6 AND A.4.5-1b/5 AND A.4.5-1b/19 AND A.4.5-1b/22 AND NOT A.4.3.2-2A/1 THEN R       |
|      | ELSE N/A  |
| C40F | IF A.4.1-1/1 AND A.4.1-1/7 AND A.4.5-1a/5 AND A.4.5-1a/19 AND A.4.5-1a/23 AND NOT A.4.3.2-2A/1 THEN R       |
|      | ELSE N/A  |
| C40T | IF A.4.1-1/2 AND A.4.1-1/7 AND A.4.5-1b/5 AND A.4.5-1b/19 AND A.4.5-1b/23 AND NOT A.4.3.2-2A/1 THEN R       |
|      | ELSE N/A  |
| C41  | Void  |
| C42F | IF A.4.1-1/1 AND A.4.1-1/3 AND A.4.5-1a/12 AND A.4.5-1a/26 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A             |
| C42T | IF A.4.1-1/2 AND A.4.1-1/3 AND A.4.5-1b/12 AND A.4.5-1b/26 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A             |
| C44F | IF A.4.1-1/1 AND A.4.1-1/3 AND A.4.5-1a/5 AND A.4.5-1a/19 AND A.4.5-1a/26 AND NOT A.4.3.2-2A/1 THEN R       |
|      | ELSE N/A  |
| C44T | IF A.4.1-1/2 AND A.4.1-1/3 AND A.4.5-1b/5 AND A.4.5-1b/19 AND A.4.5-1b/26 AND NOT A.4.3.2-2A/1 THEN R       |
|      | ELSE N/A  |
| C45F | IF (A.4.1-1/1 AND A.4.5-1a/13 AND A.4.5-1a/25 AND A.4.1-2/1) OR (A.4.4-1/122 AND A.4.4-1A/14 AND A.4.4-     |
|      | 1A/15 AND A.4.5-1a/25) THEN R ELSE N/A  |
| C45T | IF (A.4.1-1/2 AND A.4.5-1b/13 AND A.4.5-1b/25 AND A.4.1-2/1) OR (A.4.4-1/122 AND A.4.4-1A/14 AND A.4.4-     |
|      | 1A/15 AND A.4.5-1b/25) THEN R ELSE N/A  |
| C46  | IF (A.4.1-1/1 OR A.4.1-1/2) AND NOT A.4.4-1/9 THEN R ELSE N/A   |
| C47  | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/2 AND A.4.4-2/1 THEN R ELSE N/A                                     |
| C47a | Void  |
| C48  | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND A.4.4-2/2 AND A.4.2.1.1-1/1 AND [8]A.2/1 AND NOT A.4.3.2-     |
|      | 2A/1 THEN R ELSE N/A  |
| C49  | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/6 AND A.4.4-1/10 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A               |
| C50  | Void  |
| C51  | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/9 AND (A.4.4-1/12 OR A.4.4-1/13 OR A.4.4-1/14 OR A.4.4-1/15 OR      |
|      | A.4.4-1/93) THEN R ELSE N/A   |
| C52  | Void  |
| C53  | IF (A.4.1-1/1 OR A.4.1-1/2) AND [8]A.20/35 THEN R ELSE N/A  |
| C54  | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/18 THEN R ELSE N/A  |
| C55  | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/19 AND A.4.4-1/54 THEN R ELSE N/A                                   |
| C56  | IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.3.2-1/2 OR A.4.3.2-1/3 OR A.4.3.2-1/4 OR A.4.3.2-1/5) AND NOT A.4.3.2- |
|      | 2A/1 THEN R ELSE N/A  |
| C57  | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/7 AND A.4.4-2/2 AND A.4.2.1.1-1/1 AND [8]A.2/1 AND NOT A.4.3.2-     |
|      | 2A/1 THEN R ELSE N/A  |
| C58F | IF A.4.1-1/1 AND A.4.5-1a/21 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A   |
| C58T | IF A.4.1-1/2 AND A.4.5-1b/21 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A   |
| C59  | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND A.4.4-1/5 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A                |
| C60  | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/7 AND A.4.4-2/2 AND A.4.2.1.1-1/1 AND [8]A.2/1 AND NOT A.4.3.2-     |
|      | 2A/1 THEN R ELSE N/A  |
| C61F | IF A.4.1-1/1 AND A.4.1-1/6 AND A.4.1-1/7 AND A.4.5-1a/16 AND A.4.5-1a/22 AND A.4.5-1a/23 AND NOT            |
|      | A.4.3.2-2A/1 THEN R ELSE N/A  |
| C61T | IF A.4.1-1/2 AND A.4.1-1/6 AND A.4.1-1/7 AND A.4.5-1b/16 AND A.4.5-1b/22 AND A.4.5-1b/23 AND NOT            |
|      | A.4.3.2-2A/1 THEN R ELSE N/A  |
|      |   |

| C62     | Void   |
|---------|--|
| C63     | IF A.4.1-1/1 AND A.4.1-1/2 AND A.4.5-1a/25 AND A.4.5-1a/30 AND A.4.5-1b/25 AND A.4.5-1b/30 AND ((NOT     |
|         | A.4.3.2-2A/1) OR (A.4.3.2-2A/1 AND A.4.4-1A/16)) THEN R ELSE N/A   |
| C64     | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/20 THEN R ELSE N/A   |
| C64a    | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/20 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A                          |
| C65     | Void   |
| C66     | IF (A.4.1-1/1 OR A.4.1-1/2) AND [8]A.1/4 AND A.4.4-1/21 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A             |
| C67     | Void   |
| C68     | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/6 AND A.4.4-1/22 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A            |
| C69     | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/6 AND A.4.4-1/23 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A            |
| C70     | Void   |
| C71     | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.2.1.1-1/4 THEN R ELSE N/A  |
| C71a    | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.2.1.1-1/4 AND A.4.4-1/2 AND A.4.4-1/49 AND NOT A.4.3.2-2A/1 THEN R   |
|         | ELSE N/A   |
| C71b    | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.2.1.1-1/4 AND A.4.1-1/6 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A         |
| C72     | Void   |
| C73     | Void   |
| C74     | Void   |
| C75     | Void   |
| C76     | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND A.4.4-1/2 AND A.4.4-1/49 AND NOT A.4.3.2-2A/1 THEN R       |
|         | ELSE N/A   |
| C77     | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND A.4.5-2/1 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A             |
| C78     | Void   |
| C79     | Void   |
| C80     | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/2 AND A.4.4-1/49 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A            |
| C80a    | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/2 AND A.4.4-1/49 AND A.4.4-1/103 AND NOT A.4.3.2-2A/1 THEN R     |
|         | ELSE N/A   |
| C81F    | IF A.4.1-1/1 AND A.4.1-1/6 AND A.4.2.1.1-1/1 AND A.4.4-2/2 AND A.4.5-1a/8 AND [8]A.2/1 AND [8]A.3/3 AND  |
|         | NOT A.4.3.2-2A/1 THEN R ELSE N/A   |
| C81T    | IF A.4.1-1/2 AND A.4.1-1/6 AND A.4.2.1.1-1/1 AND A.4.4-2/2 AND A.4.5-1b/8 AND [8]A.2/1 AND [8]A.3/3 AND  |
|         | NOT A.4.3.2-2A/1 THEN R ELSE N/A   |
| C82     | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND A.4.4-1/2 AND A.4.5-2/1 AND NOT A.4.3.2-2A/1 THEN R ELSE   |
| <u></u> | N/A  |
| C83     | Void   |
| C84     | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND A.4.4-2/2 AND A.4.2.1.1-1/1 AND [8]A.2/1 AND [8]A.3/3 AND  |
|         | NOT A.4.3.2-2A/1 THEN R ELSE N/A   |
| C85     | Void   |
| C86     | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND A.4.4-2/2 AND A.4.2.1.1-1/1 AND A.4.4-2/4 THEN R ELSE N/A  |
| C86a    | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND A.4.4-2/2 AND A.4.2.1.1-1/1 AND A.4.4-2/4 AND NOT A.4.3.2- |
|         | 2A/1 THEN R ELSE N/A   |
| C87     | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND A.4.4-2/2 AND A.4.2.1.1-1/1 AND A.4.4-2/5 THEN R ELSE N/A  |
| C87a    | Void   |
| C87b    | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND A.4.4-2/2 AND A.4.2.1.1-1/1 AND A.4.4-2/5 AND NOT A.4.3.2- |
|         | 2A/1 THEN R ELSE N/A   |
| C88     | Void   |
| C89     | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/7 AND A.4.4-1/29 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A            |

| C90F  | IF A.4.1-1/1 AND A.4.1-1/7 AND A.4.5-1a/23 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A   |
|-------|---|
| C90T  | IF A.4.1-1/2 AND A.4.1-1/7 AND A.4.5-1b/23 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A   |
| C91F  | IF A.4.1-1/1 AND A.4.1-1/6 AND A.4.5-1a/22 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A   |
| C91T  | IF A.4.1-1/2 AND A.4.1-1/6 AND A.4.5-1b/22 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A   |
| C92F  | IF A.4.1-1/1 AND A.4.1-1/3 AND A.4.5-1a/26 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A   |
| C92T  | IF A.4.1-1/2 AND A.4.1-1/3 AND A.4.5-1b/26 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A   |
| C93F  | IF A.4.1-1/1 AND A.4.1-1/4 AND A.4.5-1a/24 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A   |
| C93T  | IF A.4.1-1/2 AND A.4.1-1/4 AND A.4.5-1b/24 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A   |
| C94   | Void  |
| C95   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/7 AND A.4.4-1/2 AND A.4.4-1/49 AND NOT A.4.3.2-2A/1 THEN R<br>ELSE N/A  |
| C96F  | IF A.4.1-1/1 AND A.4.5-1a/10 AND A.4.4-2/2 AND A.4.1-1/7 AND A.4.2.1.1-1/1 AND [8]A.2/1 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A  |
| C96T  | IF A.4.1-1/2 AND A.4.5-1b/10 AND A.4.4-2/2 AND A.4.1-1/7 AND A.4.2.1.1-1/1 AND [8]A.2/1 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A  |
| C97   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/30 THEN R ELSE N/A  |
| C97A  | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/30 AND A.4.4-2/16 THEN R ELSE N/A   |
| C98   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/18 AND A.4.4-1/30 THEN R ELSE N/A   |
| C99F  | IF A.4.1-1/1 AND A.4.4-1/51 AND A.4.5-1a/7 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A   |
| C99T  | IF A.4.1-1/2 AND A.4.4-1/51 AND A.4.5-1b/7 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A   |
| C100F | IF A.4.1-1/1 AND A.4.4-1/50 AND A.4.5-1a/7 THEN R ELSE N/A  |
| C100T | IF A.4.1-1/2 AND A.4.4-1/50 AND A.4.5-1b/7 THEN R ELSE N/A  |
| C101  | Void  |
| C102  | Void  |
| C103  | IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.3.2-1/1 OR A.4.3.2-2/1) THEN R ELSE N/A  |
| C104  | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND A.4.4-2/2 AND A.4.2.1.1-1/1 AND A.4.4-1/31 AND [8]A.2/1 AND   |
|       | NOT A.4.3.2-2A/1 THEN R ELSE N/A  |
| C105F | IF A.4.1-1/1 AND A.4.1-1/6 AND A.4.2.1.1-1/1 AND A.4.4-2/2 AND A.4.5-1a/8 AND [8]A.2/1 AND NOT A.4.3.2-   |
|       | 2A/1 THEN R ELSE N/A  |
| C105T | IF A.4.1-1/2 AND A.4.1-1/6 AND A.4.2.1.1-1/1 AND A.4.4-2/2 AND A.4.5-1b/8 AND [8]A.2/1 AND NOT A.4.3.2-   |
|       | 2A/1 THEN R ELSE N/A  |
| C106  | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/34 AND A.4.4-2/2 THEN R ELSE N/A  |
| C107F |   |
| C107T | IF A.4.1-1/2 AND A.4.1-1/7 AND A.4.4-1/52 AND A.4.5-1b/23 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A  |
| C108  | Void  |
| C109  | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.2.1.1-1/4 AND (A.4.4-1/35 OR A.4.4-1/36) THEN R ELSE N/A  |
| C109a |   |
|       | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.2.1.1-1/4 AND (A.4.4-1/35 OR A.4.4-1/36) AND NOT A.4.3.2-2A/1 THEN R  |
|       | ELSE N/A  |
| C110F | ELSE N/A IF A.4.1-1/1 AND A.4.4-1/52 AND A.4.4-2/2 AND A.4.5-1a/23 AND A.4.1-1/7 AND A.4.2.1.1-1/1 AND [8]A.2/1   |
|       | ELSE N/A  IF A.4.1-1/1 AND A.4.4-1/52 AND A.4.4-2/2 AND A.4.5-1a/23 AND A.4.1-1/7 AND A.4.2.1.1-1/1 AND [8]A.2/1  AND NOT A.4.3.2-2A/1 THEN R ELSE N/A  |
|       | ELSE N/A  IF A.4.1-1/1 AND A.4.4-1/52 AND A.4.4-2/2 AND A.4.5-1a/23 AND A.4.1-1/7 AND A.4.2.1.1-1/1 AND [8]A.2/1  AND NOT A.4.3.2-2A/1 THEN R ELSE N/A  IF A.4.1-1/2 AND A.4.4-1/52 AND A.4.4-2/2 AND A.4.5-1b/23 AND A.4.1-1/7 AND A.4.2.1.1-1/1 AND [8]A.2/1  |
| C110T | ELSE N/A  IF A.4.1-1/1 AND A.4.4-1/52 AND A.4.4-2/2 AND A.4.5-1a/23 AND A.4.1-1/7 AND A.4.2.1.1-1/1 AND [8]A.2/1 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A  IF A.4.1-1/2 AND A.4.4-1/52 AND A.4.4-2/2 AND A.4.5-1b/23 AND A.4.1-1/7 AND A.4.2.1.1-1/1 AND [8]A.2/1 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A  |
| C110T | ELSE N/A  IF A.4.1-1/1 AND A.4.4-1/52 AND A.4.4-2/2 AND A.4.5-1a/23 AND A.4.1-1/7 AND A.4.2.1.1-1/1 AND [8]A.2/1  AND NOT A.4.3.2-2A/1 THEN R ELSE N/A  IF A.4.1-1/2 AND A.4.4-1/52 AND A.4.4-2/2 AND A.4.5-1b/23 AND A.4.1-1/7 AND A.4.2.1.1-1/1 AND [8]A.2/1  AND NOT A.4.3.2-2A/1 THEN R ELSE N/A  IF A.4.1-1/1 AND A.4.4-1/38 AND A.4.4-2/2 AND A.4.4-1/52 AND A.4.5-1a/23 AND A.4.1-1/7 AND A.4.2.1.1-1/1  |
| C110T | ELSE N/A  IF A.4.1-1/1 AND A.4.4-1/52 AND A.4.4-2/2 AND A.4.5-1a/23 AND A.4.1-1/7 AND A.4.2.1.1-1/1 AND [8]A.2/1  AND NOT A.4.3.2-2A/1 THEN R ELSE N/A  IF A.4.1-1/2 AND A.4.4-1/52 AND A.4.4-2/2 AND A.4.5-1b/23 AND A.4.1-1/7 AND A.4.2.1.1-1/1 AND [8]A.2/1  AND NOT A.4.3.2-2A/1 THEN R ELSE N/A  IF A.4.1-1/1 AND A.4.4-1/38 AND A.4.4-2/2 AND A.4.4-1/52 AND A.4.5-1a/23 AND A.4.1-1/7 AND A.4.2.1.1-1/1  AND [8]A.2/1 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A |
| C110T | ELSE N/A  IF A.4.1-1/1 AND A.4.4-1/52 AND A.4.4-2/2 AND A.4.5-1a/23 AND A.4.1-1/7 AND A.4.2.1.1-1/1 AND [8]A.2/1  AND NOT A.4.3.2-2A/1 THEN R ELSE N/A  IF A.4.1-1/2 AND A.4.4-1/52 AND A.4.4-2/2 AND A.4.5-1b/23 AND A.4.1-1/7 AND A.4.2.1.1-1/1 AND [8]A.2/1  AND NOT A.4.3.2-2A/1 THEN R ELSE N/A  IF A.4.1-1/1 AND A.4.4-1/38 AND A.4.4-2/2 AND A.4.4-1/52 AND A.4.5-1a/23 AND A.4.1-1/7 AND A.4.2.1.1-1/1  |

| C112F  | IF A.4.1-1/1 AND A.4.1-1/6 AND A.4.5-1a/7 AND A.4.5-1a/8 AND A.4.5-1a/22 AND A.4.5-1a/27 AND A.4.4-1/32     |
|--------|---|
|        | AND A.4.4-1/33 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A   |
| C112T  | IF A.4.1-1/2 AND A.4.1-1/6 AND A.4.5-1b/7 AND A.4.5-1b/8 AND A.4.5-1b/22 AND A.4.5-1b/27 AND A.4.4-1/32     |
|        | AND A.4.4-1/33 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A   |
| C113   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.2.1.1-1/5 THEN R ELSE N/A   |
|        | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.2.1.1-1/5 AND A.4.2.1.1-1/7 THEN R ELSE N/A                             |
| C113bF | FIF A.4.1-1/1 AND A.4.5-1a/13 AND A.4.5-1a/25 AND A.4.2.1.1-1/5 AND A.4.2.1.1-1/7 THEN R ELSE N/A           |
|        | F A.4.1-1/2 AND A.4.5-1b/13 AND A.4.5-1b/25 AND A.4.2.1.1-1/5 AND A.4.2.1.1-1/7 THEN R ELSE N/A             |
| C113cF | F A.4.1-1/1 AND (A.4.3.3.1-1/1 OR A.4.3.3.1-1/2) AND A.4.5-1a/13 AND A.4.5-1a/25 AND A.4.2.1.1-1/5 AND      |
|        | A.4.2.1.1-1/7 THEN R ELSE N/A   |
| C113cT | IF A.4.1-1/2 AND (A.4.3.3.1-1/1 OR A.4.3.3.1-1/2) AND A.4.5-1b/13 AND A.4.5-1b/25 AND A.4.2.1.1-1/5 AND     |
|        | A.4.2.1.1-1/7 THEN R ELSE N/A   |
| C113dF | FIF A.4.1-1/1 AND A.4.3.3.3-1/1 AND A.4.5-1a/13 AND A.4.5-1a/25 AND A.4.2.1.1-1/5 AND A.4.2.1.1-1/7 THEN    |
|        | R ELSE N/A  |
| C113dT | F A.4.1-1/2 AND A.4.3.3.3-1/1 AND A.4.5-1b/13 AND A.4.5-1b/25 AND A.4.2.1.1-1/5 AND A.4.2.1.1-1/7 THEN      |
|        | R ELSE N/A  |
| C113e  | IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.3.3.1-1/1 OR A.4.3.3.1-1/2) AND A.4.2.1.1-1/5 AND A.4.2.1.1-1/7 THEN R |
|        | ELSE N/A  |
| C113f  | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.3.3.3-1/1 AND A.4.2.1.1-1/5 AND A.4.2.1.1-1/7 THEN R ELSE N/A           |
| C113gF | FIF A.4.1-1/1 AND A.4.3.3.3-1/1 AND A.4.5-1a/13 AND A.4.5-1a/25 AND A.4.2.1.1-1/5 AND A.4.2.1.1-1/7 AND     |
|        | A.4.3.3.3-2/2 THEN R ELSE N/A   |
| C113gT | F A.4.1-1/2 AND A.4.3.3.3-1/1 AND A.4.5-1b/13 AND A.4.5-1b/25 AND A.4.2.1.1-1/5 AND A.4.2.1.1-1/7 AND       |
|        | A.4.3.3.3-2/2 THEN R ELSE N/A   |
| C114   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/7 AND A.4.4-1/39 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A               |
| C314a  | IF (A.4.1-1/1 OR A.4.1-1/2) AND [45]A.12/55 AND [8]A.10/17 THEN R ELSE N/A                                  |
| C115   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/7 AND [8]A.2/1 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A                 |
| C116   | Void  |
| C117F  | IF A.4.1-1/1 AND A.4.1-1/6 AND (([8]A.18a/14 AND [8]A.18a/18 AND [8]A.18a/22) OR ([8]A.18b/10 AND           |
|        | [8]A.18b/14)) AND A.4.5-1a/8 AND A.4.5-1a/22 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A                           |
| C117T  | IF A.4.1-1/2 AND A.4.1-1/6 AND (([8]A.18a/14 AND [8]A.18a/18) OR ([8]A.18b/10 AND [8]A.18b/14)) AND         |
|        | A.4.5-1b/8 AND A.4.5-1b/22 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A   |
|        | IF A.4.1-1/1 AND A.4.4-1/2 AND A.4.4-1/104 AND A.4.5-1a/25 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A             |
|        | IF A.4.1-1/2 AND A.4.4-1/2 AND A.4.4-1/104 AND A.4.5-1b/25 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A             |
| C119F  | IF A.4.1-1/1 AND A.4.1-1/6 AND A.4.4-1/2 AND A.4.4-1/100 AND A.4.5-1a/22 AND NOT A.4.3.2-2A/1 THEN R        |
|        | ELSE N/A  |
| C119T  | IF A.4.1-1/2 AND A.4.1-1/6 AND A.4.4-1/2 AND A.4.4-1/100 AND A.4.5-1b/22 AND NOT A.4.3.2-2A/1 THEN R        |
|        | ELSE N/A  |
| C120F  | IF A.4.1-1/1 AND A.4.5-1a/7 AND A.4.4-1/40 AND A.4.4-1/41 THEN R ELSE N/A                                   |
| C120T  | IF A.4.1-1/2 AND A.4.5-1b/7 AND A.4.4-1/40 AND A.4.4-1/41 THEN R ELSE N/A                                   |
| C121   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-2/2 AND A.4.1-1/6 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A                |
| C122   | Void  |
| C123   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/2 AND A.4.4-2/2 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A                |
| C124   | Void  |
| C125   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-2/2 AND (A.4.4-2/5 OR (A.4.4-2/4 AND A.4.4-1/33)) AND NOT A.4.3.2-    |
|        | 2A/1 THEN R ELSE N/A  |
| C126   | IF A.4.1-1/1 AND A.4.1-1/6 AND A.4.4-1/56 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A                              |

| C127   | IF A.4.1-1/1 AND A.4.1-1/6 AND A.4.4-1/57 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A  |
|--------|---|
| C127   | IF (A.4.1-1/1 AND A.4.1-1/2) AND A.4.4-1/37 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A  IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-2/2 AND (A.4.1-1/6 OR A.4.1-1/7) AND NOT A.4.3.2-2A/1 THEN R      |
| 0120   | ELSE N/A  |
| C129   | IF A.4.1-1/1 AND A.4.4-1/58 THEN R ELSE N/A   |
| C129   | IF A.4.1-1/1 AND A.4.4-1/58 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A  |
| C130   | IF A.4.1-1/1 AND A.4.1-1/2 AND A.4.5-1a/25 AND A.4.5-1b/25 AND ((NOT A.4.3.2-2A/1) OR (A.4.3.2-2A/1 AND   |
| C130   | A.4.4-1A/16)) THEN R ELSE N/A   |
| C131   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND NOT A.4.4-1/57 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A   |
| C131   | IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.3.3.1-1/1 OR A.4.3.3.1-1/2) AND NOT A.4.3.2-2A/1 THEN R ELSE N/A   |
| C132a  | IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.3.3.2-1/1 THEN R ELSE N/A  |
| C132a  | IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.3.3.1-2/1 OR A.4.3.3.1-2/2) THEN R ELSE N/A  |
| C134F  | IF A.4.1-1/1 AND (A.4.3.3.1-1/1 OR A.4.3.3.1-1/2) AND A.4.5-3a/11 THEN R ELSE N/A   |
|        | IF A.4.1-1/1 AND (A.4.3.3.1-1/1 OR A.4.3.3.1-1/2) AND A.4.5-3b/11 THEN R ELSE N/A   |
|        | F A.4.1-1/1 AND A.4.3.3.2-1/1 AND A.4.5-3a/11 THEN R ELSE N/A   |
|        | F A.4.1-1/2 AND A.4.3.3.2-1/1 AND A.4.5-3a/11 THEN R ELSE N/A   |
| C134a1 | Void  |
| C136   | Void  |
| C136   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/62 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A   |
| C137   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/62 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A  IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND (A.4.4-1/8 OR A.4.4-1/53) AND A.4.4-1/62 AND A.4.5-2/2 AND |
| C138   | · · · · · · · · · · · · · · · · · · ·   |
| C139   | NOT A.4.3.2-2A/1 THEN R ELSE N/A  IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND A.4.4-1/32 AND A.4.2.1.1-1/4 AND (A.4.5-1a/27 or A.4.5-1b/27)   |
| C139   | AND NOT A.4.3.2-2A/1 THEN R ELSE N/A  |
| C140   | Void  |
| C140   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-2/2 AND A.4.4-2/5 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A  |
| C141   | IF A.4.1-1/1 AND A.4.1-1/2 THEN R ELSE N/A  |
| C142   | IF A.4.1-1/1 AND A.4.1-1/2 THEN R ELSE N/A  IF A.4.1-1/1 AND A.4.1-1/2 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A   |
| C142a  | IF A.4.4-1/2 AND A.4.4-1/49 AND A.4.4-2/1 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A  |
| C144F  | IF A.4.1-1/1 AND A.4.1-1/7 AND A.4.5-1a/7 AND A.4.5-1a/9 AND A.4.5-1a/23 AND A.4.4-1/32 AND A.4.4-1/33  |
| C144F  | AND NOT A.4.3.2-2A/1 THEN R ELSE N/A  |
| C144T  | IF A.4.1-1/2 AND A.4.1-1/7 AND A.4.5-1b/7 AND A.4.5-1b/9 AND A.4.5-1b/23 AND A.4.4-1/32 AND A.4.4-1/33  |
| C1441  | AND NOT A.4.3-2-2A/1 THEN R ELSE N/A  |
| C145   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/65 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A   |
| C146   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND (A.4.4-1/8 OR A.4.4-1/53) AND NOT A.4.3.2-2A/1 THEN R   |
| 0140   | ELSE N/A  |
| C147   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/63 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A   |
| C148F  | IF A.4.1-1/1 AND A.4.5-1a/23 AND A.4.4-1/29 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A  |
| C148T  | IF A.4.1-1/2 AND A.4.5-1b/23 AND A.4.4-1/29 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A  |
| C1481  | Void  |
| C150   | IF (((A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6) OR ((A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND A.4.1-1/7)) AND   |
| 0130   | NOT A.4.3.2-2A/1 THEN R ELSE N/A  |
| C151   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.3.3.3-1/1 THEN R ELSE N/A   |
| C152F  | IF A.4.1-1/1 AND A.4.3.3.3-1/1 AND A.4.5-3a/11 THEN R ELSE N/A  |
| C152T  | IF A.4.1-1/2 AND A.4.3.3.3-1/1 AND A.4.5-3b/11 THEN R ELSE N/A  |
| C1521  | IF (A.4.1-1/2 AND A.4.3-3/2) AND (A.4.1-1/6 OR A.4.1-1/7) AND A.4.4-2/2 AND A.4.4-1/26 AND NOT A.4.3.2-   |
| 0133   | 2A/1 THEN R ELSE N/A  |
| C154F  | IF A.4.1-1/1 AND A.4.5-3a/15 THEN R ELSE N/A  |
| 01071  | II /I.T. I // I /II / I/I / I/I / I / I / I / I   |

|        | IF A.4.1-1/2 AND A.4.5-3b/15 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A  |
|--------|--|
| C155F  | IF A.4.1-1/1 AND A.4.1-1/6 AND A.4.5-3a/12 AND A.4.4-1/8 AND A.4.5-2/2 AND (A.4.3.3.1-1/1 OR A.4.3.3.1-  |
|        | 1/2) AND NOT A.4.3.2-2A/1 THEN R ELSE N/A  |
| C155T  | IF A.4.1-1/2 AND A.4.1-1/6 AND A.4.5-3b/12 AND A.4.4-1/53 AND A.4.5-2/2 AND (A.4.3.3.1-1/1 OR A.4.3.3.1- |
|        | 1/2) AND NOT A.4.3.2-2A/1 THEN R ELSE N/A  |
| C155aF | F IF A.4.1-1/1 AND A.4.1-1/6 AND A.4.5-3a/12 AND A.4.4-1/8 AND A.4.5-2/2 AND A.4.3.3.3-1/1 AND NOT       |
|        | A.4.3.2-2A/1 THEN R ELSE N/A   |
| C155aT | F A.4.1-1/2 AND A.4.1-1/6 AND A.4.5-3b/12 AND A.4.4-1/53 AND A.4.5-2/2 AND A.4.3.3.3-1/1 AND NOT         |
|        | A.4.3.2-2A/1 THEN R ELSE N/A   |
| C155bF | IF A.4.1-1/1 AND A.4.1-1/6 AND A.4.5-3a/12 AND A.4.4-1/8 AND A.4.5-2/2 AND A.4.3.3.2-1/1 AND NOT         |
|        | A.4.3.2-2A/1 THEN R ELSE N/A   |
| C155bT | F A.4.1-1/2 AND A.4.1-1/6 AND A.4.5-3b/12 AND A.4.4-1/53 AND A.4.5-2/2 AND A.4.3.3.2-1/1 AND NOT         |
|        | A.4.3.2-2A/1 THEN R ELSE N/A   |
| C156   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/2 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A                           |
| C157   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/69 THEN R ELSE N/A   |
| C157a  | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/69 AND ((NOT A.4.3.2-2A/1) OR (A.4.3.2-2A/1 AND A.4.4-           |
|        | 1A/16))THEN R ELSE N/A   |
| C157b  | IF A.4.1-1/2 AND A.4.4-1/69 AND A.4.3.2-2A/2 AND A.4.3.2-3A/2 THEN R ELSE N/A                            |
| C158   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/70 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A                          |
|        | IF A.4.1-1/1 AND A.4.1-1/6 AND A.4.5-1a/27 AND A.4.4-1/33 AND [45]A.12/34 AND NOT A.4.3.2-2A/1 THEN R    |
|        | ELSE N/A   |
| C159T  | IF A.4.1-1/2 AND A.4.1-1/6 AND A.4.5-1b/27 AND A.4.4-1/33 AND [45]A.12/34 AND NOT A.4.3.2-2A/1 THEN R    |
|        | ELSE N/A   |
| C160F  | IF A.4.1-1/1 AND A.4.1-1/6 AND A.4.5-1a/7 AND A.4.5-1a/8 AND A.4.5-1a/22 AND A.4.5-1a/27 AND A.4.4-1/32  |
|        | AND A.4.4-1/33 AND A.4.4-1/71 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A                                       |
| C160T  | IF A.4.1-1/2 AND A.4.1-1/6 AND A.4.5-1b/7 AND A.4.5-1b/8 AND A.4.5-1b/22 AND A.4.5-1b/27 AND A.4.4-1/32  |
|        | AND A.4.4-1/33 AND A.4.4-1/71 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A                                       |
| C161F  | IF A.4.1-1/1 AND A.4.1-1/6 AND A.4.5-1a/27 AND A.4.4-1/33 AND A.4.4-1/71 AND [45]A.12/34 AND NOT         |
|        | A.4.3.2-2A/1 THEN R ELSE N/A   |
| C161T  | IF A.4.1-1/2 AND A.4.1-1/6 AND A.4.5-1b/27 AND A.4.4-1/33 AND A.4.4-1/71 AND [45]A.12/34 AND NOT         |
|        | A.4.3.2-2A/1 THEN R ELSE N/A   |
| C162   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.3.3.3-1/1 AND A.4.3.3.3-2/1 AND A.4.3.3.3-2/2 THEN R ELSE N/A        |
| C163   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/7 AND A.4.4-1/29 AND A.4.4-1/62 AND NOT A.4.3.2-2A/1 THEN R      |
|        | ELSE N/A   |
| C164   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/72 AND A.4.4-2/2 AND NOT (A.4.4-2/32) THEN R ELSE N/A            |
| C165   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/3 AND A.4.4-1/62 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A            |
| C166F  | IF A.4.1-1/1 AND A.4.5-1a/14 THEN R ELSE N/A   |
| C166T  | IF A.4.1-1/2 AND A.4.5-1b/14 THEN R ELSE N/A   |
| C167F  | IF A.4.1-1/1 AND A.4.5-1a/14 AND A.4.5-1a/25 AND ((NOT A.4.3.2-2A/1) OR (A.4.3.2-2A/1 AND A.4.4-1A/16))  |
|        | THEN R ELSE N/A  |
| C167T  | IF A.4.1-1/2 AND A.4.5-1b/14 AND A.4.5-1b/25 AND ((NOT A.4.3.2-2A/1) OR (A.4.3.2-2A/1 AND A.4.4-1A/16))  |
|        | THEN R ELSE N/A  |
| C168F  | IF A.4.1-1/1 AND A.4.1-1/6 AND A.4.5-1a/15 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A                          |
| C168T  | IF A.4.1-1/2 AND A.4.1-1/6 AND A.4.5-1b/15 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A                          |
| C169   | Void   |
| C170   | IF A.4.1-1/1 AND A.4.4-1/76 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A   |
|        |  |

| C171   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/7 AND A.4.4-1/79 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A            |
|--------|--|
| C172   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.2.1.1-1/4 AND A.4.4-1/37 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A        |
| C173   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/80 AND A.4.4-2/1 THEN R ELSE N/A                                 |
| C174   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/81 THEN R ELSE N/A   |
| C175   | IF A.4.1-1/2 AND A.4.4-1A/2 THEN R ELSE N/A  |
| C176   | IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.3.3.1-1/1 OR A.4.3.3.1-1/2) AND NOT A.4.3.2-1/1 THEN R ELSE N/A     |
| C177   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.3.3.3-1/1 AND NOT A.4.3.2-1/1 THEN R ELSE N/A                        |
| C178   | IF (A.4.1-1/1 OR A.4.1-1/2) AND [8]A.10/31 THEN R ELSE N/A   |
| C179   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/84 AND NOT A.4.4-1/138 THEN R ELSE N/A                           |
| C179a  | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/84 AND NOT (A.4.4-1/138) AND ((NOT A.4.3.2-2A/1) OR (A.4.3.2-    |
|        | 2A/1 AND A.4.4-1A/16))THEN R ELSE N/A  |
| C180   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND A.4.4-1/63 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A            |
| C181   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/85 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A                          |
| C182   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND [8]A.2/2 AND NOT A.4.2.1.1-1/4 AND NOT A.4.3.2-2A/1 THEN   |
|        | R ELSE N/A   |
| C183   | IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.4-1/33 OR A.4.4-1/145) THEN R ELSE N/A                              |
| C184   | IF ((A.4.1-1/1 AND A.4.1-2/1) OR (A.4.1-1/2 AND A.4.1-2/2)) AND NOT A.4.3.2-2A/1 THEN R ELSE N/A         |
| C184a  | IF ((A.4.1-1/1 AND A.4.1-2/1) OR (A.4.1-1/2 AND A.4.1-2/2)) AND ((NOT A.4.3.2-2A/1) OR (A.4.3.2-2A/1 AND |
|        | A.4.4-1A/16)) THEN R ELSE N/A  |
| C185F  | IF A.4.1-1/1 AND A.4.5-1a/13 AND A.4.5-1a/25 AND A.4.1-2/1 AND ((NOT A.4.3.2-2A/1) OR (A.4.3.2-2A/1 AND  |
|        | A.4.4-1A/16)) THEN R ELSE N/A  |
| C185T  | IF A.4.1-1/2 AND A.4.5-1b/13 AND A.4.5-1b/25 AND A.4.1-2/2 AND ((NOT A.4.3.2-2A/1) OR (A.4.3.2-2A/1 AND  |
|        | A.4.4-1A/16)) THEN R ELSE N/A  |
| C186F  | IF (A.4.1-1/1 AND A.4.5-1a/25 AND A.4.1-2/1) OR (A.4.4-1/122 AND A.4.4-1A/14 AND A.4.4-1A/15 AND A.4.5-  |
|        | 1a/25) THEN R ELSE N/A   |
| C186T  | IF (A.4.1-1/2 AND A.4.5-1b/25 AND A.4.1-2/2) OR (A.4.4-1/122 AND A.4.4-1A/14 AND A.4.4-1A/15 AND A.4.5-  |
|        | 1b/25) THEN R ELSE N/A   |
| C187   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/86 THEN R ELSE N/A   |
| C188   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/87 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A                          |
|        | IF A.4.1-1/1 AND A.4.5-1a/31 THEN R ELSE N/A   |
|        | IF A.4.1-1/2 AND A.4.5-1b/31 THEN R ELSE N/A   |
|        | F IF A.4.1-1/1 AND A.4.5-1a/31 AND [8]A.1/1 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A                         |
|        | IF A.4.1-1/2 AND A.4.5-1b/31 AND [8]A.1/1 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A                           |
| C189bF | F IF A.4.1-1/1 AND A.4.5-1a/31 AND((NOT A.4.3.2-2A/1) OR (A.4.3.2-2A/1 AND A.4.4-1A/16)) THEN R ELSE     |
|        | N/A  |
| C189bT | TIF A.4.1-1/2 AND A.4.5-1b/31 AND ((NOT A.4.3.2-2A/1) OR (A.4.3.2-2A/1 AND A.4.4-1A/16)) THEN R ELSE     |
| 0.100  | N/A  |
|        | FIF A.4.1-1/1 AND A.4.5-1a/31 AND A.4.1-1/6 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A                         |
|        | IF A.4.1-1/2 AND A.4.5-1b/31 AND A.4.1-1/6 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A                          |
| C190   | IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.3.3.1-2/1 OR A.4.3.3.1-2/2) AND A.4.4-1A/3 THEN R ELSE N/A          |
| C191   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.3.3.3-1/1 AND A.4.3.3.3-2/1 AND A.4.4-1A/3 AND A.4.3.3.3-2/2 THEN R  |
| 0.100  | ELSE N/A   |
| C192   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.3.3.2-1/1 AND A.4.3.3.2-2/1 AND A.4.4-1A/3 THEN R ELSE N/A           |
| C193F  | IF A.4.1-1/1 AND A.4.1-1/7 AND A.4.5-1a/7 AND A.4.5-1a/9 AND A.4.5-1a/23 AND A.4.4-1/32 AND A.4.4-1/33   |
|        | AND [45]A.12/34 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A   |

| C193T | IF A.4.1-1/2 AND A.4.1-1/7 AND A.4.5-1b/7 AND A.4.5-1b/9 AND A.4.5-1b/23 AND A.4.4-1/32 AND A.4.4-1/33   |
|-------|--|
| 0404  | AND [45]A.12/34 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A   |
| C194  | IF (A.4.1-1/1 OR A.4.1-1/2) AND [8]A.10/31 AND A.4.4-1A/4 THEN R ELSE N/A  |
| C195  | IF (A.4.1-1/1 OR A.4.1-1/2) AND [8]A.10/31 AND [8]A.10/37 AND A.4.4-2/1 THEN R ELSE N/A  |
| C196  | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/19 AND A.4.4-1/54 AND [8]A.10/31 AND [8]A.10/37 THEN R ELSE N/A  |
| C197  | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1A/4 AND [8]A.10/31 AND A.4.4-1/91 AND A.4.4-2/1 THEN R ELSE N/A   |
| C198F | IF A.4.1-1/1 AND A.4.1-1/7 AND A.4.5-1a/7 AND A.4.5-1a/9 AND A.4.5-1a/23 AND A.4.4-1/32 AND A.4.4-1/33 AND [45]A.12/36 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A                |
| C198T | IF A.4.1-1/2 AND A.4.1-1/7 AND A.4.5-1b/7 AND A.4.5-1b/9 AND A.4.5-1b/23 AND A.4.4-1/32 AND A.4.4-1/33 AND [45]A.12/36 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A                |
| C199F | IF A.4.1-1/1 AND A.4.1-1/7 AND A.4.5-1a/7 AND A.4.5-1a/9 AND A.4.5-1a/23 AND A.4.4-1/32 AND A.4.4-1/33 AND A.4.4-1/71 AND [45]A.12/36 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A |
| C199T | IF A.4.1-1/2 AND A.4.1-1/7 AND A.4.5-1b/7 AND A.4.5-1b/9 AND A.4.5-1b/23 AND A.4.4-1/32 AND A.4.4-1/33 AND A.4.4-1/71 AND [45]A.12/36 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A |
| C200F | IF A.4.1-1/1 AND A.4.1-1/7 AND A.4.5-1a/7 AND A.4.5-1a/9 AND A.4.5-1a/23 AND A.4.4-1/32 AND A.4.4-1/33 AND A.4.4-1/71 AND [45]A.12/34 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A |
| C200T | IF A.4.1-1/2 AND A.4.1-1/7 AND A.4.5-1b/7 AND A.4.5-1b/9 AND A.4.5-1b/23 AND A.4.4-1/32 AND A.4.4-1/33 AND A.4.4-1/71 AND [45]A.12/34 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A |
| C201F | IF A.4.1-1/1 AND A.4.1-1/6 AND A.4.5-1a/27 AND A.4.4-1/33 AND [45]A.12/36 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A   |
| C201T | IF A.4.1-1/2 AND A.4.1-1/6 AND A.4.5-1b/27 AND A.4.4-1/33 AND [45]A.12/36 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A   |
| C202F | IF A.4.1-1/1 AND A.4.1-1/6 AND A.4.5-1a/27 AND A.4.4-1/33 AND A.4.4-1/71 AND [45]A.12/36 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A  |
| C202T | IF A.4.1-1/2 AND A.4.1-1/6 AND A.4.5-1b/27 AND A.4.4-1/33 AND A.4.4-1/71 AND [45]A.12/36 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A  |
| C203  | Void   |
| C203a | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/62 AND A.4.4-1/63 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A   |
| C204  | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/30 AND [8]A.10/31 AND [8]A.10/37 THEN R ELSE N/A   |
| C205  | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND (A.4.4-1/8 OR A.4.4-1/53) AND A.4.4-1/94 AND NOT A.4.3.2-<br>2A/1 THEN R ELSE N/A  |
| C206F | IF A.4.1-1/1 AND A.4.1-1/7 AND A.4.5-1a/5 AND A.4.5-1d/2 AND A.4.5-1a/23 THEN R ELSE N/A   |
|       | IF A.4.1-1/2 AND A.4.1-1/7 AND A.4.5-1b/5 AND A.4.5-1e/2 AND A.4.5-1b/23 THEN R ELSE N/A   |
| C207  | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.3.3.2-1/1 AND A.4.3.3.2-2/1 THEN R ELSE N/A  |
| C208  | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1A/1 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A  |
| C209  | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/33 AND (A.4.4-2/14 OR A.4.4-2/15) THEN R ELSE N/A  |
| C210  | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/33 AND (A.4.4-2/11 OR A.4.4-2/13) THEN R ELSE N/A  |
| C211  | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/33 AND A.4.4-2/14 THEN R ELSE N/A  |
| C212  | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/97 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A  |
| C212a | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/97 AND ((NOT A.4.3.2-2A/1) OR (A.4.3.2-2A/1 AND A.4.4-1A/16))  |
| 0040  | THEN R ELSE N/A  |
| C213  | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/98 THEN R ELSE N/A   |
| C214  | Void   |
| C215  | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/99 THEN R ELSE N/A   |
| C216F | IF A.4.1-1/1 AND A.4.5-1a/4 AND A.4.5-1a/5 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A  |

| C216T | IF A.4.1-1/2 AND A.4.5-1b/4 AND A.4.5-1b/5 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A  |
|-------|--|
| C2101 | IF (A.4.1-1/2 AND A.4.5-10/4 AND A.4.5-10/5 AND NOT A.4.5.2-2A/1 THEN R ELSE N/A  IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND A.4.4-1/33 AND [45]A.12/40 AND NOT A.4.3.2-2A/1 THEN R |
| 0217  | ELSE N/A   |
| C218  | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND A.4.4-1/33 AND [45]A.12/40 AND [45]A.12/41 AND NOT   |
| 0210  | A.4.3.2-2A/1 THEN R ELSE N/A   |
| C219  | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/7 AND A.4.4-1/33 AND [45]A.12/40 AND NOT A.4.3.2-2A/1 THEN R   |
| 6219  |  |
| C220  | ELSE N/A  IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/7 AND A.4.4-1/33 AND [45]A.12/40 AND [45]A.12/41 AND NOT   |
| C220  | ,  |
| C221  | A.4.3.2-2A/1 THEN R ELSE N/A  IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.3.3.1-1/1 OR A.4.3.3.1-1/2 OR A.4.3.3.2-1/1 OR A.4.3.3.3-1/1) AND   |
| 0221  | A.4.4-1/101 AND NOT A.4.4-1/102 THEN R ELSE N/A  |
| C222  | IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.3.3.1-1/1 OR A.4.3.3.1-1/2 OR A.4.3.3.2-1/1 OR A.4.3.3.3-1/1) AND   |
| 0222  | A.4.4-1/101 AND A.4.4-1/102 THEN R ELSE N/A  |
| C223  | IF (A.4.1-1/1 OR A.4.1-1/2) AND [45]A.3A/50 AND [45]A.4/2B AND [45]A.15/3 AND NOT A.4.3.2-2A/1 THEN R  |
| 0223  |  |
| C224  | ELSE N/A  IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.3.2-2/1 THEN R ELSE N/A  |
|       |  |
|       | IF (A.4.1-1/1 OR A.4.1-1/2) AND NOT (A.4.3.2-2/1 OR A.4.3.2-2A/1) THEN R ELSE N/A  |
|       | IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.3.2-2/1 OR A.4.3.2-2A/1) THEN R ELSE N/A  |
|       | IF (A.4.1-1/1 OR A.4.1-1/2) AND NOT A.4.3.2-2A/1 THEN R ELSE N/A   |
|       | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4/183 THEN R ELSE N/A  |
| C225  | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.2.1.1-1/8 AND A.4.4-1/30 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A  |
| C225a | IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.3.3.1-1/1 OR A.4.3.3.1-1/2 OR A.4.3.3.2-1/1 OR A.4.3.3.3-1/1) AND   |
| 0000  | A.4.2.1.1-1/8 AND A.4.4-1/30 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A  |
| C226  | Void   |
| C227  | IF A.4.1-1/1 AND A.4.4-1/51 AND A.4.4-1/107 AND A.4.5-1a/7 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A  |
| C228  | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/51 AND NOT A.4.3.2-2/1 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A  |
| C228a | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/51 AND A.4.3.2-2/1 THEN R ELSE N/A   |
| C229  | IF A.4.1-1/1 AND NOT A.4.5-1a/31 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A  |
| C229a | IF A.4.1-1/1 AND NOT A.4.5-1a/31 AND ((NOT A.4.3.2-2A/1) OR (A.4.3.2-2A/1 AND A.4.4-1A/16)) THEN R   |
|       | ELSE N/A   |
| C230  | IF A.4.1-1/2 AND NOT A.4.5-1b/31 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A  |
| C230a | IF A.4.1-1/2 AND NOT A.4.5-1b/31 AND ((NOT A.4.3.2-2A/1) OR (A.4.3.2-2A/1 AND A.4.4-1A/16)) THEN R   |
|       | ELSE N/A   |
| C231  | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/7 AND A.4.4-1/32 AND A.4.2.1.1-1/4 AND (A.4.5-1a/9 or A.4.5-1b/9)  |
|       | AND NOT A.4.3.2-2A/1 THEN R ELSE N/A   |
| C232  | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND A.4.4-1/33 AND [45]A.12/40 AND A.4.4-1/30 AND NOT A.4.3.2-   |
|       | 2A/1 THEN R ELSE N/A   |
| C233  | IF A.4.1-1/1 AND A.4.1-1/2 AND A.4.3.3-1/2 AND A.4.3.3-2/2 AND (A.4.4-1/108 OR A.4.4-1/109) AND A.4.4-   |
|       | 1A/3 THEN R ELSE N/A   |
| C234  | IF A.4.1-1/1 AND A.4.1-1/2 AND A.4.3.3-1/1 AND A.4.3.3-2/1 AND A.4.4-1/108 THEN R ELSE N/A   |
| C234a | IF A.4.1-1/1 AND A.4.1-1/2 AND A.4.3.3-1/1 AND A.4.4-1/108 THEN R ELSE N/A   |
| C235  | IF A.4.1-1/1 AND A.4.1-1/2 AND A.4.3.3-1/1 AND A.4.3.3-2/1 AND A.4.4-1/109 THEN R ELSE N/A   |
| C235a | IF A.4.1-1/1 AND A.4.1-1/2 AND A.4.3.3-1/1 AND A.4.4-1/109 THEN R ELSE N/A   |
| C236  | IF (A.4.1-1/1 OR A.4.1-1/2) AND [45]A.3A/50 AND [45]A.4/2B AND [45]A.15/1 THEN R ELSE N/A  |
| C237  | IF (A.4.1-1/1 OR A.4.1-1/2) AND [45]A.3A/50 AND [45]A.4/2B AND [45]A.15/1 AND [45]A.15/3 AND NOT   |
|       | A.4.3.2-2A/1 THEN R ELSE N/A   |
|       |  |

| C259gF | IF A.4.1-1/1 AND (A.4.3.3.1-1/1 OR A.4.3.3.1-1/2) AND A.4.5-1a/13 AND A.4.5-1a/25 AND A.4.2.1.1-1/11 AND                             |
|--------|--|
|        | A.4.4-1/126 THEN R ELSE N/A  |
|        | IF A.4.1-1/2 AND (A.4.3.3.1-1/1 OR A.4.3.3.1-1/2) AND A.4.5-1b/13 AND A.4.5-1b/25 AND A.4.2.1.1-1/11 AND A.4.4-1/126 THEN R ELSE N/A |
| C259hF | IF A.4.1-1/1 AND A.4.3.3.3-1/1 AND A.4.5-1a/13 AND A.4.5-1a/25 AND A.4.2.1.1-1/11 AND A.4.4-1/126 THEN R ELSE N/A                    |
| C259hT | IF A.4.1-1/2 AND A.4.3.3.3-1/1 AND A.4.5-1b/13 AND A.4.5-1b/25 AND A.4.2.1.1-1/11 AND A.4.4-1/126 THEN R ELSE N/A                    |
| C260   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/128 THEN R ELSE N/A  |
| C261   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1A/4 AND [8]A.10/31 AND A.4.4-2/1 THEN R ELSE N/A  |
| C262   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/121 THEN R ELSE N/A  |
| C263   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/121 AND A.4.2.1.1-1/4 THEN R ELSE N/A  |
| C264   | IF A.4.1-1/2 AND A.4.4-1/124 AND A.4.3.3.3-1/1 THEN R ELSE N/A   |
| C265   | IF A.4.1-1/2 AND A.4.4-1/124 AND A.4.3.3.3-2/1 THEN R ELSE N/A   |
| C266   | IF A.4.1-1/8 THEN R ELSE N/A   |
| C266a  | IF A.4.1-1/8 AND A.4.4-1/98 THEN R ELSE N/A  |
| C267   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.2.1.1-1/12 THEN R ELSE N/A   |
| C268   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1A/7 AND A.4.4-1A/8 THEN R ELSE N/A  |
| C269   | IF A.4.1-1/5 AND A.4.4-1/117 THEN R ELSE N/A   |
| C270   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4 -1/131 THEN R ELSE NA  |
| C271   | IF A.4.1-1/8 AND A.4.4-1/199 THEN R ELSE N/A   |
| C272   | IF A.4.1-1/8 AND A.4.4-1/99 THEN R ELSE N/A  |
| C273   | IF A.4.1-1/8 AND A.4.4-1/121 THEN R ELSE N/A   |
| C274   | IF (A.4.1-1/1 OR A.4.1-1/2 ) AND A.4.2.1.1-1/13 THEN R ELSE N/A  |
| C275   | IF A.4.1-1/8 AND [8]A.10/31 AND [8]A.10/37 THEN R ELSE N/A   |
| C276   | Void   |
| C277   | IF A.4.1-1/8 AND A.4.4-1/30 AND [8]A.10/31 AND [8]A.10/37 THEN R ELSE N/A  |
| C278   | Void   |
| C279   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/129 AND A.4.4-1/130 THEN R ELSE N/A  |
| C280   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/129 THEN R ELSE N/A  |
| C281   | IF A.4.1-1/1 AND A.4.1-1/2 AND A.4.4-1/139 AND NOT A.4.3.2-2A/1 THEN R ELSE N/A  |
| C282   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/140 THEN R ELSE N/A  |
| C283   | IF (A.4.1-1/1 OR A.4.1-1/2) AND [8]A.20/35 AND NOT A.4.4-1/25 THEN R ELSE N/A  |
| C284   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/143 THEN R ELSE N/A  |
| C285   | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/132 THEN R ELSE N/A  |
| C286   | IF(A.4.1-1/1 OR A.4.1-1/2) AND NOT (A.4.3.2-2A/1) AND A.4.4-1/2 AND A.4.4-2/1 THEN R ELSE N/A  |
| C287   | IF(A.4.1-1/1 OR A.4.1-1/2) AND NOT (A.4.3.2-2A/1) AND A.4.1-1/6 AND A.4.4-2/2 AND A.4.2.1.1-1/1 AND                                  |
|        | A.4.4-2/5 THEN R ELSE N/A  |
| C288   | IF A.4.1-1/8 AND A.4.4-1A/10 THEN R ELSE N/A   |
| C289   | Void   |
| C290   | IF A.4.1-1/8 AND (A.4.4-1/132 OR A.4.4-1/144) THEN R ELSE N/A  |
| C291   | IF A.4.1-1/8 AND (A.4.4-1/132 OR A.4.4-1/144) AND A.4.4-1/99 THEN R ELSE N/A   |
| C292   | Void   |
| C293   | IF A.4.1-1/8 AND A.4.4-2/24 AND A.4.4-1/19 THEN R ELSE N/A   |
| C294   | Void   |

| C295 | IF(A.4.1-1/1 OR A.4.1-1/2) AND A.4.2.1.1-1/14 THEN R ELSE N/A   |
|------|---|
| C296 | IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.3.2-1/5 OR A.4.3.2-1/6 OR A.4.3.2-1/7 OR A.4.3.2-1/9 OR A.4.3.2-1/10   |
|      | OR A.4.3.2-1/11 OR A.4.3.2-1/12 OR A.4.3.2-2/10 OR A.4.3.2-2/11 OR A.4.3.2-2/13 OR A.4.3.2-2/14 OR          |
|      | A.4.3.2-2/15 OR A.4.3.2-2/16) AND A.4.4-1/159 THEN R ELSE N/A   |
| C297 | IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.3.2-1/11 OR A.4.3.2-1/12 OR A.4.3.2-2/8 OR A.4.3.2-2/10 OR A.4.3.2-    |
|      | 2/11 OR A.4.3.2-2/13 OR A.4.3.2-2/14 OR A.4.3.2-2/15 OR A.4.3.2-2/16) AND A.4.4-1/159 AND A.4.4-1/116       |
|      | THEN R ELSE N/A   |
| C298 | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/160 THEN R ELSE N/A   |
| C299 | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/161 THEN R ELSE N/A   |
| C300 | Void  |
| C301 | IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.3.3-1/1 OR A.4.3.3-1/2 OR A.4.3.3-1/3 OR A.4.3.3-1/4) AND (A.4.3.3-2/1 |
|      | OR A.4.3.3-2/2) AND A.4.4-1/163 THEN R ELSE N/A   |
| C302 | IF A.4.4-1/148 THEN R ELSE N/A  |
| C303 | IF A.4.4-1/148 AND A.4.4-1/153 THEN R ELSE N/A  |
| C304 | IF A.4.4-1/148 AND A.4.4-1/155 THEN R ELSE N/A  |
| C305 | IF A.4.4-1/148 AND A.4.4-1/156 THEN R ELSE N/A  |
| C306 | IF A.4.4-1/148 AND A.4.4-1/157 THEN R ELSE N/A  |
| C307 | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/148 THEN R ELSE N/A   |
| C308 | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/148 AND A.4.4-1/152 THEN R ELSE N/A                                 |
| C309 | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/148 AND A.4.4-1/153 THEN R ELSE N/A                                 |
| C310 | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/148 AND A.4.4-1/155 THEN R ELSE N/A                                 |
| C311 | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/148 AND A.4.4-1/156 THEN R ELSE N/A                                 |
| C312 | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/148 AND A.4.4-1/157 THEN R ELSE N/A                                 |
| C313 | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/164   |
| C314 | IF (A.4.1-1/1 OR A.4.1-1/2) AND [45]A.12/55 AND [8]A.10/16 THEN R ELSE N/A                                  |
| C315 | IF (A.4.1-1/1 OR A.4.1-1/2) AND [45]A.12/55 AND [8]A.10/16 AND [8]A.10/19 THEN R ELSE N/A                   |
| C316 | IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.1-1/6 OR A.4.1-1/7) AND [45]A.12/54 AND [8]A.10/17 AND A.4.2.1.1-1/4   |
| 0047 | THEN R ELSE N/A   |
| C317 | IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.1-1/6 OR A.4.1-1/7) AND [45]A.12/55 AND [8]A.10/17 THEN R ELSE N/A     |
| C318 | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/6 AND [45]A.12/55 AND [8]A.10/16 THEN R ELSE N/A                    |
| C319 | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/7 AND [45]A.12/55 AND [8]A.10/16 THEN R ELSE N/A                    |
| C320 | IF A.4.1-1/1 AND A.4.3.3-1/1 AND A.4.4-1/109 AND A.4.4-1/166 THEN R ELSE N/A                                |
| C321 | IF A.4.1-1/2 AND A.4.3.3-1/1 AND A.4.4-1/166 THEN R ELSE N/A  |
| C322 | IF A.4.1-1/8 AND A.4.4-1/165 THEN R ELSE N/A  |
| C323 | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-1/8 THEN R ELSE N/A   |
| C324 | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/120 AND A.4.4-1/169 THEN R ELSE N/A                                 |
| C325 | IF A.4.4-1/173 THEN R ELSE N/A  |
| C326 | IF A.4.4-1/172 THEN R ELSE N/A  |
| C327 | IF (A.4.4-1/170 OR A.4.4-1/171) THEN R ELSE N/A   |
| C328 | IF A.4.4-1/148 AND A.4.4-1/153 AND A.4.4-1/156 THEN R ELSE N/A  |
| C329 | Void  |
| C330 | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/174 THEN R ELSE N/A   |
| C331 | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/174 AND A.4.4-1/70 THEN R ELSE N/A                                  |
| C332 | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/174 AND A.4.4-1/176 THEN R ELSE N/A                                 |
| C333 | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/174 AND A.4.4-1/70 AND A.4.4-1/176 THEN R ELSE N/A                  |

| 0004         | IF /A A A A /A OD A A A A /O) AND A A A A /A O THEN DELOCATIVA  |
|--------------|---|
| C334         | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/161 THEN R ELSE N/A   |
| C335<br>C336 | Void<br>IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/149 AND A.4.4-1/177 THEN R ELSE N/A                       |
| C336         |   |
|              | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.2.1.1-1/5 AND A.4.4-1/149 THEN R ELSE N/A                             |
| C338         | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.2.1.1-1/11 AND A.4.4-1/149 THEN R ELSE N/A                            |
| C339         | IF A.4.1-1/8 AND A.4.4-1/167 AND A.4.3.2-1A/2 THEN R ELSE N/A   |
| C340         | Void  |
| C341         | IF A.4.1-1/8 THEN R ELSE N/A  |
| C342         | IF A.4.1-1/8 AND A.4.4-2/27 AND A.4.4-2/31 THEN R ELSE N/A  |
| C343         | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/148 AND A.4.4-1/154 AND A.4.4-1/178 THEN R ELSE N/A               |
| C344         | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/148 AND NOT(A.4.4-1/154) AND A.4.4-1/178 THEN R ELSE N/A          |
| C345         | IF A.4.4-1/148 AND A.4.4-1/178 THEN R ELSE N/A  |
| C346         | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/148 AND A.4.4-1/178 THEN R ELSE N/A                               |
| C347         | IF A.4.1-1/8 AND A.4.3.2-1A/2 THEN R ELSE N/A   |
| C348         | IF A.4.1-1/8 AND A.4.4-1A/11 THEN R ELSE N/A  |
| C349         | IF A.4.1-1/8 AND A.4.4-1A/12 THEN R ELSE N/A  |
| C350         | IF A.4.1-1/8 AND A.4.2.1.1-1/15 THEN R ELSE N/A   |
| C351         | IF A.4.1-1/8 AND A.4.2.1.1-1/11 AND (A.4.5-1a/3 or A.4.5-1b/3) AND (A.4.5-1a/7 or A.4.5-1b/7) THEN R ELSE |
|              | N/A   |
| C352         | IF A.4.4-1/179 THEN R ELSE N/A  |
| C353         | IF A.4.4-1/179 AND A.4.4-1/180 THEN R ELSE N/A  |
| C354         | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.2.1.1-1/11 AND (A.4.4-1/122 OR A.4.4-1/123) THEN R ELSE N/A           |
| C355         | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/181 THEN R ELSE N/A   |
| C356         | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/182 THEN R ELSE N/A   |
| C357         | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-2/33 THEN R ELSE N/A  |
| C358         | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/184 THEN R ELSE N/A   |
| C359         | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/185 THEN R ELSE N/A   |
| C360         | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/186 THEN R ELSE N/A   |
| C361         | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/187 THEN R ELSE N/A   |
| C362         | IF A.4.1-1/1 AND A.4.5-1a/7 OR (A.4.4-1/122 AND A.4.4-1A/14 AND A.4.4-1A/15 AND A.4.5-1a/7) THEN R        |
|              | ELSE N/A  |
| C363         | IF A.4.1-1/2 AND A.4.5-1b/7 OR (A.4.4-1/122 AND A.4.4-1A/14 AND A.4.4-1A/15 AND A.4.5-1b/7) THEN R        |
|              | ELSE N/A  |
| C364         | IF (A.4.1-1/1 AND A.4.5-1a/25) OR (A.4.4-1/122 AND A.4.4-1A/14 AND A.4.5-1a/25) THEN R ELSE N/A           |
| C365         | IF (A.4.1-1/2 AND A.4.5-1b/25) OR (A.4.4-1/122 AND A.4.4-1A/14 AND A.4.5-1b/25) THEN R ELSE N/A           |
| C366         | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.2.1.1-1/4 AND [8] A. 20/90 THEN R ELSE N/A                            |
| C367         | IF A.4.1-1/1 AND A.4.4-1/122 AND A.4.4-1/188 THEN R ELSE N/A  |
| C368         | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/189 AND A.4.4-1/190 THEN R ELSE N/A                               |
| C369         | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/191 THEN R ELSE N/A   |
| C370         | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/192 THEN R ELSE N/A   |
| C371         | Void  |
| C372         | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/195 THEN R ELSE N/A   |
| C373         | IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.3.3.1-1/1 OR A.4.3.3.1-1/2) AND (A.4.4-1/196 OR A.4.4-1/197) THEN R  |
|              | ELSE N/A  |
| C374         | IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.3.3.1-1/1 OR A.4.3.3.1-1/2) AND A.4.4-1/197 THEN R ELSE N/A          |
|              |   |

| C375  | IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.3.3.1-1/1 OR A.4.3.3.1-1/2) AND A.4.4-1/198 THEN R ELSE N/A        |
|-------|---|
| C376  | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/143 AND A.4.4-1/200 THEN R ELSE N/A                             |
| C377  | IF A.4.1-1/8 AND A.4.4-1/202 THEN R ELSE N/A  |
| C378  | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/202 AND A.4.4-1/203 THEN R ELSE N/A                             |
| C379  | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/202 AND A.4.4-1/203 AND NOT A.4.4-1/205 THEN R ELSE N/A         |
| C379a | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/202 AND A.4.4-1/204 THEN R ELSE N/A                             |
| C380  | IF A.4.1-1/1 AND A.4.4-1/202 AND A.4.4-1/205 THEN R ELSE N/A  |
| C381  | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/202 AND A.4.4-1/204 AND A.4.4-1/206 THEN R ELSE N/A             |
| C382  | IF A.4.1-1/2 AND A.4.4-1/202 AND A.4.4-1/204 AND A.4.4-1/207 THEN R ELSE N/A                            |
| C383  | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/202 AND A.4.4-1/203 AND A.4.4-1/204 AND A.4.4-1/208 THEN R      |
|       | ELSE N/A  |
| C384  | IF (A.4.1-1/1) AND (A.4.4-1/122 OR A.4.4-1/123) AND (A.4.4-1/210) THEN R ELSE N/A                       |
| C385  | IF (A.4.1-1/1) AND (A.4.4-1/122 OR A.4.4-1/123) AND A.4.4-1/121 AND (A.4.4-1/210) THEN R ELSE N/A       |
| C386  | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1A/4 AND A.4.4-2/1 AND (A.4.4-1/122 OR A.4.4-1/123) THEN R ELSE   |
|       | N/A   |
| C387  | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/143 AND A.4.4-1/201 THEN R ELSE N/A                             |
| C388  | IF (A.4.1-1/1 OR A.4.1-1/2) AND ((NOT A.4.3.2-2A/1) OR (A.4.3.2-2A/1 AND A.4.4-1A/16)) THEN R ELSE N/A  |
| C389  | IF A.4.1-1/1 AND A.4.1-1/2 AND ((NOT A.4.3.2-2A/1) OR (A.4.3.2-2A/1 AND A.4.4-1A/16)) THEN R ELSE N/A   |
| C390  | IF A.4.1-1/8 AND A.4.4-1/210 THEN R ELSE N/A  |
| C391  | IF A.4.1-1/8 AND A.4.4-1/121 AND A.4.4-1/210 THEN R ELSE N/A  |
| C392  | IF A.4.1-1/8 AND A.4.1-1/1 AND A.4.4-1/211 THEN R ELSE N/A  |
| C393  | IF A.4.1-1/1 AND A.4.4-1/51 AND A.4.5-1a/7 AND (A.4.4-1/122 OR A.4.4-1/123) THEN R ELSE N/A             |
| C394  | IF A.4.1-1/2 AND A.4.4-1/51 AND A.4.5-1b/7 AND (A.4.4-1/122 OR A.4.4-1/123) THEN R ELSE N/A             |
| C395  | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.5-1a/7 AND A.4.4-1/213 THEN R ELSE N/A                              |
| C396  | IF A.4.1-1/8 AND A.4.4-1/199 AND (A.4.4-1/41 OR A.4.4-1/42 OR A.4.4-1/43 OR A.4.4-1/44 OR A.4.4-1/46 OR |
|       | A.4.4-1/47 OR A.4.4-1/48) THEN R ELSE N/A   |
| C397  | IF (A.4.1-1/1 OR A.4.1-1/2) AND [56] A.4.1-1/1 THEN R ELSE N/A  |
| C398  | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.4-1/214 THEN R ELSE N/A   |
|       |   |

Table 4-1b: Number of TC Executions - Notes

| Note 1:  | The TC contains multi-RAT branches not all mandatory in the scope of the TC. The E-UTRA/EPC branch will be executed always; the TC will go through any other RAT branch depending on the UE capability. Execution only of the E-UTRA/EPC branch regardless of the UE capabilities can also be imposed by setting the IXIT px_RATComb_Tested= EUTRA_only. For UEs supporting both UTRA AND GERAN the TC should be executed once only for the E-UTRA/EPC AND UTRA combination by setting the px_RATComb_Tested= EUTRA_UTRA. |
|----------|---|
| Note 2:  | The TC contains multi-RAT branches mandatory in the scope of the TC. The TC shall be executed once per supported by the UE RAT combination i.e. once if the UE supports E-UTRA/EPC AND UTRA, or, once if the UE supports E-UTRA/EPC AND GERAN. For UEs supporting both UTRA AND GERAN the TC should be executed once only for the E-UTRA/EPC AND UTRA combination by setting the px_RATComb_Tested= EUTRA_UTRA.   |
| Note 3:  | This TC can optionally be executed by Rel-8 UE and onwards till the release indicated in the Release column.  |
| Note 4:  | The two TCs verify the same core spec requirement(s) however in a different cell configuration to address different network deployments i.e. with different cells operating on multiple (different) or single (the same) frequency. It is recommended that the multi frequency test should be run by default. For exceptions to this recommendation depending on the band of operation see TS 36.523-3 [20] section 11.   |
| Note 5:  | For UEs that can be configured in at least one of the CS/PS modes (CS/PS mode 1 or CS/PS mode 2), AND, at least one of the PS modes (PS mode 1 or PS mode 2), this TC shall be run with the UE configured either in PS mode 1 or PS mode 2. Otherwise not all of the test's TPs will be verified.   |
| Note 6:  | For UEs that can be configured in both CS/PS modes (CS/PS mode 1 and CS/PS mode 2), OR, both PS modes (PS mode 1 and PS mode 2), this TC shall be run 2 times: once per configurable mode. Otherwise not all of the test's TPs will be verified. (Example: if the UE can be configured in CS/PS mode 1 and CS/PS mode 2 then the test case should be run once with UE configured in CS/PS mode 1 and once configured in CS/PS mode 2).  |
| Note 7:  | This TC can optionally be executed by Rel-9 UE and onwards till the release indicated in the Release column.  |
| Note 8:  | The two TCs verify the same core spec requirement(s) however in a different cell configuration to address different network deployments i.e. with different cells where the neighbour cell is operating on an interfrequency or inter-band frequency. It is recommended that the inter-frequency test should be run by default. For exceptions to this recommendation depending on the band of operation see TS 36.523-3 [20] section 11.   |
| Note 9:  | The two TCs verify the same core spec requirement(s) however in a different cell configuration to address different network deployments i.e. with different cells operating on UTRA interRAT or GERAN interRAT. It is recommended that the UTRA interRAT test should be run by default.   |
| Note 10: | As per TS 36.306, clause 4.1, check for support of category 2 to 5 is sufficient to check support for category 6 or higher.   |
| Note 11: | Test case is not intended to be run in FDD-TDD CA combination. FDD-TDD combination is covered in Test cases 7.1.3.11.4 and 7.1.3.11.5.  |
| Note 12: | Void  |
| Note 13: | If extended long DRX cycle test case is executed, the Rel-8 long DRX cycle test case can be considered implicitly tested.   |
| Note 14: | For UEs supporting IMS, it is recommended to execute this test case with pc_SMS_IP_MT=FALSE.  |
| Note 15: | Void  |
| Note 16: |   |
| Note 17: | This TC can optionally be executed by Rel-10 UE and onwards till the release indicated in the Release column.   |
| Note 18: | For UE which supports both Attach without PDN (i.e. pc_AttachWithoutPDN=TRUE) and Attach with PDN (i.e. pc_AttachWithPDN=TRUE), this TC shall be executed 2 times: once with px_DoAttachWithoutPDN=TRUE, and, once with px_DoAttachWithoutPDN=FALSE.  |
| Note 19: | Test case is not intended to be run with UEs supporting GSMA PRD IR.92 [33] (A.4.4-1/33) or GSMA PRD NG.108 [55].   |

| Note 20: | Void  |
|----------|---|
| Note 21: | The two TCs verify the same core spec requirement(s) however in a different cell configuration to address           |
|          | different network deployments i.e. with different cells operating on multiple (different) or two frequencies. It is |
|          | recommended that the multi frequency test should be run by default. For exceptions to this recommendation           |
|          | depending on the band of operation see TS 36.523-3 [20] section 11.   |

# Annex A (normative): ICS proforma for E-UTRA/EPC Generation User Equipment

Notwithstanding the provisions of the copyright clause related to the text of the present document, The Organizational Partners of 3GPP grant that users of the present document may freely reproduce the ICS proforma in this annex so that it can be used for its intended purposes and may further publish the completed ICS.

### A.1 Guidance for completing the ICS proforma

### A.1.1 Purposes and structure

The purpose of this ICS proforma is to provide a mechanism whereby a supplier of an implementation of the requirements defined in relevant specifications may provide information about the implementation in a standardised manner.

The ICS proforma is subdivided into clauses for the following categories of information:

- instructions for completing the ICS proforma;
- identification of the implementation;
- identification of the protocol;
- ICS proforma tables (for example: UE implementation types, Teleservices, etc).

#### A.1.2 Abbreviations and conventions

The ICS proforma contained in this annex is comprised of information in tabular form in accordance with the guidelines presented in ISO/IEC 9646-7 [25].

#### Item column

The item column contains a number which identifies the item in the table.

#### Item description column

The item description column describes in free text each respective item (e.g. parameters, timers, etc.). It implicitly means "is <item description> supported by the implementation?".

#### Reference column

The reference column gives reference to the relevant 3GPP core specifications.

#### Release column

The release column indicates the earliest release from which the capability or option is relevant.

#### Mnemonic column

The Mnemonic column contains mnemonic identifiers for each item.

#### Comments column

This column is left blank for particular use by the reader of the present document.

#### References to items

For each possible item answer (answer in the support column) within the ICS proforma there exists a unique reference, used, for example, in the conditional expressions. It is defined as the table identifier, followed by a solidus character "/", followed by the item number in the table. If there is more than one support column in a table, the columns shall be discriminated by letters (a, b, etc.), respectively.

### A.1.3 Instructions for completing the ICS proforma

The supplier of the implementation may complete the ICS proforma in each of the spaces provided. More detailed instructions are given at the beginning of the different clauses of the ICS proforma.

### A.2 Identification of the User Equipment

Identification of the User Equipment should be filled in so as to provide as much detail as possible regarding version numbers and configuration options.

The product supplier information and client information should both be filled in if they are different.

A person who can answer queries regarding information supplied in the ICS should be named as the contact person.

|                  | Date of the statement                           |
|------------------|---|
| A.2.2 UEUT name: | User Equipment Under Test (UEUT) identification |
| Hardware co      | nfiguration:                                    |
|                  |   |
| Software con     |   |
|                  |   |
|                  |   |

# A.2.3 Product supplier

| Name:                   |
|-------------------------|
| Address:                |
|                         |
| Telephone number:       |
| Facsimile number:       |
| E-mail address:         |
| Additional information: |
|                         |
| A.2.4 Client Name:      |
| Address:                |
|                         |
| Telephone number:       |
| Facsimile number:       |
| E-mail address:         |

| Additional i | information:       |   |
|--------------|--------------------|---|
| A.2.5 Name:  | ICS contact person | • |
| Telephone i  | number:            | • |
| Facsimile n  | umber:             | • |
| E-mail addr  | ess:               | • |
| Additional i | information:       | • |
|              |                    |   |

# A.3 Identification of the protocol

This ICS proforma applies to the 3GPP standards listed in the normative references clause of the present document.

# A.4 ICS proforma tables

### A.4.1 UE Implementation Types

Table A.4.1-1: UE Radio Technologies

| Item | UE Radio Technologies | Ref.      | Release | Mnemonic  | Comments |
|------|-----------------------|-----------|---------|-----------|----------|
| 1    | E-UTRA FDD            | 36.101    | Rel-8   | pc_eFDD   |          |
| 2    | E-UTRA TDD            | 36.101    | Rel-8   | pc_eTDD   |          |
| 3    | HRPD                  | C.S0024-A | Rel-8   | pc_HRPD   |          |
| 4    | 1xRTT                 | C.S0002-A | Rel-8   | pc_1xRTT  |          |
| 5    | WLAN                  | IEEE Std  |         | pc_eWLAN  |          |
|      |                       | 802.11    |         |           |          |
| 6    | UTRA                  | 21.904, 5 | R99     | pc_UTRA   |          |
| 7    | GERAN                 | 21.904, 5 | R99     | pc_GERAN  |          |
| 8    | NB-IoT FDD            | 36.101    | Rel-13  | pc_NB     |          |
| 9    | NB-IoT TDD            | 36.101    | Rel-15  | pc_NB_TDD |          |

### Table A.4.1-2: UE general functionality

| Item | UE Functionality                     | Ref.        | Release | Mnemonic          | Comments |
|------|--------------------------------------|-------------|---------|-------------------|----------|
| 1    | Support of multiple E-UTRA FDD bands | 36.101, 5.5 | Rel-8   | pc_eFDD_MultiBand |          |
| 2    | Support of multiple E-UTRA TDD bands | 36.101, 5.5 | Rel-8   | pc_eTDD_MultiBand |          |

## A.4.2 UE Service Capabilities

### A.4.2.1 3GPP Standardised UE Service Capabilities

#### A.4.2.1.1 Bearer Services

Table A.4.2.1.1-1: Definition of Bearer Services

| Item | Definition of Bearer Services     | Ref.                | Release | Mnemonic           | Comments                               |
|------|-----------------------------------|---------------------|---------|--------------------|--|
| 1    | Support of CS fallback            | 24.301              | Rel-8   | pc_CS_Fallback     | The UE supports                        |
|      |                                   |                     |         |                    | CS fallback for                        |
|      |                                   |                     |         |                    | voice calls. If true,                  |
|      |                                   |                     |         |                    | [8] pc_CS and at least one of          |
|      |                                   |                     |         |                    | pc_FDD,                                |
|      |                                   |                     |         |                    | pc_TDD_HCR,                            |
|      |                                   |                     |         |                    | pc_TDD_LCR,                            |
|      |                                   |                     |         |                    | pc_TDD_VHCR or                         |
|      |                                   |                     |         |                    | pc_UMTS_GSM is                         |
|      |                                   |                     |         |                    | also true. If pc_CS_Fallback           |
|      |                                   |                     |         |                    | is true,                               |
|      |                                   |                     |         |                    | pc_SMS_SGs shall                       |
|      |                                   |                     |         |                    | be set to true A UE                    |
|      |                                   |                     |         |                    | with the voice                         |
|      |                                   |                     |         |                    | domain preference set to (CS Voice     |
|      |                                   |                     |         |                    | only) or (IMS PS                       |
|      |                                   |                     |         |                    | voice preferred, CS                    |
|      |                                   |                     |         |                    | Voice as                               |
|      |                                   |                     |         |                    | secondary) or (CS voice preferred, IMS |
|      |                                   |                     |         |                    | PS Voice as                            |
|      |                                   |                     |         |                    | secondary) shall set                   |
|      |                                   |                     |         |                    | this PICS to true.                     |
| 2    | Support of SMS over SGs           | 24.301              | Rel-8   | pc_SMS_SGs         | The UE supports                        |
|      |                                   |                     |         |                    | SMS over SGs and is configured for     |
|      |                                   |                     |         |                    | SMS over SGs.                          |
|      |                                   |                     |         |                    | If it is set to true, at               |
|      |                                   |                     |         |                    | least one of                           |
|      |                                   |                     |         |                    | pc_SMS_SGs_MT                          |
|      |                                   |                     |         |                    | and<br>pc_SMS_SGs_MO                   |
|      |                                   |                     |         |                    | is true.                               |
|      |                                   |                     |         |                    | If it is set to true,                  |
|      |                                   |                     |         |                    | pc_Combined_Attac                      |
| 2    | Void                              |                     |         |                    | h shall be set to true                 |
| 3    | Support of IMS emergency call     | 22.101              | Rel-9   | pc_IMS_emergency_c | For Rel-9 or later                     |
|      |                                   |                     |         | all                | releases:                              |
|      |                                   |                     |         |                    | mandatory for UEs                      |
|      |                                   |                     |         |                    | which supports IMS speech.             |
| 5    | Support of eMBMS                  | 36.331              | Rel-9   | pc_eMBMS           | The UE supports                        |
|      |                                   |                     | 1       | ·                  | eMBMS.                                 |
| 6    | Void                              |                     |         |                    |  |
| 7    | Support of eMBMS service          | 36.306, 6.3.1       | Rel-11  | pc_eMBMS_SC        | The UE supports eMBMS service          |
|      | continuity                        | (Note 2)            |         |                    | continuity.                            |
| 8    | Supports Offload to/from WLAN and | 36.304, 5.6.2       | Rel-12  | pc_E_UTRA_WLAN_    | Jonath Milliand                        |
|      | supports S2b                      | 24.302,             |         | offload            |  |
|      |                                   | 6.10.4              | D 1 10  | DO 0 111 DDD       | TI LIE                                 |
| 9    | Support of DC Split DRB           | 36.306,<br>4.3.20.1 | Rel-12  | pc_DC_Split_DRB    | The UE supports dual connectivity      |
|      |                                   | 4.3.20.1            |         |                    | and DRB type of                        |
|      |                                   |                     |         |                    | Split bearer.                          |
| 10   | Support of DC SCG DRB             | 36.306,             | Rel-12  | pc_DC_SCG_DRB      | The UE supports                        |
|      |                                   | 4.3.20.2            |         |                    | dual connectivity                      |
|      |                                   |                     |         |                    | and DRB type of SCG bearer.            |
| 11   | Support of SC-PTM                 | 36.306              | Rel-13  | pc_SCPTM           | The UE supports                        |
| ''   | Support of GO-1 TWI               | 4.3.22.2            | 1.01-10 | po_coi rivi        | SC-PTM                                 |
| 12   | Support of LTE-WLAN aggregation   | 36.306              | Rel-13  | pc_LWA             | The UE supports                        |
|      |                                   | 4.3.25.1            |         |                    | LWA                                    |

| 13                 | Support of LTE/WLAN Radio Level Integration with IPsec Tunnel   | 36.306<br>4.3.24.1 | Rel-13 | pc_LWIP | The UE supports LWIP                       |
|--------------------|---|--------------------|--------|---------|--|
| 14                 | Support of data inactivity monitoring   | 36.306<br>4.3.19.9 | Rel-14 |         | The UE supports data inactivity monitoring |
| 15                 | Support of SC-PTM in Idle mode  | 36.306<br>6.16.1   | Rel-14 |         | The UE supports<br>SC-PTM in Idle<br>mode  |
| Note 1:<br>Note 2: | A UE may support one or more of bearer service 1, 2, 3, 4 or 5.  See [19] subclause 17.4 for general assumptions of the MBMS service Continuity test cases. |                    |        |         |  |

## A.4.3 Baseline Implementation Capabilities

Table A.4.3-1: Supported protocols

| Ite | Supported protocols              | Ref.      | Release | Mnemonic | Comments |
|-----|----------------------------------|-----------|---------|----------|----------|
| m   |                                  |           |         |          |          |
| 1   | EPS Mobility Management          | 24.301, 5 | Rel-8   |          |          |
| 2   | EPS Session Management           | 24.301, 6 | Rel-8   |          |          |
| 3   | Radio Resource Control           | 36.331    | Rel-8   |          |          |
| 4   | Packet Data Convergence Protocol | 36.323    | Rel-8   |          |          |
| 5   | Radio Link Control               | 36.322    | Rel-8   |          |          |
| 6   | Medium Access Control            | 36.321    | Rel-8   |          |          |
| 7   | Physical Layer                   | 36.201    | Rel-8   |          |          |

**Table A.4.3-2: Special Conformance Testing Functions** 

| Ite<br>m | Special Conformance Testing Functions          | Ref.           | Release | Mnemonic                         | Comments |
|----------|--|----------------|---------|----------------------------------|----------|
| 1        | UE test loop                                   | 36.509         | Rel-8   |                                  |          |
|          | Max UE test loop UL RLC SDU size<br>65535 bits | 36.509         | Rel-8   |                                  |          |
| 3        | Update UE Location Information                 | 36.509, cl 5.1 |         | pc_UpdateUE_Loc ationInformation |          |

### A.4.3.1 RF Baseline Implementation Capabilities

NOTE: The values indicated in column "Release" in tables A.4.3.1-1 and A.4.3.1-2 below are to be understood as the specifications release version in which a band was introduced and not as a mandate that a UE conforming to particular release shall support a particular band. For further guidance to release independent bands see TS 36.307 [30].

Table A.4.3.1-1: FDD RF Baseline Implementation Capabilities

| Ite<br>m | FDD (DS) RF Baseline Implementation Capabilities                           | Ref.                       | Release          | Mnemonic                           | Comments           |
|----------|--|----------------------------|------------------|------------------------------------|--------------------|
| 1        | Frequency band: 1920-1980, 2110-2170<br>MHz                                | 36.101, 5.5                | Rel-8            | pc_eBand1_Supp                     | Band 1             |
| 2        | Frequency band: 1850-1910, 1930-1990<br>MHz                                | 36.101, 5.5                | Rel-8            | pc_eBand2_Supp                     | Band 2             |
| 3        | Frequency band: 1710-1785, 1805-1880<br>MHz                                | 36.101, 5.5                | Rel-8            | pc_eBand3_Supp                     | Band 3             |
| 4        | Frequency band: 1710-1755, 2110-2155<br>MHz                                | 36.101, 5.5                | Rel8             | pc_eBand4_Supp                     | Band 4             |
| 5        | Frequency band: 824-849, 869-894 MHz                                       | 36.101, 5.5                | Rel-8            | pc_eBand5_Supp                     | Band 5             |
| 6        | Frequency band: 830-840, 875-885 MHz                                       | 36.101, 5.5                | Rel-8            | pc_eBand6_Supp                     | Band 6             |
| 7        | Frequency band: 2500-2570, 2620-2690<br>MHz                                | 36.101, 5.5                | Rel-8            | pc_eBand7_Supp                     | Band 7             |
|          | Frequency band: 880-915, 925-960 MHz                                       | 36.101, 5.5                | Rel-8            | pc_eBand8_Supp                     | Band 8             |
| 9        | Frequency band: 1749.9-1784.9, 1844.9-<br>1879.9 MHz                       | 36.101, 5.5                | Rel-8            | pc_eBand9_Supp                     | Band 9             |
|          | Frequency band: 1710-1770, 2110-2170<br>MHz                                | 36.101, 5.5                | Rel-8            | pc_eBand10_Supp                    | Band 10            |
|          | Frequency band: 1427.9-1452.9, 1475.9-<br>1500.9 MHz                       | 36.101, 5.5                | Rel-8            | pc_eBand11_Supp                    | Band 11            |
|          | Frequency band: 699-716, 729-746 MHz                                       | 36.101, 5.5                | Rel-8            | pc_eBand12_Supp                    | Band 12            |
|          | Frequency band: 777-787, 746-756 MHz                                       | 36.101, 5.5                | Rel-8            | pc_eBand13_Supp                    | Band 13            |
| 14       | Frequency band: 788-798, 758-768 MHz                                       | 36.101, 5.5                | Rel-8            | pc_eBand14_Supp                    | Band 14            |
|          | Reserved   |                            |                  |                                    |                    |
|          | Reserved   | 00.404.5.5                 | D 10             | D 147 0                            | 5 1.47             |
|          | Frequency band: 704-716, 734-746 MHz                                       | 36.101, 5.5                | Rel-8            | pc_eBand17_Supp                    | Band 17            |
|          | Frequency band: 815-830, 860-875 MHz                                       | 36.101, 5.5                | Rel-9            | pc_eBand18_Supp                    | Band 18            |
|          | Frequency band: 830-845, 875-890 MHz                                       | 36.101, 5.5                | Rel-9            | pc_eBand19_Supp                    | Band 19            |
|          | Frequency band: 832-862, 791-821 MHz                                       | 36.101, 5.5                | Rel-9            | pc_eBand20_Supp                    | Band 20            |
| 21       | Frequency band: 1447.9-1462.9, 1495.9-1510.9 MHz                           | 36.101, 5.5                | Rel-9            | pc_eBand21_Supp                    | Band 21            |
|          | Frequency band: 3410-3490, 3510-3590<br>MHz                                | 36.101, 5.5                | Rel-10           | pc_eBand22_Supp                    | Band 22            |
|          | Frequency band: 2000-2020, 2180-2200 MHz                                   | 36.101, 5.5                | Rel-10           | pc_eBand23_Supp                    | Band 23            |
|          | Frequency band: 1626.5-1660.5, 1525-<br>1559 MHz                           | 36.101, 5.5                | Rel-10           | pc_eBand24_Supp                    | Band 24            |
|          | Frequency band: 1850-1915, 1930-1995<br>MHz                                | 36.101, 5.5                | Rel-10           | pc_eBand25_Supp                    | Band 25            |
|          | Frequency band: 814-849, 859-894 MHz                                       | 36.101, 5.5                |                  | pc_eBand26_Supp                    | Band 26            |
|          | Frequency band: 807-824, 852-869 MHz                                       | 36.101, 5.5                | Rel-11           | pc_eBand27_Supp                    | Band 27            |
|          | Frequency band: 703-748, 758-803 MHz                                       | 36.101, 5.5                | Rel-11           | pc_eBand28_Supp                    | Band 28            |
|          | Frequency band: N/A, 717-728 MHz   | 36.101, 5.5                | Rel-11           | pc_eBand29_Supp                    | Band 29            |
|          | Frequency band: 2305-2315, 2350-2360<br>MHz                                | 36.101, 5.5                | Rel-12           | pc_eBand30_Supp                    | Band 30            |
|          | Frequency band: 452.5-457.5, 462.5-467.5 MHz                               | 36.101, 5.5                | Rel-12           | pc_eBand31_Supp                    | Band 31            |
|          | Frequency band: N/A, 1452-1496 MHz   | 36.101, 5.5                | Rel-12           | pc_eBand32_Supp                    | Band 32            |
|          | Frequency band: 1920-2010, 2110-2200<br>MHz                                | 36.101, 5.5                | Rel-13           | pc_eBand65_Supp                    | Band 65            |
|          | Frequency band: 1710-1780, 2110-2200<br>MHz                                | 36.101, 5.5                | Rel-13           | pc_eBand66_Supp                    | Band 66            |
| 36       | Frequency hand: 609 729 752 792 MU-  | 36 101 F F                 | Dol 15           | ne aBandêê Suna                    | Rand 69            |
|          | Frequency band: 698-728, 753-783 MHz<br>Frequency band: N/A, 2570-2620 MHz | 36.101, 5.5<br>36.101, 5.5 | Rel-15<br>Rel-14 | pc_eBand68_Supp<br>pc_eBand69_Supp | Band 68<br>Band 69 |
| 38       | Frequency band: 1695-1710, 1995-2020 MHz MHz                               | 36.101, 5.5                | Rel-14           | pc_eBand70_Supp                    | Band 70            |
|          | Frequency band: 663-698, 614-652 MHz                                       | 36.101, 5.5                | Rel-15           | pc_eBand71_Supp                    | Band 71            |
|          | Frequency band: 451-456, 461-466 MHz                                       | 36.101, 5.5                | Rel-15           | pc_eBand72_Supp                    | Band 72            |
|          | Frequency band: 450-455, 460-465 MHz                                       | 36.101, 5.5                | Rel-15           | pc_eBand73_Supp                    | Band 73            |
| 42       | Frequency band: 1427-1470, 1475-1518<br>MHz                                | 36.101, 5.5                | Rel-15           | pc_eBand74_Supp                    | Band 74            |
|          | Frequency band: 698-716, 728-746 MHz                                       | 36.101, 5.5                | Rel-15           | pc_eBand85_Supp                    | Band 85            |

| 87 | Frequency band: 410-415, 420-425 MHz | 36.101, 5.5 | Rel-16 | pc_eBand87_Supp | Band 87 |
|----|--------------------------------------|-------------|--------|-----------------|---------|
| 88 | Frequency band: 412-417, 422-427 MHz | 36.101, 5.5 | Rel-16 | pc_eBand88_Supp | Band 88 |

Table A.4.3.1-2: TDD RF Baseline Implementation Capabilities

| Ite | TDD RF Baseline Implementation  | Ref.        | Release | Mnemonic        | Comments |
|-----|---------------------------------|-------------|---------|-----------------|----------|
| m   | Capabilities                    |             |         |                 |          |
| 1   | Frequency band: 1900-1920 MHz   | 36.101, 5.5 | Rel-8   | pc_eBand33_Supp | Band 33  |
| 2   | Frequency band: 2010- 2025 MHz  | 36.101, 5.5 | Rel-8   | pc_eBand34_Supp | Band 34  |
| 3   | Frequency band: 1850-1910 MHz   | 36.101, 5.5 | Rel-8   | pc_eBand35_Supp | Band 35  |
| 4   | Frequency band: 1930-1990 MHz   | 36.101, 5.5 | Rel-8   | pc_eBand36_Supp | Band 36  |
| 5   | Frequency band: 1910-1930 MHz   | 36.101, 5.5 | Rel-8   | pc_eBand37_Supp | Band 37  |
| 6   | Frequency band: 2570-2620 MHz   | 36.101, 5.5 | Rel-8   | pc_eBand38_Supp | Band 38  |
| 7   | Frequency band: 1880-1920 MHz   | 36.101, 5.5 | Rel-8   | pc_eBand39_Supp | Band 39  |
| 8   | Frequency band: 2300-2400 MHz   | 36.101, 5.5 | Rel-8   | pc_eBand40_Supp | Band 40  |
| 9   | Frequency band: 2496-2690 MHz   | 36.101, 5.5 | Rel-10  | pc_eBand41_Supp | Band 41  |
| 10  | Frequency band: 3400-3600 MHz   | 36.101, 5.5 | Rel-10  | pc_eBand42_Supp | Band 42  |
| 11  | Frequency band: 3600-3800 MHz   | 36.101, 5.5 | Rel-10  | pc_eBand43_Supp | Band 43  |
| 12  | Frequency band: 703-803 MHz     | 36.101, 5.5 | Rel-11  | pc_eBand44_Supp | Band 44  |
| 13  | Frequency band: 1447-1467 MHz   | 36.101, 5.5 | Rel-13  | pc_eBand45_Supp | Band 45  |
| 14  | Frequency band: 5150-5925 MHz   | 36.101, 5.5 | Rel-13  | pc_eBand46_Supp | Band 46  |
| 15  | Frequency band: 5855-5925 MHz   | 36.101, 5.5 | Rel-14  | pc_eBand47_Supp | Band 47  |
| 16  | Frequency band: 3550-3700 MHz   | 36.101, 5.5 | Rel-14  | pc_eBand48_Supp | Band 48  |
| 17  | Frequency band: 2483.5-2495 MHz | 36.101, 5.5 | Rel-16  | pc_eBand53_Supp | Band 53  |

# A.4.3.2 Physical Layer Baseline Implementation Capabilities

Table A.4.3.2-1: UE Category

| Ite<br>m | UE Category | Ref.        | Release | Mnemonic              | Comments |
|----------|-------------|-------------|---------|-----------------------|----------|
| 1        | Category 1  | 36.306, 4.1 | Rel-8   | pc_ue_Category_1      |          |
| 2        | Category 2  | 36.306, 4.1 | Rel-8   | pc_ue_Category_2      |          |
| 3        | Category 3  | 36.306, 4.1 | Rel-8   | pc_ue_Category_3      |          |
| 4        | Category 4  | 36.306, 4.1 | Rel-8   | pc_ue_Category_4      |          |
| 5        | Category 5  | 36.306, 4.1 | Rel-8   | pc_ue_Category_5      |          |
| 6        | Categroy 6  | 36.306, 4.1 | Rel-10  | pc_ue_Category_6      |          |
| 7        | Categroy 7  | 36.306, 4.1 | Rel-10  | pc_ue_Category_7      |          |
| 8        | Category 8  | 36.306, 4.1 | Rel-10  | pc_ue_Category_8      |          |
| 9        | Category 9  | 36.306, 4.1 | Rel-11  | pc_ue_Category_9      |          |
| 10       | Category 10 | 36.306, 4.1 | Rel-11  | pc_ue_Category_1<br>0 |          |
| 11       | Category 11 | 36.306, 4.1 | Rel-11  | pc_ue_Category_1<br>1 |          |
| 12       | Category 12 | 36.306, 4.1 | Rel-11  | pc_ue_Category_1<br>2 |          |

Table A.4.3.2-1A: Additional UE Category

| Ite | UE Category  | Ref.         | Release | Mnemonic               | Comments   |
|-----|--------------|--------------|---------|------------------------|--|
| m   |              |              |         |                        |  |
| 1   | Category NB1 | 36.306, 4.1C | Rel-13  | pc_ue_Category_N<br>B1 |  |
| 2   | Category NB2 | 36.306, 4.1C | Rel-14  |                        | A UE indicating<br>Category NB2 shall<br>also indicate<br>Category NB1 |

Table A.4.3.2-2: UE Downlink Category

| Ite<br>m | UE Category    | Ref.         | Release | Mnemonic                | Comments  |
|----------|----------------|--------------|---------|-------------------------|---|
| 1        | Category DL 0  | 36.306, 4.1A | Rel-12  | pc_ue_CategoryDL<br>_0  | Only in combination with Category UL 0  |
| 1A       | Category DL 4  | 36.306, 4.1A | Rel-12  | pc_ue_CategoryDL<br>_4  | Only in combination with Category UL 5  |
| 2        | Category DL 6  | 36.306, 4.1A | Rel-12  | pc_ue_CategoryDL<br>_6  | Only in combination with Category UL 5 or Category UL 16  |
| 3        | Category DL 7  | 36.306, 4.1A | Rel-12  | pc_ue_CategoryDL<br>_7  | Only in<br>combination with<br>Category UL 13 or<br>Category UL 18  |
| 4        | Category DL 9  | 36.306, 4.1A | Rel-12  | pc_ue_CategoryDL<br>_9  | Only in combination with Category UL 5 or Category UL 16  |
| 5        | Category DL 10 | 36.306, 4.1A | Rel-12  | pc_ue_CategoryDL<br>_10 | Only in<br>combination with<br>Category UL 13 or<br>Category UL 18  |
| 6        | Category DL 11 | 36.306, 4.1A | Rel-12  | pc_ue_CategoryDL<br>_11 | Only in<br>combination with<br>Category UL 5 or<br>Category UL 16   |
| 7        | Category DL 12 | 36.306, 4.1A | Rel-12  | pc_ue_CategoryDL<br>_12 | Only in<br>combination with<br>Category UL 13 ot<br>Category UL 15 or<br>Category UL 18 or<br>Category UL 20  |
| 8        | Category DL 13 | 36.306, 4.1A | Rel-12  | pc_ue_CategoryDL<br>_13 | Only in<br>combination with<br>Category UL 3 or<br>Category UL 5 or<br>Category UL 7 or<br>Category UL 13 or<br>Category UL 16 or<br>Category UL 18 |
| 9        | Category DL 14 | 36.306, 4.1A | Rel-12  | pc_ue_CategoryDL<br>_14 | Only in combination with Category UL 8 or Category UL 17  |
| 10       | Category DL 15 | 36.306, 4.1A | Rel-12  | pc_ue_CategoryDL<br>_15 | Only in combination with Category UL 3 or Category UL 5 or Category UL 7 or Category UL 13 or Category UL 16 or Category UL 18                      |
| 11       | Category DL 16 | 36.306, 4.1A | Rel-12  | pc_ue_CategoryDL<br>_16 | Only in combination with Category UL 3 or Category UL 7 or Category UL 13 or Category UL 15 or Category UL 16 or Category UL 18 or Category UL 20   |

| 12  | Category DL 17 | 36.306, 4.1A | Rel-13  | pc_ue_CategoryDL | Only in                                |
|-----|----------------|--------------|---------|------------------|--|
|     |                |              |         | _17              | combination with                       |
|     |                |              |         |                  | Category UL 14 or                      |
| 40  | 0              | 00.000 4.44  | D 1 40  | 0 / 51           | Category UL 19                         |
| 13  | Category DL 18 | 36.306, 4.1A | Rel-13  | pc_ue_CategoryDL | Only in                                |
|     |                |              |         | _18              | combination with                       |
|     |                |              |         |                  | Category UL 3 or                       |
|     |                |              |         |                  | Category UL 5 or                       |
|     |                |              |         |                  | Category UL 7 or<br>Category UL 13 or  |
|     |                |              |         |                  | Category UL 15 or                      |
|     |                |              |         |                  | Category UL 16 or                      |
|     |                |              |         |                  | Category UL 18 or                      |
|     |                |              |         |                  | Category UL 20                         |
| 14  | Category DL 19 | 36.306, 4.1A | Rel-13  | pc_ue_CategoryDL | Only in                                |
|     | 3 7            | ,            |         |                  | combination with                       |
|     |                |              |         | _                | Category UL 3 or                       |
|     |                |              |         |                  | Category UL 5 or                       |
|     |                |              |         |                  | Category UL 7 or                       |
|     |                |              |         |                  | Category UL 13 or                      |
|     |                |              |         |                  | Category UL 15 or                      |
|     |                |              |         |                  | Category UL 16 or                      |
|     |                |              |         |                  | Category UL 18 or                      |
|     |                |              |         |                  | Category UL 20 or                      |
| 4.5 | Cotomori DL 20 | 20.200.444   | Daldd   | na ua CatamaniDi | Category UL 21                         |
| 15  | Category DL 20 | 36.306, 4.1A | Rel-14  | pc_ue_CategoryDL | Only in combination with               |
|     |                |              |         | _20              | Category UL 3 or                       |
|     |                |              |         |                  | Category UL 5 or                       |
|     |                |              |         |                  | Category UL 7 or                       |
|     |                |              |         |                  | Category UL 13 or                      |
|     |                |              |         |                  | Category UL 15 or                      |
|     |                |              |         |                  | Category UL 16 or                      |
|     |                |              |         |                  | Category UL 18 or                      |
|     |                |              |         |                  | Category UL 20 or                      |
|     |                |              |         |                  | Category UL 21                         |
| 16  | Category DL 21 | 36.306, 4.1A | Rel-14  | pc_ue_CategoryDL | Only in                                |
|     |                |              |         | _21              | combination with                       |
|     |                |              |         |                  | Category UL 3 or                       |
|     |                |              |         |                  | Category UL 5 or                       |
|     |                |              |         |                  | Category UL 7 or                       |
|     |                |              |         |                  | Category UL 13 or<br>Category UL 15 or |
|     |                |              |         |                  | Category UL 15 or Category UL 16 or    |
|     |                |              |         |                  | Category UL 18 or                      |
|     |                |              |         |                  | Category UL 20                         |
| 17  | Category DL 22 | 36.306, 4.1A | Rel-15  | pc_ue_CategoryDL | Only in                                |
| ''  |                | 55.555, 4.17 | 1.01 10 | _22              | combination with                       |
|     |                |              |         |                  | Category UL 20 or                      |
|     |                |              |         |                  | Category UL22 or                       |
|     |                |              |         |                  | Category UL 23 or                      |
|     |                |              |         |                  | Category UL 24 or                      |
|     |                |              |         |                  | Category UL 25 or                      |
|     |                |              |         |                  | Category UL 26                         |
| 18  | Category DL 23 | 36.306, 4.1A | Rel-15  | pc_ue_CategoryDL | Only in                                |
|     |                |              |         | _23              | combination with                       |
|     |                |              |         |                  | Category UL 20 or                      |
|     |                |              |         |                  | Category UL22 or                       |
|     |                |              |         |                  | Category UL 23 or                      |
|     |                |              |         |                  | Category UL 24 or                      |
|     |                |              |         |                  | Category UL 25 or                      |
|     |                | 1            |         | 1                | Category UL 26                         |

| 19 | Category DL 24 | 36.306, 4.1A | Rel-15 | pc_ue_CategoryDL | Only in           |
|----|----------------|--------------|--------|------------------|-------------------|
| 19 | Category DL 24 | 30.300, 4.1A | Kel-15 |                  |                   |
|    |                |              |        | _24              | combination with  |
|    |                |              |        |                  | Category UL 20 or |
|    |                |              |        |                  | Category UL22 or  |
|    |                |              |        |                  | Category UL 23 or |
|    |                |              |        |                  | Category UL 24 or |
|    |                |              |        |                  | Category UL 25 or |
|    |                |              |        |                  | Category UL 26    |
| 20 | Category DL 25 | 36.306, 4.1A | Rel-15 | pc_ue_CategoryDL | Only in           |
|    |                |              |        | _25              | combination with  |
|    |                |              |        |                  | Category UL 20 or |
|    |                |              |        |                  | Category UL22 or  |
|    |                |              |        |                  | Category UL 23 or |
|    |                |              |        |                  | Category UL 24 or |
|    |                |              |        |                  | Category UL 25 or |
|    |                |              |        |                  | Category UL 26    |
| 21 | Category DL 26 | 36.306, 4.1A | Rel-15 | pc_ue_CategoryDL | Only in           |
|    |                |              |        | _26              | combination with  |
|    |                |              |        |                  | Category UL 20 or |
|    |                |              |        |                  | Category UL22 or  |
|    |                |              |        |                  | Category UL 23 or |
|    |                |              |        |                  | Category UL 24 or |
|    |                |              |        |                  | Category UL 25 or |
|    |                |              |        |                  | Category UL 26    |
|    | 1              |              |        | 1                | Juliugury OL 20   |

Table A.4.3.2-2A: Additional UE Downlink Category

| Ite<br>m | UE Category      | Ref.         | Release | Mnemonic                  | Comments  |
|----------|------------------|--------------|---------|---------------------------|---|
| 1        | Category DL M1   | 36.306, 4.1A | Rel-13  | pc_ue_CategoryDL<br>_M1   | Only in combination with Category UL M1                     |
| 2        | Category DL 1bis | 36.306, 4.1A | Rel-13  | pc_ue_CategoryDL<br>_1bis | Only in combination with Category UL 1bis and Category 1 UE |
| 3        | Category DL M2   | 36.306, 4.1A | Rel-14  | pc_ue_CategoryDL<br>_M2   | Only in combination with Category UL M2                     |

Table A.4.3.2-3: UE Uplink Category

| Ite<br>m | UE Category    | Ref.         | Release | Mnemonic                | Comments   |
|----------|----------------|--------------|---------|-------------------------|--|
| 1        | Category UL 0  | 36.306, 4.1A | Rel-12  | pc_ue_CategoryUL<br>_0  | Only in combination with Category DL 0   |
| 2        | Category UL 3  | 36.306, 4.1A | Rel-12  | pc_ue_CategoryUL<br>_3  | Only in combination with Category DL 13 or Category DL 16 or Category DL 18 or Category DL 19 or Category DL 20 or Category DL 21  |
| 3        | Category UL 5  | 36.306, 4.1A | Rel-12  | pc_ue_CategoryUL<br>_5  | Only in combination with Category DL 4 or Category DL 9 or Category DL 11 or Category DL 13 or Category DL 15 or Category DL 16 or Category DL 18 or Category DL 19 or Category DL 20 or Category DL 21  |
| 4        | Category UL 7  | 36.306, 4.1A | Rel-12  | pc_ue_CategoryUL<br>_7  | Only in combination with Category DL 13 or Category DL 16 or Category DL 18 or Category DL 19 or Category DL 20 or Category DL 21  |
| 5        | Category UL 8  | 36.306, 4.1A | Rel-12  | pc_ue_CategoryUL<br>_8  | Only in combination with Category DL 14  |
| 6        | Category UL 13 | 36.306, 4.1A | Rel-12  | pc_ue_CategoryUL<br>_13 | Only in combination with Category DL 7 or Category DL 10 or Category DL 12 or Category DL 13 or Category DL 15 or Category DL 16 or Category DL 18 or Category DL 19 or Category DL 20 or Category DL 21 |
| 7        | Category UL 14 | 36.306, 4.1A | Rel-13  | pc_ue_CategoryUL<br>_13 | Only in combination with Category DL 17  |
| 8        | Category UL 15 | 36.306, 4.1A | Rel-13  | pc_ue_CategoryUL<br>_15 | Only in combination with Category DL 12 or Category DL 16 or Category DL 18 or Category DL 19 or Category DL 20 or Category DL 21  |

| 9  | Category UL 16 | 36.306, 4.1A | Rel-14 | pc_ue_CategoryUL<br>_16 | Only in combination with Category DL 6 or Category DL 11 or Category DL 13 or Category DL 15 or Category DL 16 or Category DL 18 or Category DL 19 or Category DL 20 or Category DL 21  |
|----|----------------|--------------|--------|-------------------------|---|
| 10 | Category UL 17 | 36.306, 4.1A | Rel-14 | pc_ue_CategoryUL<br>_17 | Only in combination with Category DL 14   |
| 11 | Category UL 18 | 36.306, 4.1A | Rel-14 | pc_ue_CategoryUL<br>_18 | Only in combination with Category DL 7 or Category DL 10 or Category DL 12 or Category DL 13 or Category DL 15 or Category DL 16 or Category DL 18 or Category DL 19 or Category DL 20 or Category DL 21                                      |
| 12 | Category UL 19 | 36.306, 4.1A | Rel-14 | pc_ue_CategoryUL<br>_19 | Only in combination with Category DL 17   |
| 13 | Category UL 20 | 36.306, 4.1A | Rel-14 | pc_ue_CategoryUL<br>_20 | Only in combination with Category DL 12 or Category DL 16 or Category DL 19 or Category DL 20 or Category DL 21 or Category DL 22 or Category DL 23 or Category DL 24 or Category DL 25 or Category DL 25 or Category DL 25 or Category DL 26 |
| 14 | Category UL 21 | 36.306, 4.1A | Rel-14 | pc_ue_CategoryUL<br>_21 | Only in<br>combination with<br>Category DL 19 or<br>Category DL 20  |
| 15 | Category UL 22 | 36.306, 4.1A | Rel-15 | pc_ue_CategoryUL<br>_22 | Only in<br>combination with<br>Category DL 22 or<br>Category DL 23 or<br>Category DL 24 or<br>Category DL 25 or<br>Category DL 26   |
| 16 | Category UL 23 | 36.306, 4.1A | Rel-15 | pc_ue_CategoryUL<br>_23 | Only in<br>combination with<br>Category DL 22 or<br>Category DL 23 or<br>Category DL 24 or<br>Category DL 25 or<br>Category DL 26   |
| 17 | Category UL 24 | 36.306, 4.1A | Rel-15 | pc_ue_CategoryUL<br>_24 | Only in<br>combination with<br>Category DL 22 or<br>Category DL 23 or<br>Category DL 24 or<br>Category DL 25 or<br>Category DL 26   |

| 18 | Category UL 25 | 36.306, 4.1A | Rel-15 | pc_ue_CategoryUL | Only in           |
|----|----------------|--------------|--------|------------------|-------------------|
|    |                |              |        | _25              | combination with  |
|    |                |              |        |                  | Category DL 22 or |
|    |                |              |        |                  | Category DL 23 or |
|    |                |              |        |                  | Category DL 24 or |
|    |                |              |        |                  | Category DL 25 or |
|    |                |              |        |                  | Category DL 26    |
| 19 | Category UL 26 | 36.306, 4.1A | Rel-15 | pc_ue_CategoryUL | Only in           |
|    |                |              |        | _26              | combination with  |
|    |                |              |        |                  | Category DL 22 or |
|    |                |              |        |                  | Category DL 23 or |
|    |                |              |        |                  | Category DL 24 or |
|    |                |              |        |                  | Category DL 25 or |
|    |                |              |        |                  | Category DL 26    |

## Table A.4.3.2-3A: Additional UE Uplink Category

| Ite<br>m | UE Category      | Ref.         | Release | Mnemonic                  | Comments                                  |
|----------|------------------|--------------|---------|---------------------------|---|
| 1        | Category UL M1   | 36.306, 4.1A | Rel-13  | pc_ue_CategoryUL<br>_M1   | Only in combination with Category DL M1   |
| 2        | Category UL 1bis | 36.306, 4.1A | Rel-13  | pc_ue_CategoryUL<br>_1bis | Only in combination with Category DL 1bis |
| 3        | Category UL M2   | 36.306, 4.1A | Rel-14  | pc_ue_CategoryUL<br>_M2   | Only in combination with Category DL M2   |

## A.4.3.3 CA Physical Layer Baseline Implementation Capabilities

Table A.4.3.3-1: Downlink CA capabilities

| Item   | Bandwidth Class                          | Ref.               | Mnemonic             | Comments              |
|--------|--|--------------------|----------------------|-----------------------|
| 1      | DL CA with 2 carriers                    | 36.101, 5.6A       | pc_DL_CA_2Car        | Note 1                |
|        |  | 36.331, 6.3.6      | riers                |                       |
| 2      | DL CA with 3 carriers                    | 36.101, 5.6A       | pc_DL_CA_3Car        | Note 2                |
|        |  | 36.331, 6.3.6      | riers                |                       |
| 3      | DL CA with 4 carriers                    | 36.101, 5.6A       |                      |                       |
|        |  | 36.331, 6.3.6      |                      |                       |
| 4      | DL CA with 5 carriers                    | 36.101, 5.6A       |                      |                       |
|        |  | 36.331, 6.3.6      |                      |                       |
| Note 1 | : support for one or more of the DL CA c | onfigurations in T | ables A.4.3.3.1-3, A | A.4.3.3.2 <b>-</b> 3, |
|        | A.4.3.3.3-3, A.4.3.3.3-4, A.4.3.3.3-5    |                    |                      |                       |
| Note 2 | : support for one or more of the DL CA c | onfigurations in T | ables A.4.3.3.3-3, A | A.4.3.3.3 <b>-</b> 4, |
|        | A.4.3.3.3-5.                             |                    |                      |                       |

## Table A.4.3.3-2: Uplink CA capabilities

| Item    | Bandwidth Class                         | Ref.               | Mnemonic             | Comments              |
|---------|---|--------------------|----------------------|-----------------------|
| 1       | UL CA with 2 carriers                   | 36.101, 5.6A       | pc_UL_CA_2Car        | Note 1                |
|         |   | 36.331, 6.3.6      | riers                |                       |
| 2       | UL CA with 3 carriers                   | 36.101, 5.6A       | pc_UL_CA_3Car        | Note 2.               |
|         |   | 36.331, 6.3.6      | riers                | Not used in any       |
|         |   |                    |                      | valid CA              |
|         |   |                    |                      | configurations in     |
|         |   |                    |                      | TS 36.101 yet         |
| Note 1: | support for one or more of the UL CA co | nfigurations in Ta | ables A.4.3.3.1-3, A | \.4.3.3.2 <b>-</b> 3, |
|         | A.4.3.3.3-3, A.4.3.3.3-4, A.4.3.3.3-5   |                    |                      |                       |
| Note 2: | support for one or more of the UL CA co | nfigurations in Ta | ables A.4.3.3.3-3, A | ۸.4.3.3.3-4,          |
|         | A.4.3.3.3-5.                            |                    |                      |                       |

# A.4.3.3.1 Intra-band contiguous CA Physical Layer Baseline Implementation Capabilities

Table A.4.3.3.1-1: Downlink Intra-band contiguous CA Bandwidth Class capabilities

| Item   | Bandwidth Class                          | Ref.              | Mnemonic              | Comments        |
|--------|--|-------------------|-----------------------|-----------------|
| 1      | DL Intra-band contiguous CA BW Class     | 36.101, 5.6A      | pc_DL_intraBand_      | Note 1          |
|        | В  | 36.331, 6.3.6     | contCaBWclassB        |                 |
| 2      | DL Intra-band contiguous CA BW Class     | 36.101, 5.6A      | pc_DL_intraBand_      | Note 2          |
|        | C  | 36.331, 6.3.6     | contCaBWclassC        |                 |
| Note ' | 1: support for one or more of the CA con | figurations in Ta | bles A.4.3.3.1-3 with | DL CA Bandwidth |
|        | Class B.                                 |                   |                       |                 |
| Note 2 | 2: support for one or more of the CA con | figurations in Ta | bles A.4.3.3.1-3 with | DL CA Bandwidth |
|        | Class C.                                 |                   |                       |                 |

Table A.4.3.3.1-2: Uplink Intra-band contiguous CA Bandwidth Class capabilities

| Item   | Bandwidth Class                          | Ref.              | Mnemonic              | Comments          |
|--------|--|-------------------|-----------------------|-------------------|
| 1      | UL Intra-band contiguous CA BW Class     | 36.101, 5.6A      | pc_UL_intraBand_      | Note 1.           |
|        | В  | 36.331, 6.3.6     | contCaBWclassB        | Not used in any   |
|        |  |                   |                       | valid CA          |
|        |  |                   |                       | configurations in |
|        |  |                   |                       | TS 36.101 yet     |
| 2      | UL Intra-band contiguous CA BW Class     | 36.101, 5.6A      | pc_UL_intraBand_      | Note 2            |
|        | C  | 36.331, 6.3.6     | contCaBWclassC        |                   |
| Note 1 | : support for one or more of the CA con  | figurations in Ta | bles A.4.3.3.1-3 with | UL CA             |
|        | Bandwidth Class B.                       |                   |                       |                   |
| Note 2 | 2: support for one or more of the CA con | figurations in Ta | bles A.4.3.3.1-3 with | UL CA             |
|        | Bandwidth Class C.                       |                   |                       |                   |

Table A.4.3.3.1-2A: Uplink Intra-band contiguous CA capability

| Item   | Bandwidth Class                            | Ref.             | Mnemonic             | Comments          |
|--------|--|------------------|----------------------|-------------------|
| 1      | UL Intra-band contiguous CA Type B         | 36.101, 5.6A     | pc_UL_intraBand_     | Note 1, 3         |
|        | -  | 36.331, 6.3.6    | contCaTypeB          |                   |
| 2      | UL Intra-band contiguous CA Type C         | 36.101, 5.6A     | pc_UL_intraBand_     | Note 2, 3         |
|        | -  | 36.331, 6.3.6    | contCaTypeC          |                   |
| Note 1 | I: to indicate the support of UL CA for In | tra-band contigu | ious per CA band con | nbination defined |
|        | in Table A.4.3.3.1-3 with UL CA Band       | width Class B.   |                      |                   |
| Note 2 | 2: to indicate the support of UL CA for In | tra-band contigu | ious per CA band con | nbination defined |
|        | in Table A.4.3.3.1-3 with UL CA Band       | width Class C.   |                      |                   |
| Note 3 | 3: The band combination used in conjun     | ction with these | PICS items is determ | ined by specific  |
|        | PIXIT px FUTRA CA BandCombina              | tion             |                      |                   |

Table A.4.3.3.1-3: Supported CA configurations for Intra-band contiguous CA

| E-UTRA   | CA configuration /  | Release          | ٥t          | Supported CA Bandwidth           | Supported Bandwidth               |  |
|----------|---|------------------|-------------|----------------------------------|-----------------------------------|--|
|          | Item (National)   | (Note 6)         | Sup<br>port | Class(es) in UL                  | Combination Set(s)                |  |
| 0.4.4.0  | (Note 1)  | D 1.40           |             | (Note 2)                         | (Note 3)                          |  |
| CA_1C    |   | Rel-10           |             |                                  |                                   |  |
| CA_2C    |   | Rel-12           |             |                                  |                                   |  |
| CA_3C    |   | Rel-12           |             |                                  |                                   |  |
| CA_5B    |   | Rel-13           |             |                                  |                                   |  |
| CA_7B    |   | Rel-13           |             |                                  |                                   |  |
| CA_7C    |   | Rel-11           |             |                                  |                                   |  |
| CA_8B    |   | Rel-14           |             |                                  |                                   |  |
| CA_12B   |   | Rel-12           |             |                                  |                                   |  |
| CA_23B   |   | Rel-12           |             |                                  |                                   |  |
| CA_27B   |   | Rel-12           |             |                                  |                                   |  |
| CA_38C   |   | Rel-11           |             |                                  |                                   |  |
| CA_39C   |   | Rel-12           |             |                                  |                                   |  |
| CA_40C   |   | Rel-10           |             |                                  |                                   |  |
| CA_40D   |   | Rel-12           |             |                                  |                                   |  |
| CA_40E   |   | Rel-14           |             |                                  |                                   |  |
| CA_41C   |   | Rel-11           |             |                                  |                                   |  |
| CA_41D   |   | Rel-12           |             |                                  |                                   |  |
| CA_41F   |   | Rel-15           |             |                                  |                                   |  |
| CA_42C   |   | Rel-12           |             |                                  |                                   |  |
| CA_42D   |   | Rel-13           |             |                                  |                                   |  |
| CA_42E   |   | Rel-13           |             |                                  |                                   |  |
| CA_48C   |   | Rel-14           |             |                                  |                                   |  |
| CA_48D   |   | Rel-14           |             |                                  |                                   |  |
| CA_66B ( | (NOTE 5)  | Rel-13           |             |                                  |                                   |  |
| CA 66C ( | (NOTE 5)  | Rel-13           |             |                                  |                                   |  |
| CA_70C   | ,   | Rel-14           |             |                                  |                                   |  |
| Note 1:  | Notation used for int   | ra-band cont     | iguous      | CA Bands is according to TS 36.  | 101 [2] Table 5.6A.1-1, e.g.      |  |
|          |   |                  |             | ΓRA band 1 with DL CĂ Bandwid    |                                   |  |
| Note 2:  | The UL CA capabilit   | ies as per Ta    | ble A.4     | .3.3-2can be supported on a sing | le or multiple CA Band(s). The UE |  |
|          | supplier shall indicate all supported UL CA Bandwidth Class(es), in uplink of the supported CA Band(s), as      |                  |             |                                  |                                   |  |
|          | per TS 36.101 [2] Table 5.6A.1-1. For this release of specification valid choices are 'N', 'XB' and 'XC', where |                  |             |                                  |                                   |  |
|          |   |                  |             | N would mean only DL CA, '1C' v  |                                   |  |
| Note 3:  | The UE supplier sha   | all indicate the | suppo       | orted Bandwidth Combination Set  | (s) as per TS 36.101 [2] Table    |  |
|          | 5.6A.1-1.   |                  |             |                                  |                                   |  |
| Note 4   | Reference to all item   | oc ic 26 101     | 5 6 A or    | nd 26 221 6 2 6                  |                                   |  |

Reference to all items is 36.101, 5.6A and 36.331, 6.3.6. Note 4:

A UE that supports operating Band 66 (Table A.4.3.1-3) and CA operation in any CA band shall support the Note 5: DL CA configurations CA\_66B, CA\_66C and CA\_66A-66A, as specified in Note 6, in Table 5.5-1, in TS 36.101 [46].

The release column indicates the release the CA configuration was introduced in TS 36.101 [2] Note 6:

#### A.4.3.3.2 Intra-band non-contiguous CA Physical Layer Baseline Implementation Capabilities

Table A.4.3.3.2-1: Downlink Intra-band non-contiguous CA Bandwidth Class capabilities

| Item   | Bandwidth Class Combination                      | Ref.              | Mnemonic              | Comments        |
|--------|--|-------------------|-----------------------|-----------------|
| 1      | DL Intra-band non-contiguous CA BW               | 36.101, 5.6A      | pc_DL_intraBand_      | Note 1          |
|        | Class Combination A-A                            | 36.331, 6.3.6     | nonContCaBwClas       |                 |
|        |  |                   | sComb_AA              |                 |
| Note 1 | support for one or more of the CA con Class A-A. | figurations in Ta | bles A.4.3.3.2-3 with | DL CA Bandwidth |

#### Table A.4.3.3.2-2: Uplink Intra-band non-contiguous CA Bandwidth Class capabilities

| Item   | Bandwidth Combination class              | Ref.              | Mnemonic              | Comments        |
|--------|--|-------------------|-----------------------|-----------------|
| 1      | UL Intra-band non-contiguous CA BW       | 36.101, 5.6A      | pc_UL_intraBand_      | Note 1          |
|        | Combination class A-A                    | 36.331, 6.3.6     | nonContCaBwClas       |                 |
|        |  |                   | sComb_AA              |                 |
| Note 1 | 1: support for one or more of the CA con | figurations in Ta | bles A.4.3.3.2-3 with | UL CA Bandwidth |
|        | Class A-A.                               |                   |                       |                 |

#### Table A.4.3.3.2-2A: Uplink Intra-band non-contiguous CA capability

| Item   | Bandwidth Combination class  | Ref.          | Mnemonic         | Comments  |  |
|--------|--|---------------|------------------|-----------|--|
| 1      | UL Intra-band non-contiguous CA_A-A  | 36.101, 5.6A  | pc_UL_intraBand_ | Note 1, 2 |  |
|        | -  | 36.331, 6.3.6 | nonContCaAA      |           |  |
| Note 1 | Note 1: to indicate the support of UL CA for Intra-band non-contiguous per CA band combination   |               |                  |           |  |
|        | defined in Table A.4.3.3.2-3 with UL CA Bandwidth Class A-A.                                     |               |                  |           |  |
| Note 2 | Note 2: The band combination used in conjunction with these PICS items is determined by specific |               |                  |           |  |
|        | PIXIT px_EUTRA_CA_BandCombinate  | tion.         |                  |           |  |

#### Table A.4.3.3.2-3: Supported CA configurations for Intra-band non-contiguous CA

| E-UTRA CA configuration /<br>Item<br>(Note 1) | Release<br>(Note 6) | Suppo<br>rted | Supported CA Bandwidth<br>Class(es) in UL<br>(Note 2) | Supported Bandwidth<br>Combination Set(s)<br>(Note 3) |
|---|---------------------|---------------|---|---|
| CA_1A-1A                                      | Rel-14              |               |   |   |
| CA_2A-2A                                      | Rel-12              |               |   |   |
| CA_3A-3A                                      | Rel-12              |               |   |   |
| CA_4A-4A                                      | Rel-12              |               |   |   |
| CA_5A-5A                                      | Rel-13              |               |   |   |
| CA_7A-7A                                      | Rel-12              |               |   |   |
| CA_23A-23A                                    | Rel-12              |               |   |   |
| CA_25A-25A                                    | Rel-11              |               |   |   |
| CA_41A-41A                                    | Rel-11              |               |   |   |
| CA_41A-41C                                    | Rel-12              |               |   |   |
| CA_42A-42A                                    | Rel-12              |               |   |   |
| CA_42A-42C                                    | Rel-13              |               |   |   |
| CA_66A-66A (NOTE 5)                           | Rel-13              |               |   |   |
| CA_66A-66C                                    | Rel-14              |               |   |   |

- Note 1: Notation used for intra-band contiguous CA Bands is according to TS 36.101 [2] Table 5.6A.1-3, e.g. 'CA\_2A-2A' indicates CA intra-band non-contiguous operation on E-UTRA band 2 with DL CA Bandwidth Class A-A.
- Note 2: The UL CA capabilities as per Table A.4.3.3.2-2 can be supported on a single or multiple CA Band(s). The UE supplier shall indicate all supported UL CA Bandwidth Class(es), in uplink of the supported CA Band(s), as per TS 36.101 [2] Table 5.6A.1-3. For this release of specification valid choices are 'N', 'XA-XA' and 'XC', where X is the band. For example, for CA\_4A-4A, 'N' would mean only DL CA, '4A-4A' would mean both DL and UL CA.
- Note 3: The UE supplier shall indicate the supported Bandwidth Combination Set(s) as per TS 36.101 [2] Table 5.6A.1-3.
- Note 4: Reference to all items is 36.101, 5.6A and 36.331, 6.3.6.
- Note 5: A UE that supports operating Band 66 (Table A.4.3.1-3) and CA operation in any CA band shall support the DL CA configurations CA\_66B, CA\_66C and CA\_66A-66A, as specified in Note 6, in Table 5.5-1, in TS 36.101 [46].
- Note 6: The release column indicates the release the CA configuration was introduced in TS 36.101 [2].

#### Inter-band CA Physical Layer Baseline Implementation Capabilities A.4.3.3.3

Table A.4.3.3.3-1: Downlink Inter-band CA Bandwidth Class Combination capabilities

| ltem | Bandwidth Class Combination                | Ref.          | Mnemonic           | Comments |
|------|--|---------------|--------------------|----------|
| 1    | DL Inter-band CA BW Class Combination A-A  | 36.101, 5.6A  | pc_DL_interBand_Ca | Note 1   |
|      |  | 36.331, 6.3.6 | BwClassComb_AA     |          |
| 2    | DL Inter-band CA BW Class Combination A-A- | 36.101, 5.6A  |                    |          |
|      | A (two bands)                              | 36.331, 6.3.6 |                    |          |
| 3    | DL Inter-band CA BW Class Combination A-A- | 36.101, 5.6A  |                    |          |
|      | A (three bands)                            | 36.331, 6.3.6 |                    |          |
| 4    | DL Inter-band CA BW Class Combination A-   | 36.101, 5.6A  |                    |          |
|      | C/C-A or A-B/B-A (two bands)               | 36.331, 6.3.6 |                    |          |
| 5    | DL Inter-band CA BW Class Combination A-A  | 36.101, 5.5   |                    |          |
|      | where one of the bands is DL-only          | ,             |                    |          |
| 6    | DL Inter-band CA BW Class Combination A-A- | 36.101, 5.6A  |                    |          |
|      | A-A (four bands)                           | 36.331, 6.3.6 |                    |          |
| 7    | DL Inter-band CA BW Class Combination A-A- | 36.101, 5.6A  |                    |          |
|      | C/C-A-A (three bands)                      | 36.331, 6.3.6 |                    |          |
| 8    | DL Inter-band CA BW Class Combination A-A- | 36.101, 5.6A  |                    |          |
|      | A-C (four bands)                           | 36.331, 6.3.6 |                    |          |
| 9    | DL Inter-band CA BW Class Combination A-   | 36.101, 5.6A  |                    |          |
|      | D/D-A or C-C or C-B (two bands)            | 36.331, 6.3.6 |                    |          |
| 10   | DL Inter-band CA BW Class Combination A-A- | 36.101, 5.6A  |                    |          |
|      | C or A-A-B (two bands)                     | 36.331, 6.3.6 |                    |          |
| 11   | DL Inter-band CA BW Class Combination A-A- | 36.101, 5.6A  |                    |          |
|      | A-A (two bands)                            | 36.331, 6.3.6 |                    |          |
| 12   | DL Inter-band CA BW Class Combination A-A- | 36.101, 5.6A  |                    |          |
|      | A-A (three bands)                          | 36.331, 6.3.6 |                    |          |
| 13   | DL Inter-band CA BW Class Combination A-A- | 36.101, 5.6A  |                    |          |
|      | A-C (three bands)                          | 36.331, 6.3.6 |                    |          |
| 14   | DL Inter-band CA BW Class Combination A-A- | 36.101, 5.6A  |                    |          |
|      | A-A-A (five bands)                         | 36.331, 6.3.6 |                    |          |
| 15   | DL Inter-band CA BW Class Combination C-   | 36.101, 5.6A  |                    |          |
|      | D/D-C (two bands)                          | 36.331, 6.3.6 |                    |          |

band CA BW Class Combination A-A.

Table A.4.3.3.3-2: Uplink Inter-band CA Bandwidth Class Combination capabilities

| Item   | Bandwidth Combination class   | Ref.              | Mnemonic               | Comments            |  |  |  |
|--------|---|-------------------|------------------------|---------------------|--|--|--|
| 1      | UL Inter-band CA BW Combination   | 36.101, 5.6A      | pc_UL_interBand_       | Note 1              |  |  |  |
|        | class A-A   | 36.331, 6.3.6     | CaBwClassComb_         |                     |  |  |  |
|        |   |                   | AA                     |                     |  |  |  |
| 2      | UL (Pcell) supported in each band of  | 36.101, 5.6A      | pc_UL_SupportedI       | Note 2              |  |  |  |
|        | Inter-band CA combination under test  | 36.331, 6.3.6     | nAllBandsInCACo        |                     |  |  |  |
|        |   |                   | mb                     |                     |  |  |  |
| Note 1 | 1: support for one or more of the CA con  | figurations in Ta | bles A.4.3.3.3-3, A.4. | 3.3.3-4, A.4.3.3.3- |  |  |  |
|        | 5 with UL Inter-band CA BW Class Combination A-A.   |                   |                        |                     |  |  |  |
| Note 2 | Note 2: support of UL CA in each band of the band combination determined by specific IXIT |                   |                        |                     |  |  |  |
|        | px EUTRA CA BandCombination   |                   |                        |                     |  |  |  |

Table A.4.3.3.3-2A: Uplink Inter-band CA Bandwidth Class Capability

| Item   | Bandwidth Combination class  | Ref.          | Mnemonic         | Comments  |  |  |  |
|--------|--|---------------|------------------|-----------|--|--|--|
| 1      | UL Inter-band CA_A-A   | 36.101, 5.6A  | pc_UL_interBand_ | Note 1, 2 |  |  |  |
|        |  | 36.331, 6.3.6 | CaAA             |           |  |  |  |
| Note 1 | Note 1: to indicate the support of UL CA for Inter-band per CA band combination defined in Table |               |                  |           |  |  |  |
|        | A.4.3.3.3-3 with UL Inter-band CA BW Class Combination A-A.                                      |               |                  |           |  |  |  |
| Note 2 | the band combination used in conjunction with these PICS items is determined by specific         |               |                  |           |  |  |  |
|        | PIXIT px_EUTRA_CA_BandCombination.   |               |                  |           |  |  |  |

Table A.4.3.3.3-3: Supported CA configurations for Inter-band CA (two bands)

| E-UTRA CA<br>configuration / Item<br>(Note 1) | Release<br>(Note 6) | Supporte | Supported CA<br>Bandwidth Class(es) in<br>UL<br>(Note 2) | Supported UL<br>Bands (Note 5) | Supported Bandwidth Combination Set(s) (Note 3) |
|---|---------------------|----------|--|--------------------------------|---|
| CA_1A-1A-7A                                   | Rel-15              | -        | (11010 =)  |                                |   |
| CA_1A-3A                                      | Rel-14              |          |  |                                |   |
| CA_1A-3C                                      | Rel-13              |          |  |                                |   |
| CA_1A-5A                                      | Rel-10              |          |  |                                |   |
| CA_1A-7A                                      | Rel-12              |          |  |                                |   |
| CA_1A-7A-7A                                   | Rel-14              |          |  |                                |   |
| CA_1A-8A                                      | Rel-12              |          |  |                                |   |
| CA_1A-11A                                     | Rel-12              |          |  |                                |   |
| CA_1A-18A                                     | Rel-11              |          |  |                                |   |
| CA_1A-19A                                     | Rel-11              |          |  |                                |   |
| CA_1A-20A                                     | Rel-12              |          |  |                                |   |
| CA_1A-21A<br>CA_1A-26A                        | Rel-11<br>Rel-12    |          |  |                                |   |
| CA_1A-28A                                     | Rel-12<br>Rel-12    |          |  |                                |   |
| CA_1A-28A                                     | Rel-12              |          |  |                                |   |
| CA_1A-40A                                     | Rel-13              |          |  |                                |   |
| CA_1A-41A                                     | Rel-12              | 1        |  |                                |   |
| CA_1A-41C                                     | Rel-12              | 1        |  |                                |   |
| CA_1A-42A                                     | Rel-12              | l        |  |                                |   |
| CA_1A-42C                                     | Rel-12              |          |  |                                |   |
| <br>CA_1A-46A                                 | Rel-13              |          |  |                                |   |
| CA_1C-3A                                      | Rel-14              |          |  |                                |   |
| CA_2A-2A-5A                                   | Rel-12              |          |  |                                |   |
| CA_2A-2A-7A                                   | Rel-15              |          |  |                                |   |
| CA_2A-2A-12A                                  | Rel-13              |          |  |                                |   |
| CA_2A-2A-12B                                  | Rel-13              |          |  |                                |   |
| CA_2A-2A-13A                                  | Rel-12              |          |  |                                |   |
| CA_2A-2A-14A                                  | Rel-15              |          |  |                                |   |
| CA_2A-2A-29A                                  | Rel-14              |          |  |                                |   |
| CA_2A-2A-30A                                  | Rel-14              |          |  |                                |   |
| CA_2A-2A-71A                                  | Rel-15              |          |  |                                |   |
| CA_2A-4A                                      | Rel-12              |          |  |                                |   |
| CA_2A-4A-4A                                   | Rel-12              |          |  |                                |   |
| CA_2A-5A<br>CA_2A-5B                          | Rel-12<br>Rel-14    |          |  |                                |   |
| CA_2A-3B<br>CA_2A-7A                          | Rel-14              |          |  |                                |   |
| CA_2A-7A-7A                                   | Rel-14              |          |  |                                |   |
| CA_2A-7C                                      | Rel-14              |          |  |                                |   |
| CA_2A-12A                                     | Rel-12              |          |  |                                |   |
| CA_2A-12B                                     | Rel-12              |          |  |                                |   |
|   | Rel-12              |          |  |                                |   |
| CA_2A-14A                                     | Rel-15              |          |  |                                |   |
| CA_2A-17A                                     | Rel-11              |          |  |                                |   |
| CA_2A-28A                                     | Rel-13              |          |  |                                |   |
| CA_2A-29A                                     | Rel-11              |          |  |                                |   |
| CA_2A-30A                                     | Rel-12              |          |  |                                |   |
| CA_2A-46A                                     | Rel-13              |          |  |                                |   |
| CA_2A-66A                                     | Rel-14              |          |  |                                |   |
| CA_2A-66A-66A                                 | Rel-14              | <u> </u> |  |                                |   |
| CA_2A-66C                                     | Rel-14              | <u> </u> |  |                                |   |
| CA_2A-71A                                     | Rel-15              | ļ        |  |                                |   |
| CA_2C-5A                                      | Rel-13              | 1        |  |                                |   |
| CA_2C-29A                                     | Rel-12              | -        |  |                                |   |
| CA_2C-66A<br>CA_3A-3A-7A-7A                   | Rel-15              |          |  |                                |   |
| CA_3A-3A-7A-7A<br>CA_3A-3A-8A                 | Rel-14<br>Rel-13    | 1        |  |                                |   |
| CA_3A-3A-6A<br>CA_2C-66A-66A                  | Rel-13              | 1        |  |                                |   |
| CA_2C-66A-66A<br>CA_3A-5A                     | Rel-13              |          |  |                                |   |
| CA_3A-7B                                      | Rel-13              |          |  |                                |   |
| CA_3A-7A                                      | Rel-11              | 1        |  |                                |   |
| CA_3A-7C                                      | Rel-12              |          |  |                                |   |
| <u> </u>                                      | 1.01-12             | Ĭ        |  |                                | <u> </u>  |

| CA_3A-8A Rel-11   CA_3A-19A Rel-14   CA_3A-19A Rel-14   CA_3A-19A Rel-12   CA_3A-20A Rel-11   CA_3A-20A Rel-11   CA_3A-20A Rel-12   CA_3A-27A Rel-12   CA_3A-27A Rel-12   CA_3A-28A Rel-14   CA_3A-28A Rel-14   CA_3A-38A Rel-13   CA_3A-38A Rel-13   CA_3A-41A Rel-13   CA_3A-41A Rel-13   CA_3A-41A Rel-13   CA_3A-41A Rel-13   CA_3A-41A Rel-13   CA_3A-41A Rel-13   CA_3A-40A Rel-13   CA_3A-40A Rel-13   CA_3A-40C Rel-14   CA_3A-40A Rel-13   CA_3A-40C Rel-14   CA_3A-40A Rel-15   CA_3A-40A Rel-15   CA_3A-40A Rel-16   CA_3A-40A Rel-16   CA_3A-40A Rel-17   CA_3A-40A Rel-18   CA_3A-40A Rel-18   CA_3A-40A Rel-18   CA_3A-40A Rel-18   CA_3A-40A Rel-18   CA_3A-40A Rel-18   CA_3A-40A Rel-18   CA_3A-40A Rel-18   CA_3A-40A Rel-18   CA_3A-40A Rel-18   CA_3A-40A Rel-18   CA_3A-40A Rel-19   CA_3A-40A Rel-19   CA_3A-40A Rel-19   CA_3A-40A Rel-19   CA_3A-40A Rel-19   CA_3A-40A-40A 40A-40A-40A-40A-40A-40A-40A-40  |               |           |  | 1 |
|--|---------------|-----------|--|---|
| CA 3A-19A Rel-12 CA 3A-20A Rel-11 CA 3A-20A Rel-12 CA 3A-20A Rel-12 CA 3A-20A Rel-12 CA 3A-20A Rel-12 CA 3A-20A Rel-12 CA 3A-30B Rel-14 CA 3A-33B Rel-13 CA 3A-41A Rel-13 CA 3A-41A Rel-13 CA 3A-41C Rel-13 CA 3A-40C Rel-13 CA 3A-40C Rel-13 CA 3A-40C Rel-13 CA 3A-40C Rel-13 CA 3A-40C Rel-13 CA 3A-69A Rel-14 CA 3C-5A Rel-13 CA 3C-7A Rel-12 CA 3A-40C Rel-13 CA 3C-7A Rel-12 CA 3C-7A Rel-12 CA 3C-7A Rel-12 CA 3C-7A Rel-12 CA 3C-7A Rel-12 CA 3C-2AA-7A Rel-12 CA 4A-4A-7A Rel-14 CA 4A-7A-7A-7A Rel-14 CA 4A-7A-7A Rel-14 CA 4A-7A-7A Rel-14 CA 4A-7A-7A | CA_3A-8A      | Rel-11    |  |   |
| CA 3A-19A Rel-12 CA 3A-20A Rel-11 CA 3A-20A Rel-12 CA 3A-20A Rel-12 CA 3A-20A Rel-12 CA 3A-20A Rel-12 CA 3A-20A Rel-12 CA 3A-30B Rel-14 CA 3A-33B Rel-13 CA 3A-41A Rel-13 CA 3A-41A Rel-13 CA 3A-41C Rel-13 CA 3A-40C Rel-13 CA 3A-40C Rel-13 CA 3A-40C Rel-13 CA 3A-40C Rel-13 CA 3A-40C Rel-13 CA 3A-69A Rel-14 CA 3C-5A Rel-13 CA 3C-7A Rel-12 CA 3A-40C Rel-13 CA 3C-7A Rel-12 CA 3C-7A Rel-12 CA 3C-7A Rel-12 CA 3C-7A Rel-12 CA 3C-7A Rel-12 CA 3C-2AA-7A Rel-12 CA 4A-4A-7A Rel-14 CA 4A-7A-7A-7A Rel-14 CA 4A-7A-7A Rel-14 CA 4A-7A-7A Rel-14 CA 4A-7A-7A | CA 3A-11A     | Rel-14    |  |   |
| CA 3A-20A Rel-12 CA 3A-27A Rel-12 CA 3A-27A Rel-12 CA 3A-28A Rel-12 CA 3A-32A Rel-14 CA 3A-32A Rel-13 CA 3A-40A Rel-13 CA 3A-40A Rel-13 CA 3A-40A Rel-13 CA 3A-40A Rel-13 CA 3A-40A Rel-13 CA 3A-42A Rel-12 CA 3A-42A Rel-12 CA 3A-42A Rel-12 CA 3A-46A Rel-13 CA 3A-46A Rel-13 CA 3A-46A Rel-13 CA 3A-46A Rel-13 CA 3A-66A Rel-13 CA 3A-67A Rel-12 CA 3A-68A Rel-14 CA 3C-26A Rel-13 CA 3C- |               |           |  |   |
| CA 3A-2EA Rel-12 CA 3A-2EA Rel-12 CA 3A-2EA Rel-12 CA 3A-2EA Rel-14 CA 3A-3BA Rel-13 CA 3A-3BA Rel-13 CA 3A-4TA Rel-13 CA 3A-4TA Rel-13 CA 3A-4TA Rel-13 CA 3A-4TA Rel-13 CA 3A-4TA Rel-13 CA 3A-4TA Rel-13 CA 3A-4TA Rel-13 CA 3A-4TA Rel-13 CA 3A-4TA Rel-13 CA 3A-4TA Rel-13 CA 3A-4TA Rel-13 CA 3A-4TA Rel-14 CA 3A-4TA Rel-15 CA 3A-4TA Rel-15 CA 3A-4TA Rel-15 CA 3A-4TA Rel-15 CA 3C-7A Rel-16 CA 3C-7A Rel-16 CA 3C-7A Rel-17 CA 3C-7A Rel-18 CA 3C-7A Rel-19 CA 3C-7A 3C-7A Rel-19 CA 3C-7A 3C-7A Rel-19 CA 3C-7A 3C-7A Rel-19 CA 3C-7A 3C-7A Rel-19 CA 3C-7A 3C- |               |           | +  |   |
| CA 3A-27A Rel-12 CA 3A-32A Rel-12 CA 3A-32A Rel-14 CA 3A-32A Rel-14 CA 3A-32A Rel-13 CA 3A-40A Rel-13 CA 3A-40A Rel-13 CA 3A-41A Rel-13 CA 3A-42C Rel-12 CA 3A-42C Rel-12 CA 3A-42C Rel-12 CA 3A-42C Rel-12 CA 3A-42C Rel-12 CA 3A-42C Rel-12 CA 3A-42C Rel-13 CA 3A-42C Rel-13 CA 3A-42C Rel-14 CA 3C-5A Rel-13 CA 3C-5A Rel-13 CA 3C-5A Rel-13 CA 3C-5A Rel-14 CA 3C-5A Rel-14 CA 3C-2A Rel-14 CA 3C-2A Rel-14 CA 3C-2A Rel-14 CA 3C-2A Rel-14 CA 3C-2A Rel-14 CA 3C-2A Rel-14 CA 3C-2A Rel-14 CA 3C-2A Rel-14 CA 3C-2A Rel-13 CA 3A-4A-5A Rel-12 CA 3A-4A-5A Rel-12 CA 3A-4A-13A Rel-12 CA 3A-4A-13A Rel-12 CA 3A-4A-13A Rel-12 CA 3A-4A-13A Rel-12 CA 3A-4A-13A Rel-13 CA 3A-4A-13A Rel-14 CA 3C-2A Rel-13 CA 3A-4A-13A Rel-14 CA 3A-4A-13A Rel-15 CA 3A-4A-13A Rel-15 CA 3A-4A-13A Rel-15 CA 3A-4A-13A Rel-16 CA 3A-13A Rel-11 CA 3A-13A Rel-12 CA 3A-13A Rel-11 CA 3A-13A Rel-12 CA 3A-13A Rel-12 CA 3A-13A Rel-12 CA 3A-13A Rel-12 C |               |           |  |   |
| CA_3A-22A Rel-12   |               |           |  |   |
| CA 3A-32A Rel-14 CA 3A-32A Rel-13 CA 3A-40A Rel-13 CA 3A-41A Rel-13 CA 3A-41A Rel-13 CA 3A-42A Rel-12 CA 3A-42A Rel-12 CA 3A-42A Rel-12 CA 3A-46A Rel-13 CA 3A-69A Rel-13 CA 3A-69A Rel-13 CA 3A-69A Rel-13 CA 3A-69A Rel-13 CA 3A-69A Rel-13 CA 3C-5A Rel-13 CA 3C-5A Rel-13 CA 3C-7C Rel-13 CA 3C-7C Rel-13 CA 3C-8A Rel-14 CA 3C-20A Rel-14 CA 3C-20A Rel-14 CA 3C-20A Rel-14 CA 3C-20A Rel-14 CA 3C-20A Rel-14 CA 3C-20A Rel-14 CA 3C-20A Rel-14 CA 3C-20A Rel-14 CA 3C-20A Rel-14 CA 3C-20A Rel-14 CA 3C-20A Rel-15 CA 4A-4A-5A Rel-12 CA 4A-4A-5A Rel-12 CA 4A-4A-7A Rel-12 CA 4A-4A-7A Rel-12 CA 4A-4A-7A Rel-12 CA 4A-4A-7A Rel-13 CA 4A-4A-30A Rel-13 CA 4A-4A-30A Rel-13 CA 4A-4A-30A Rel-13 CA 4A-4A-30A Rel-13 CA 4A-4A-30A Rel-15 CA 4A-5A Rel-16 CA 4A-5A Rel-16 CA 4A-5A Rel-17 CA 4A-7A-7A Rel-16 CA 4A-7A-7A Rel-16 CA 4A-7A-7A Rel-17 CA 4A-7A-7A Rel-18 CA 4A-7A-7A Rel-18 CA 4A-7A-7A Rel-18 CA 4A-7A-7A Rel-19 CA 4A- | CA_3A-27A     | Rel-12    |  |   |
| CA 3A-32A Rel-14 CA 3A-32A Rel-13 CA 3A-40A Rel-13 CA 3A-41A Rel-13 CA 3A-41A Rel-13 CA 3A-42A Rel-12 CA 3A-42A Rel-12 CA 3A-42A Rel-12 CA 3A-46A Rel-13 CA 3A-69A Rel-13 CA 3A-69A Rel-13 CA 3A-69A Rel-13 CA 3A-69A Rel-13 CA 3A-69A Rel-13 CA 3C-5A Rel-13 CA 3C-5A Rel-13 CA 3C-7C Rel-13 CA 3C-7C Rel-13 CA 3C-8A Rel-14 CA 3C-20A Rel-14 CA 3C-20A Rel-14 CA 3C-20A Rel-14 CA 3C-20A Rel-14 CA 3C-20A Rel-14 CA 3C-20A Rel-14 CA 3C-20A Rel-14 CA 3C-20A Rel-14 CA 3C-20A Rel-14 CA 3C-20A Rel-14 CA 3C-20A Rel-15 CA 4A-4A-5A Rel-12 CA 4A-4A-5A Rel-12 CA 4A-4A-7A Rel-12 CA 4A-4A-7A Rel-12 CA 4A-4A-7A Rel-12 CA 4A-4A-7A Rel-13 CA 4A-4A-30A Rel-13 CA 4A-4A-30A Rel-13 CA 4A-4A-30A Rel-13 CA 4A-4A-30A Rel-13 CA 4A-4A-30A Rel-15 CA 4A-5A Rel-16 CA 4A-5A Rel-16 CA 4A-5A Rel-17 CA 4A-7A-7A Rel-16 CA 4A-7A-7A Rel-16 CA 4A-7A-7A Rel-17 CA 4A-7A-7A Rel-18 CA 4A-7A-7A Rel-18 CA 4A-7A-7A Rel-18 CA 4A-7A-7A Rel-19 CA 4A- | CA 3A-28A     | Rel-12    |  |   |
| CA_3A-38A Rel-13 CA_3A-41A Rel-13 CA_3A-42A Rel-12 CA_3A-42CA Rel-12 CA_3A-46A Rel-13 CA_3A-66A Rel-13 CA_3A-66A Rel-13 CA_3A-66A Rel-13 CA_3C-5A Rel-12 CA_3C-7A Rel-12 CA_3C-7A Rel-12 CA_3C-7A Rel-12 CA_3C-7A Rel-12 CA_3C-7A Rel-14 CA_3C-2BA Rel-14 CA_3C-2BA Rel-14 CA_3C-2BA Rel-14 CA_3C-2BA Rel-14 CA_3C-2BA Rel-13 CA_3A-6A-7A Rel-12 CA_3A-6A-7A Rel-12 CA_3A-6A-7A Rel-12 CA_3A-6A-7A Rel-13 CA_3A-6A-7A Rel-14 CA_3C-2BA Rel-14 CA_3C-2BA Rel-14 CA_3C-2BA Rel-14 CA_3C-2BA Rel-15 CA_3A-6A-7A-7A Rel-15 CA_3A-7A-7A Rel-16 CA_3A-7A-7A Rel-17 CA_3A-7A-7A Rel-18 CA_3A-7A-7A Rel-18 CA_3A-7A-7A Rel-19 CA_3 |               |           |  |   |
| CA_3A-40A Rel-13   CA_3A-42A Rel-12   CA_3A-42C   Rel-12   CA_3A-43C   CA_3A-43C   CA_3A-46A   Rel-13   CA_3C-5A   Rel-13   CA_3C-5A   Rel-14   CA_3C-5A   Rel-13   CA_3C-5A   Rel-13   CA_3C-5A   Rel-13   CA_3C-6A   Rel-13   CA_3C-6A   Rel-13   CA_3C-7C   Rel-13   CA_3C-6A   Rel-14   CA_3C-6A   Rel-14   CA_3C-6A   Rel-14   CA_3C-6A   Rel-14   CA_3C-6A   Rel-13   CA_3C-6A   Rel-14   CA_3C-6A   Rel-14   CA_3C-6A   Rel-14   CA_3C-6A   Rel-14   CA_3C-6A   Rel-14   CA_3C-6A   Rel-14   CA_3C-6A   Rel-14   CA_3C-6A   Rel-14   CA_3C-6A   Rel-14   CA_3C-6A   Rel-14   CA_3C-6A   Rel-14   CA_3C-6A   Rel-14   CA_3C-6A   Rel-14   CA_3C-6A   Rel-14   CA_3C-6A   Rel-14   CA_3C-6A   Rel-14   CA_3C-6A   Rel-14   CA_3C-6A   Rel-15   CA_3C-6A   Rel-16   CA_3C-6A   Rel-17   CA_3C-6A   Rel-18   CA_3C-6A   Rel-18   CA_3C-6A   Rel-19   CA |               |           |  |   |
| CA_3A-42A Rel-12 CA_3A-42C Rel-12 CA_3A-46A Rel-13 CA_3A-69A Rel-13 CA_3A-69A Rel-14 CA_3C-5A Rel-13 CA_3C-5A Rel-13 CA_3C-7C Rel-13 CA_3C-7C Rel-13 CA_3C-20A Rel-14 CA_3C-20A Rel-14 CA_3C-20A Rel-14 CA_3C-20A Rel-14 CA_3C-20A Rel-14 CA_3C-20A Rel-14 CA_3C-20A Rel-13 CA_4A-4A-5A Rel-12 CA_4A-4A-5A Rel-12 CA_4A-4A-5A Rel-12 CA_4A-4A-13A Rel-12 CA_4A-4A-13A Rel-12 CA_4A-4A-30A Rel-13 CA_4A-4A-30A Rel-13 CA_4A-4A-7A Rel-14 CA_4A-7A-7A-7A Rel-14 CA_4A-7A-7A-7A-7A-7A-7A-7A-7A-7A-7A-7A-7A-7A                                     |               |           |  |   |
| CA_3A-42A Rel-12 CA_3A-46A Rel-13 CA_3A-69A Rel-14 CA_3C-5A Rel-13 CA_3C-5A Rel-13 CA_3C-7C Rel-13 CA_3C-7C Rel-13 CA_3C-7C Rel-13 CA_3C-7C Rel-13 CA_3C-8A Rel-14 CA_3C-20A Rel-14 CA_3C-20A Rel-14 CA_3C-20A Rel-14 CA_3C-20A Rel-14 CA_3C-20A Rel-14 CA_3C-20A Rel-14 CA_3C-20A Rel-14 CA_3C-20A Rel-14 CA_3C-20A Rel-14 CA_3C-20A Rel-14 CA_3C-20A Rel-14 CA_3C-20A Rel-14 CA_3C-20A Rel-13 CA_4A-4A-7A Rel-12 CA_4A-4A-7A Rel-12 CA_4A-4A-7A Rel-12 CA_4A-4A-7A Rel-13 CA_4A-4A-7A Rel-13 CA_4A-4A-7A Rel-13 CA_4A-4A-7A Rel-11 CA_4A-7A-7A Rel-11 CA_4A-7A-7A Rel-11 CA_4A-7A-7A Rel-11 CA_4A-7C Rel-14 CA_4A-7C Rel-14 CA_4A-7C Rel-14 CA_4A-7C Rel-14 CA_4A-7C Rel-14 CA_4A-7C Rel-14 CA_4A-7C Rel-11 CA_4A-7A Rel-11 CA_4A-7A Rel-11 CA_4A-7A Rel-11 CA_4A-7A Rel-11 CA_4A-7A Rel-11 CA_4A-7A Rel-11 CA_4A-7A Rel-11 CA_4A-7A Rel-11 CA_4A-7A Rel-11 CA_4A-7A-7A Rel-11 CA_4A-7A-7A Rel-11 CA_4A-7B Rel-11 CA_5A-5A-66A Rel-13 CA_5A-5A-66A Rel-13 CA_5A-5A-66A Rel-14 CA_5B-6B-6BA Rel-13 CA_5B-6BA-6BA Rel-13 CA_5B-6BA-6BA Rel-13 CA_5B-6BA-6BA Rel-14 CA_5B-6BA-6BA Rel-14 CA_5B-6BA-6BA Rel-14 CA_5B-6BA-6BA Rel-14 CA_5B-6BA-6BA Rel-14 CA_5B-6BA-6BA Rel-14 CA_5B-6BA-6BA Rel-14 CA_5B-6BA-6BA Rel-14 CA_5B-6BA-6BA Rel-14 CA_5B-6BA-6BA Rel-14 CA_5B-6BA-6BA Rel-14 CA_5B-6BA-6BA Rel-14 CA_5B-6BA-6BA Rel-14 CA_5B-6BA-6BA Rel-13 CA_7B-2BA Rel-13 CA_7B-2BA Rel-13 CA_7B-2BA Rel-13 CA_7B-2BA Rel-13 CA_7B-2BA Rel-13 CA_7B-2BA Rel-13 CA_7B-2BA Rel-13 CA_7B-2BA Rel-13 CA_7B-2BA Rel-13 CA_7B-2BA Rel-13 CA_7B-2BA Rel-13 CA_7B-2BA Rel-13 CA_7B-2BA Rel-13 CA_7B-2BA Rel-13  |               |           |  |   |
| CA 3A-42C Rel-12 CA 3A-69A Rel-13 CA 3A-69A Rel-14 CA 3C-5A Rel-13 CA 3C-6A Rel-13 CA 3C-7C Rel-13 CA 3C-7C Rel-13 CA 3C-7C Rel-13 CA 3C-20A Rel-14 CA 3C-20A Rel-14 CA 3C-20A Rel-14 CA 3C-20A Rel-14 CA 3C-20A Rel-14 CA 3C-20A Rel-14 CA 3C-20A Rel-14 CA 3C-20A Rel-14 CA 4A-4A-5A Rel-12 CA 4A-4A-5A Rel-12 CA 4A-4A-7A Rel-12 CA 4A-4A-13A Rel-12 CA 4A-4A-13A Rel-12 CA 4A-4A-39A Rel-13 CA 4A-4A-39A Rel-13 CA 4A-4A-39A Rel-13 CA 4A-5A Rel-11 CA 4A-7A-7A Rel-11 CA 4A-7A-7A Rel-11 CA 4A-7A-7A Rel-11 CA 4A-7A-7A Rel-11 CA 4A-7A-7A Rel-11 CA 4A-7A-7A Rel-11 CA 4A-7A-7A Rel-11 CA 4A-7A-7A Rel-11 CA 4A-7A-7A Rel-11 CA 4A-7A-7A Rel-11 CA 4A-7A-7A Rel-11 CA 4A-7A-7A Rel-11 CA 4A-7A-7A Rel-11 CA 4A-7A-7A Rel-11 CA 4A-7A-7A Rel-11 CA 4A-7A-7A Rel-11 CA 4A-7A-7A Rel-11 CA 4A-12A Rel-11 CA 4A-13 |               | Rel-13    |  |   |
| CA 3A-42C Rel-12 CA 3A-69A Rel-13 CA 3A-69A Rel-14 CA 3C-5A Rel-13 CA 3C-6A Rel-13 CA 3C-7C Rel-13 CA 3C-7C Rel-13 CA 3C-7C Rel-13 CA 3C-20A Rel-14 CA 3C-20A Rel-14 CA 3C-20A Rel-14 CA 3C-20A Rel-14 CA 3C-20A Rel-14 CA 3C-20A Rel-14 CA 3C-20A Rel-14 CA 3C-20A Rel-14 CA 4A-4A-5A Rel-12 CA 4A-4A-5A Rel-12 CA 4A-4A-7A Rel-12 CA 4A-4A-13A Rel-12 CA 4A-4A-13A Rel-12 CA 4A-4A-39A Rel-13 CA 4A-4A-39A Rel-13 CA 4A-4A-39A Rel-13 CA 4A-5A Rel-11 CA 4A-7A-7A Rel-11 CA 4A-7A-7A Rel-11 CA 4A-7A-7A Rel-11 CA 4A-7A-7A Rel-11 CA 4A-7A-7A Rel-11 CA 4A-7A-7A Rel-11 CA 4A-7A-7A Rel-11 CA 4A-7A-7A Rel-11 CA 4A-7A-7A Rel-11 CA 4A-7A-7A Rel-11 CA 4A-7A-7A Rel-11 CA 4A-7A-7A Rel-11 CA 4A-7A-7A Rel-11 CA 4A-7A-7A Rel-11 CA 4A-7A-7A Rel-11 CA 4A-7A-7A Rel-11 CA 4A-7A-7A Rel-11 CA 4A-12A Rel-11 CA 4A-13 | CA 3A-42A     | Rel-12    |  |   |
| CA 3A-69A Rel-14 CA 3C-5A Rel-13 CA 3C-5A Rel-13 CA 3C-7C Rel-13 CA 3C-7C Rel-13 CA 3C-7C Rel-13 CA 3C-7C Rel-14 CA 3C-20A Rel-14 CA 3C-20A Rel-14 CA 3C-20A Rel-14 CA 3C-20A Rel-14 CA 3C-20A Rel-14 CA 3C-20A Rel-13 CA 4A-4A-5A Rel-12 CA 4A-4A-7A Rel-12 CA 4A-4A-7A Rel-12 CA 4A-4A-7A Rel-12 CA 4A-4A-7A Rel-13 CA 4A-4A-7A Rel-13 CA 4A-4A-7A Rel-13 CA 4A-4A-7A Rel-15 CA 4A-4A-7A Rel-15 CA 4A-4A-7A Rel-16 CA 4A-7A-7A Rel-11 CA 4A-7A-7A Rel-11 CA 4A-7C Rel-14 CA 4A-12B Rel-14 CA 4A-12B Rel-11 CA 4A-13A Rel-11 CA 4A-17A Rel-15 CA 4A-17A Rel-11 CA 4A-28A Rel-11 CA 4A-29A Rel-11 CA 4A-29A Rel-11 CA 4A-29A Rel-11 CA 4A-29A Rel-11 CA 4A-29A Rel-11 CA 4A-29A Rel-11 CA 4A-29A Rel-11 CA 4A-29A Rel-11 CA 4A-29A Rel-11 CA 4A-29A Rel-11 CA 4A-29A Rel-11 CA 4A-29A Rel-11 CA 4A-29A Rel-11 CA 4A-29A Rel-11 CA 4A-29A Rel-11 CA 4A-29A Rel-11 CA 5A-69A Rel-14 CA 5B-69A Rel-14 CA 5B-69A Rel-14 CA 5B-69A Rel-14 CA 5B-69A Rel-14 CA 5B-69A Rel-14 CA 5B-69A Rel-14 CA 5B-69A Rel-14 CA 5B-69A Rel-14 CA 5B-69A Rel-14 CA 5B-69A Rel-14 CA 5B-69A Rel-14 CA 5B-69A Rel-14 CA 5B-69A Rel-14 CA 5B-69A Rel-14 CA 7B-29A Rel-13 CA 7B-29A Rel-13 CA 7B-29A Rel-13 CA 7B-29A Rel-13 CA 7B-29A Rel-13   |               |           |  |   |
| CA 3A-69A Rel-14 3 CA 3C-7A Rel-12 C CA 3C-7A Rel-12 C CA 3C-7C Rel-13 C CA 3C-7C Rel-14 C CA 3C-20A Rel-14 C CA 3C-20A Rel-14 C CA 3C-20A Rel-14 C CA 3C-20A Rel-14 C CA 3C-20A Rel-13 C CA 4A-4A-5A Rel-12 C CA 4A-4A-7A Rel-12 C CA 4A-4A-7A Rel-12 C CA 4A-4A-13A Rel-12 C CA 4A-4A-13A Rel-13 C CA 4A-4A-13A Rel-13 C CA 4A-4A-13A Rel-13 C CA 4A-4A-7A Rel-13 C CA 4A-4A-7A Rel-14 C CA 4A-5A Rel-13 C CA 4A-5A Rel-11 C CA 4A-7A-7A Rel-14 C CA 4A-7A-7A Rel-11 C CA 4A-7A-7A Rel-14 C CA 4A-7A-7A Rel-14 C CA 4A-7A-7A Rel-14 C CA 4A-13A Rel-11 C CA 4A-7A-7A Rel-14 C CA 4A-7A-7A Rel-14 C CA 4A-7A-7A Rel-14 C CA 4A-13A Rel-11 C CA 4A-7A-7A Rel-14 C CA 4A-13A Rel-11 C CA 4A-26A Rel-13 C CA 4A-26A Rel-13 C CA 4A-26A Rel-13 C CA 4A-26A Rel-13 C CA 4A-26A Rel-14 C CA 5A-5A-7A Rel-12 C CA 5A-5A-7A Rel-12 C CA 5A-5A-7A Rel-12 C CA 5A-5A-7A Rel-12 C CA 5A-5A-7A Rel-12 C CA 5A-5A-7A Rel-12 C CA 5A-5A-7A Rel-12 C CA 5A-5A-7A Rel-12 C CA 5A-5A-7A Rel-12 C CA 5A-5A-7A Rel-13 C CA 5A-5A-7A Rel-14 C CA 5A-5A-7A Rel-14 C CA 5A-5A-7A Rel-14 C CA 5A-5A-7A Rel-14 C CA 5A-5A-7A Rel-14 C CA 5A-5A-7A Rel-14 C CA 5A-5A-7A Rel-14 C CA 5A-5A-7A Rel-14 C CA 5A-5A-7A Rel-14 C CA 5A-6A-6A Rel-14 C CA 7A-8A  |               |           |  |   |
| CA 3C-5A Rel-13   CA 3C-7C Rel-13   CA 3C-7C Rel-13   CA 3C-7C Rel-13   CA 3C-8A   Rel-14   CA 3C-8A   Rel-14   CA 3C-20A   Rel-14   CA 3C-20A   Rel-14   CA 3C-20A   Rel-13   CA 4A-4A-5A   Rel-12   CA 4A-4A-5A   Rel-12   CA 4A-4A-12A   Rel-12   CA 4A-4A-13A   Rel-12   CA 4A-4A-13A   Rel-12   CA 4A-4A-30A   Rel-13   CA 4A-4A-30A   Rel-13   CA 4A-4A-71A   Rel-15   CA 4A-4A-71A   Rel-15   CA 4A-4A-71A   Rel-16   CA 4A-7A   Rel-11   CA 4A-7A   Rel-12   CA 4A-13A   Rel-11   CA 4A-7A   Rel-13   CA 4A-7A   Rel-12   CA 4A-7A   Rel-13   CA 4A-7A   Rel-13   CA 4A-7A   Rel-14   CA 4A-7A   Rel-13   CA 4A-7A   Rel-14   CA 4A-7A   Rel-15   CA 4A-7A   Rel-15   CA 4A-7A   Rel-16   CA 4A-7A   Rel-17   CA 4A-7A   Rel-18   CA 4A-7A   Rel-19   CA 4A-7A   Rel-19   CA 4A-7A   Rel-19   CA 4A-7A   Rel-19   CA 4A-7A   Rel-11   CA 4A-7A   Rel-11   CA 4A-7A   Rel-11   CA 4A-7A   Rel-11   CA 4A-7A   Rel-11   CA 4A-7A   Rel-11   CA 4A-7A   Rel-11   CA 4A-7A   Rel-11   CA 4A-7A   Rel-11   CA 4A-7A   Rel-11   CA 4A-7A   Rel-11   CA 4A-7A   Rel-11   CA 4A-7A   Rel-12   CA 5A-66A   Rel-13   CA 4A-7A   Rel-12   CA 5A-66A   Rel-13   CA 5A-66A   Rel-14   CA 5A-66A   Rel-14   CA 5A-66A   Rel-14   CA 5A-66A   Rel-14   CA 5A-66A   Rel-14   CA 5A-66A   Rel-14   CA 5A-66A   Rel-14   CA 5A-66A   Rel-14   CA 5A-66A   Rel-14   CA 5A-66A   Rel-14   CA 5A-66A   Rel-14   CA 5A-66A   Rel-14   CA 5A-66A   Rel-14   CA 5A-66A   Rel-14   CA 5A-66A   Rel-14   CA 5A-66A   Rel |               |           |  |   |
| CA 3C-7C Rel-12 CA 3C-7C Rel-13 CA 3C-20A Rel-14 CA 3C-20A Rel-14 CA 3C-20A Rel-14 CA 3C-20A Rel-14 CA 3C-20A Rel-14 CA 3C-28A Rel-13 CA 4A-4A-5A Rel-12 CA 4A-4A-7A Rel-12 CA 4A-4A-13A Rel-12 CA 4A-4A-13A Rel-12 CA 4A-4A-13A Rel-13 CA 4A-4A-29A Rel-13 CA 4A-4A-71A Rel-15 CA 4A-4A-71A Rel-15 CA 4A-4A-71A Rel-16 CA 4A-5A Rel-11 CA 4A-5A Rel-11 CA 4A-5A Rel-11 CA 4A-7A-7A Rel-11 CA 4A-7A-7A Rel-11 CA 4A-7A-7A Rel-14 CA 4A-7C Rel-14 CA 4A-7C Rel-14 CA 4A-12A Rel-11 CA 4A-12A Rel-11 CA 4A-12A Rel-11 CA 4A-17A Rel-11 |               |           | 3  |   |
| CA 3C-7C Rel-13   CA 3C-2CA Rel-14   CA 3C-2CA Rel-14   CA 3C-2CA Rel-14   CA 3C-2CA Rel-13   CA 4A-4A-5A Rel-13   CA 4A-4A-5A Rel-12   CA 4A-4A-7A Rel-12   CA 4A-4A-12A Rel-12   CA 4A-4A-13A Rel-12   CA 4A-4A-13A Rel-12   CA 4A-4A-13A Rel-13   CA 4A-4A-13A Rel-13   CA 4A-4A-17A Rel-15   CA 4A-4A-17A Rel-15   CA 4A-4A-7A   Rel-11   CA 4A-7A-7A Rel-11   CA 4A-7A-7A Rel-11   CA 4A-7A-7A Rel-11   CA 4A-7A-7A Rel-11   CA 4A-7C Rel-14   CA 4A-12A Rel-11   CA 4A-13A Rel-11   CA 4A-13A Rel-11   CA 4A-13A Rel-11   CA 4A-13A Rel-11   CA 4A-13A Rel-11   CA 4A-13A Rel-11   CA 4A-13A Rel-11   CA 4A-13A Rel-11   CA 4A-13A Rel-11   CA 4A-13A Rel-11   CA 4A-2A-1A   Rel-11   CA 4A-2A-1A   Rel-11   CA 4A-2A-1A   Rel-11   CA 4A-2A-1A   Rel-11   CA 4A-2A-1A   Rel-11   CA 4A-2A-1A   Rel-11   CA 4A-2A-1A   Rel-11   CA 4A-2A-1A   Rel-11   CA 4A-2A-1A   Rel-11   CA 4A-2A-1A   Rel-11   CA 4A-2A-1A   Rel-11   CA 4A-2A-1A   Rel-11   CA 4A-2A-1A   Rel-11   CA 4A-2A-1A   Rel-11   CA 4A-2A-1A   Rel-11   CA 4A-2A-1A   Rel-11   CA 4A-2A-1A   Rel-13   CA 4A-2A-1A   Rel-13   CA 4A-2A-1A   Rel-13   CA 4A-2A-1A   Rel-13   CA 4A-1A-1A   Rel-15   CA 4A-1A-1A   Rel-14   CA 4A-1A-1A   Rel-14   CA 4A-1A-1A   Rel-14   CA 4A-1A-1A   Rel-14   CA 4A-1A-1A   Rel-14  |               |           |  |   |
| CA 3C-7C Rel-13   CA 3C-2CA Rel-14   CA 3C-2CA Rel-14   CA 3C-2CA Rel-14   CA 3C-2CA Rel-13   CA 4A-4A-5A Rel-13   CA 4A-4A-5A Rel-12   CA 4A-4A-7A Rel-12   CA 4A-4A-12A Rel-12   CA 4A-4A-13A Rel-12   CA 4A-4A-13A Rel-12   CA 4A-4A-13A Rel-13   CA 4A-4A-13A Rel-13   CA 4A-4A-17A Rel-15   CA 4A-4A-17A Rel-15   CA 4A-4A-7A   Rel-11   CA 4A-7A-7A Rel-11   CA 4A-7A-7A Rel-11   CA 4A-7A-7A Rel-11   CA 4A-7A-7A Rel-11   CA 4A-7C Rel-14   CA 4A-12A Rel-11   CA 4A-13A Rel-11   CA 4A-13A Rel-11   CA 4A-13A Rel-11   CA 4A-13A Rel-11   CA 4A-13A Rel-11   CA 4A-13A Rel-11   CA 4A-13A Rel-11   CA 4A-13A Rel-11   CA 4A-13A Rel-11   CA 4A-13A Rel-11   CA 4A-2A-1A   Rel-11   CA 4A-2A-1A   Rel-11   CA 4A-2A-1A   Rel-11   CA 4A-2A-1A   Rel-11   CA 4A-2A-1A   Rel-11   CA 4A-2A-1A   Rel-11   CA 4A-2A-1A   Rel-11   CA 4A-2A-1A   Rel-11   CA 4A-2A-1A   Rel-11   CA 4A-2A-1A   Rel-11   CA 4A-2A-1A   Rel-11   CA 4A-2A-1A   Rel-11   CA 4A-2A-1A   Rel-11   CA 4A-2A-1A   Rel-11   CA 4A-2A-1A   Rel-11   CA 4A-2A-1A   Rel-11   CA 4A-2A-1A   Rel-13   CA 4A-2A-1A   Rel-13   CA 4A-2A-1A   Rel-13   CA 4A-2A-1A   Rel-13   CA 4A-1A-1A   Rel-15   CA 4A-1A-1A   Rel-14   CA 4A-1A-1A   Rel-14   CA 4A-1A-1A   Rel-14   CA 4A-1A-1A   Rel-14   CA 4A-1A-1A   Rel-14  | CA_3C-7A      | Rel-12    |  |   |
| CA 3G-20A Rel-14 CA 3G-22BA Rel-13 CA 4A-4A-5A Rel-13 CA 4A-4A-7A Rel-12 CA 4A-4A-13A Rel-12 CA 4A-4A-30A Rel-13 CA 4A-4A-30A Rel-13 CA 4A-4A-30A Rel-13 CA 4A-4A-30A Rel-13 CA 4A-5A Rel-11 CA 4A-5A Rel-11 CA 4A-7A Rel-11 CA 4A-12B Rel-14 CA 4A-13A Rel-11 CA 4A-17A Rel-11 CA 4A-29A Rel-12 CA 4A-29A Rel-13 CA 4A-29A Rel-13 CA 4A-29A Rel-13 CA 4A-29A Rel-14 CA 5A-17A Rel-12 CA 4A-6A Rel-13 CA 5A-17A Rel-12 CA 5A-17A Rel-12 CA 5A-17A Rel-11 CA 5A-17A Rel-11 CA 5A-17A Rel-11 CA 5A-17A Rel-11 CA 5A-17A Rel-11 CA 5A-25A Rel-13 CA 5A-29A Rel-13 CA 5A-29A Rel-13 CA 5A-66A-66A Rel-14 CA 5B-66A-66A Rel-13 CA 7B-28A Rel-13 CA 7B-28A Rel-13  | CA 3C-7C      | Rel-13    |  |   |
| CA 3C-20A Rel-14 CA 3C-28A Rel-13 CA 4A-4A-5A Rel-12 CA 4A-4A-5A Rel-12 CA 4A-4A-7A Rel-12 CA 4A-4A-12A Rel-12 CA 4A-4A-13A Rel-12 CA 4A-4A-30A Rel-13 CA 4A-4A-30A Rel-13 CA 4A-4A-71A Rel-15 CA 4A-7A-7A Rel-11 CA 4A-7A-7A Rel-11 CA 4A-7A-7A Rel-11 CA 4A-7A Rel-11 CA 4A-7A-7A Rel-11 CA 4A-7A-7A Rel-11 CA 4A-7A-7A Rel-11 CA 4A-7A-7A Rel-11 CA 4A-12B Rel-14 CA 4A-12B Rel-14 CA 4A-12B Rel-14 CA 4A-12B Rel-11 CA 4A-13A Rel-11 CA 4A-27A Rel-11 CA 4A-27A Rel-11 CA 4A-27A Rel-11 CA 4A-27A Rel-11 CA 4A-27A Rel-12 CA 4A-29A Rel-13 CA 4A-29A Rel-13 CA 4A-29A Rel-13 CA 4A-29A Rel-11 CA 4A-30A Rel-13 CA 4A-30A Rel-12 CA 4A-30A Rel-13 CA 4A-71A Rel-15 CA 5A-7A Rel-12 CA 5A-7A Rel-12 CA 5A-7A Rel-12 CA 5A-7A Rel-12 CA 5A-13A Rel-13 CA 4A-7A Rel-15 CA 5A-66A-66A Rel-14 CA 5A-66A-66A Rel-14 CA 5A-66A-66A Rel-13 CA 5A-66A-66A Rel-13 CA 5B-66A-66A Rel-14 CA 5B-66A-66A Rel-14 CA 5B-66A-66A Rel-14 CA 5B-66A-66A Rel-14 CA 5B-66A-66A Rel-14 CA 5B-66A-66A Rel-14 CA 5B-66A-66A Rel-14 CA 5B-66A-66A Rel-14 CA 5B-66A-66A Rel-14 CA 5B-66A-66A Rel-14 CA 5B-66A-66A Rel-14 CA 5B-66A-66A Rel-14 CA 5B-66A-66A Rel-14 CA 7B-28A Rel-13 CA 7A-28A Rel-13 CA 7A-28A Rel-13 CA 7A-28A Rel-13 CA 7A-28A Rel-13 CA 7A-28A Rel-13 CA 7A-28A Rel-13 CA 7A-28A Rel-13 CA 7A-28A Rel-13   |               |           |  |   |
| CA 36-28A Rel-13 CA 4A-4A-5A Rel-12 CA 4A-4A-5A Rel-12 CA 4A-4A-7A Rel-12 CA 4A-4A-7A Rel-12 CA 4A-4A-12A Rel-12 CA 4A-4A-13A Rel-12 CA 4A-4A-13A Rel-13 CA 4A-4A-30A Rel-13 CA 4A-4A-71A Rel-15 CA 4A-4A-71A Rel-15 CA 4A-4A-71A Rel-15 CA 4A-5A Rel-11 CA 4A-7A-7A Rel-11 CA 4A-7A-7A Rel-11 CA 4A-7A-7A Rel-14 CA 4A-7A-7A Rel-14 CA 4A-12B Rel-11 CA 4A-12B Rel-11 CA 4A-12B Rel-11 CA 4A-13A Rel-11 CA 4A-17A Rel-11 CA 4A-28A Rel-13 CA 4A-29A Rel-11 CA 4A-29A Rel-11 CA 4A-17A Rel-11 CA 4 |               |           |  |   |
| CA 4A-4A-5A Rel-12 CA 4A-4A-7A Rel-12 CA 4A-4A-12A Rel-12 CA 4A-4A-13A Rel-12 CA 4A-4A-13A Rel-12 CA 4A-4A-9A Rel-13 CA 4A-4A-9A Rel-13 CA 4A-4A-7A Rel-15 CA 4A-4A-7A Rel-15 CA 4A-5A Rel-11 CA 4A-7A Rel-11 CA 4A-7A Rel-11 CA 4A-7A Rel-11 CA 4A-7A Rel-11 CA 4A-7A Rel-11 CA 4A-7A Rel-11 CA 4A-7A Rel-11 CA 4A-7A Rel-11 CA 4A-7A Rel-11 CA 4A-12B Rel-14 CA 4A-12B Rel-11 CA 4A-13A Rel-11 CA 4A-13A Rel-11 CA 4A-13A Rel-11 CA 4A-2A-7A Rel-11 CA 4A-13A Rel-11 CA 4A-13A Rel-11 CA 4A-13A Rel-11 CA 4A-13A Rel-11 CA 4A-2A-7A Rel-12 CA 4A-2BA Rel-13 CA 4A-2BA Rel-13 CA 4A-2BA Rel-13 CA 4A-30A Rel-13 CA 4A-30A Rel-12 CA 4A-30A Rel-12 CA 4A-30A Rel-12 CA 5A-5A-66A Rel-14 CA 5A-5A-66A Rel-14 CA 5A-7A Rel-12 CA 5A-7A Rel-12 CA 5A-13A Rel-12 CA 5A-25A Rel-13 CA 5A-25A Rel-13 CA 5A-25A Rel-13 CA 5A-25A Rel-13 CA 5A-25A Rel-13 CA 5A-25A Rel-13 CA 5A-30A Rel-12 CA 5A-30A Rel-14 CA 5A-6A-6A Rel-14 CA 5A-6A-6A Rel-14 CA 5A-6A-6A Rel-14 CA 5A-6A-6A Rel-14 CA 5A-6A-6A Rel-14 CA 5A-6A-6A Rel-14 CA 5A-6A-6A Rel-14 CA 5A-6A-6A Rel-14 CA 5A-6A-6A Rel-14 CA 5A-6A-6A Rel-14 CA 5A-6A-6A Rel-14 CA 5A-6A-AAA Rel-13 CA 5A-2BA Rel-13 CA 5A-30A Rel-14 CA 5A-6A-6A Rel-14 CA 5A-6A-6A Rel-14 CA 5A-6A-6A Rel-14 CA 5A-6A-6A Rel-14 CA 5A-6A-6A Rel-14 CA 5A-6A-6A Rel-14 CA 5A-6A-6A Rel-14 CA 5A-6A-6A Rel-14 CA 5B-66A Rel-14 CA 7A-2BA Rel-13 CA 7A-2BA Rel-13 CA 7A-2BA Rel-13 CA 7A-2BA Rel-13 CA 7A-2BA Rel-13   |               |           |  |   |
| CA 4A-4A-7A Rel-12 CA 4A-4A-12A Rel-12 CA 4A-4A-13A Rel-12 CA 4A-4A-13A Rel-13 CA 4A-4A-9A Rel-13 CA 4A-4A-9A Rel-13 CA 4A-4A-71A Rel-15 CA 4A-5A Rel-11 CA 4A-7A Rel-11 CA 4A-7A Rel-11 CA 4A-7A Rel-11 CA 4A-7A Rel-11 CA 4A-7A Rel-11 CA 4A-7A Rel-11 CA 4A-7A Rel-11 CA 4A-7A Rel-11 CA 4A-7A Rel-11 CA 4A-7A Rel-11 CA 4A-7B Rel-11 CA 4A-12A Rel-11 CA 4A-12A Rel-11 CA 4A-12B Rel-11 CA 4A-13A Rel-11 CA 4A-13A Rel-11 CA 4A-27A Rel-11 CA 4A-27A Rel-12 CA 4A-28A Rel-13 CA 4A-29A Rel-13 CA 4A-29A Rel-11 CA 4A-30A Rel-14 CA 4A-30A Rel-12 CA 4A-30A Rel-12 CA 4A-30A Rel-12 CA 4A-30A Rel-12 CA 4A-30A Rel-12 CA 4A-30A Rel-12 CA 4A-30A Rel-13 CA 4A-30A Rel-12 CA 5A-5A-66A Rel-14 CA 5A-7A Rel-12 CA 5A-7A Rel-12 CA 5A-7A Rel-12 CA 5A-7A Rel-12 CA 5A-7A Rel-12 CA 5A-7A Rel-12 CA 5A-7A Rel-12 CA 5A-7A Rel-12 CA 5A-7A Rel-12 CA 5A-7A Rel-12 CA 5A-7A Rel-12 CA 5A-7A Rel-12 CA 5A-7A Rel-12 CA 5A-7A Rel-12 CA 5A-7A Rel-12 CA 5A-7A Rel-12 CA 5A-7A Rel-12 CA 5A-7A Rel-14 CA 5B-80A Rel-13 CA 5A-80A Rel-14 CA 5B-80A Rel-14 CA 5B-80A Rel-14 CA 5B-80A Rel-14 CA 5B-80A Rel-14 CA 5B-80A Rel-14 CA 5B-80A Rel-14 CA 7A-20A Rel-11 CA 7A-20A Rel-11 CA 7A-20A Rel-12 CA 7A-20A Rel-13   |               |           |  |   |
| CA 4A-4A-7A Rel-12 CA 4A-4A-12A Rel-12 CA 4A-4A-13A Rel-12 CA 4A-4A-13A Rel-13 CA 4A-4A-9A Rel-13 CA 4A-4A-9A Rel-13 CA 4A-4A-7A Rel-15 CA 4A-4A-7A Rel-15 CA 4A-5A Rel-11 CA 4A-7A-7A Rel-11 CA 4A-7A-7A Rel-14 CA 4A-7C Rel-14 CA 4A-7B Rel-11 CA 4A-12B Rel-11 CA 4A-12B Rel-11 CA 4A-13A Rel-11 CA 4A-17A Rel-14 CA 4A-13B Rel-11 CA 4A-12B Rel-11 CA 4A-13B Rel-11 CA 4A-13B Rel-11 CA 4A-14B Rel-11 CA 4A-17A Rel-11 CA 4A-17A Rel-11 CA 4A-17A Rel-11 CA 4A-17A Rel-11 CA 4A-17A Rel-11 CA 4A-17A Rel-11 CA 4A-17A Rel-11 CA 4A-17A Rel-11 CA 4A-17A Rel-11 CA 4A-17A Rel-11 CA 4A-29A Rel-13 CA 4A-29A Rel-13 CA 4A-29A Rel-11 CA 4A-10A Rel-13 CA 4A-10A Rel-14 CA 5A-13A Rel-15 CA 4A-10A Rel-13 CA 4A-10A Rel-13 CA 4A-10A Rel-13 CA 4A-10A Rel-13 CA 4A-10A Rel-14 CA 5A-10A Rel-11 CA 5A-10A Rel-12 CA 5A-10A Rel-11 CA 5A-10A Rel-12 CA 5A-10A Rel-11 CA 5A-10A Rel-12 CA 5A-29A Rel-11 CA 5A-29A Rel-11 CA 5A-29A Rel-11 CA 5A-29A Rel-12 CA 5A-29A Rel-13 CA 5A-29A Rel-14 CA 5B-30A Rel-12 CA 5A-30A Rel-12 CA 5A-30A Rel-12 CA 5A-30A Rel-12 CA 5A-30A Rel-12 CA 5A-30A Rel-12 CA 5A-30A Rel-13 CA 5A-30A Rel-14 CA 5B-30A Rel-13 CA 5A-30A Rel-14 CA 5B-30A Rel-13 CA 5A-30A Rel-14 CA 5B-30A Rel-13 CA 5A-30A Rel-14 CA 5B-30A Rel-13 CA 5A-30A Rel-14 CA 5B-30A Rel-13 CA 5A-30A Rel-13 CA 5A-30A Rel-14 CA 5B-30A Rel-14 CA 5B-30A Rel-13 CA 5A-30A Rel-14 CA 5B-30A Rel-13 CA 5A-30A Rel-14 CA 5B-30A Rel-13 CA 5A-30A Rel-13 CA 7A-20A Rel-13 CA 7A-20A Rel-13                      | CA_4A-4A-5A   | Rel-12    | <u>                                     </u> |   |
| CA_4A-4A-12A Rel-12 CA_4A-4A-13A Rel-12 CA_4A-4A-29A Rel-13 CA_4A-4A-29A Rel-13 CA_4A-4A-71A Rel-15 CA_4A-5A CA_4A-7A Rel-11 CA_4A-7A Rel-11 CA_4A-7A Rel-11 CA_4A-7A Rel-11 CA_4A-7C Rel-14 CA_4A-7C Rel-14 CA_4A-13A Rel-11 CA_4A-13A Rel-11 CA_4A-13A Rel-11 CA_4A-13A Rel-11 CA_4A-13A Rel-11 CA_4A-13A Rel-11 CA_4A-13A Rel-11 CA_4A-13A Rel-11 CA_4A-27A Rel-12 CA_4A-28A Rel-13 CA_4A-29A Rel-13 CA_4A-30A Rel-15 CA_4A-30A Rel-12 CA_5A-5A-66A Rel-14 CA_5A-7A Rel-12 CA_5A-7A Rel-12 CA_5A-7A Rel-12 CA_5A-13A Rel-11 CA_5A-5A-66A Rel-14 CA_5A-7A Rel-12 CA_5A-13A Rel-11 CA_5A-13A Rel-11 CA_5A-13A Rel-11 CA_5A-13A Rel-12 CA_5A-13A Rel-13 CA_5A-13A Rel-13 CA_5A-13A Rel-13 CA_5A-13A Rel-13 CA_5A-13A Rel-14 CA_5A-13A Rel-13 CA_5A-13A Rel-13 CA_5A-26A Rel-13 CA_5A-26A Rel-13 CA_5A-30A Rel-13 CA_5A-30A Rel-13 CA_5A-30A Rel-13 CA_5A-30A Rel-13 CA_5B-66A Rel-14 CA_5B-66A Rel-14 CA_5B-66A Rel-14 CA_5B-66A Rel-14 CA_5B-66A Rel-14 CA_5B-66A Rel-14 CA_5B-66A Rel-14 CA_5B-66A Rel-14 CA_5B-66A Rel-14 CA_5B-66A Rel-14 CA_5B-66A Rel-14 CA_5B-66A Rel-14 CA_5B-66A Rel-14 CA_5B-66A Rel-14 CA_5B-66A Rel-14 CA_5B-66A Rel-14 CA_5B-66A Rel-14 CA_5B-66A Rel-14 CA_5B-6A Rel-13 CA_5A-20A Rel-13 CA_7A-20A Rel-13 Rel-13 Rel-13 Rel-13 Rel-14 Rel-15 Rel-15 Rel-15 Rel-15 Rel-16 Re |               | Rel-12    |  |   |
| CA. 4A-4A-13A Rel-12 CA. 4A-4A-29A Rel-13 CA. 4A-4A-30A Rel-13 CA. 4A-4A-71A Rel-15 CA. 4A-7A Rel-11 CA. 4A-7A Rel-11 CA. 4A-7A Rel-11 CA. 4A-7A Rel-14 CA. 4A-7A Rel-14 CA. 4A-7C Rel-14 CA. 4A-12A Rel-11 CA. 4A-12B Rel-11 CA. 4A-13A Rel-11 CA. 4A-17A Rel-11 CA. 4A-17A Rel-11 CA. 4A-17A Rel-11 CA. 4A-18 CA. 4A-18 CA. 4A-19 CA. 4A-19 CA. 4A-19 CA. 4A-10 CA. 4A-10 CA. 4A-10 CA. 4A-10 CA. 4A-10 CA. 4A-10 CA. 4A-10 CA. 4A-10 CA. 4A-10 CA. 4A-10 CA. 4A-10 CA. 4A-10 CA. 4A-10 CA. 4A-10 CA. 4A-10 CA. 4A-10 CA. 4A-10 CA. 4A-10 CA. 4A-20 CA. 4A-20 CA. 4A-20 CA. 4A-20 CA. 4A-20 CA. 4A-20 CA. 4A-20 CA. 4A-20 CA. 4A-20 CA. 4A-30 CA. 4A-20 CA. 4A-40 CA. 5A-10 CA. 4A-11 CA. 5A-5A-66 CA. 6A-11 CA. 5A-5A-66 CA. 6A-11 CA. 5A-13A CA. 6A-12 CA. 5A-13A CA. 6A-11 CA. 5A-25A CA. 6A-11 CA. 5A-25A CA. 6A-11 CA. 5A-25A CA. 6A-11 CA. 5A-25A CA. 6A-11 CA. 5A-25A CA. 6A-11 CA. 5A-25A CA. 6A-11 CA. 5A-25A CA. 6A-11 CA. 5A-25A CA. 6A-11 CA. 5A-25A CA. 6A-11 CA. 5A-25A CA. 6A-11 CA. 5A-25A CA. 6A-11 CA. 5A-25A CA. 6A-11 CA. 5A-25A CA. 6A-13 CA. 5A-26A CA. 6A-13 CA. 5A-26A CA. 6A-13 CA. 5A-26A CA. 6A-13 CA. 5A-26A CA. 6A-13 CA. 5A-26A CA. 6A-13 CA. 5A-26A CA. 6A-13 CA. 5A-26A CA. 6A-13 CA. 5A-26A CA. 6A-13 CA. 5A-26A CA. 6A-13 CA. 5A-26A CA. 6A-14 CA. 5B-36A CA. 6A-14 CA. 5B-36A CA. 6A-14 CA. 5B-36A CA. 6A-14 CA. 5B-36A CA. 6A-14 CA. 5B-36A CA. 7A-12A CA. 7A-12A CA. 7A-12A CA. 7A-12A CA. 7A-12A CA. 7A-12A CA. 7A-12A CA. 7A-20A CA. 7A-13A CA. 7A-20A C |               |           |  |   |
| CA_4A-4A-29A Rel-13 CA_4A-4A-71A Rel-15 CA_4A-4A-71A Rel-15 CA_4A-5A Rel-11 CA_4A-7A Rel-11 CA_4A-7A Rel-11 CA_4A-7A Rel-11 CA_4A-7A Rel-11 CA_4A-7A Rel-14 CA_4A-7C Rel-14 CA_4A-7C Rel-14 CA_4A-7C Rel-14 CA_4A-7C Rel-14 CA_4A-12A Rel-11 CA_4A-12A Rel-11 CA_4A-12A Rel-11 CA_4A-13A Rel-11 CA_4A-13A Rel-11 CA_4A-13A Rel-11 CA_4A-13A Rel-11 CA_4A-13A Rel-11 CA_4A-27A Rel-12 CA_4A-27A Rel-12 CA_4A-28A Rel-13 CA_4A-29A Rel-13 CA_4A-29A Rel-13 CA_4A-30A Rel-12 CA_4A-30A Rel-15 CA_5A-5A-66A Rel-14 CA_5A-5A-66A Rel-14 CA_5A-5A-66A Rel-14 CA_5A-7A Rel-12 CA_5A-13A Rel-11 CA_5A-13A Rel-11 CA_5A-13A Rel-11 CA_5A-13A Rel-11 CA_5A-13A Rel-12 CA_5A-13A Rel-12 CA_5A-13A Rel-12 CA_5A-13A Rel-12 CA_5A-13A Rel-12 CA_5A-13A Rel-12 CA_5A-13A Rel-12 CA_5A-13A Rel-12 CA_5A-13A Rel-12 CA_5A-13A Rel-12 CA_5A-29A Rel-13 CA_5A-30A Rel-12 CA_5A-30A Rel-12 CA_5A-30A Rel-12 CA_5A-30A Rel-12 CA_5A-30A Rel-13 CA_5A-30A Rel-14 CA_5B-30A Rel-13 CA_5A-40A Rel-13 CA_5A-40A Rel-13 CA_5A-40A Rel-13 CA_5A-40A Rel-14 CA_5B-86A Rel-13 CA_7A-20A Rel-13 |               |           |  |   |
| CA_4A-4A-30A Rel-13 CA_4A-4A-71A Rel-15 CA_4A-5A Rel-11 CA_4A-7A Rel-11 CA_4A-7A Rel-11 CA_4A-7A Rel-11 CA_4A-7A Rel-14 CA_4A-7C Rel-14 CA_4A-12B Rel-11 CA_4A-12B Rel-11 CA_4A-13A Rel-11 CA_4A-17A Rel-11 CA_4A-17A Rel-11 CA_4A-17A Rel-11 CA_4A-17A Rel-11 CA_4A-17A Rel-11 CA_4A-17A Rel-11 CA_4A-17A Rel-11 CA_4A-17A Rel-11 CA_4A-2A Rel-13 CA_4A-2BA Rel-13 CA_4A-2BA Rel-13 CA_4A-2BA Rel-13 CA_4A-30A Rel-11 CA_4A-30A Rel-11 CA_4A-30A Rel-11 CA_4A-71A Rel-15 CA_5A-5A-6A Rel-14 CA_5A-7A Rel-12 CA_5A-17A Rel-15 CA_5A-5A-6A Rel-14 CA_5A-17A Rel-15 CA_5A-17A Rel-11 CA_5A-17A Rel-11 CA_5A-17A Rel-11 CA_5A-17A Rel-11 CA_5A-17A Rel-11 CA_5A-17A Rel-11 CA_5A-18A Rel-11 CA_5A-18A Rel-11 CA_5A-18A Rel-11 CA_5A-18A Rel-11 CA_5A-25A Rel-11 CA_5A-25A Rel-11 CA_5A-25A Rel-11 CA_5A-25A Rel-11 CA_5A-25A Rel-11 CA_5A-25A Rel-11 CA_5A-25A Rel-11 CA_5A-25A Rel-11 CA_5A-25A Rel-12 CA_5A-30A Rel-12 CA_5A-30A Rel-12 CA_5A-30A Rel-13 CA_5A-66A Rel-14 CA_5B-30A Rel-14 CA_5B-30A Rel-14 CA_5B-30A Rel-14 CA_5B-30A Rel-14 CA_5B-30A Rel-14 CA_5B-30A Rel-14 CA_5B-30A Rel-14 CA_5B-30A Rel-14 CA_5B-30A Rel-14 CA_5B-30A Rel-14 CA_5B-30A Rel-14 CA_5B-30A Rel-14 CA_7A-26A Rel-13 CA_7A-20A Rel-13 CA_7 |               |           |  |   |
| CA_4A-57A Rel-15 CA_4A-7A Rel-11 CA_4A-7A Rel-11 CA_4A-7A Rel-14 CA_4A-7C Rel-14 CA_4A-7C Rel-14 CA_4A-12A Rel-11 CA_4A-12B Rel-14 CA_4A-13A Rel-11 CA_4A-13A Rel-11 CA_4A-17A Rel-11 CA_4A-17A Rel-11 CA_4A-17A Rel-11 CA_4A-27A Rel-12 CA_4A-28A Rel-13 CA_4A-29A Rel-13 CA_4A-30A Rel-13 CA_4A-30A Rel-13 CA_4A-30A Rel-13 CA_4A-30A Rel-12 CA_5A-5A-66A Rel-14 CA_5A-5A-6A Rel-14 CA_5A-5A-6A Rel-11 CA_5A-13A Rel-11 CA_5A-13A Rel-11 CA_5A-13A Rel-11 CA_5A-13A Rel-12 CA_5A-13A Rel-13 CA_5A-13A Rel-14 CA_5A-13A Rel-11 CA_5A-13A Rel-11 CA_5A-13A Rel-12 CA_5A-13A Rel-13 CA_5A-29A Rel-13 CA_5A-29A Rel-13 CA_5A-29A Rel-13 CA_5A-29A Rel-13 CA_5A-30A Rel-12 CA_5A-40A Rel-13 CA_5A-66A-66A Rel-14 CA_5B-66A-66A Re |               |           |  |   |
| CA_4A-5A Rel-11 CA_4A-7A Rel-11 CA_4A-7A Rel-14 CA_4A-7C Rel-14 CA_4A-12B Rel-11 CA_4A-12B Rel-11 CA_4A-17A Rel-11 CA_4A-17A Rel-11 CA_4A-17A Rel-11 CA_4A-17A Rel-11 CA_4A-17A Rel-11 CA_4A-17A Rel-11 CA_4A-27A Rel-12 CA_4A-28A Rel-13 CA_4A-29A Rel-13 CA_4A-29A Rel-12 CA_4A-30A Rel-12 CA_4A-40A Rel-13 CA_4A-71A Rel-15 CA_4A-71A Rel-15 CA_5A-5A-66A Rel-14 CA_5A-7A Rel-12 CA_5A-12A Rel-11 CA_5A-13A Rel-12 CA_5A-13A Rel-12 CA_5A-13A Rel-12 CA_5A-13A Rel-13 CA_5A-25A Rel-13 CA_5A-25A Rel-13 CA_5A-29A Rel-13 CA_5A-30A Rel-12 CA_5A-30A Rel-12 CA_5A-13A Rel-12 CA_5A-13A Rel-13 CA_5A-13A Rel-13 CA_5A-13A Rel-13 CA_5A-29A Rel-13 CA_5A-29A Rel-13 CA_5A-30A Rel-12 CA_5A-30A Rel-12 CA_5A-30A Rel-13 CA_5A-30A Rel-14 CA_5B-30 |               |           |  |   |
| CA_4A-7A Rel-11 CA_4A-7A-7A Rel-14 CA_4A-7A-7A Rel-14 CA_4A-7C Rel-14 CA_4A-12A Rel-11 CA_4A-12B Rel-14 CA_4A-13A Rel-11 CA_4A-17A Rel-11 CA_4A-17A Rel-11 CA_4A-27A Rel-12 CA_4A-27A Rel-13 CA_4A-29A Rel-13 CA_4A-29A Rel-13 CA_4A-30A Rel-13 CA_4A-46A Rel-13 CA_4A-46A Rel-13 CA_4A-46A Rel-14 CA_5A-5A-66A Rel-14 CA_5A-5A-7A Rel-12 CA_5A-12A Rel-11 CA_5A-13A Rel-12 CA_5A-17A Rel-11 CA_5A-13A Rel-12 CA_5A-17A Rel-11 CA_5A-13A Rel-12 CA_5A-17A Rel-13 CA_5A-17A Rel-11 CA_5A-17A Rel-12 CA_5A-17A Rel-13 CA_5A-17A Rel-13 CA_5A-17A Rel-13 CA_5A-17A Rel-13 CA_5A-17A Rel-13 CA_5A-17A Rel-14 CA_5B-17A Rel-14 CA_5B-17A Rel-14 CA_5B-18A Rel-14 CA_5B-18A Rel-14 CA_5B-18A Rel-13 CA_7A-18A Rel-13 |               |           |  |   |
| CA_4A-7A-7A Rel-14   | CA_4A-5A      | Rel-11    |  |   |
| CA_4A-7A-7A Rel-14   | CA 4A-7A      | Rel-11    |  |   |
| CA_4A-7C Rel-14 Rel-11 Rel-14 Rel-15 Rel-14 Rel-15 Rel-14 Rel-16 Rel-16 Rel-16 Rel-16 Rel-16 Rel-17 Rel-17 Rel-17 Rel-17 Rel-18 Rel-18 Rel-18 Rel-18 Rel-18 Rel-18 Rel-19  |               |           |  |   |
| CA_4A-12A       Rel-11         CA_4A-13A       Rel-14         CA_4A-17A       Rel-11         CA_4A-27A       Rel-12         CA_4A-28A       Rel-13         CA_4A-29A       Rel-11         CA_4A-30A       Rel-12         CA_4A-46A       Rel-13         CA_4A-46A       Rel-13         CA_5A-5A-66A       Rel-14         CA_5A-5A-66A       Rel-14         CA_5A-7A       Rel-12         CA_5A-12A       Rel-11         CA_5A-13A       Rel-12         CA_5A-17A       Rel-11         CA_5A-25A       Rel-12         CA_5A-26A       Rel-13         CA_5A-29A       Rel-13         CA_5A-29A       Rel-13         CA_5A-29A       Rel-13         CA_5A-30A       Rel-13         CA_5A-30A       Rel-13         CA_5A-40C       Rel-13         CA_5A-40A       Rel-13         CA_5B-66A-66A       Rel-14         CA_5B-66A-66A       Rel-14         CA_5B-66A-66A       Rel-14         CA_5B-66A-66A       Rel-14         CA_7A-8A       Rel-12         CA_7A-20A       Rel-13         CA_7A-20A  | CA 4A-7C      |           |  |   |
| CA_4A-12B       Rel-14         CA_4A-13A       Rel-11         CA_4A-17A       Rel-11         CA_4A-27A       Rel-12         CA_4A-28A       Rel-13         CA_4A-29A       Rel-11         CA_4A-30A       Rel-12         CA_4A-30A       Rel-13         CA_4A-46A       Rel-13         CA_5A-5A-66A       Rel-14         CA_5A-5A-66A       Rel-14         CA_5A-5A-66A       Rel-12         CA_5A-12A       Rel-11         CA_5A-13A       Rel-12         CA_5A-17A       Rel-11         CA_5A-17A       Rel-11         CA_5A-25A       Rel-12         CA_5A-29A       Rel-13         CA_5A-29A       Rel-13         CA_5A-40A       Rel-13         CA_5A-40A       Rel-13         CA_5A-40A       Rel-13         CA_5B-30A       Rel-14         CA_5B-66A-66A       Rel-14         CA_5B-66A-66A       Rel-14         CA_5B-66A-66A       Rel-14         CA_7A-12A       Rel-12         CA_7A-20A       Rel-13         CA_7A-22A       Rel-13         CA_7B-28A       Rel-13         CA_7C-28A   |               |           | +  |   |
| CA_4A-13A       Rel-11         CA_4A-27A       Rel-12         CA_4A-28A       Rel-13         CA_4A-29A       Rel-11         CA_4A-29A       Rel-11         CA_4A-30A       Rel-12         CA_4A-46A       Rel-13         CA_4A-71A       Rel-15         CA_5A-5A-66A       Rel-14         CA_5A-7A       Rel-12         CA_5A-12A       Rel-11         CA_5A-13A       Rel-12         CA_5A-17A       Rel-11         CA_5A-25A       Rel-12         CA_5A-29A       Rel-13         CA_5A-30A       Rel-12         CA_5A-30A       Rel-13         CA_5A-40C       Rel-13         CA_5A-66A-66A       Rel-14         CA_5B-30A       Rel-14         CA_5B-66A-66A       Rel-14         CA_5B-66A-66A       Rel-14         CA_5B-66A-66A       Rel-14         CA_7A-8A       Rel-12         CA_7A-12A       Rel-12         CA_7A-20A       Rel-13         CA_7B-20A       Rel-14         CA_7B-8A       Rel-12         CA_7A-20A       Rel-13         CA_7B-28A       Rel-13         CA_7B-28A  |               |           |  |   |
| CA_4A-17A       Rel-11         CA_4A-27A       Rel-12         CA_4A-28A       Rel-13         CA_4A-29A       Rel-11         CA_4A-30A       Rel-12         CA_4A-46A       Rel-13         CA_4A-71A       Rel-15         CA_5A-5A-66A       Rel-14         CA_5A-7A       Rel-12         CA_5A-12A       Rel-11         CA_5A-13A       Rel-12         CA_5A-17A       Rel-11         CA_5A-17A       Rel-11         CA_5A-29A       Rel-13         CA_5A-30A       Rel-13         CA_5A-30A       Rel-13         CA_5A-40A       Rel-13         CA_5A-40A       Rel-13         CA_5A-40A       Rel-13         CA_5B-30A       Rel-14         CA_5B-66A-66A       Rel-14         CA_5B-66A-66A       Rel-14         CA_5B-66A-66A       Rel-14         CA_5B-66A-66A       Rel-14         CA_7A-8A       Rel-12         CA_7A-2A       Rel-13         CA_7B-2A       Rel-11         CA_7B-2BA       Rel-13         CA_7B-2BA       Rel-13         CA_7C-2BA       Rel-13         CA_7C-2BA   |               |           |  |   |
| CA_4A-27A       Rel-12         CA_4A-28A       Rel-13         CA_4A-29A       Rel-11         CA_4A-30A       Rel-12         CA_4A-46A       Rel-13         CA_4A-71A       Rel-15         CA_5A-56A       Rel-14         CA_5A-7A       Rel-12         CA_5A-12A       Rel-11         CA_5A-13A       Rel-12         CA_5A-17A       Rel-11         CA_5A-25A       Rel-12         CA_5A-26A       Rel-12         CA_5A-29A       Rel-13         CA_5A-30A       Rel-12         CA_5A-40A       Rel-13         CA_5A-40C       Rel-13         CA_5B-30A       Rel-14         CA_5B-30A       Rel-14         CA_5B-66A-66A       Rel-14         CA_5B-66A-66A       Rel-14         CA_7A-8A       Rel-12         CA_7A-12A       Rel-12         CA_7A-20A       Rel-11         CA_7A-20A       Rel-13         CA_7A-28A       Rel-13         CA_7B-28A       Rel-13         CA_7C-28A       Rel-13         CA_7C-28A       Rel-13         CA_7C-28A       Rel-13  |               |           |  |   |
| CA 4A-28A       Rel-13         CA 4A-29A       Rel-11         CA 4A-30A       Rel-12         CA 4A-46A       Rel-13         CA_4A-71A       Rel-15         CA_5A-5A-66A       Rel-14         CA_5A-7A       Rel-12         CA_5A-12A       Rel-11         CA_5A-13A       Rel-12         CA_5A-17A       Rel-11         CA_5A-17A       Rel-11         CA_5A-25A       Rel-12         CA_5A-29A       Rel-13         CA_5A-29A       Rel-13         CA_5A-40A       Rel-13         CA_5A-40A       Rel-13         CA_5A-40A       Rel-14         CA_5B-66A-66A       Rel-14         CA_5B-66A-66A       Rel-14         CA_5B-66A       Rel-14         CA_5B-66A       Rel-14         CA_7A-8A       Rel-12         CA_7A-20A       Rel-12         CA_7A-20A       Rel-11         CA_7A-20A       Rel-13         CA_7A-20A       Rel-13         CA_7A-20A       Rel-13         CA_7A-28A       Rel-13         CA_7B-28A       Rel-13         CA_7C-28A       Rel-13         CA_7C-28A       R   | CA_4A-17A     | Rel-11    |  |   |
| CA 4A-28A       Rel-13         CA 4A-29A       Rel-11         CA 4A-30A       Rel-12         CA 4A-46A       Rel-13         CA_4A-71A       Rel-15         CA_5A-5A-66A       Rel-14         CA_5A-7A       Rel-12         CA_5A-12A       Rel-11         CA_5A-13A       Rel-12         CA_5A-17A       Rel-11         CA_5A-17A       Rel-11         CA_5A-25A       Rel-12         CA_5A-29A       Rel-13         CA_5A-29A       Rel-13         CA_5A-40A       Rel-13         CA_5A-40A       Rel-13         CA_5A-40A       Rel-14         CA_5B-66A-66A       Rel-14         CA_5B-66A-66A       Rel-14         CA_5B-66A       Rel-14         CA_5B-66A       Rel-14         CA_7A-8A       Rel-12         CA_7A-20A       Rel-12         CA_7A-20A       Rel-11         CA_7A-20A       Rel-13         CA_7A-20A       Rel-13         CA_7A-20A       Rel-13         CA_7A-28A       Rel-13         CA_7B-28A       Rel-13         CA_7C-28A       Rel-13         CA_7C-28A       R   | CA 4A-27A     | Rel-12    |  |   |
| CA_4A-29A       Rel-11         CA_4A-30A       Rel-12         CA_4A-46A       Rel-13         CA_4A-71A       Rel-15         CA_5A-5A-66A       Rel-14         CA_5A-7A       Rel-12         CA_5A-12A       Rel-11         CA_5A-13A       Rel-12         CA_5A-17A       Rel-11         CA_5A-25A       Rel-12         CA_5A-29A       Rel-13         CA_5A-29A       Rel-13         CA_5A-40A       Rel-13         CA_5A-40A       Rel-13         CA_5A-40C       Rel-13         CA_5B-30A       Rel-14         CA_5B-66A       Rel-14         CA_5B-66A       Rel-14         CA_5B-66A       Rel-14         CA_5B-66A       Rel-14         CA_7A-8A       Rel-12         CA_7A-2A       Rel-11         CA_7A-2A       Rel-13         CA_7A-2BA       Rel-11         CA_7B-2BA       Rel-13         CA_7B-2BA       Rel-13         CA_7C-2BA       Rel-13         CA_7C-2BA       Rel-13         CA_7A-2C-42A       Rel-13   |               |           |  |   |
| CA_4A-30A       Rel-12         CA_4A-46A       Rel-13         CA_4A-71A       Rel-15         CA_5A-5A-66A       Rel-14         CA_5A-7A       Rel-12         CA_5A-12A       Rel-11         CA_5A-13A       Rel-12         CA_5A-17A       Rel-11         CA_5A-17A       Rel-11         CA_5A-25A       Rel-12         CA_5A-29A       Rel-13         CA_5A-29A       Rel-13         CA_5A-40A       Rel-13         CA_5A-40A       Rel-13         CA_5A-66A-66A       Rel-14         CA_5B-30A       Rel-14         CA_5B-66A-66A       Rel-14         CA_5B-66A-66A       Rel-14         CA_7A-8A       Rel-12         CA_7A-12A       Rel-12         CA_7A-20A       Rel-11         CA_7A-20A       Rel-11         CA_7A-20A       Rel-13         CA_7B-28A       Rel-13         CA_7C-28A       Rel-13         CA_7C-28A       Rel-13         CA_7C-28A       Rel-13         CA_7A-24-42A       Rel-13  |               |           |  |   |
| CA_4A-46A       Rel-13         CA_4A-71A       Rel-15         CA_5A-5A-66A       Rel-14         CA_5A-7A       Rel-12         CA_5A-12A       Rel-11         CA_5A-13A       Rel-12         CA_5A-17A       Rel-11         CA_5A-25A       Rel-12         CA_5A-29A       Rel-13         CA_5A-29A       Rel-13         CA_5A-40A       Rel-13         CA_5A-40C       Rel-13         CA_5A-40C       Rel-13         CA_5B-30A       Rel-14         CA_5B-30A       Rel-14         CA_5B-66A-66A       Rel-14         CA_5B-66A-66A       Rel-14         CA_7-8A       Rel-12         CA_7A-8A       Rel-12         CA_7A-20A       Rel-11         CA_7A-20A       Rel-13         CA_7B-28A       Rel-12         CA_7B-28A       Rel-13         CA_7C-28A       Rel-13         CA_7C-28A       Rel-13         CA_7C-28A       Rel-13         CA_7A-42A-42A       Rel-13  |               |           | +  |   |
| CA_4A-71A       Rel-15         CA_5A-5A-66A       Rel-14         CA_5A-7A       Rel-12         CA_5A-12A       Rel-11         CA_5A-13A       Rel-12         CA_5A-17A       Rel-11         CA_5A-25A       Rel-12         CA_5A-29A       Rel-13         CA_5A-30A       Rel-12         CA_5A-40A       Rel-13         CA_5A-40C       Rel-13         CA_5A-66A-66A       Rel-14         CA_5B-30A       Rel-14         CA_5B-66A       Rel-14         CA_5B-66A       Rel-14         CA_7A-8A       Rel-12         CA_7A-12A       Rel-12         CA_7A-20A       Rel-11         CA_7A-22A       Rel-13         CA_7B-28A       Rel-13         CA_7C-28A       Rel-13         CA_7A-42A-42A       Rel-13         CA_7A-42A-42A       Rel-13  |               |           |  |   |
| CA_5A-5A-66A       Rel-14         CA_5A-7A       Rel-12         CA_5A-12A       Rel-11         CA_5A-13A       Rel-12         CA_5A-17A       Rel-11         CA_5A-25A       Rel-12         CA_5A-29A       Rel-13         CA_5A-30A       Rel-12         CA_5A-40A       Rel-13         CA_5A-40C       Rel-13         CA_5B-30A       Rel-14         CA_5B-30A       Rel-14         CA_5B-66A       Rel-14         CA_5B-66A       Rel-14         CA_5B-66A       Rel-14         CA_7A-8A       Rel-12         CA_7A-8A       Rel-12         CA_7A-20A       Rel-11         CA_7A-20A       Rel-13         CA_7A-28A       Rel-13         CA_7B-28A       Rel-13         CA_7C-28A       Rel-13         CA_7C-28A       Rel-13         CA_7A-42A-42A       Rel-13  |               |           |  |   |
| CA_5A-7A       Rel-12         CA_5A-12A       Rel-11         CA_5A-13A       Rel-12         CA_5A-17A       Rel-11         CA_5A-25A       Rel-12         CA_5A-29A       Rel-13         CA_5A-30A       Rel-12         CA_5A-40A       Rel-13         CA_5A-40C       Rel-13         CA_5A-66A-66A       Rel-14         CA_5B-30A       Rel-14         CA_5B-66A       Rel-14         CA_5B-66A       Rel-14         CA_7A-8A       Rel-12         CA_7A-2A       Rel-12         CA_7A-2A       Rel-13         CA_7A-2A       Rel-13         CA_7A-2BA       Rel-13         CA_7B-2BA       Rel-13         CA_7C-2BA       Rel-13         CA_7A-42A-42A       Rel-13  | CA_4A-71A     | Rel-15    |  |   |
| CA_5A-7A       Rel-12         CA_5A-12A       Rel-11         CA_5A-13A       Rel-12         CA_5A-17A       Rel-11         CA_5A-25A       Rel-12         CA_5A-29A       Rel-13         CA_5A-30A       Rel-12         CA_5A-40A       Rel-13         CA_5A-40C       Rel-13         CA_5A-66A-66A       Rel-14         CA_5B-30A       Rel-14         CA_5B-66A       Rel-14         CA_5B-66A       Rel-14         CA_7A-8A       Rel-12         CA_7A-2A       Rel-12         CA_7A-20A       Rel-11         CA_7A-22A       Rel-13         CA_7B-28A       Rel-12         CA_7B-28A       Rel-13         CA_7C-28A       Rel-13         CA_7C-28A       Rel-13         CA_7A-42A-42A       Rel-13   | CA 5A-5A-66A  | Rel-14    |  |   |
| CA_5A-12A       Rel-11         CA_5A-13A       Rel-12         CA_5A-17A       Rel-11         CA_5A-25A       Rel-12         CA_5A-29A       Rel-13         CA_5A-30A       Rel-12         CA_5A-40A       Rel-13         CA_5A-40C       Rel-13         CA_5A-66A-66A       Rel-14         CA_5B-30A       Rel-14         CA_5B-66A       Rel-14         CA_5B-66A       Rel-14         CA_7A-8A       Rel-12         CA_7A-12A       Rel-12         CA_7A-20A       Rel-11         CA_7A-22A       Rel-13         CA_7A-28A       Rel-12         CA_7B-28A       Rel-13         CA_7C-28A       Rel-13         CA_7A-42A-42A       Rel-13   |               |           |  |   |
| CA_5A-13A       Rel-12         CA_5A-17A       Rel-11         CA_5A-25A       Rel-12         CA_5A-29A       Rel-13         CA_5A-30A       Rel-12         CA_5A-40A       Rel-13         CA_5A-40C       Rel-13         CA_5A-66A-66A       Rel-14         CA_5B-30A       Rel-14         CA_5B-66A       Rel-14         CA_5B-66A       Rel-14         CA_7A-8A       Rel-12         CA_7A-20A       Rel-12         CA_7A-20A       Rel-11         CA_7A-28A       Rel-13         CA_7B-28A       Rel-13         CA_7B-28A       Rel-13         CA_7C-28A       Rel-13         CA_7C-28A       Rel-13         CA_7A-42A-42A       Rel-13   |               |           |  |   |
| CA_5A-17A       Rel-11         CA_5A-25A       Rel-12         CA_5A-29A       Rel-13         CA_5A-30A       Rel-12         CA_5A-40A       Rel-13         CA_5A-40C       Rel-13         CA_5A-66A-66A       Rel-14         CA_5B-30A       Rel-14         CA_5B-66A       Rel-14         CA_5B-66A       Rel-14         CA_7A-8A       Rel-12         CA_7A-12A       Rel-12         CA_7A-20A       Rel-11         CA_7A-22A       Rel-13         CA_7B-28A       Rel-12         CA_7B-28A       Rel-13         CA_7B-28A       Rel-13         CA_7C-28A       Rel-13         CA_7A-42A-42A       Rel-13  |               |           |  |   |
| CA_5A-25A       Rel-12         CA_5A-29A       Rel-13         CA_5A-30A       Rel-12         CA_5A-40A       Rel-13         CA_5A-40C       Rel-13         CA_5A-66A-66A       Rel-14         CA_5B-30A       Rel-14         CA_5B-66A       Rel-14         CA_5B-66A       Rel-14         CA_7A-8A       Rel-12         CA_7A-12A       Rel-12         CA_7A-20A       Rel-11         CA_7A-22A       Rel-13         CA_7B-28A       Rel-13         CA_7C-28A       Rel-13         CA_7A-42A-42A       Rel-13   |               |           |  |   |
| CA_5A-29A       Rel-13         CA_5A-30A       Rel-12         CA_5A-40A       Rel-13         CA_5A-40C       Rel-13         CA_5A-66A-66A       Rel-14         CA_5B-30A       Rel-14         CA_5B-66A       Rel-14         CA_5B-66A       Rel-14         CA_7A-8A       Rel-12         CA_7A-12A       Rel-12         CA_7A-20A       Rel-11         CA_7A-28A       Rel-13         CA_7B-28A       Rel-13         CA_7C-28A       Rel-13         CA_7A-42A-42A       Rel-13  |               |           |  |   |
| CA_5A-30A       Rel-12   |               |           |  |   |
| CA_5A-30A       Rel-12   | CA_5A-29A     | Rel-13    |  |   |
| CA_5A-40A       Rel-13         CA_5A-40C       Rel-13         CA_5A-66A-66A       Rel-14         CA_5B-30A       Rel-14         CA_5B-66A       Rel-14         CA_5B-66A-66A       Rel-14         CA_7A-8A       Rel-12         CA_7A-12A       Rel-12         CA_7A-20A       Rel-11         CA_7A-22A       Rel-13         CA_7B-28A       Rel-13         CA_7C-28A       Rel-13         CA_7A-42A-42A       Rel-13  |               |           |  |   |
| CA_5A-40C       Rel-13   |               |           |  |   |
| CA_5A-66A-66A       Rel-14   |               |           |  |   |
| CA_5B-30A       Rel-14   |               |           |  |   |
| CA_5B-66A       Rel-14   |               |           |  |   |
| CA_5B-66A-66A       Rel-14   |               |           |  |   |
| CA_7A-8A       Rel-12         CA_7A-12A       Rel-12         CA_7A-20A       Rel-11         CA_7A-22A       Rel-13         CA_7A-28A       Rel-12         CA_7B-28A       Rel-13         CA_7C-28A       Rel-13         CA_7A-42A-42A       Rel-13   |               |           |  |   |
| CA_7A-8A       Rel-12         CA_7A-12A       Rel-12         CA_7A-20A       Rel-11         CA_7A-22A       Rel-13         CA_7A-28A       Rel-12         CA_7B-28A       Rel-13         CA_7C-28A       Rel-13         CA_7A-42A-42A       Rel-13   | CA_5B-66A-66A | Rel-14    |  |   |
| CA_7A-12A       Rel-12   |               |           |  |   |
| CA_7A-20A       Rel-11         CA_7A-22A       Rel-13         CA_7A-28A       Rel-12         CA_7B-28A       Rel-13         CA_7C-28A       Rel-13         CA_7A-42A-42A       Rel-13  |               |           |  |   |
| CA_7A-22A       Rel-13         CA_7A-28A       Rel-12         CA_7B-28A       Rel-13         CA_7C-28A       Rel-13         CA_7A-42A-42A       Rel-13   |               |           |  |   |
| CA_7A-28A       Rel-12         CA_7B-28A       Rel-13         CA_7C-28A       Rel-13         CA_7A-42A-42A       Rel-13  |               |           |  |   |
| CA_7B-28A       Rel-13         CA_7C-28A       Rel-13         CA_7A-42A-42A       Rel-13   |               |           |  |   |
| CA_7C-28A       Rel-13         CA_7A-42A-42A       Rel-13  |               |           |  |   |
| CA_7C-28A       Rel-13         CA_7A-42A-42A       Rel-13  | CA_7B-28A     | Rel-13    |  |   |
| CA_7A-42A-42A Rel-13   |               |           |  |   |
|  |               |           |  |   |
| UN_1 N-7UN   NGF 10  |               |           |  |   |
|  | OA_1A-40A     | IVOI- I O |  | l |

| CA_7A-66A                    | Rel-14 |  |          |   |
|------------------------------|--------|--|----------|---|
| CA_8A-11A                    | Rel-12 |  |          |   |
| CA_8A-20A                    | Rel-11 |  |          |   |
|                              |        |  |          |   |
| CA_8A-27A                    | Rel-15 |  |          |   |
| CA_8A-28A                    | Rel-14 |  | 8        |   |
| CA_8A-38A                    | Rel-15 |  |          |   |
| CA_8A-40A                    | Rel-12 |  |          |   |
| CA 8A-40C                    | Rel-15 |  |          |   |
| CA_8A-41A                    | Rel-13 |  |          |   |
| CA_8A-41C                    | Rel-13 |  |          |   |
|                              |        |  |          |   |
| CA_8A-42A                    | Rel-13 |  |          |   |
| CA_8A-42C                    | Rel-13 |  |          |   |
| CA_11A-18A                   | Rel-11 |  |          |   |
| CA_11A-28A                   | Rel-14 |  |          |   |
| CA_11A-41A                   | Rel-14 |  |          |   |
| CA_11A-41C                   | Rel-14 |  |          |   |
| CA_11A-42A                   | Rel-14 |  |          |   |
|                              |        |  | _        |   |
| CA_11A-42C                   | Rel-14 |  |          |   |
| CA_12A-25A                   | Rel-12 |  |          |   |
| CA_12A-30A                   | Rel-12 |  |          |   |
| CA_12A-66A                   | Rel-14 |  |          |   |
| CA_12A-66A-66A               | Rel-14 |  |          |   |
| CA_13A-66A-66A               | Rel-14 |  |          |   |
| CA_13A-00A-00A<br>CA_14A-30A | Rel-15 | 1  |          |   |
| CA_14A-66A                   |        | +  |          |   |
|                              | Rel-15 |  |          |   |
| CA_14A-66A-66A               | Rel-15 |  |          |   |
| CA_18A-28A                   | Rel-12 |  |          |   |
| CA_19A-21A                   | Rel-12 |  |          |   |
| CA_19A-42A                   | Rel-12 |  |          |   |
| CA_19A-42C                   | Rel-12 |  |          |   |
| CA_20A-28A                   | Rel-14 |  |          |   |
|                              |        |  |          |   |
| CA_20A-32A                   | Rel-12 |  |          |   |
| CA_20A-40A                   | Rel-13 |  |          |   |
| CA_20A-42A-42A               | Rel-13 |  |          |   |
| CA_20A-67A                   | Rel-14 |  |          |   |
| CA 21A-42C                   | Rel-13 |  |          |   |
| CA_23A-29A                   | Rel-12 |  |          |   |
| CA_25A-26A                   | Rel-13 |  |          |   |
|                              |        |  |          |   |
| CA_25A-41A                   | Rel-12 |  |          |   |
| CA_26A-41A                   | Rel-12 |  |          |   |
| CA_26A-41C                   | Rel-12 |  |          |   |
| CA_28A-38A                   | Rel-15 |  |          |   |
| CA_28A-40D                   | Rel-13 |  |          |   |
| CA_28A-41A                   | Rel-13 |  |          |   |
| CA_28A-41C                   | Rel-13 |  |          |   |
|                              |        | +  |          |   |
| CA_28A-42A                   | Rel-13 | +  |          |   |
| CA_28A-42C                   | Rel-13 |  |          |   |
| CA_29A-30A                   | Rel-12 |  |          |   |
| CA_29A-66A                   | Rel-14 | <u>                                     </u> | <u> </u> |   |
| CA_29A-66A-66A               | Rel-14 |  |          |   |
| CA_29A-66C                   | Rel-14 |  |          |   |
| CA_29A-70A                   | Rel-14 | +  | 70       |   |
| CA_29A-70A<br>CA_29A-70C     |        |  |          |   |
|                              | Rel-15 | +  | 70       |   |
| CA_30A-66A                   | Rel-14 |  |          |   |
| CA_30A-66A-66A               | Rel-14 |  |          |   |
| CA_38A-40A-40A               | Rel-13 |  |          |   |
| CA_38A-40C                   | Rel-13 |  |          |   |
| CA_38A-40C                   | Rel-15 |  |          |   |
| CA_39A-41A                   | Rel-12 |  |          |   |
| CA_39A-41C                   | Rel-12 |  |          |   |
|                              |        | +  |          |   |
| CA_41A-42A                   | Rel-12 |  |          |   |
| CA_41A-42C                   | Rel-13 |  |          |   |
| CA_41C-42A                   | Rel-13 |  |          |   |
| CA_41A-46A                   | Rel-13 |  |          |   |
| CA_41A-48A                   | Rel-15 |  |          |   |
|                              |        | i e  | j .      | ı |

| CA_41A-48C     | Rel-15 |  |  |
|----------------|--------|--|--|
| CA_41A-48D     | Rel-15 |  |  |
| CA_41C-48A     | Rel-15 |  |  |
| CA_41C-48C     | Rel-15 |  |  |
| CA_41C-48D     | Rel-15 |  |  |
| CA_41D-48A     | Rel-15 |  |  |
| CA_41D-48C     | Rel-15 |  |  |
| CA_42A-46A     | Rel-13 |  |  |
| CA_46A-46A-66A | Rel-14 |  |  |
| CA_46A-66A     | Rel-14 |  |  |
| CA_46A-66A-66A | Rel-14 |  |  |
| CA_46A-66C     | Rel-14 |  |  |
| CA_46A-70A     | Rel-14 |  |  |
| CA_46C-66A     | Rel-14 |  |  |
| CA_66A-66A-70A | Rel-15 |  |  |
| CA_66A-66A-70C | Rel-15 |  |  |
| CA_66A-66A-71A | Rel-15 |  |  |
| CA_66A-70A     | Rel-15 |  |  |
| CA_66A-70C     | Rel-15 |  |  |
| CA_66A-71A     | Rel-15 |  |  |
| CA_66C-70A     | Rel-15 |  |  |
| CA_66C-70C     | Rel-15 |  |  |
| CA_66C-71A     | Rel-15 |  |  |
| CA_70A-71A     | Rel-15 |  |  |
| CA_70C-71A     | Rel-15 |  |  |

- Note 1: Notation used for intra-band contiguous CA Bands is according to TS 36.101 [2] Table 5.6A.1-2, e.g. 'CA\_1A-3A' indicates interband CA operation on E-UTRA band 1 with DL CA Bandwidth Class A and on E-UTRA band 3 with DL CA Bandwidth Class A.
- Note 2: The UL CA capabilities as per Table A.4.3.3.3-2 can be supported on a single or multiple CA Band(s). The UE supplier shall indicate all supported UL CA Bandwidth Class(es), in uplink of the supported CA Band(s), as per TS 36.101 [2] Table 5.6A.1-2. For this release of specification valid choices are 'N', 'XA-XA' and 'XC', where X is the band. For example, for full UL CA support in CA\_18A-28A, UE shall indicate 18A-28A. For no UL CA 'N'.
- Note 3: The UE supplier shall indicate the supported Bandwidth Combination Set(s) as per TS 36.101 [2] Table 5.6A.1-2.
- Note 4: Reference to all items is 36.101, 5.6A and 36.331, 6.3.6.
- Note 5: List all the CA Combination bands where UL is supported.
- Note 6: The release column indicates the release the CA configuration was introduced in TS 36.101 [2].

Table A.4.3.3.3-4: Supported CA configurations for Inter-band CA (three bands)

| E-UTRA CA<br>configuration / Item<br>(Note 1) | Release<br>(Note 6) | Supporte   | Supported CA<br>Bandwidth Class(es) in<br>UL | Supported UL<br>Bands (Note 5) | Supported Bandwidth<br>Combination Set(s)<br>(Note 3) |
|---|---------------------|--|--|--------------------------------|---|
| CA_1A-3A-5A                                   | Rel-12              | S  | (Note 2)                                     |                                |   |
| CA_1A-3A-3A<br>CA_1A-3A-7A                    | Rel-12              |  |  |                                |   |
| CA_1A-3A-8A                                   | Rel-12              |  |  |                                |   |
| CA_1A-3A-19A                                  | Rel-12              |  |  |                                |   |
| CA_1A-3A-11A                                  | Rel-14              |  |  |                                |   |
| CA_1A-3A-20A                                  | Rel-12              |  |  |                                |   |
| CA_1A-3A-26A                                  | Rel-12              |  |  |                                |   |
| CA_1A-3A-28A                                  | Rel-13              |  |  |                                |   |
| CA_1A-3A-40A                                  | Rel-13              |  |  |                                |   |
| CA_1A-3A-41A                                  | Rel-14              |  |  |                                |   |
| CA_1A-3A-42A                                  | Rel-13              |  |  |                                |   |
| CA_1A-3C-8A                                   | Rel-14              |  |  |                                |   |
| CA_1A-5A-7A                                   | Rel-12              |  |  |                                |   |
| CA_1A-7A-8A                                   | Rel-13              |  |  |                                |   |
| CA_1A-7A-20A                                  | Rel-12              |  |  |                                |   |
| CA_1A-8A-11A                                  | Rel-13              |  |  |                                |   |
| CA_1A-8A-28A                                  | Rel-14              | 1  |  | 1, 8                           |   |
| CA_1A-8A-38A                                  | Rel-15              |  |  |                                |   |
| CA_1A-8A-40A                                  | Rel-13              | 1  |  |                                |   |
| CA_1A-11A-18A<br>CA_1A-11A-28A                | Rel-13              |  |  |                                |   |
|   | Rel-14<br>Rel-12    |  |  |                                |   |
| CA_1A-18A-28A<br>CA_1A-19A-21A                | Rel-12              | -  |  |                                |   |
| CA_1A-19A-21A<br>CA_1A-19A-28A                | Rel-12              |  |  |                                |   |
| CA_1A-19A-26A<br>CA_1A-19A-42A                | Rel-13              |  |  |                                |   |
| CA_1A-21A-42A                                 | Rel-13              |  |  |                                |   |
| CA_1A-41A-42A                                 | Rel-14              |  |  | 1, 42                          |   |
| CA_1A-41C-42A                                 | Rel-14              |  |  | 1, 42                          |   |
| CA_1A-41A-42C                                 | Rel-14              |  |  | 1, 42                          |   |
| CA_1A-41C-42C                                 | Rel-14              |  |  | 1, 42                          |   |
| CA 2A-2A-4A-5A                                | Rel-13              |  |  | ,                              |   |
| CA_2A-2A-4A-71A                               | Rel-15              |  |  |                                |   |
| CA_2A-2A-5A-12A                               | Rel-13              |  |  |                                |   |
| CA_2A-2A-5A-30A                               | Rel-14              |  |  |                                |   |
| CA_2A-2A-7A-66A                               | Rel-15              |  |  |                                |   |
| CA_2A-2A-12A-30A                              | Rel-14              |  |  |                                |   |
| CA_2A-2A-14A-30A                              | Rel-15              |  |  |                                |   |
| CA_2A-2A-14A-66A                              | Rel-15              |  |  |                                |   |
| CA_2A-2A-14A-66A-                             | Rel-15              |  |  |                                |   |
| 66A   | D 144               |  |  |                                |   |
| CA_2A-2A-29A-30A                              | Rel-14              |  |  |                                |   |
| CA_2A-2A-66A-71A                              | Rel-15              | 1  |  |                                |   |
| CA_2A-4A-4A-5A<br>CA_2A-4A-5A                 | Rel-13<br>Rel-12    | 1  |  |                                |   |
| CA_2A-4A-5A<br>CA_2A-4A-7A                    | Rel-12              |  |  |                                |   |
| CA_2A-4A-7A<br>CA_2A-4A-7A-7A                 | Rel-13              | +  | CA 2A-4A                                     |                                |   |
| CA_2A-4A-1A-7A<br>CA_2A-4A-12A                | Rel-12              |  | UN_2/N⁻₹/N                                   |                                | 1   |
| CA_2A-4A-13A                                  | Rel-12              | <del>                                     </del> |  |                                |   |
| CA_2A-4A-29A                                  | Rel-12              | <u> </u>   |  |                                |   |
| CA_2A-4A-71A                                  | Rel-15              | 1  |  |                                |   |
| CA_2A-5A-12A                                  | Rel-12              | t  |  |                                |   |
| CA_2A-5A-12B                                  | Rel-13              |  |  |                                |   |
| CA_2A-5A-13A                                  | Rel-12              | 1  |  |                                |   |
| CA_2A-5A-29A                                  | Rel-13              |  |  |                                |   |
| CA_2A-5A-30A                                  | Rel-12              |  |  |                                |   |
| CA_2A-5A-66A                                  | Rel-14              |  |  |                                |   |
| CA_2A-5B-30A                                  | Rel-14              |  |  |                                |   |
| CA_2A-5B-66A                                  | Rel-14              |  |  |                                |   |
| CA_2A-5B-66A-66A                              | Rel-15              |  |  |                                |   |
| CA_2A-7A-12A                                  | Rel-13              |  |  |                                |   |
| CA_2A-7A-66A                                  | Rel-14              |  |  |                                |   |

|                    |        |          |        | ,            |
|--------------------|--------|----------|--------|--------------|
| CA_2A-12A-30A      | Rel-12 |          |        |              |
| CA 2A-12A-66A      | Rel-14 |          |        |              |
| CA_2A-12A-66A-66A  | Rel-14 |          |        |              |
|                    |        |          |        |              |
| CA_2A-13A-66A      | Rel-14 |          |        |              |
| CA_2A-14A-30A      | Rel-15 |          |        |              |
| CA 2A-14A-66A      | Rel-15 |          |        |              |
| CA 2A-14A-66A-66A  | Rel-15 |          |        |              |
| CA_2A-29A-30A      | Rel-12 |          |        |              |
|                    |        |          |        |              |
| CA_2A-29A-66A      | Rel-14 |          |        |              |
| CA_2A-30A-66A      | Rel-14 |          |        |              |
| CA 2A-30A-66A-66A  | Rel-14 |          |        |              |
| CA_2A-66A-71A      | Rel-15 |          |        |              |
|                    |        |          |        |              |
| CA_2A-66A-66A-71A  | Rel-15 |          |        |              |
| CA_2A-66C-71A      | Rel-15 |          |        |              |
| CA 2C-12A-30A      | Rel-13 |          |        |              |
| CA_2C-29A-30A      | Rel-13 |          |        |              |
|                    |        |          |        |              |
| CA_3A-7A-8A        | Rel-13 |          |        |              |
| CA_3A-7A-20A       | Rel-13 |          |        |              |
| CA_3A-7A-28A       | Rel-13 |          |        |              |
| CA_3A-7C-28A       | Rel-13 |          |        |              |
|                    |        | +        |        |              |
| CA_3A-7A-38A       | Rel-13 |          |        |              |
| CA_3A-8A-11A       | Rel-14 |          |        |              |
|                    |        |          |        |              |
| CA_3A-8A-28A       | Rel-14 |          | 3, 8   |              |
|                    |        | +        | J, U   |              |
| CA_3A-8A-40A       | Rel-13 |          |        |              |
| CA_3A-11A-28A      | Rel-14 |          |        |              |
| CA_3A-19A-42A      | Rel-13 |          |        |              |
| CA_3A-20A-32A      | Rel-14 |          |        |              |
|                    |        |          |        |              |
| CA_3A-28A-38A      | Rel-15 |          |        |              |
| CA_3A-28A-41A      | Rel-14 |          |        |              |
| CA 3A-41A-42A      | Rel-13 |          |        |              |
| CA_3A-41A-42C      | Rel-14 |          |        |              |
| CA_3A-41C-42A      |        |          |        |              |
|                    | Rel-14 |          |        |              |
| CA_3A-41C-42C      | Rel-14 |          |        |              |
| CA 3C-7A-28A       | Rel-13 |          |        |              |
| CA 3C-7C-28A       | Rel-13 |          |        |              |
|                    |        |          |        |              |
| CA_4A-5A-12A       | Rel-12 |          |        |              |
| CA_4A-5A-13A       | Rel-12 |          |        |              |
| CA_4A-5A-30A       | Rel-12 |          |        |              |
| CA 4A-7A-12A       | Rel-12 |          |        |              |
| CA_4A-12A-30A      | Rel-12 |          |        |              |
|                    |        |          |        |              |
| CA_4A-29A-30A      | Rel-12 |          |        |              |
| CA_5A-30A-66A      | Rel-14 |          |        |              |
| CA 5B-30A-66A      | Rel-14 |          |        |              |
| CA_5B-30A-66A-66A  | Rel-15 | <u> </u> |        |              |
|                    |        | +        |        |              |
| CA_7A-8A-20A       | Rel-12 |          |        |              |
| CA_8A-11A-28A      | Rel-14 |          | 8, 11  |              |
| CA_8A-20A-28A      | Rel-15 |          |        |              |
| CA_12A-30A-66A     | Rel-14 |          |        |              |
|                    |        |          |        |              |
| CA_14A-30A-66A     | Rel-15 |          |        |              |
| CA_14A-30A-66A-66A | Rel-15 |          |        |              |
| CA_19A-21A-42A     | Rel-13 |          |        |              |
| CA_29A-46A-66A     | Rel-14 |          | 66     |              |
|                    |        |          |        |              |
| CA_29A-66A-66A-70A | Rel-15 |          | 66, 70 |              |
| CA_29A-66A-66A-70C | Rel-15 |          | 66, 70 |              |
| CA_29A-66A-70A     | Rel-15 |          | 66, 70 |              |
| CA_29A-66A-70C     | Rel-15 |          | 66, 70 |              |
| CA_29A-66C-70A     | Rel-15 | +        | 66, 70 | 1            |
|                    |        | +        |        |              |
| CA_29A-66C-70C     | Rel-15 |          | 66, 70 |              |
| CA_66A-66A-70A-71A | Rel-15 |          |        |              |
| CA_66A-66A-70C-71A | Rel-15 |          |        |              |
| CA_66A-70A-71A     |        | +        |        |              |
|                    | Rel-15 | +        |        | <del> </del> |
| CA_66A-70C-71A     | Rel-15 |          |        |              |
| CA_66C-70A-71A     | Rel-15 |          |        |              |
| CA 66C-70C-71A     | Rel-15 |          |        |              |
|                    | · · ·  |          | 1      |              |

- Note 1: Notation used for intra-band contiguous CA Bands is according to TS 36.101 [2] Table 5.6A.1-2a, e.g. (CA 1A-3A-19A' indicates CA operation on E-UTRA bands 1, 3 and 19, each with CA Bandwidth class A.
- Note 2: The UL CA capabilities as per Table A.4.3.3.3-2 can be supported on a single or multiple CA Band(s). The UE supplier shall indicate all supported UL CA Bandwidth Class(es), in uplink of the supported CA Band(s), as per TS 36.101 [2] Table 5.6A.1-2a. The UE shall also indicate in which bands is UL supported. For this release of specification valid choices are 'N', 'XA-YA' etc, where X,Y,Z are the bands. For example, for UL support in B1+B3, and B3+B19, for CA\_1A-3A-19A, UE shall indicate '1A-3A','3A-19A',
- Note 3: The UE supplier shall indicate the supported Bandwidth Combination Set(s) as per TS 36.101 [2] Table 5.6A.1-2a.
- Note 4: Reference to all items is 36.101, 5.6A and 36.331, 6.3.6.
- Note 5: List all the CA Combination bands where UL is supported.
- Note 6: The release column indicates the release the CA configuration was introduced in TS 36.101 [2].

Table A.4.3.3.3-5: Supported CA configurations for Inter-band CA (four bands)

| E-UTRA CA            | Release  | te            | Supported CA           | Supported UL   | Supported Bandwidth |
|----------------------|----------|---------------|------------------------|----------------|---------------------|
| configuration / Item | (Note 6) | Supporte<br>d | Bandwidth Class(es) in | Bands (Note 5) | Combination Set(s)  |
| (Note 1)             |          | dr            | UL                     |                | (Note 3)            |
|                      |          | าร            | (Note 2)               |                |                     |
| CA_1A-3A-7A-8A       | Rel-13   |               |                        |                |                     |
| CA_1A-3A-7A-20A      | Rel-14   |               |                        |                |                     |
| CA_1A-3A-7A-32A      | Rel-15   |               |                        |                |                     |
| CA_1A-3A-8A-40A      | Rel-13   |               |                        |                |                     |
| CA_2A-2A-14A-30A-    | Rel-15   |               |                        |                |                     |
| 66A                  |          |               |                        |                |                     |
| CA_2A-4A-5A-12A      | Rel-13   |               |                        |                |                     |
| CA_2A-4A-5A-29A      | Rel-13   |               |                        |                |                     |
| CA_2A-4A-12A-30A     | Rel-13   |               |                        |                |                     |
| CA_2A-4A-29A-30A     | Rel-13   |               |                        |                |                     |
| CA_2A-5A-30A-66A     | Rel-14   |               |                        |                |                     |
| CA_2A-5B-30A-66A     | Rel-14   |               |                        |                |                     |
| CA_2A-12A-30A-66A    | Rel-14   |               |                        |                |                     |
| CA_2A-12A-30A-66A-   | Rel-15   |               |                        |                |                     |
| 66A                  |          |               |                        |                |                     |
| CA_2A-14A-30A-66A    | Rel-15   |               |                        |                |                     |
| CA_2A-14A-30A-66A-   | Rel-15   |               |                        |                |                     |
| 66A                  |          |               |                        |                |                     |
| CA_2A-29A-30A-66A    | Rel-15   |               |                        |                |                     |
| CA_3A-7A-20A-32A     | Rel-14   |               |                        |                |                     |

- Note 1: Notation used for intra-band contiguous CA Bands is according to TS 36.101 [2] Table 5.6A.1-2b, e.g. 'CA\_1A-3A-5A-7A' indicates CA operation on E-UTRA bands 1, 3, 5 and 7, each with CA Bandwidth class A.
- Note 2: The UL CA capabilities as per Table A.4.3.3.3-2 can be supported on a single or multiple CA Band(s). The UE supplier shall indicate all supported UL CA Bandwidth Class(es), in uplink of the supported CA Band(s), as per TS 36.101 [2] Table 5.6A.1-2b. The UE shall also indicate in which bands is UL supported. For this release of specification valid choices are 'N', 'XA-YA' etc, where X,Y are the bands. For example, for UL support in B1+B3, and B3+B5, for CA\_1A-3A-5A-7A, UE shall indicate '1A-3A', '3A-15A', For no UL CA 'N'.
- Note 3: The UE supplier shall indicate the supported Bandwidth Combination Set(s) as per TS 36.101 [2] Table 5.6A.1-2b.
- Note 4: Reference to all items is 36.101, 5.6A and 36.331, 6.3.6.
- Note 5: List all the CA Combination bands where UL is supported.
- Note 6: The release column indicates the release the CA configuration was introduced in TS 36.101 [2].

### A.4.3.4 ProSe Physical Layer Implementation Capabilities

Editor's Note: At the moment the table below only indicates what needs to be specified and provides core spec references. How these exactly should be specified is FFS.

Table A.4.3.4-1: ProSe Physical Layer Implementation Capabilities

| Ite | FDD (DS) RF Baseline Implementation  | Ref.                | Release | Supported | Comments                        |
|-----|--|---------------------|---------|-----------|---------------------------------|
| m   | Capabilities   |                     |         |           |                                 |
| 1   | The bands on which the UE supports   | 36.306,             | Rel-12  |           | commSupportedBa                 |
|     | sidelink communication   | 4.3.21.1            |         |           | nds-r12                         |
| 2   | For a particular band combination, the bands on which the UE supports simultaneous reception of EUTRA and sidelink communication | 36.306,<br>4.3.5.12 | Rel-12  |           | commSupportedBa<br>ndsPerBC-r12 |
| 3   | The bands on which the UE supports sidelink discovery  | 36.306,<br>4.3.21.3 | Rel-12  |           | discSupportedBan<br>ds-r12      |
| 4   | The number of processes supported by the UE for reception of sidelink discovery  | 36.306,<br>4.3.21.7 | Rel-12  |           | discSupportedProc<br>-r12       |

# A.4.4 Additional information

**Table A.4.4-1: Additional information** 

| Ite<br>m | Additional information  | Ref.                    | Release | Mnemonic                                     | Comments   |
|----------|---|-------------------------|---------|--|--|
| 1        | Support of USIM removal without power down  |                         | Rel-8   | pc_USIM_Remova                               |  |
| 2        | Support of Allowed CSG list   | 36.331 Annex<br>B.2     | Rel-8   | pc_Allowed_CSG_<br>list                      | For Rel-8: CSG autonomous search is optional. For Rel-9 or later releases: CSG autonomous search is mandatory for UEs supporting CSG full functionality. |
| 3        | Support of Short Message Service (SMS) MT over SGs  | 23.272, 8.2.4,<br>8.2.5 | Rel-8   | pc_SMS_SGs_MT                                |  |
| 4        | Support of Short Message Service (SMS) MO over SGs  | 23.272, 8.2.2,<br>8.2.3 | Rel-8   | pc_SMS_SGs_MO                                |  |
| 5        | Support of ISR  | 23.401,<br>4.3.5.6      | Rel-8   | pc_ISR                                       |  |
| 6        | Support of Mobility management based on Dual-Stack Mobile IPv6  | 24.303                  | Rel-8   | pc_DSMIPv6                                   |  |
| 7        | Support for being configured to discover the Home Agent address via DNS   | 24.303                  | Rel-8   | pc_HAAddress_via<br>_DNS                     |  |
| 8        | Support of inter-RAT PS handover to E-UTRA (FDD) from UTRA  | 25.306, 4.7             | Rel-8   | pc_HO_from_UTR<br>A_to_eFDD                  |  |
| 9        | Support of EMM information message  | 24.301,<br>5.4.5.3      | Rel-8   | pc_EMM_Informati<br>on                       |  |
| 10       | Support for being configured to discover the Home Agent address via DHCPv6  | 24.303                  | Rel-8   | pc_HAAddress_via<br>_DHCPv6                  |  |
| 11       | Void  |                         |         |  |  |
| 12       | Upon reception of 'Full name for<br>network' information the UE<br>stores/updates the network full<br>name                      | 24.301,<br>8.2.13       | Rel-8   | pc_FullNameNetw<br>ork                       |  |
| 13       | Upon reception of 'Short name for<br>network' information the UE<br>stores/updates the network short<br>name                    | 24.301,<br>8.2.13       | Rel-8   | pc_ShortNameNet<br>work                      |  |
| 14       | Upon reception of 'Local time zone' information the UE stores/updates the local time zone                                       | 24.301,<br>8.2.13       | Rel-8   | pc_LocalTimeZone                             |  |
| 15       | Upon reception of 'Universal time and local time zone' information the UE stores/updates the universal time and local time zone | 24.301,<br>8.2.13       | Rel-8   | pc_UniversalAndL<br>ocalTimeZone             |  |
| 16       | Void  |                         |         |  |  |
| 17       | Void Support of ESM UE requested bearer resource allocation procedure   | 24.301, 6.5.3           | Rel-8   | pc_ESM_MO_Bea<br>rer_Allocation              |  |
| 19       | Support of ESM UE requested bearer resource modification procedure  | 24.301, 6.5.4           | Rel-8   | pc_ESM_MO_Bea<br>rer_Modification            |  |
| 20       | Support of ETWS message   | 23.401,<br>5.12.2       | Rel-8   | pc_ETWS_messa<br>ge                          |  |
| 21       | Supports E-UTRAN Neighbour Cell measurements and MS autonomous cell reselection to E-UTRAN                                      | 24.008,<br>10.5.5.12a   | Rel-8   | pc_GERAN_2_E_<br>UTRAN_meas                  |  |
| 22       | Support for being configured to request the IPv6 address of the Home Agent during Attach procedure                              | 24.303                  | Rel-8   | pc_RequestIPv6H<br>AAddress_DuringA<br>ttach |  |
| 23       | Support for being configured to request the IPv4 address of the Home Agent during Attach procedure                              | 24.303                  | Rel-8   | pc_RequestIPv4H<br>AAddress_DuringA<br>ttach |  |

| Ite<br>m | Additional information  | Ref.  | Release | Mnemonic                                     | Comments  |
|----------|---|---|---------|--|---|
| 24       | Void  |   |         |  |   |
| 25       | Support of IMS  | 24.229  | Rel-8   | pc_IMS                                       |   |
| 26       | Supports of disabling the EPS services  | 24.301, 3.1,<br>5.5.2.1                                   | Rel-8   | pc_EPS_Services<br>_Disable                  |   |
| 27       | Support of automatic re-activation of<br>the EPS bearer(s) during Network<br>Initiated Detach with detach type set<br>to "re-attach required" | 24.301,<br>5.5.2.3.2                                      | Rel-8   | pc_Automatic_Re_<br>Attach                   |   |
| 28       | Support of Compressed mode  | 25.306  | Rel-8   | pc_UTRA_Compre<br>ssedModeRequire<br>d       |   |
| 29       | Support of GERAN to E-UTRAN PS Handover   | 24.008,<br>10.5.5.12a                                     | Rel-8   | pc_GERAN_2_E_<br>UTRAN_PSHO                  |   |
| 30       | Support for multiple PDN connections  | 23.401, 5.10  | Rel-8   | pc_Multiple_PDN                              |   |
| 31       | Support of use of the UTRA system information provided by<br>RRCConnectionRelease upon redirection  | 36.306  | Rel-9   | pc_eRedirectionU<br>TRA                      |   |
| 32       | Support for SRVCC from E-UTRAN to GERAN/UTRAN   | 24.301, 8.2.4   | Rel-8   | pc_SRVCC_GERA<br>N_UTRAN                     |   |
| 33       | Support for VoLTE in GSMA PRD IR.92: "IMS Profile for Voice and SMS"  | 24.173,<br>24.229,<br>26.114, 5.2.1,<br>GSMA PRD<br>IR.92 | Rel-8   | pc_VoLTE                                     | Multimedia telephony<br>service participant initiating<br>a speech session.<br>UE supports sending<br>DTMF events over RTP. |
| 34       | Support of detach for non-EPS services  | 24.301,<br>5.5.2.1  | Rel-8   | pc_IMSI_Detach                               |   |
| 35       | Support for establishing the emergency call using the CS domain in UTRA after ATTACH REJECT to emergency bearer service                       | 24.301,<br>5.5.1.2.5A                                     | Rel-9   | pc_CS_Em_Call_i<br>n_UTRA                    |   |
| 36       | Support for establishing the emergency call using the CS domain in GERAN after ATTACH REJECT to emergency bearer service                      | 24.301,<br>5.5.1.2.5A                                     | Rel-9   | pc_CS_Em_Call_i<br>n_GERAN                   |   |
| 37       | Support for establishing the emergency call using the CS domain in 1xRTT after ATTACH REJECT to emergency bearer service                      | 24.301,<br>5.5.1.2.5A                                     | Rel-9   | pc_CS_Em_Call_i<br>n_1xRTT                   |   |
| 38       | Support for EDTM  | 44.060<br>8.9.1.2   | Rel-8   | pc_EDTM                                      |   |
| 39       | Supports CCN towards E-UTRAN,<br>E-UTRAN Neighbour Cell<br>measurement reporting and Network<br>controlled cell reselection to E-<br>UTRAN    | 24.008,<br>10.5.5.12a                                     | Rel-8   | pc_GERAN_2_E_<br>UTRAN_measrepo<br>rting_CCN |   |
| 40       | Support for ROHC profile0x0001  | 36.306,<br>4.3.1.1  | Rel-8   | pc_ROHC_profile0<br>x0001                    | 'IMS capable UEs supporting voice' shall set this PICS to true.   |
| 41       | Support for ROHC profile0x0002  | 36.306,<br>4.3.1.1  | Rel-8   | pc_ROHC_profile0<br>x0002                    | 'IMS capable UEs<br>supporting voice' shall set<br>this PICS to true.   |
| 42       | Support for ROHC profile0x0003  | 36.306,<br>4.3.1.1  | Rel-8   | pc_ROHC_profile0<br>x0003                    |   |
| 43       | Support for ROHC profile0x0004  | 36.306,<br>4.3.1.1  | Rel-8   | pc_ROHC_profile0<br>x0004                    |   |
| 44       | Support for ROHC profile0x0006  | 36.306,<br>4.3.1.1  | Rel-8   | pc_ROHC_profile0<br>x0006                    |   |
| 45       | Support for ROHC profile0x0101  | 36.306,<br>4.3.1.1  | Rel-8   | pc_ROHC_profile0<br>x0101                    |   |

| Ite<br>m | Additional information  | Ref.                  | Release | Mnemonic   | Comments   |
|----------|---|-----------------------|---------|--|--|
| 46       | Support for ROHC profile0x0102  | 36.306,<br>4.3.1.1    | Rel-8   | pc_ROHC_profile0<br>x0102  |  |
| 47       | Support for ROHC profile0x0103  | 36.306,<br>4.3.1.1    | Rel-8   | pc_ROHC_profile0<br>x0103  |  |
| 48       | Support for ROHC profile0x0104  | 36.306,<br>4.3.1.1    | Rel-8   | pc_ROHC_profile0<br>x0104  |  |
| 49       | Support of manual CSG selection   | 36.331,<br>Annex B2   | Rel-8   | pc_Manual_CSG_<br>Selection                                      | For Rel-8: manual CSG selection is optional. For Rel-9 or later releases: manual CSG selection is mandatory for UEs supporting CSG full functionality.   |
| 50       | Support of semi-persistence scheduling  | 36.331,<br>Annex B1   | Rel-8   | pc_Semi_Persist<br>ence_Scheduling                               | For Rel-8: semi- persistence scheduling is mandatory if pc_FeatrGrp_3 is set to true. For Rel-9 or later releases: semi-persistence scheduling is mandatory if pc_FeatrGrp_29 is set to true.                                  |
| 51       | Support of TTI bundling   | 36.331,<br>Annex B1   | Rel-8   | pc_TTI_Bundling  | For Rel-8: TTI bundling is mandatory if pc_FeatrGrp_3 is set to true. For Rel-9 or later releases TDD: TTI bundling is mandatory if pc_FeatrGrp_28 is set to true. For Rel-9 or later releases FDD: TTI bundling is mandatory. |
| 52       | Support for inter-RAT PS handover from E-UTRAN to GERAN.  | 36.306,<br>4.3.7.11   | Rel-8   | pc_E_UTRAN_2_<br>GERAN_PSHO                                      |  |
| 53       | Support of inter-RAT PS handover to E-UTRA (TDD) from UTRA  | 25.306, 4.7           | Rel-8   | pc_HO_from_UTR<br>A_to_eTDD                                      |  |
| 54       | Support for UE requested modification of network allocated TFTs   | 24.301, 6.5.4         | Rel-8   | pc_ESM_UE_Modi<br>fication_NW_TFT                                |  |
| 55       | Support of automatic re-activation of<br>the EPS bearer(s) during Network<br>Initiated Detach even though UE<br>has initiated a detach procedure<br>with detach type set to "EPS detach"<br>or "combined EPS/IMSI detach" | 24.301,<br>5.5.2.2.4  | Rel-8   | pc_Re_Attach_Aft<br>erDetachColl                                 |  |
| 56       | Support of Squal based cell<br>reselection to UTRAN from E-<br>UTRAN  | 25.304,<br>5.2.6.1.4a | Rel-9   | pc_Squal_based_<br>CellReselection_to<br>_UTRAN_from_E_<br>UTRAN |  |
| 57       | Support of Squal based cell reselection to E-UTRAN from UTRAN   | 36.304,<br>5.2.4.5    | Rel-9   | pc_Squal_based_<br>CellReselection_to<br>_E_UTRAN_from_<br>UTRAN |  |
| 58       | Support of CMAS message   | 36.331,<br>5.2.1.5    | Rel-9   | pc_CMAS_Messa<br>ge  |  |
| 59       | Void  |                       |         |  |  |
| 60       | Void  |                       |         |  |  |
| 61       | Void  |                       |         |  |  |
| 62       | Support of logged measurements in RRC_IDLE  | 36.306,<br>4.3.13.1   | Rel-10  | pc_LoggedMeasur<br>ementsIdle                                    |  |

| Ite<br>m | Additional information   | Ref.   | Release | Mnemonic   | Comments   |
|----------|--|--|---------|--|--|
| 63       | Support of standalone GNSS receiver to provide detailed location information in RRC measurement report and logged measurements in RRC_IDLE | 36.306,<br>4.3.13.2                                      | Rel-10  | pc_standaloneGN<br>SS_Location                                       |  |
| 64       | Support of automatic re-activation of the EPS bearer(s)  | 24.301   | Rel-8   | pc_Automatic_EP<br>S_Re_Attach                                       |  |
| 65<br>66 | Support of UTRAN ANR Void  | 25.306, 4.15   | Rel-10  | pc_UTRAN_ANR   |  |
| 67       | Support of PWS upper layer   | 23.041 clause<br>9.1.3.4.2                               | Rel-9   | pc_PWS_UpperLa<br>yer  |  |
| 68       | Support of automatic PDN connectivity in EUTRAN (i.e. UE upper layer provides PDN connectivity parameters)                                 | 24.301,<br>6.5.1.1                                       | Rel-8   | pc_Auto_PDN_Co<br>nnectivity   |  |
| 69       | Support user initiated PLMN reselection in automatic mode  | 23.122   | Rel-8   | pc_UserInitiatedPL<br>MN_Reselection                                 |  |
| 70       | Support of UL MIMO   | 36.306,<br>clause 4.3.4.6                                | Rel-10  | pc_UL_MIMO   |  |
| 71       | Support of ESM Notification procedure  | 24.301, 6.6.2  | Rel-9   | pc_ESM_Notificati<br>on  |  |
| 72       | Support of sending concatenated multiple Short Message over SGs  | 23.272,<br>8.2.3a  | Rel-9   | pc_SMS_SGs_Mul<br>ti_MO  |  |
| 73       | Support TAU in connected mode  | 23.221, 7.2a   | Rel-8   | pc_TAU_connecte<br>d_in_IMS  | Applicable when configured to pc_voice_PS_1_CS_2 |
| 74       | Support TAU in idle mode   | 23.221, 7.2a   | Rel-8   | pc_TAU_idle_in_I<br>MS   | and pc_Attach                                    |
| 75       | Support of Intra Frequency<br>Proximity Indication   | 36.306,<br>clause<br>4.3.10.1                            | Rel-9   | pc_IntraFreq_Proxi<br>mityIndication                                 |  |
| 76       | Support of Inter Frequency<br>Proximity Indication   | 36.306,<br>clause<br>4.3.10.2                            | Rel-9   | pc_InterFreq_Proxi<br>mityIndication                                 |  |
| 77       | Support of UTRAN Proximity<br>Indication   | 36.306,<br>clause<br>4.3.10.3                            | Rel-9   | pc_UTRAN_Proxi<br>mityIndication                                     |  |
| 78       | Support of Access Technology<br>Indication in available PLMNs list   | 23.122,<br>clause<br>4.4.3.1.2                           | Rel-8   | pc_Available_PLM<br>Ns_AcT_Ind                                       |  |
| 79       | Support of Squal based cell reselection between E-UTRAN and GERAN  | 36.304,<br>clause<br>5.2.4.5,<br>45.008,<br>clause 6.6.6 | Rel-9   | pc_Squal_based_<br>CellReselection_b<br>etween_E_UTRAN<br>_and_GERAN |  |
| 80       | Support of AttachWithIMSI  | 24.368, 5.4  | Rel-10  | pc_eAttachWithIM<br>SI   |  |
| 81       | Support of T3412 extended value IE   | 24.301,<br>8.2.1.12,<br>8.2.26.15                        | Rel-10  | pc_T3412Extende<br>d   |  |
| 82       | Void   |  |         |  |  |
| 83       | Void   |  |         |  |  |
| 84       | Support of MinimumPeriodicSearchTimer  | 23.122,<br>4.4.3.3                                       | Rel-10  | pc_eMinimumPeri<br>odicSearchTimer                                   |  |
| 85       | Support of delivery of rachReport upon request from the network  | 36.306,<br>4.3.12.1                                      | Rel-9   | pc_Rach_Report   |  |
| 86       | Support of Power Preference<br>Indication  | 36.306<br>4.3.15.3,<br>36.331,<br>5.6.10                 | Rel-11  | pc_PPI_Support   |  |
| 87       | Support of ePDCCH  | 36.306,<br>4.3.4.18<br>36.331, 6.3.6                     | Rel-11  | pc_ePDCCH  |  |
| 88       | Void   |  |         |  |  |
| 89       | Void   |  |         |  |  |

| Ite<br>m   | Additional information   | Ref.                               | Release | Mnemonic   | Comments  |
|------------|--|------------------------------------|---------|--|---|
| 90         | Void   |                                    |         |  |   |
| 91         | Support of Extended Access Barring<br>Override   | 24.368, 5.10,<br>31.102,<br>4.2.94 | Rel-11  | pc_EAB_override                                      |   |
| 92         | Void   |                                    |         |  |   |
| 93         | Upon reception of 'Daylight saving time' information the UE stores/updates the daylight saving time  | 24.301,<br>8.2.13                  | Rel-8   | pc_DaylightSaving<br>Time                            |   |
| 94         | Support of Radio Link Failure Report for inter-RAT MRO   | 36.306,<br>clause 6.10.1           | Rel-11  | pc_RLF_ReportFo<br>rInterRAT_MRO                     |   |
| 95         | Support of IPv4  | 23.221, 5.1                        | Rel-5   | pc_IPv4  |   |
| 96         | Support of IPv6  | 23.221, 5.1                        | Rel-5   | pc_IPv6  |   |
| 97         | Support of Automatic Mode EF_LRPLMSI PLMN Selection exception  | 23.122,<br>4.4.3.1                 | Rel-8   | pc_PLMN_EF_LR<br>PLMNSI_Automati<br>c_Mode_Exception |   |
| 98         | Support of Manual Mode PLMN<br>Selection exception   | 23.122,<br>4.4.3.1                 | Rel-8   | pc_PLMN_Manual<br>_Mode_Exception                    |   |
| 99         | Support of ZUC algorithm   | 33.401,5.1.3.                      | Rel-11  | pc_ZUC   |   |
| 100        | Supports, upon configuration of si-<br>RequestForHO by the network,<br>acquisition of relevant information<br>from a neighbouring UMTS cell by<br>reading the SI of the neighbouring<br>cell using autonomous gaps and<br>reporting            | 36.306,<br>4.3.11.3                | Rel-9   | pc_SI_Neighbour_<br>UMTS_Autonomou<br>s_Gaps         |   |
| 101        | Support of reception of requestedFrequencyBands  | 36.306,<br>4.3.5.6                 | Rel-11  | pc_reqFreqBands                                      |   |
| 102        | Support of more than 128 CA Band Combinations  | 36.331,<br>5.6.3.3, 6.4            | Rel-11  | pc_More_Than_12<br>8_CAbandComb                      |   |
| 103        | Supports, upon configuration of si-<br>RequestForHO by the network,<br>acquisition of relevant information<br>from a neighbouring intra-frequency<br>cell by reading the SI of the<br>neighbouring cell using autonomous<br>gaps and reporting | 36.306,<br>4.3.11.1                | Rel-9   | pc_SI_Neighbour_i<br>ntraFreq_Autonom<br>ous_Gaps    |   |
| 104        | Supports, upon configuration of si-<br>RequestForHO by the network,<br>acquisition of relevant information<br>from a neighbouring inter-frequency<br>cell by reading the SI of the<br>neighbouring cell using autonomous<br>gaps and reporting | 36.306,<br>4.3.11.2                | Rel-9   | pc_SI_Neighbour_i<br>nterFreq_Autonom<br>ous_Gaps    |   |
| 105        | Support of Type B Half-duplex FDD operation  | 36.211, 6.2.5<br>36.306, 4.2.6     | Rel-12  | pc_FDD_TypeB_H<br>alfDuplex                          | Only applicable for UE supporting Category 0 and Category M1 and M2. When set transmission scheduling is performed in accordance to Half-Duplex operation Type B else in accordance to Full-Duplex operation. |
| 106<br>107 | Void Support of enhanced HARQ pattern  | 36.306                             | Rel-12  | pc_eHARQ_Patter                                      |   |
|            | for TTI bundling operation for FDD   | 4.3.4.27                           |         | n_for_TTI_bundlin                                    |   |
| 108        | Support of tdd-FDD-CA-<br>PCellDuplex-r12 with the first bit<br>setting to "1"   | 36.306,<br>4.3.4.28                | Rel-12  | pc_tdd_FDD_CA_<br>TDD_PCell                          |   |
| 109        | Support of tdd-FDD-CA-PCellDuplex-r12 with the second bit setting to "1"   | 36.306,<br>4.3.4.28                | Rel-12  | pc_tdd_FDD_CA_<br>FDD_PCell                          |   |

| Ite<br>m | Additional information   | Ref.                                    | Release | Mnemonic                   | Comments  |
|----------|--|---|---------|----------------------------|---|
| 110      | Support of ProSe direct communication  | 36.306,<br>4.3.21.1                     | Rel-12  | pc_commSupporte<br>dBands  | 36.306, 4.3.21.1: If a UE supports sidelink communication on at least one band, the UE shall support sidelink communication transmission based on UE autonomous resource selection and eNB scheduled resource allocation. |
| 111      | Support of ProSe direct discovery  | 36.306,<br>4.3.21.3                     | Rel-12  | pc_discSupported<br>Bands  |   |
| 112      | Support of ProSe EPC level discovery   | 24.334, 7.2                             | Rel-12  | pc_Prose_EPC_Di<br>scovery |   |
| 113      | Support of ProSe discovery SLSS transmission and reception   | 36.306,<br>4.3.21.6                     | Rel-12  | pc_discSLSS                |   |
| 114      | Support of uplink 64QAM  | 36.306,<br>4.3.4.39                     | Rel-12  | pc_UL_64QAM                |   |
| 115      | Support of Power Saving Mode   | 24.301,<br>5.3.11                       | Rel-12  | pc_ePSM                    |   |
| 116      | Support of downlink 256QAM   | 36.306, 4.1,<br>4.1A                    | Rel-12  | pc_DL_256QAM               | Applicable for UEs of category 11-12 and UEs of DL category 11 and onwards. It is mandatory for UEs of DL category 13-14.   |
| 117      | Support for GSMA PRD IR.51: "IMS<br>Profile for Voice, Video and SMS<br>over Wi-Fi"  | IEEE Std<br>802.11<br>GSMA PRD<br>IR.51 | Rel-11  | pc_WLAN_voice              | The IR.51 is based on 3GPP Rel-11.  |
| 118      | Support of CSI-RS based discovery signals measurement  | 36.306<br>4.3.6.10                      | Rel-12  | pc_CSI_RS_DS_<br>Meas      |   |
| 119      | Support of simultaneous transmission of EUTRA and sidelink communication (on different carriers) in all bands for which the UE indicated simultaneous sidelink and EUTRA support in a band combination (using commSupportedBandsPerBC) | 36.306,<br>4.3.21.2                     | Rel-12  | pc_commSimultan<br>eousTx  |   |
| 120      | ProSe Discovery for Public Safety supported  | 24.334, 4.1                             | Rel-12  | pc_disc_public_saf ety     | If Support of ProSe direct<br>discovery (entry 111) is<br>indicated then if the present<br>entry is set to FALSE this<br>shall be understood as<br>ProSe Discovery for non-<br>Public Safety supported                    |
| 121      | Support of extended DRX  | 24.301,<br>5.3.12                       | Rel-13  | pc_edrx                    |   |
| 122      | Support of CE mode A   | 36.306,<br>4.3.29.1                     | Rel-13  | pc_CEmodeA                 | Mandatory for CAT M1 and M2 UEs   |
| 123      | Support of CE mode B   | 36.306,<br>4.3.29.2                     | Rel-13  | pc_CEmodeB                 |   |
| 124      | Support of TDD UL/DL reconfiguration for TDD serving cell(s) via monitoring PDCCH with eIMTA-RNTI on a TDD PCell, and HARQ feedback according to UL and DL HARQ reference configurations   | 36.306,<br>4.3.4.31                     | Rel-12  | pc_eIMTA_TDD               |   |

| Ite<br>m   | Additional information   | Ref.                 | Release | Mnemonic                                | Comments   |
|------------|--|----------------------|---------|---|--|
| 125        | Support of prioritization of the frequency bands in multiBandInfoList over the band in freqBandIndicator as defined by freqBandIndicatorPriority-r12 | 36.306,<br>4.3.5.11  | Rel-12  | pc_freqBandPriorit<br>yAdjustment       |  |
| 126        | Support of MBMS reception via SC-PTM on configured SCell   | 36.306,<br>4.3.5.2   | Rel-13  | pc_scptm_SCell                          |  |
| 127        | Support of MBMS reception via SC-<br>PTM on a cell that may be<br>additionally configured as an SCell  | 36.306,<br>4.3.5.2   | Rel-13  | pc_scptm_NonSer<br>vingCell             |  |
| 128        | Support of extended Long DRX cycle   | 36.306,<br>4.3.19.4  | Rel-13  | pc_extendedLong<br>DRX                  |  |
| 129        | Supports downlink LAA operation  | 36.306,<br>4.3.23.1  | Rel-13  | pc_downlink_LAA                         |  |
| 130        | Supports measurement and reporting for RSSI and channel occupancy  | 36.306,<br>4.3.6.19  | Rel-13  | pc_rssiAndChanne<br>IOccupancyReporti   |  |
| 131        | Support of QCI1 indication in Radio<br>Link Failure Report   | 36.306, 6.8.2        | Rel-13  | pc_qci1Indication_i<br>nRLF             |  |
| 132        | Support of user plane CloT optimisation in WB-S1 mode  | 24.301,<br>5.3.15    | Rel-13  | pc_User_Plane_Cl<br>oT_Optimisation     |  |
| 133        | Support of EMM-REGISTERED without PDN  | 24.301,<br>5.3.15    | Rel-13  | pc_AttachWithoutP                       |  |
| 134        | Support of EMM-REGISTERED with PDN   | 24.301,<br>5.3.15    | Rel-13  | pc_AttachWithPD<br>N                    |  |
| 135        | Void   |                      |         |   |  |
| 136<br>137 | Void Support of multiple DRBs in NB-IoT  | 36.306,              | Rel-13  | pc_NB_MultiDRB                          |  |
| 100        | 0 (5 (5) (1) (7 (5)  | 4.3.8.5              | D 1 10  | F . F U.D                               |  |
| 138        | Support of Fast First Higher Priority PLMN search  | 23.122,<br>4.4.3.3.1 | Rel-12  | pc_Fast_First_HP<br>PLMN_Search         |  |
| 139        | Support of TDD Bands38, 40, 41 and 42 Power class 2 operation  | 36.101, 6.2.2        | Rel-14  | pc_ TDD_band<br>_UE_PC2                 |  |
| 140        | Support for PDCP Packet Delay per QCI  | TS 36.331<br>5.5.2   | Rel-13  | pc_PDCP_PktDela<br>y                    |  |
| 141        | Void   |                      |         |   |  |
| 142        |  |                      |         |   |  |
| 143        | Support of Control plane CloT in WB-S1 mode  | 24.301,<br>5.3.15    | Rel-13  | pc_Control_Plane_<br>CloT_Optimisation  |  |
| 144        | Support of S1-U data transfer  | 24.301,<br>5.3.15    | Rel-13  | pc_S1_U_DataTra<br>nsfer                | An UE supporting user plane CloT optimization shall set this PICS to true. |
| 145        | Support for GSMA PRD NG.108: "IMS Profile for Voice and SMS for UE category M1"  | GSMA PRD<br>NG.108   | Rel-13  | pc_Category_M1_<br>voice                |  |
| 146        | Support of automatic PDN connection trigger on HRPD cell reselection   | X.s0057,<br>6.4.1    | Rel-8   | pc_AutomaticHRP<br>D_PDN_Connectio<br>n |  |
| 147        | Support for Dual RM Coding   | 36.331, 6.3.6        | Rel-10  | pc_DualRM_Codin<br>g                    |  |
| 148        | Support of V2X sidelink communication  | 36.300,<br>23.14.1.1 | Rel-14  | pc_v2xCommSidel<br>ink                  |  |
| 149        | Support of V2X communication Via Uu  | 36.300,<br>23.14.1.1 | Rel-14  | pc_v2xCommUu                            |  |
| 150        | Support of simultaneous transmission of EUTRA and V2X sidelink communication   | 36.306,<br>4.3.5.27  | Rel-14  | pc_v2xSimultaneo<br>usTx                |  |
| 151        | Support of simultaneous reception of EUTRA and V2X sidelink communication  | 36.306,<br>4.3.5.27  | Rel-14  | pc_v2xSimultaneo<br>usRx                |  |
| 152        | Support of transmitting<br>PSCCH/PSSCH using dynamic<br>scheduling   | 36.306,<br>4.3.21.14 | Rel-14  | pc_v2xScheduling                        |  |

| Ite<br>m | Additional information  | Ref.                             | Release | Mnemonic                                   | Comments  |
|----------|---|----------------------------------|---------|--|---|
| 153      | Support of transmitting PSCCH/PSSCH using UE autonomous resource selection mode with full sensing   | 36.306,<br>4.3.21.15             | Rel-14  | pc_v2xFullSensing                          |   |
| 154      | Support of transmitting PSCCH/PSSCH using UE autonomous resource selection mode with partial sensing  | 36.306,<br>4.3.21.16             | Rel-14  | pc_v2xPartialSensi<br>ng                   |   |
| 155      | Support of SLSS transmission and reception for V2X sidelink communication   | 36.306,<br>4.3.21.17             | Rel-14  | pc_v2xSLSS                                 |   |
| 156      | Support of CBR measurement and reporting  | 36.306,<br>4.3.21.18             | Rel-14  | pc_v2xCBRMeas                              |   |
| 157      | Support of zone based transmission resource pool selection for V2X sidelink communication   | 36.306,<br>4.3.21.12             | Rel-14  | pc_v2xZoneBased<br>PoolSelection           |   |
| 158      | Require intra-frequency<br>measurement gaps for operating in<br>CE Mode A or CE Mode B  | 36.306,<br>4.3.5.1.2             | Rel-13  | pc intraFreq-CE-<br>NeedForGaps            |   |
| 159      | Support of 4 layer spatial multiplexing with transmission mode 3 and transmission mode 4  | 36.306,<br>4.3.4.7               | Rel-10  | pc_4Layer_spatial<br>_mux_tm3_tm4          |   |
| 160      | Support of delay budget reporting for MMTEL voice and video enhancements  | 36.306,<br>4.3.32.1              | Rel-14  | pc_delayBudgetRe<br>porting                |   |
| 161      | MMTEL voice and video enhancements mode   | 36.306,<br>4.3.32.2              | Rel-14  | pc_PUSCH_Ehn_<br>MMTEL                     |   |
| 162      | Void  |                                  |         |  |   |
| 163      | Support of PUCCH transmission on SCell in CA  | 36.306,<br>4.3.4.47              | Rel-13  | pc_PUCCH_SCell                             |   |
| 164      | Support high speed enhancement<br>for random access preambles<br>generated from restricted set type B<br>in high speed scenoario as specified<br>in TS 36.211 | 36.306                           | Rel-14  | pc_Highspeed_En<br>h_Prach                 |   |
| 165      | Support of RRC connection re-<br>establishment  | 36.306, 6.7.5                    | Rel-14  | pc_RRC_re-<br>establishment_CP<br>_CIoT    | An UE supporting S1-U data transfer shall set this PICS to true.  |
| 166      | Support of SRS switching between a band pair  | 36.306,<br>4.3.5.24,<br>4.3.5.25 | Rel-14  | pc_SRS_switching                           | Support of SRS switching between a band pair  |
| 167      | Support of 2 HARQ processes in DL and UL in NB-IoT  | 36.306,<br>4.3.4.62              | Rel-14  | pc_NB_TwoHARQ<br>_Processes                |   |
| 168      | Support of Release Assistance Indication (RAI) in NB-IoT  | 36.306,<br>4.3.19.10             | Rel-14  | pc_NB_Rai_Suppo<br>rt                      |   |
| 169      | Support of Announcing for ProSe<br>Group Member Discovery   | 24.334,<br>10A.2.6               | Rel-13  | pc_ProSeAnnForG<br>roupMemberDisco<br>very |   |
| 170      | Support of SPS interval shorter than 10 subframes in FDD mode   | 36.306,<br>4.3.19.5              | Rel-14  | pc_shortSPS_inter valFDD                   |   |
| 171      | Support of SPS interval shorter than 10 subframes in TDD mode   | 36.306,<br>4.3.19.6              | Rel-14  | pc_shortSPS_inter valTDD                   |   |
| 172      | Support of skipping SPS UL transmissions if no data is available  | 36.306,<br>4.3.19.8              | Rel-14  | pc_skipUplinkSPS                           | An UE supporting SPS interval shorter than 10 (pc_shortSPS_intervalFDD or pc_shortSPS_intervalTDD) shall set this PICS to true. |
| 173      | Support of skipping UL transmissions if no data is available  | 36.306,<br>4.3.19.7              | Rel-14  | pc_skipUplinkDyna<br>mic                   |   |
| 174      | Supports uplink LAA operation   | 36.306,<br>4.3.23.8              | Rel-14  | pc_uplink_LAA                              | Support of Enhanced LAA operations  |
| 175      | Void  |                                  |         |  |   |

| Ite<br>m | Additional information   | Ref.                 | Release | Mnemonic                                       | Comments   |
|----------|--|----------------------|---------|--|--|
| 176      | Supports two step uplink scheduling using PUSCH trigger A and PUSCH trigger B                    | 36.306,<br>4.3.23.10 | Rel-14  | pc_twoStepSched<br>uling_uplink_LAA            | UE supports two step uplink scheduling using PUSCH trigger A and PUSCH trigger B, applying to the UE supports uplink LAA operation |
| 177      | Supports multiple uplink SPS and reporting SPS assistance information                            | 36.306,<br>4.3.19.11 | Rel-14  | pc_multipleUplinkS<br>PS                       | Support of multiple uplink<br>SPS and reporting SPS<br>assistance information  |
| 178      | Support of V2X communication as Pedestrian UE  | 36.300,<br>23.14.1.1 | Rel-14  | pc_P2X_UE                                      |  |
| 179      | Support of the uplink data compression operation   | 36.306,<br>4.3.1.7   | Rel-15  | pc_UDC   |  |
| 180      | Support of UL data compression with SIP static dictionary  | 36.306,<br>4.3.1.8   | Rel-15  | pc_UDC_SIP                                     |  |
| 181      | Support of QoE Measurement Collection for Streaming Service                                      | 36.306<br>4.36.30    | Rel-15  | pc_qoe_MeasReport                              |  |
| 182      | Support of QoE Measurement Collection for MTSI Service   | 36.306<br>4.36.33    | Rel-15  | pc_qoe_MTSI_Meas<br>Report                     |  |
| 183      | Support of 256QAM in UL  | 36.306<br>4.3.4.73   | Rel-14  | pc_UL_256QAM                                   |  |
| 184      | Support of Bluetooth Measurement<br>Collection in logged MDT                                     | 36.306<br>4.3.13.6   | Rel-15  | pc_BT_Meas_logged<br>_MDT                      |  |
| 185      | Support of WLAN Measurement<br>Collection in logged MDT  | 36.306<br>4.3.13.7   | Rel-15  | pc_WLAN_Meas_log<br>ged_MDT                    |  |
| 186      | Support of Bluetooth Measurement<br>Collection in Immediate MDT                                  | 36.306<br>4.3.13.8   | Rel-15  | pc_BT_Meas_Imm_<br>MDT                         |  |
| 187      | Support of WLAN Measurement Collection in Immediate MDT  | 36.306<br>4.3.13.9   | Rel-15  | pc_WLAN_Meas_Im<br>m_MDT                       |  |
| 188      | Support of ce-PUSCH-NB-MaxTBS-r14  | 36.306<br>4.3.4.63   | Rel-15  | pc_ce_PUSCH_NB<br>_MaxTBS                      |  |
| 189      | Support of height-based measurement reporting  | 36.306<br>4.3.6.35   | Rel-15  | pc_heightMeas                                  |  |
| 190      | Support of GNSS for height measurement   |                      | Rel-15  | pc_gnss_heightMe<br>as                         |  |
| 191      | Support of measurement reporting triggered based on a number of cells                            | 36.306<br>4.3.6.34   | Rel-15  | pc_Multiple_Cells_M<br>eas_Ext                 |  |
| 192      | Support of flight path plan reporting  | 36.306<br>4.3.15.14  | Rel-15  | pc_FlightPathPlan                              |  |
| 193      | Void   |                      |         |  |  |
| 194      | Support of HARQ-ACK bundling   | 36.213<br>7.3.1      | Rel-14  | pc_ce_HARQ_AckBu<br>ndling                     | Support of HARQ-ACK bundling   |
| 195      | Support of eNB-configured CRS-based RRM measurements for configured carrier(s) in RRC_IDLE mode. | 36.306<br>4.3.6.31   | Rel-15  | pc_idleModeMeasure<br>ment                     |  |
| 196      | Support of the dormant SCell state.  | 36.306<br>4.3.19.16  | Rel-15  | pc_dormantSCellStat<br>e                       |  |
| 197      | Support of having SCell configured in dormant SCell state  | 36.306<br>4.3.19.18  | Rel-15  | pc_directSCellHibern ation                     |  |
| 198      | Support of having SCell configured in activated SCell state                                      | 36.306<br>4.3.19.17  | Rel-15  | pc_directSCellActivat ion                      |  |
| 199      | Support of user plane CloT optimisation in NB-S1 mode  | 24.301,<br>5.3.15    | Rel-13  | pc_NB_User_Plane_<br>CloT_Optimisation         |  |
| 200      | Support of Control Plane Early Data<br>Transmission  | 36.306<br>6.8.4      | Rel-15  | pc_Control_Plane_CI<br>oT_Optimisation_ED<br>T |  |
| 201      | Support of User Plane Early Data<br>Transmission   | 36.306<br>4.3.8.7    | Rel-15  | pc_User_Plane_CloT<br>_Optimisation_EDT        |  |
| 202      | Support of RLC UM mode in NB-IoT   | 36.306<br>4.3.2.5    | Rel-15  | pc_NB_RLC_UM                                   |  |

| Ite<br>m | Additional information  | Ref.                | Release | Mnemonic                          | Comments |
|----------|---|---------------------|---------|-----------------------------------|----------|
| 203      | Support of short TTI and/or short processing time   | 36.306              | Rel-15  | pc_sTTI_SPT                       |          |
|          |   | 4.3.4.150           |         |                                   |          |
| 204      | Support of short processing time for the corresponding frame structure types  | 36.306              | Rel-15  | pc_spt_Parameters                 |          |
|          |   | 4.3.4.100           |         |                                   |          |
| 205      | Support of sTTI in downlink CCs and uplink CCs  | 36.306              | Rel-15  | pc_sTTI_Combinatio                |          |
|          |   | 4.3.4.103           |         |                                   |          |
| 206      | Support of {subslot, subslot} combinations in downlink CCs and uplink   | 36.306              | Rel-15  | pc_subslot_Combina tions          |          |
|          | CCs   | 4.3.4.103           |         |                                   |          |
| 207      | Support of L1-based SPDCCH reuse  | 36.306              | Rel-15  | pc_SPDCCH_Reuse                   |          |
|          |   | 4.3.4.147           |         |                                   |          |
| 208      | Support of SRS trigerring via DCI format 7 for FS2  | 36.306              | Rel-15  | pc_SRS_DCI7_Trigg<br>ering        |          |
|          | 1101102   | 4.3.4.181           |         | C.II.Ig                           |          |
| 209      | Support of UL asynchronous HARQ sharing between different TTI lengths for   | 36.306              | Rel-15  | pc_ul_AsyncHarqSh<br>aringDiffTTI |          |
|          | an UL serving cell.   | 4.3.4.156           |         | Gg                                |          |
| 210      | Support of Wake Up Signal   | 36.306              | Rel-15  | pc_wakeUpSignal                   |          |
|          |   | 4.3.4.113           |         |                                   |          |
| 211      | Support of physical layer SR with HARQ ACK  | 36.306              | Rel-15  | pc_SR_WithHARQ_<br>ACK            |          |
|          |   | 4.3.4.117           |         | , tott                            |          |
| 212      | Support of physical layer SR without HARQ ACK   | 36.306              | Rel-15  | pc_SR_WithoutHAR<br>Q_ACK         |          |
|          | THINK ON  | 4.3.4.118           |         | <b>Q_</b> ,\O\\                   |          |
| 213      | UE supports Ethernet header compression and decompression using   | 36.306,             | Rel-16  | pc_EUTRAN_EHC                     |          |
|          | EHC protocol  | 4.3.1.12            |         |                                   |          |
| 214      | UE supports DAPS handover in source PCell and intra-frequency target PCell  | 36.306,<br>4.3.5.40 | Rel-16  | pc_EUTRA_intraFreq<br>DAPS        |          |
|          | in the specific state of the specific state | 1.0.0.40            |         | -                                 |          |

Table A.4.4-1A: Additional UE radio access capabilities (Mandatory for Rel-11 and onward)

| Item | Additional capabilities  | Ref.                                    | Release          | Status<br>(Note 1) | Support<br>Yes/No<br>(Note 2) | Mnemonic                            | Comments   |
|------|--|---|------------------|--------------------|-------------------------------|-------------------------------------|--|
| 1    | UL Coordinated<br>Multi-Point operation  | 36.306,<br>4.3.4.23                     | Rel-11           | O.01               |                               | pc_UL_CoMP                          | This is a Rel-<br>11 Mandatory<br>feature  |
| 2    | Support of TDD special subframe  | 36.306,<br>4.3.4.21<br>36.331,<br>6.3.6 | Rel-11           | O.01               |                               | pc_TDD_SpecialSubframe              | This is a Rel-<br>11 Mandatory<br>feature  |
|      |  |   | Rel-9,<br>Rel-10 | 0                  |                               |                                     | The Capability can optionally be implemented in UEs of the indicated Releases                                      |
| 3    | Support of multiple<br>timing advances for<br>each band<br>combination<br>supported by the UE                        | 36.306,<br>4.3.5.3                      | Rel-11           | O.01               |                               | pc_multipleTimingAdvance            | This is a Rel-<br>11 Mandatory<br>feature (Note<br>3)  |
| 4    | Support of Extended<br>Access Barring  | 36.306,<br>7.3.1                        | Rel-11           | O.01               |                               | pc_EAB                              | This is a Rel-<br>11 Mandatory<br>feature (Note<br>4)  |
| 5    | Support of<br>transmission of<br>discovery<br>announcements<br>based on network<br>scheduled resource<br>allocation. | 36.306,<br>4.3.21.4                     | Rel-12           | O.01               |                               | pc_discScheduledResourceAlloc       | This is a Rel-<br>12 Mandatory<br>feature (Note<br>5)  |
| 6    | Support of<br>transmission of<br>discovery<br>announcements<br>based on UE<br>autonomous<br>resource selection.      | 36.306,<br>4.3.21.5                     | Rel-12           | O.01               |                               | pc_discUESelectedResourceAllo c     | This is a Rel-<br>12 Mandatory<br>feature (Note<br>5)  |
| 7    | Support of CRS interference handling   | 36.306,<br>4.3.4.15                     | Rel-11           | O.01               |                               | pc_CRS_Interference_Handling        | This is a Rel-<br>11 Mandatory<br>feature except<br>UE Category 0<br>and Category<br>M1 and M2                     |
| 8    | Support of<br>Synchronisation<br>signal and common<br>channel interference<br>handling                               | 36.306,<br>4.3.4.20                     | Rel-11           | O.01               |                               | pc_ss_CCH_Interference_Handli<br>ng | This is a Rel-<br>11 Mandatory<br>feature for<br>TDD bands<br>except UE<br>Category 0<br>and Category<br>M1 and M2 |
| 9    | Support of UL multi-<br>tone transmissions<br>on NPUSCH in NB-<br>IoT  | 36.306,<br>4.3.4.55                     | Rel-13           | O.01               |                               | pc_NB_MultiTone                     | This is a Rel-<br>13 Mandatory<br>feature for<br>UEs of any<br>ue-Category-<br>NB                                  |
| 10   | Support of multi-<br>carrier operation in<br>NB-IoT  | 36.306,<br>4.3.4.56                     | Rel-13           | O.01               |                               | pc_NB_MultiCarrier                  | This is a Rel-<br>13 Mandatory<br>feature for<br>UEs of any<br>ue-Category-<br>NB                                  |

| 11           | Support of PRACH   | 36.306,   | Rel-14  | O.01  | F  | oc_NB_MultiCarrier_NPRACH  | This is a Rel-   |
|--------------|--|---|---|---|--|--|--|
|              | on non-anchor<br>carrier in NB-loT   | 4.3.4.75  |   |   |  |  | 14 Mandatory<br>feature for<br>UEs of any<br>ue-Category-  |
|              |  |   | <b>-</b>  | 0.01  |  |  | NB   |
| 12           | Support of paging on non-anchor carriers in NB-IoT   | 36.306,<br>4.3.4.76   | Rel-14  | O.01  | k  | oc_NB_MultiCarrier_Paging  | This is a Rel-<br>14 Mandatory<br>feature for<br>UEs of any<br>ue-Category-<br>NB                                |
| 13           | Support of interference randomisation in connected mode in NB-IoT  | 36.306,<br>4.3.4.80   | Rel-14  | O.01  | r  | oc_NB_InterferenceRandomisatio   | This is a Rel-<br>14 Mandatory<br>feature for<br>UEs of any<br>ue-Category-<br>NB                                |
| 14           | Support of eventA3<br>for intra-frequency<br>neighbouring cells in<br>normal coverage<br>and CE Mode A   | 36.306,<br>4.3.29.3   | Rel-13  | O.01  | t  | oc_IntraFreqA3_CE_ModeA  | This is a Rel-<br>13 Mandatory<br>feature for<br>UEs<br>supporting ce-<br>ModeA-r13                              |
| 15           | Support of intra-<br>frequency handover<br>to target cell in<br>normal coverage<br>and CE Mode A   | 36.306,<br>4.3.29.5   | Rel-13  | O.01  | ļ.   | oc_IntraFreqHO_CE_ModeA  | This is a Rel-<br>13 Mandatory<br>feature for<br>UEs<br>supporting ce-<br>ModeA-r13                              |
| 16           | Support of intra-<br>frequency RSRQ<br>measurements and<br>inter-frequency<br>RSRP and RSRQ<br>measurements in<br>RRC_CONNECTED  | 36.306<br>4.3.6.23  | Rel-14  | O.01  | k  | oc_CE_Measurements   | This is a Rel-<br>14 Mandatory<br>feature for<br>UEs<br>supporting ce-<br>ModeA-r13<br>(Note 6).                 |
| Note         |  | ı<br>zards 3GPI   | P TSG RAI   | N has disc  | ontinued the   | usage of FGI bits (see A.4.5). Ins   |  |
|              | introduced a differ 36.306 [1] clause feature has been capability paramer Reflecting this sit conditional Option can be considered is available the structure of the structure o | erent meches 4): 'For op<br>implement<br>eter, the patuation, in the<br>nal (O.xx)<br>ed ensured<br>tatus of the<br>ement apple | anism to a ptional feat ted and su arameter in the present until IOT to is made be capability y will be expanded. | ccomplish<br>cures, the U<br>iccessfully<br>idicates what table the<br>esting availy<br>y 3GPP TS<br>paramete<br>explicitly sta | the same pu<br>JE radio according<br>tested. For rather the fea<br>status for Ma<br>ability is ens<br>SG RAN. After<br>will be charated. | urposes based on the following priess capability parameter indicates mandatory features with the UE rature has been successfully testerndatory features would be indicatured. The decision when IOT tester the 3GPP TSG RAN decision the ged to Mandatory (M) and the respective services. | nciples (TS<br>s whether the<br>dio access<br>d.'<br>ted as<br>ing availability<br>nat IOT testing<br>lease from |
| Note         | <ol><li>If indicated "Yes"</li></ol>   | the featur  | e shall be i  | implement   | ed and succe   | essfully tested for the correspondi  |  |
| Note         | <ol> <li>It is mandatory for<br/>having an UL on<br/>capability this wo</li> </ol>   | or UEs of the<br>multiple Flould dependations for Ir  | nis release<br>DD bands of<br>d on the ind<br>nter-band (   | of the spe<br>(see 36.30<br>dication fo   | cification to s<br>6, 4.3.5.3). In<br>UL support   | support this capability for band co<br>in the context of evaluating the sta<br>provided in Table A.4.3.3.3-3 i.e.<br>A then the Support of multiple time   | mbinations<br>tus of the<br>if for at least  |
| Note         | 4: It is mandatory for 7.1.3).   | or UEs whi  | ch are sup  |   |  | ect to Extended Access Barring (s  | ee 36.306,   |
| Note<br>Note |  | y is also u   | sed to iden   | itify genera  | I support of   | scovery.<br>inter-frequency (e.g. including RR   | C_IDLE), which   |

Table A.4.4-1B: Additional UE radio access capabilities Conditions

is mandatory for Rel-14 UEs supporting ce-ModeA-r13.

| 0.01 | IF The feature has been IOT-ed THEN Support shall be indicated ELSE Support shall not be indicated  |
|------|---|
| 0.01 | II THE TEATURE HAS DEED TO FEW THEIR Support Shall be indicated ELSE Support shall not be indicated |

Table A.4.4-2: Definition of UE implementation capabilities

| Item | Definition of UE implementation capabilities                         | Ref.              | Release | Mnemonic                         | Comments   |
|------|--|-------------------|---------|----------------------------------|--|
| 1    | Support EPS attach (with or without pre-configuration)               | 24.301<br>(Note1) | Rel-8   | pc_Attach                        | UE supports to be configured to initiate EPS attach or will always initiate EPS attach. (pc_PS_voice_centr ic OR pc_PS_data_centric) shall set this PICS to true.  |
| 2    | Support combined EPS/IMSI attach (with or without pre-configuration) | 24.301            | Rel-8   | pc_Combined_Attach               | UE supports to be configured to initiate combined EPS/IMSI attach or will always initiate combined EPS/IMSI attach or will always initiate combined EPS/IMSI attach. Implication: ((pc_UTRA OR pc_GERAN) AND [8] pc_CS) OR pc_CS_Fallback OR pc_CS_Fallback OR pc_SMS_SGS OR pc_IMSI_detach OR pc_CS_Em_Call_in _UTRA OR pc_CS_Em_Call_in _GERAN OR pc_CS_PS_voice_c entric OR pc_CS_PS_data_ce ntric shall set this PICS to true. |
| 3 4  | Void Support of CS/PS mode 1   | 24.301            | Rel-8   | pc_CS_PS_voice_cen<br>tric       | UE supports to be configured to consistently behave as a CS/PS Voice centric UE  |
| 5    | Support of CS/PS mode 2  | 24.301            | Rel-8   | pc_CS_PS_data_cent<br>ric        | UE supports to be configured to consistently behave as a CS/PS Data centric UE.  |
| 6    | Requiring UMI proceeding to paging response                          | 23.272            | Rel-8   | pc_UMI_ProcNeeded<br>_DuringCSFB | UE requires UMI<br>prior to paging<br>response while<br>CSFB to UTRA   |
| 7    | Support of PS mode 1   | 24.301            | Rel-8   | pc_PS_voice_centric              | UE supports to be configured to consistently behave as a PS Voice centric UE   |
| 8    | Support of PS mode 2   | 24.301            | Rel-8   | pc_PS_data_centric               | UE supports to be configured to consistently behave as a PS Data centric UE.   |
| 9    | IMS PS voice preferred, CS Voice as secondary                        | 24.301            | Rel-8   | pc_voice_PS_1_CS_2               | Configured voice domain preference.  |

| Item | Definition of UE implementation capabilities  | Ref.                    | Release | Mnemonic   | Comments   |
|------|---|-------------------------|---------|--|--|
| 10   | Keeps EPS Bearer Context parameters after completion of the normal DETACH procedure | 24.301 cl.<br>5.5.2.2.2 | Rel-8   | pc_KeepEpsBearerPa<br>rametersAfterNormalD<br>etach  | If the UE supports this, then the next ATTACH after DETACH shall be done using AT command AT+CGATT=1. Otherwise it shall be done using AT+CGDCONT=1,"I P" followed by AT+CGACT=1                       |
| 11   | IMS APN as default APN  | 23.401                  | Rel-8   | pc_IMS_APN_default                                   | Configured with IMS APN as default APN.  |
| 12   | XCAP only APN   | 23.401                  | Rel-8   | pc_XCAP_only_APN                                     | Configured with an APN for XCAP only usage.(Note 2)  |
| 13   | Provide IMS APN   | 23.401                  | Rel-8   | pc_Provide_IMS_APN                                   | Configured to provide IMS APN during initial attach.   |
| 14   | Provide IMS as second APN   | 23.401                  | Rel-8   | pc_Provide_IMS_as_s<br>econd_APN                     | Configured to provide IMS APN as the second PDN connection.  |
| 15   | Provide Internet as second APN  | 23.401                  | Rel-8   | pc_Provide_Internet_<br>as_second_APN                | Configured to provide Internet as the second PDN connection.   |
| 16   | User initiated PDN disconnect   | 24.301                  | Rel-8   | pc_UE_supports_user<br>_initiated_PDN_disco<br>nnect | UE supports user initiated PDN disconnect.   |
| 17   | XCAP over Internet PDN  | 23.401                  | Rel-8   | pc_XCAP_over_Intern<br>et_APN                        | Configured to use internet PDN for XCAP signalling (Note 2)  |
| 18   | Dynamically downgrades the GERAN release when the support of EPS is disabled        | 24.301,<br>24.008       | Rel-8   | pc_Dynamic_GERAN<br>_Rel_downgrade                   | UE may support e.g. from all GERAN Rel-8 features only those related to the interworking with EPS. When EPS is disabled then the Device may comply with a lower than Rel-8 GERAN release requirements. |
| 19   | Provide ProSe APN   | 24.334                  | Rel-12  | pc_Provide_ProSe_A<br>PN                             | Configured to provide ProSe APN and a PDN connection request. An UE supporting D2D ProSe shall set this PICS to true.  |
| 20   | Provisioned FQDN ePDG   | 24.302                  | Rel-13  | pc_ePDG_FQDN_Pro<br>visioned                         | Configured with an ePDG FQDN provisioned by the home operator.   |
| 21   | Operator Identifier FQDN format used for ePDG                                       | 24.302                  | Rel-13  | pc_ePDG_FQDN_con<br>structed                         | Configured to construct the ePDG FQDN in the Operator Identifier FQDN format.  |

| Item | Definition of UE implementation capabilities                               | Ref.   | Release | Mnemonic                          | Comments   |
|------|--|--------|---------|-----------------------------------|--|
| 22   | UE supports only NB-S1 mode (i.e. NB-IoT)                                  | 24.301 | Rel-13  | pc_NB_S1_only                     |  |
| 23   | UE capable of requesting PDN of type "Non-IP"                              | 24.301 | Rel-13  | pc_NonIP_PDN                      |  |
| 24   | UE capable of requesting PDN of type "IP"                                  | 24.301 | Rel-13  | pc_IP_PDN                         |  |
| 25   | The UE supports Non-IP Link MTU parameter                                  | 24.301 | Rel-13  | pc_NonIP_Link_MTU<br>_Parameter   |  |
| 26   | The UE supports IPv4 Link MTU parameter                                    | 24.301 | Rel-13  | pc_IPv4_Link_MTU_P<br>arameter    |  |
| 27   | The UE supports APN rate control   | 24.301 | Rel-13  | pc_APN_RateControl                |  |
| 28   | The UE supports Header compression for control plane CloT EPS optimization | 24.301 | Rel-13  | pc_HCCPCIoT                       |  |
| 29   | The UE supports a mechanism to provide Daylight Saving Time                | 24.301 | Rel-8   | pc_ProvideDST_inUs<br>e           | Note 3   |
| 30   | The UE does not request IMS PDN connection when IMS VoPS set to '0'        | 24.301 | Rel-8   | pc_UE_NoReqIMS_I<br>MSVoPS_0      | Configured not to<br>request IMS PDN<br>connection when<br>IMS VoPS set to '0' |
| 31   | The UE supports additional APN rate control for exception data reporting   | 24.301 | Rel-14  | pc_Additional_APN_R<br>ateControl |  |
| 32   | The UE is configured to use SMS over IP                                    | 24.167 | Rel-8   | pc_Use_SMS_over_I<br>P            | Configured to use SMS over IP  |
| 33   | The UE supports a bearer with QCI 66                                       | 23.203 | Rel-14  | pc_Use_QCI_66                     |  |

Note 1: A UE supporting UTRAN and/or GERAN which is configured to initiate EPS attach considers UTRAN and GERAN cell as candidates for cell selection and cell reselection according to TS 36.304. A UE configured to initiate EPS attach which has selected a UTRAN or GERAN cell may perform registration procedures to the PS and CS domains, or to the PS domain only or to the CS domain only.

Note 2: pc\_XCAP\_only\_APN and pc\_XCAP\_over\_Internet\_APN are mutual exclusive i.e. shall not be set to true at the same time.

Note 3: Shall be set to false when pc\_DaylightSavingTime is false.

## A.4.5 Feature group indicators

For the purpose of conformance testing, the definition of each Feature Group Indicator (FGI) is duplicated from Rel-8 for each possible E-UTRA mode, i.e. FDD (Tables A.4.5-1a, A.4.5-1d and A.4.5-3a) and TDD (Tables A.4.5-1b, A.4.5-1e and A.4.5-3b). For each FGI (applicable to the Release supported by the UE):

- If the UE supports E-UTRA FDD and TDD: both FDD and TDD support statuses shall be declared separately (see Note 2).
- If the UE supports single E-UTRA xDD mode: only the xDD-specific support status needs to be declared.
- Note 1: From Rel-11 onwards 3GPP TSG RAN has discontinued the usage of FGI bits. Instead it has introduced a different mechanism to accomplish the same purposes based on the principles described in TS 36.306 [13] clause 4. These new principles where applicable should be catered for elsewhere in the present document e.g. in section A.4.4.
- Note 2: For Rel-8 UE, the separate declaration also applies to FGI 1-32.
- Note 3: 'VoLTE' in the tables A.4.5-1a and A.4.5-1b corresponds to a UE which is IMS voice capable.

Table A.4.5-1: Void

Table A.4.5-1a: Feature group indicators 1-32 for FDD

| Item | Additional information   | Notes  | If indicated "Yes" the feature shall be implemented and successfully tested for the corresponding release | Release                      | Ref.                 | Mnemonic        | Comments   |
|------|--|--|---|------------------------------|----------------------|-----------------|--|
| 1    | Support of - Intra-subframe frequency hopping for PUSCH scheduled by UL grant - DCI format 3a (TPC commands for PUCCH and PUSCH with single bit power adjustments) - Aperiodic CQI/PMI/RI reporting on PUSCH: Mode 2-0 - UE selected subband CQI without PMI - Aperiodic CQI/PMI/RI reporting on PUSCH: Mode 2-2 - UE selected subband CQI with multiple PMI | - set to 1 by category M1 and M2 UEs that have implemented and successfully tested "ZAperiodic CQI/PMI/RI reporting on PUSCH: Mode 2-0 - UE selected subband CQI without PM" |   | Rel-8                        | 36.331, Annex<br>B.1 | pc_FeatrGrp_1_F | Corresponding to the Index of Indicator, the leftmost binary bit 1. Set to true if supporting all functionalities in the feature group.  |
| 2    | Support of - Simultaneous CQI and ACK/NACK on PUCCH, i.e. PUCCH format 2a and 2b - Absolute TPC command for PUSCH - Resource allocation type 1 for PDSCH - Periodic CQI/PMI/RI reporting on PUCCH: Mode 2-0 - UE selected subband CQI without PMI - Periodic CQI/PMI/RI reporting on PUCCH: Mode 2-1 - UE selected subband CQI with single PMI               | - If a category<br>M1 or M2 UE<br>does not<br>support this<br>feature group,<br>this bit shall be<br>set to 0.   |   | Rel-8                        | 36.331, Annex<br>B.1 | pc_FeatrGrp_2_F | Corresponding to the Index of Indicator, the leftmost binary bit 2. Set to true if supporting all functionalities in the feature group.  |
| 3    | Support of - Semi-persistent scheduling - TTI bundling - 5bit RLC UM SN - 7bit PDCP SN  Support of - 5bit RLC UM SN - 7bit PDCP SN   | - can only be set to 1 if the UE has set bit number 7 to 1.  - can only be set to 1 if the UE has set bit number 7 to 1.   | Yes, if UE<br>supports<br>VoLTE   | Rel-8  Rel-9, Rel-10  Rel-11 | 36.331, Annex<br>B.1 | pc_FeatrGrp_3_F | Corresponding to the Index of Indicator, the leftmost binary bit 3. Set to true if supporting all functionalities in the feature group. If UE supports FDD and TDD this item shall be set to same value as for item 3 in Table A.4.5-1b for TDD. |

| Item | Additional information  | Notes  | If indicated "Yes" the feature shall be implemented and successfully tested for the corresponding release                       | Release                          | Ref.                 | Mnemonic        | Comments   |
|------|---|--|---|----------------------------------|----------------------|-----------------|--|
| 4    | Support of - Short DRX cycle                                  | - can only be<br>set to 1 if the<br>UE has set bit<br>number 5 to 1. |   | Rel-8                            | 36.331, Annex<br>B.1 | pc_FeatrGrp_4_F | Corresponding to the Index of Indicator, the leftmost binary bit 4. Set to true if supporting all functionalities in the feature group.  |
| 5    | Support of - Long DRX cycle - DRX command MAC control element |  | Yes   | Rel-9                            | 36.331, Annex<br>B.1 | pc_FeatrGrp_5_F | Corresponding to the Index of Indicator, the leftmost binary bit 5. Set to true if supporting all functionalities in the feature group. If UE supports FDD and TDD this item shall be set to same value as for item 5 in Table A.4.5-1b for TDD. |
| 6    | Support of - Prioritized bit rate                             |  | Yes   | Rel-8<br>Rel-9                   | 36.331, Annex<br>B.1 | pc_FeatrGrp_6_F | Corresponding to the Index of Indicator, the leftmost binary bit 6. Set to true if supporting all functionalities in the feature group. If UE supports FDD and TDD this item shall be set to same value as for item 6 in Table A.4.5-1b for TDD. |
| 7    | Support of<br>- RLC UM  | - can only be<br>set to 0 if the<br>UE does not<br>support voice     | Yes, if UE supports VoLTE Yes, if UE supports VoLTE. Yes, if UE supports VoLTE. Yes, if UE supports SRVCC to EUTRAN from GERAN. | Rel-8<br>Rel-9, Rel-10<br>Rel-11 | 36.331, Annex<br>B.1 | pc_FeatrGrp_7_F | Corresponding to the Index of Indicator, the leftmost binary bit 7. Set to true if supporting all functionalities in the feature group. If UE supports FDD and TDD this item shall be set to same value as for item 7 in Table A.4.5-1b for TDD. |
| 8    | Support of - EUTRA RRC_CONNECTED to UTRA CELL_DCH PS handover |  |   | Rel-8                            | 36.331, Annex<br>B.1 | pc_FeatrGrp_8_F |  |

| Item | Additional information  | Notes   | If indicated "Yes" the feature shall be implemented and successfully tested for the corresponding release | Release                   | Ref.                 | Mnemonic         | Comments   |
|------|---|---|---|---------------------------|----------------------|------------------|--|
|      | Support of - EUTRA RRC_CONNECTED to UTRA FDD or UTRA TDD CELL_DCH PS handover, if the UE supports either only UTRAN FDD or only UTRAN TDD - EUTRA RRC_CONNECTED to UTRA FDD CELL_DCH PS handover, if the UE supports both UTRAN FDD and UTRAN TDD | - can only be<br>set to 1 if the<br>UE has set bit<br>number 22 to 1                            | Yes (except for<br>category M1<br>amd M2 UEs),<br>if UE supports<br>UTRA FDD                              | Rel-9                     |                      |                  | Corresponding to the Index of Indicator, the leftmost binary bit 8. Set to true if supporting all functionalities in the feature group.  |
| 9    | Support of - EUTRA RRC_CONNECTED to GERAN GSM_Dedicated handover  | - related to SR-<br>VCC<br>- can only be<br>set to 1 if the<br>UE has set bit<br>number 23 to 1 | Yes (except for category M1 and M2 UEs), if UE supports SRVCC to EUTRAN from GERAN.                       | Rel-8 to Rel-10<br>Rel-11 | 36.331, Annex<br>B.1 | pc_FeatrGrp_9_F  | Corresponding to the Index of Indicator, the leftmost binary bit 9. Set to true if supporting all functionalities in the feature group.  |
| 10   | Support of - EUTRA RRC_CONNECTED to GERAN (Packet_)Idle by Cell Change Order - EUTRA RRC_CONNECTED to GERAN (Packet_)Idle by Cell Change Order with NACC (Network Assisted Cell Change)   |   |   | Rel-8                     | 36.331, Annex<br>B.1 | pc_FeatrGrp_10_F | Corresponding to the Index of Indicator, the leftmost binary bit 10. Set to true if supporting all functionalities in the feature group.   |
| 11   | Support of - EUTRA RRC_CONNECTED to CDMA2000 1xRTT CS Active handover   | - can only be<br>set to 1 if the<br>UE has sets bit<br>number 24 to 1                           |   | Rel-8                     | 36.331, Annex<br>B.1 | pc_FeatrGrp_11_F | Corresponding to the Index of Indicator, the leftmost binary bit 11.Set to true if supporting all functionalities in the feature group.  |
| 12   | Support of - EUTRA RRC_CONNECTED to CDMA2000 HRPD Active handover   | - can only be<br>set to 1 if the<br>UE has set bit<br>number 26 to 1                            |   | Rel-8                     | 36.331, Annex<br>B.1 | pc_FeatrGrp_12_F | Corresponding to the Index of Indicator, the leftmost binary bit 12. Set to true if supporting all functionalities in the feature group.   |
| 13   | Support of - Inter-frequency handover (within FDD or TDD)   | - can only be<br>set to 1 if the<br>UE has set bit<br>number 25 to 1                            | Yes (except for<br>category M1<br>and M2 UEs),<br>unless UE only<br>supports band<br>13                   | Rel-8<br>Rel-9            | 36.331, Annex<br>B.1 | pc_FeatrGrp_13_F | Corresponding to the Index of Indicator, the leftmost binary bit 13. Set to true if supporting all functionalities in the feature group. If UE supports FDD and TDD this item shall be set to same value as for item 13 in Table A.4.5-1b for TDD. |

| Item   | Additional information   | Notes                              | If indicated    | Release  | Ref.          | Mnemonic            | Comments                       |
|--------|--|------------------------------------|-----------------|----------|---------------|---------------------|--------------------------------|
| iteiii | Additional information   | Notes                              | "Yes" the       | ixelease | ivei.         | Willelliollic       | Comments                       |
|        |  |                                    | feature shall   |          |               |                     |                                |
|        |  |                                    | be              |          |               |                     |                                |
|        |  |                                    | implemented     |          |               |                     |                                |
|        |  |                                    | and             |          |               |                     |                                |
|        |  |                                    | successfully    |          |               |                     |                                |
|        |  |                                    | tested for the  |          |               |                     |                                |
|        |  |                                    | corresponding   |          |               |                     |                                |
|        |  |                                    | release         |          |               |                     |                                |
| 14     | Support of   |                                    |                 | Rel-8    | 36.331, Annex | pc_FeatrGrp_14_F    | Corresponding to the Index of  |
|        | - Measurement reporting event: Event A4 - Neighbour > threshold              |                                    |                 | Rel-9    | B.1           | Po_: out o.p_ : :_: | Indicator, the leftmost binary |
|        | - Measurement reporting event: Event A5 - Serving < threshold1 & Neighbour > |                                    | category M1     | 11010    |               |                     | bit 14.                        |
|        | threshold2   |                                    | and M2 UEs)     |          |               |                     | Set to true if supporting all  |
|        |  |                                    | and ME CEO,     |          |               |                     | functionalities in the feature |
|        |  |                                    |                 |          |               |                     | group.                         |
|        |  |                                    |                 |          |               |                     | If UE supports FDD and TDD     |
|        |  |                                    |                 |          |               |                     | this item shall be set to same |
|        |  |                                    |                 |          |               |                     | value as for item 14 in Table  |
|        |  |                                    |                 |          |               |                     | A.4.5-1b for TDD.              |
| 15     | Support of   | - can only be                      |                 | Rel-8    | 36.331, Annex | pc_FeatrGrp_15_F    | Corresponding to the Index of  |
|        | - Measurement reporting event: Event B1 - Neighbour > threshold for UTRAN    | set to 1 if the                    | Yes for FDD, if | Rel-9    | B.1           |                     | Indicator, the leftmost binary |
|        | FDD or UTRAN TDD, if the UE supports either only UTRAN FDD or only UTRAN     | UE has set at                      | UE supports     |          |               |                     | bit 15.                        |
|        | TDD and has set bit number 22 to 1   | least one of the                   | only UTRAN      |          |               |                     | Set to true if supporting all  |
|        | - Measurement reporting event: Event B1 - Neighbour > threshold for UTRAN    | bit number 22,                     | FDD and does    |          |               |                     | functionalities in the feature |
|        | FDD or UTRAN TDD, if the UE supports both UTRAN FDD and UTRAN TDD and        | 23, 24, 26 or 39                   | not support     |          |               |                     | group.                         |
|        | has set bit number 22 or 39 to 1, respectively                               | to 1.                              | UTRAN TDD or    |          |               |                     |                                |
|        | - Measurement reporting event: Event B1 - Neighbour > threshold for GERAN,   | <ul> <li>even if the UE</li> </ul> |                 |          |               |                     |                                |
|        | 1xRTT or HRPD, if the UE has set bit number 23, 24 or 26 to 1, respectively  | sets bits 41, it                   | 1xRTT or        |          |               |                     |                                |
|        |  | shall still set bit                | HRPD            |          |               |                     |                                |
|        |  | 15 to 1 if                         |                 |          |               |                     |                                |
|        |  | measurement                        |                 |          |               |                     |                                |
|        |  | reporting event                    |                 |          |               |                     |                                |
|        |  | B1 is tested for                   |                 |          |               |                     |                                |
|        |  | all RATs                           |                 | 1        |               |                     |                                |
|        |  | supported by                       |                 |          |               |                     |                                |
|        |  | UĖ                                 |                 |          |               |                     |                                |
|        |  | - If a category                    |                 |          |               |                     |                                |
|        |  | M1 or M2 UE                        |                 |          |               |                     |                                |
|        |  | does not                           |                 |          |               |                     |                                |
|        |  | support this                       |                 |          |               |                     |                                |
|        |  | feature group,                     |                 | 1        |               |                     |                                |
|        |  | this bit shall be                  |                 |          |               |                     |                                |
|        |  | set to 0.                          |                 |          |               |                     |                                |
| 16     |  |                                    | Ì               | Rel-8    |               | pc_FeatrGrp_16_F    |                                |

| Item | Additional information  | Notes  | If indicated "Yes" the feature shall be implemented and successfully tested for the corresponding release | Release | Ref.                 | Mnemonic         | Comments   |
|------|---|--|---|---------|----------------------|------------------|--|
|      | Support of Intra-frequency periodical measurement reporting where triggerType is set to periodical and purpose is set to reportStrongestCells; Inter-frequency periodical measurement reporting where triggerType is set to periodical and purpose is set to reportStrongestCells, if the UE has set bit number 25 to 1; and Inter-RAT periodical measurement reporting where triggerType is set to periodical and purpose is set to reportStrongestCells for UTRAN, GERAN, 1xRTT or HRPD, if the UE has set bit number 22, 23, 24 or 26 to 1, respectively NOTE: Event triggered periodical reporting (i.e. with triggerType set to event and with reportAmount > 1) is a mandatory functionality of event triggered reporting and therefore not the subject of this bit.  Support of Intra-frequency periodical measurement reporting where triggerType is set to periodical and purpose is set to reportStrongestCells. If the UE has set bit number 25 to 1 Inter-frequency periodical measurement reporting where triggerType is set to periodical and purpose is set to reportStrongestCells, if the UE has set bit number 25 to 1 Inter-RAT periodical measurement reporting where triggerType is set to periodical and purpose is set to reportStrongestCells for UTRAN FDD or UTRAN TDD, if the UE supports either only UTRAN FDD or only UTRAN TDD and has set bit number 22 to 1 Inter-RAT periodical measurement reporting where triggerType is set to periodical and purpose is set to reportStrongestCells for UTRAN FDD or UTRAN TDD, if the UE supports both UTRAN FDD and UTRAN TDD and has set bit number 22 or 39 to 1, respectively Inter-RAT periodical measurement reporting where triggerType is set to periodical and purpose is set to reportStrongestCells for GERAN, 1xRTT or HRPD, if the UE has set bit number 23, 24 or 26 to 1, respectively NOTE: Event triggered periodical reporting (i.e., with triggerType set to event and with reportAmount > 1) is a mandatory functionality of event triggered reporting and therefore not the subject of this bit. | - If a category<br>M1 or M2 UE<br>does not<br>support this<br>feature group,<br>this bit shall be<br>set to 0. | Yes   | Rel-9   | 36.331, Annex<br>B.1 |                  | Corresponding to the Index of Indicator, the leftmost binary bit 16.Set to true if supporting all functionalities in the feature group.  If UE supports FDD and TDD this item shall be set to same value as for item 16 in Table A.4.5-1b for TDD. |
| 17   |   |  |   | Rel-8   |                      | pc_FeatrGrp_17_F |  |

| Item | Additional information  | Notes  | If indicated "Yes" the feature shall be implemented and successfully tested for the corresponding release | Release        | Ref.                 | Mnemonic         | Comments   |
|------|---|--|---|----------------|----------------------|------------------|--|
|      | Support of Intra-frequency ANR features including: - Intra-frequency periodical measurement reporting where triggerType is set to periodical and purpose is set to reportStrongestCells - Intra-frequency periodical measurement reporting where triggerType is set to periodical and purpose is set to reportCGI   | - can only be set to 1 if the UE has set bit number 5 to 1 If a category M1 or M2 UE does not support this feature group, this bit shall be set to 0.                                  | Yes   | Rel-9          | 36.331, Annex<br>B.1 |                  | Corresponding to the Index of Indicator, the leftmost binary bit 17.  Set to true if supporting all functionalities in the feature group.  If UE supports FDD and TDD this item shall be set to same value as for item 17 in Table A.4.5-1b for TDD. |
| 18   | Support of Inter-frequency ANR features including: - Inter-frequency periodical measurement reporting where triggerType is set to periodical and purpose is set to reportStrongestCells - Inter-frequency periodical measurement reporting where triggerType is set to periodical and purpose is set to reportCGI   | - can only be<br>set to 1 if the<br>UE has set bit<br>number 5 to 1.<br>- If a category<br>M1 or M2 UE<br>does not<br>support this<br>feature group,<br>this bit shall be<br>set to 0. | Yes, unless UE<br>only supports<br>band 13  | Rel-8<br>Rel-9 | 36.331, Annex<br>B.1 | pc_FeatrGrp_18_F | Corresponding to the Index of Indicator, the leftmost binary bit 18. Set to true if supporting all functionalities in the feature group. If UE supports FDD and TDD this item shall be set to same value as for item 18 in Table A.4.5-1b for TDD.   |
| 19   | Support of Inter-RAT ANR features including: - Inter-RAT periodical measurement reporting where triggerType is set to periodical and purpose is set to reportStrongestCells for GERAN, if the UE has set bit number 23 to 1 - Inter-RAT periodical measurement reporting where triggerType is set to periodical and purpose is set to reportStrongestCellsForSON for UTRAN, 1xRTT or HRPD, if the UE has set bit number 22, 24 or 26 to 1, respectively - Inter-RAT periodical measurement reporting where triggerType is set to periodical and purpose is set to reportCGI for UTRAN, GERAN, 1xRTT or HRPD, if the UE has set bit number 22, 23, 24 or 26 to 1, respectively | 5. 10 5.   |   | Rel-8          | 36.331, Annex<br>B.1 | pc_FeatrGrp_19_F | Corresponding to the Index of Indicator, the leftmost binary bit 19. Set to true if supporting all functionalities in the feature group.   |

| Item | Additional information  | Notes   | If indicated "Yes" the feature shall be implemented and successfully tested for the corresponding release | Release | Ref. | Mnemonic         | Comments |
|------|---|---|---|---------|------|------------------|----------|
| 20   | Support of Inter-RAT ANR features including:  - Inter-RAT periodical measurement reporting where triggerType is set to periodical and purpose is set to reportStrongestCells for GERAN, if the UE has set bit number 23 to 1  - Inter-RAT periodical measurement reporting where triggerType is set to periodical and purpose is set to reportStrongestCellsForSON for UTRAN FDD or UTRAN TDD, if the UE supports either only UTRAN FDD or only UTRAN TDD and has set bit number 22 to 1  - Inter-RAT periodical measurement reporting where triggerType is set to periodical and purpose is set to reportStrongestCellsForSON for UTRAN FDD or UTRAN TDD, if the UE supports both UTRAN FDD and UTRAN TDD and has set bit number 22 or 39 to 1, respectively  - Inter-RAT periodical measurement reporting where triggerType is set to periodical and purpose is set to reportStrongestCellsForSON for 1xRTT or HRPD, if the UE has set bit number 24 or 26 to 1, respectively  - Inter-RAT periodical measurement reporting where triggerType is set to periodical and purpose is set to reportCGI for UTRAN FDD or UTRAN TDD, if the UE supports either only UTRAN FDD or only UTRANTDD and has set bit number 22 to 1  - Inter-RAT periodical measurement reporting where triggerType is set to periodical and purpose is set to reportCGI for UTRAN FDD or UTRAN TDD, if the UE supports both UTRAN FDD and UTRAN FDD and has set bit number 22 or 39 to 1, respectively  - Inter-RAT periodical measurement reporting where triggerType is set to periodical and purpose is set to reportCGI for UTRAN FDD or UTRAN TDD, if the UE supports both UTRAN FDD and UTRAN TDD and has set bit number 22 or 39 to 1, respectively  - Inter-RAT periodical measurement reporting where triggerType is set to periodical and purpose is set to reportCGI for GERAN, 1xRTT or HRPD, if the UE has set bit number 23, 24 or 26 to 1, respectively | - can only be set to 1 if the UE has set bit number 5 to 1 and the UE has set at least one of the bit number 22, 23, 24 or 26 to 1 even if the UE sets bits 33 to 36, it shall still set bit 19 to 1 if inter-RAT ANR features are tested for all RATs for which inter-RAT measurement reporting is indicated as tested |   | Rel-9   |      | no FoatrGro 20 E |          |
| 20   |   |   |   | Rel-8   |      | pc_FeatrGrp_20_F |          |

| Item | Additional information   | Notes   | If indicated "Yes" the feature shall be implemented and successfully tested for the corresponding release | Release        | Ref.                 | Mnemonic         | Comments   |
|------|--|---|---|----------------|----------------------|------------------|--|
|      | If bit number 7 is set to '0': - SRB1 and SRB2 for DCCH + 8x AM DRB If bit number 7 is set to '1': - SRB1 and SRB2 for DCCH + 8x AM DRB - SRB1 and SRB2 for DCCH + 5x AM DRB + 3x UM DRB NOTE: UE which indicate support for a DRB combination also support all subsets of the DRB combination. Therefore, release of DRB(s) never results in an unsupported DRB combination.  | - Regardless of what bit number 7 and bit number 20 is set to, UE shall support at least SRB1 and SRB2 for DCCH + 4x AM DRB - Regardless of what bit number 20 is set to, if bit number 7 is set to '1', UE shall support at least SRB1 and SRB2 for DCCH + 4x AM DRB + 1x UM DRB | Yes   | Rel-9          | 36.331, Annex<br>B.1 |                  | Corresponding to the Index of Indicator, the leftmost binary bit 20.  Set to true if supporting all functionalities in the feature group.  If UE supports FDD and TDD this item shall be set to same value as for item 20 in Table A.4.5-1b for TDD. |
| 21   | Support of - Predefined intra- and inter-subframe frequency hopping for PUSCH with N_sb > 1 - Predefined inter-subframe frequency hopping for PUSCH with N_sb > 1  | - If a category<br>M1 or M2 UE<br>does not<br>support this<br>feature group,<br>this bit shall be<br>set to 0.  |   | Rel-8          | 36.331, Annex<br>B.1 | pc_FeatrGrp_21_F | Corresponding to the Index of Indicator, the leftmost binary bit 21. Set to true if supporting all functionalities in the feature group. If UE supports FDD and TDD this item shall be set to same value as for item 21 in Table A.4.5-1b for TDD.   |
| 22   | Support of - UTRAN measurements, reporting and measurement reporting event B2 in E- UTRA connected mode Support of - UTRAN FDD or UTRAN TDD measurements, reporting and measurement reporting event B2 in E-UTRA connected mode, if the UE supports either only UTRAN FDD or only UTRAN TDD - UTRAN FDD measurements, reporting and measurement reporting event B2 in E-UTRA connected mode, if the UE supports both UTRAN FDD and UTRAN TDD | - If a category<br>M1 or M2 UE<br>does not<br>support this<br>feature group,<br>this bit shall be<br>set to 0.  | Yes, if UE<br>supports UTRA   | Rel-8<br>Rel-9 | 36.331, Annex<br>B.1 | pc_FeatrGrp_22_F | Corresponding to the Index of Indicator, the leftmost binary bit 22. Set to true if supporting all functionalities in the feature group.   |

| Item | Additional information  | Notes  | If indicated "Yes" the feature shall be implemented and successfully tested for the corresponding release | Release        | Ref.                 | Mnemonic         | Comments   |
|------|---|--|---|----------------|----------------------|------------------|--|
| 23   | Support of - GERAN measurements, reporting and measurement reporting event B2 in E-UTRA connected mode  | - If a category<br>M1 or M2 UE<br>does not<br>support this<br>feature group,<br>this bit shall be<br>set to 0. |   | Rel-8          | 36.331, Annex<br>B.1 | pc_FeatrGrp_23_F | Corresponding to the Index of Indicator, the leftmost binary bit 23.Set to true if supporting all functionalities in the feature group.  |
| 24   | Support of - 1xRTT measurements, reporting and measurement reporting event B2 in E-UTRA connected mode  | - If a category<br>M1 or M2 UE<br>does not<br>support this<br>feature group,<br>this bit shall be<br>set to 0. | Yes, if UE<br>supports<br>enhanced<br>1xRTT CSFB  | Rel-9          | 36.331, Annex<br>B.1 | pc_FeatrGrp_24_F | Corresponding to the Index of Indicator, the leftmost binary bit 24. Set to true if supporting all functionalities in the feature group.   |
| 25   | Support of - Inter-frequency measurements and reporting in E-UTRA connected mode NOTE: The UE setting this bit to 1 and indicating support for FDD and TDD frequency bands in the UE capability signalling implements and is tested for FDD measurements while the UE is in TDD, and for TDD measurements while the UE is in FDD. | - If a category<br>M1 or M2 UE<br>does not<br>support this<br>feature group,<br>this bit shall be<br>set to 0. | Yes, unless UE<br>only supports<br>band 13  | Rel-8<br>Rel-9 | 36.331, Annex<br>B.1 | pc_FeatrGrp_25_F | Corresponding to the Index of Indicator, the leftmost binary bit 25. Set to true if supporting all functionalities in the feature group. If UE supports FDD and TDD this item shall be set to same value as for item 25 in Table A.4.5-1b for TDD. |
| 26   | Support of - HRPD measurements, reporting and measurement reporting event B2 in E-UTRA connected mode   | - If a category<br>M1 or M2 UE<br>does not<br>support this<br>feature group,<br>this bit shall be<br>set to 0. | Yes, if UE<br>supports HRPD   | Rel-8<br>Rel-9 | 36.331, Annex<br>B.1 | pc_FeatrGrp_26_F | Corresponding to the Index of Indicator, the leftmost binary bit 26. Set to true if supporting all functionalities in the feature group.   |
| 27   | Support of - EUTRA RRC_CONNECTED to UTRA CELL_DCH CS handover   |  |   | Rel-8          | 36.331, Annex<br>B.1 | pc_FeatrGrp_27_F |  |

| Item | Additional information   | Notes                                      | If indicated                   | Release | Ref.          | Mnemonic         | Comments  |
|------|--|--|--------------------------------|---------|---------------|------------------|---|
|      |  |  | "Yes" the                      |         |               |                  |   |
|      |  |  | feature shall<br>be            |         |               |                  |   |
|      |  |  | implemented                    |         |               |                  |   |
|      |  |  | and                            |         |               |                  |   |
|      |  |  | successfully<br>tested for the |         |               |                  |   |
|      |  |  | corresponding                  |         |               |                  |   |
|      |  |  | release                        |         |               |                  |   |
|      | Support of - EUTRA RRC_CONNECTED to UTRA FDD or UTRA TDD CELL_DCH CS | <ul> <li>related to SR-<br/>VCC</li> </ul> | ,                              | Rel-9   |               |                  | Corresponding to the Index of Indicator, the leftmost binary    |
|      | handover, if the UE supports either only UTRAN FDD or only UTRAN TDD | - can only be                              | supports<br>VoLTE and          |         |               |                  | bit 27.   |
|      | - EUTRA RRC_CONNECTED to UTRA FDD CELL_DCH CS handover, if the UE    | set to 1 if the                            | UTRA FDD                       |         |               |                  | Set to true if supporting all                                   |
|      | supports both UTRAN FDD and UTRAN TDD                                | UE has set bit                             |                                |         |               |                  | functionalities in the feature                                  |
|      |  | number 8 to 1 and supports                 |                                |         |               |                  | group.  |
|      |  | SR-VCC from                                |                                |         |               |                  |   |
|      |  | EUTRA defined                              |                                |         |               |                  |   |
|      |  | in TS 24.008 If a category                 |                                |         |               |                  |   |
|      |  | M1 or M2 UE                                |                                |         |               |                  |   |
|      |  | does not                                   |                                |         |               |                  |   |
|      |  | support this                               |                                |         |               |                  |   |
|      |  | feature group,<br>this bit shall be        |                                |         |               |                  |   |
|      |  | set to 0.                                  |                                |         |               |                  |   |
| 28   | Support of   | - If a category                            | Yes                            | Rel-9   | 36.331, Annex | pc_FeatrGrp_28_F | Corresponding to the Index of                                   |
|      | - TTI bundling   | M1 or M2 UE<br>does not                    |                                |         | B.1           |                  | Indicator, the leftmost binary bit 28.Set to true if supporting |
|      |  | support this                               |                                |         |               |                  | all functionalities in the feature                              |
|      |  | feature group,                             |                                |         |               |                  | group.  |
|      |  | this bit shall be                          |                                |         |               |                  |   |
| 29   | Support of   | set to 0 If a category                     |                                | Rel-9   | 36.331, Annex | pc_FeatrGrp_29_F | Corresponding to the Index of                                   |
| 29   | - Semi-Persistent Scheduling   | M1 UE does                                 |                                | Rei-9   | B.1           | pc_realiGip_29_r | Indicator, the leftmost binary                                  |
|      | 3  | not support this                           |                                |         |               |                  | bit 29.Set to true if supporting                                |
|      |  | feature group,<br>this bit shall be        |                                |         |               |                  | all functionalities in the feature                              |
|      |  | set to 0.                                  |                                |         |               |                  | group.  |
| 30   | Support of   | - can only be                              |                                | Rel-8   | 36.331, Annex | pc_FeatrGrp_30_F | Corresponding to the Index of                                   |
|      | - Handover between FDD and TDD                                       | set to 1 if the                            |                                |         | B.1           |                  | Indicator, the leftmost binary                                  |
|      |  | UE has set bit number 13 to 1              |                                |         |               |                  | bit 30. Set to true if supporting all                           |
|      |  |  |                                |         |               |                  | functionalities in the feature                                  |
|      |  |  |                                |         |               |                  | group.  |
|      |  |  |                                |         |               |                  | If UE supports FDD and TDD this item shall be set to same       |
|      |  |  |                                |         |               |                  | value as for item 30 in Table                                   |
|      |  |  |                                |         |               |                  | A.4.5-1b for TDD.   |

| Item 31 | Additional information  Support of  | Notes  - This FGI bit is  | If indicated "Yes" the feature shall be implemented and successfully tested for the corresponding release | Release | Ref.<br>36.331, Annex | Mnemonic  pc_FeatrGrp_31_F | Corresponding to the Index of  |
|---------|---|---|---|---------|-----------------------|----------------------------|--|
| 31      | - Indicates whether the UE supports the mechanisms defined for cells broadcasting multi band information i.e. comprehending multiBandInfoList, disregarding in RRC_CONNECTED the related system information fields and understanding the EARFCN signalling for all bands, that overlap with the bands supported by the UE, and that are defined in the earliest version of TS 36.101 [42] that includes all UE supported bands. | concerns an optional release independent feature (as it was difficult to introduce this from REL-8 when using regular UE capability signalling) |   |         | B.1                   | рс_геаногр_31_г            | Corresponding to the Index of Indicator, the leftmost binary bit 31.  Set to true if supporting all functionalities in the feature group.  If UE supports FDD and TDD this item shall be set to same value as for item 31 in Table A.4.5-1b for TDD. |
|         |   |   | Yes   | Rel-10  |                       |                            |  |
| 32      | Undefined   |   |   | Rel-8   | 36.331, Annex<br>B.1  |                            | Corresponding to the Index of Indicator, the leftmost binary bit 32.   |

197

Table A.4.5-1b: Feature group indicators 1-32 for TDD

| Item | Additional information   | Notes   | If indicated "Yes" the feature shall be implemented and successfully tested for the corresponding     | Release                          | Ref.                 | Mnemonic        | Comments   |
|------|--|---|---|----------------------------------|----------------------|-----------------|--|
| 1    | Support of - Intra-subframe frequency hopping for PUSCH scheduled by UL grant - DCI format 3a (TPC commands for PUCCH and PUSCH with single bit power adjustments) - Aperiodic CQI/PMI/RI reporting on PUSCH: Mode 2-0 - UE selected subband CQI without PMI - Aperiodic CQI/PMI/RI reporting on PUSCH: Mode 2-2 - UE selected subband CQI with multiple PMI | - set to 1 by category M1 and M2 UEs that have implemented and successfully tested "Aperiodic CQI/PMI/RI reporting on PUSCH: Mode 2-0 - UE selected subband CQI without PM" | release   | Rel-8                            | 36.331, Annex<br>B.1 | pc_FeatrGrp_1_T | Corresponding to the Index of Indicator, the leftmost binary bit 1. Set to true if supporting all functionalities in the feature group.  |
| 2    | Support of - Simultaneous CQI and ACK/NACK on PUCCH, i.e. PUCCH format 2a and 2b - Absolute TPC command for PUSCH - Resource allocation type 1 for PDSCH - Periodic CQI/PMI/RI reporting on PUCCH: Mode 2-0 - UE selected subband CQI without PMI - Periodic CQI/PMI/RI reporting on PUCCH: Mode 2-1 - UE selected subband CQI with single PMI               | - If a category M1<br>or M2 UE does not<br>support this feature<br>group, this bit shall<br>be set to 0.  |   | Rel-8                            | 36.331, Annex<br>B.1 | pc_FeatrGrp_2_T | Corresponding to the Index of Indicator, the leftmost binary bit 2. Set to true if supporting all functionalities in the feature group.  |
| 3    | Support of - Semi-persistent scheduling - TTI bundling - 5bit RLC UM SN - 7bit PDCP SN  Support of - 5bit RLC UM SN - 7bit PDCP SN   | - can only be set to<br>1 if the UE has set<br>bit number 7 to 1.   | Yes, if UE supports VoLTE  Yes, if UE supports VoLTE. Yes, if UE supports SRVCC to EUTRAN from GERAN. | Rel-8<br>Rel-9, Rel-10<br>Rel-11 | 36.331, Annex<br>B.1 | pc_FeatrGrp_3_T | Corresponding to the Index of Indicator, the leftmost binary bit 3.  Set to true if supporting all functionalities in the feature group.  If UE supports FDD and TDD this item shall be set to same value as for item 3 in Table A.4.5-1a for FDD. |
| 4    | Support of - Short DRX cycle   | - can only be set to<br>1 if the UE has set<br>bit number 5 to 1.   |   | Rel-8                            | 36.331, Annex<br>B.1 | pc_FeatrGrp_4_T | Corresponding to the Index of Indicator, the leftmost binary bit 4. Set to true if supporting all functionalities in the feature group.  |
| 5    |  |   |   | Rel-8                            |                      | pc_FeatrGrp_5_T |  |

| - Long DRX cycle - DRX command MAC control element  - Long DRX cycle - DRX command MAC control element  - Long DRX cycle - DRX command MAC control element  - Long DRX cycle - DRX command MAC control element  - Long DRX cycle - DRX command MAC control element  - Long DRX cycle - DRX command MAC control element  - Long DRX cycle - DRX command MAC control element  - Long DRX cycle - DRX command MAC control element  - Long DRX cycle - DRX command MAC control element  - Long DRX cycle - Set to true if indicator, the bit 5 Set to true if indicator, the bit 6 Correspondir indicator, the bit 6 Correspondir indicator, the bit 6 Can only be set to 0 if the UE does not support voice - Support of - RLC UM  - Can only be set to 0 if the UE does not support voice - Support voice - Support voice - Support voice - Can only be set to 1 support voice - Support voice - Can only be set to 1 support voice - Can only be set to 1 support voice - Can only be set to 1 support voice - Can only be set to 1 if the UE does not support voice - Can only be set to 1 support voice - Can only be set to 1 support voice - Can only be set to 1 if the UE assess thit number 22 to 1 set to true if the UE support voice - Can only be set to 1 if the UE assess thit number 22 to 1 set to true if the UE support voice - Can only be set to 1 if the UE assess thit number 22 to 1 set to true if the UE support voice - Correspondir indicator, the bit 8 Can only be set to 1 if the UE assess thit number 22 to 1 set to true if the UE assess the bit N Can only be set to 1 if the UE assess the bit N Can only be set to 1 if the UE assess the bit N Can only be set to 1 if the UE assess the bit N Can only be set to 1 if the UE assess the bit N Can only be set to 1 if the UE assess the bit N Can only be set to 1 if the UE assess the bit N Can only be set to 1 if the UE assess the bit N Can only be set to 1 if the UE assess the bit N Can only be set to 1 if the UE assess the N Can only be set to 1 if the UE assess the N Can   | Ref. Mnemonic Comments  |     | Release                 | If indicated "Yes" the feature shall be implemented and successfully tested for the corresponding release | Notes                              | Additional information   | Item |
|--|---|-----|-------------------------|---|------------------------------------|--|------|
| - Prioritized bit rate  Prioritized bit support bit stem shal value as for in A.4.5-1 a for for the priority voice  Prioritized bit rate support be bit rate first functionalities  Prospective first UE support bit in dicator, the bit rate first functionalities  Prospective first UE support bit rate first functionalities  Prospective first UE support bit stem shal value as for in A.4.5-1 a for for the priority voice  Prioritized rate first functionalities  Prospective first UE support bit stem shal value as for in A.4.5-1 a for for the priority v | bit 5. Set to true if supporting all functionalities in the feature group. If UE supports FDD and TDD this item shall be set to same value as for item 5 in Table A.4.5-1a for FDD.   | B.1 | Rel-9                   | Yes   |                                    |  |      |
| 7 Support of - RLC UM  - RLC UM  - RLC UM  - RLC UM  - RLC UM  - RLC UM  - RLC UM  - RLC UM  - RLC UM  - Rel-8  0 if the UE does not support voice  - Can only be set to 0 if the UE does not support voice  - Rel-9, Rel-10  - Supports VoLTE  Yes, if UE - supports VoLTE.  Yes, if UE - supports VoLTE.  Yes, if UE - supports SRVCC - to EUTRAN from GERAN.  - Can only be set to 1 if the UE has set bit number 22 to 1  - Can only be set to 1 if the UE has set bit number 22 to 1  - Can only be set to 1 if the UE has set bit number 22 to 1  - Can only be set to 1 if the UE has set bit number 22 to 1  - Can only be set to 1 if the UE has set bit number 22 to 1  - Can only be set to 1 if the UE has set bit number 22 to 1  - Can only be set to 1 if the UE has set bit number 22 to 1  - Can only be set to 1 if the UE has set bit number 22 to 1  | 36.331, Annex B.1  pc_FeatrGrp_6_T  Corresponding to the Index of Indicator, the leftmost binary bit 6.  Set to true if supporting all functionalities in the feature   |     |                         | Yes   |                                    |  | 6    |
| - EUTRA RRC_CONNECTED to UTRA FDD or UTRA TDD CELL_DCH PS handover, if the UE supports either only UTRAN FDD or only UTRAN TDD B.1 Indicator, the bit number 22 to 1 UTRAN TDD Set to true if:   | 36.331, Annex B.1  Corresponding to the Index of Indicator, the leftmost binary bit 7. Set to true if supporting all functionalities in the feature group. If UE supports FDD and TDD this item shall be set to same value as for item 7 in Table A.4.5-1a for FDD. | B.1 | Rel-9, Rel-10<br>Rel-11 | supports VoLTE Yes, if UE supports VoLTE. Yes, if UE supports SRVCC to EUTRAN from                        | 0 if the UE does not support voice | Support of - RLC UM  | 7    |
| if the UE supports both UTRAN FDD and UTRAN TDD  group.  Rel-8 to Rel-10  pc_FeatrGrp_9_T  | B.1  Indicator, the leftmost binary bit 8.  Set to true if supporting all functionalities in the feature group.   | B.1 |                         |   | 1 if the UE has set                | - EUTRA RRC_CONNECTED to UTRA FDD or UTRA TDD CELL_DCH PS handover, if the UE supports either only UTRAN FDD or only UTRAN TDD - EUTRA RRC_CONNECTED to UTRA FDD CELL_DCH PS handover, | -    |

| Item | Additional information  Support of  | Notes - related to SR-VCC  | If indicated "Yes" the feature shall be implemented and successfully tested for the corresponding release Yes (except for | Release        | Ref.                 | Mnemonic         | Comments  Corresponding to the Index of  |
|------|---|--|---|----------------|----------------------|------------------|--|
|      | - EUTRA RRC_CONNECTED to GERAN GSM_Dedicated handover   | - can only be set to<br>1 if the UE has set<br>bit number 23 to 1  | category for<br>and M2 UEs), if<br>UE supports<br>SRVCC to<br>EUTRAN from<br>GERAN.                                       | T.C.           | B.1                  |                  | Indicator, the leftmost binary bit 9. Set to true if supporting all functionalities in the feature group.  |
| 10   | Support of - EUTRA RRC_CONNECTED to GERAN (Packet_)Idle by Cell Change Order - EUTRA RRC_CONNECTED to GERAN (Packet_)Idle by Cell Change Order with NACC (Network Assisted Cell Change) |  |   | Rel-8          | 36.331, Annex<br>B.1 | pc_FeatrGrp_10_T | Corresponding to the Index of Indicator, the leftmost binary bit 10. Set to true if supporting all functionalities in the feature group.   |
| 11   | Support of - EUTRA RRC_CONNECTED to CDMA2000 1xRTT CS Active handover   | - can only be set to<br>1 if the UE has sets<br>bit number 24 to 1 |   | Rel-8          | 36.331, Annex<br>B.1 | pc_FeatrGrp_11_T | Corresponding to the Index of Indicator, the leftmost binary bit 11. Set to true if supporting all functionalities in the feature group.   |
| 12   | Support of - EUTRA RRC_CONNECTED to CDMA2000 HRPD Active handover   | - can only be set to<br>1 if the UE has set<br>bit number 26 to 1  |   | Rel-8          | 36.331, Annex<br>B.1 | pc_FeatrGrp_12_T | Corresponding to the Index of Indicator, the leftmost binary bit 12. Set to true if supporting all functionalities in the feature group.   |
| 13   | Support of - Inter-frequency handover (within FDD or TDD)   | - can only be set to<br>1 if the UE has set<br>bit number 25 to 1  | Yes (except for<br>category M1 and<br>M2 UEs),, unless<br>UE only supports<br>band 13                                     | Rel-8<br>Rel-9 | 36.331, Annex<br>B.1 | pc_FeatrGrp_13_T | Corresponding to the Index of Indicator, the leftmost binary bit 13. Set to true if supporting all functionalities in the feature group. If UE supports FDD and TDD this item shall be set to same value as for item 13 in Table A.4.5-1a for FDD. |
| 14   |   |  |   | Rel-8          |                      | pc_FeatrGrp_14_T |  |

| Item | Additional information  Support of - Measurement reporting event: Event A4 - Neighbour > threshold  | Notes   | If indicated "Yes" the feature shall be implemented and successfully tested for the corresponding release Yes (except for category M1 and | Release | Ref. 36.331, Annex B.1 | Mnemonic         | Corresponding to the Index of Indicator, the leftmost binary   |
|------|---|---|---|---------|------------------------|------------------|--|
|      | - Measurement reporting event: Event A5 - Serving < threshold1 & Neighbour > threshold2   |   | M2 ŰEs),  |         |                        |                  | bit 14. Set to true if supporting all functionalities in the feature group. If UE supports FDD and TDD this item shall be set to same value as for item 14 in Table A.4.5-1a for FDD.  |
| 15   | Support of - Measurement reporting event: Event B1 - Neighbour > threshold for UTRAN FDD or UTRAN TDD, if the UE supports either only UTRAN FDD or only UTRAN TDD and has set bit number 22 to 1 - Measurement reporting event: Event B1 - Neighbour > threshold for UTRAN FDD or UTRAN TDD, if the UE supports both UTRAN FDD and UTRAN TDD and has set bit number 22 or 39 to 1, respectively - Measurement reporting event: Event B1 - Neighbour > threshold for GERAN, 1xRTT or HRPD, if the UE has set bit number 23, 24 or 26 to 1, respectively  | - can only be set to 1 if the UE has set at least one of the bit number 22, 23, 24, 26 or 39 to 1 even if the UE sets bits 41, it shall still set bit 15 to 1 if measurement reporting event B1 is tested for all RATs supported by UE - If a category M1 or M2 UE does not support this feature group, this bit shall be set to 0. |   | Rel-8   | 36.331, Annex<br>B.1   | pc_FeatrGrp_15_T | Corresponding to the Index of Indicator, the leftmost binary bit 15. Set to true if supporting all functionalities in the feature group.   |
| 16   | Support of Intra-frequency periodical measurement reporting where triggerType is set to periodical and purpose is set to reportStrongestCells; Inter-frequency periodical measurement reporting where triggerType is set to periodical and purpose is set to reportStrongestCells, if the UE has set bit number 25 to 1; and Inter-RAT periodical measurement reporting where triggerType is set to periodical and purpose is set to reportStrongestCells for UTRAN, GERAN, 1xRTT or HRPD, if the UE has set bit number 22, 23, 24 or 26 to 1, respectively  NOTE: Event triggered periodical reporting (i.e. with triggerType set to event and with reportAmount > 1) is a mandatory functionality of event triggered reporting and therefore not the subject of this bit. | - If a category M1<br>or M2 UE does not<br>support this feature<br>group, this bit shall<br>be set to 0.  |   | Rel-8   | 36.331, Annex<br>B.1   | pc_FeatrGrp_16_T | Corresponding to the Index of Indicator, the leftmost binary bit 16. Set to true if supporting all functionalities in the feature group. If UE supports FDD and TDD this item shall be set to same value as for item 16 in Table A.4.5-1a for FDD. |

| Item | Additional information   | Notes   | If indicated "Yes" the feature shall be implemented and successfully tested for the corresponding | Release        | Ref.                 | Mnemonic         | Comments   |
|------|--|---|---|----------------|----------------------|------------------|--|
|      | Support of Intra-frequency periodical measurement reporting where triggerType is set to periodical and purpose is set to reportStrongestCells; Inter-frequency periodical measurement reporting where triggerType is set to periodical and purpose is set to reportStrongestCells, if the UE has set bit number 25 to 1 Inter-RAT periodical measurement reporting where triggerType is set to periodical and purpose is set to reportStrongestCells for UTRAN FDD or UTRAN TDD, if the UE supports either only UTRAN FDD or only UTRAN TDD and has set bit number 22 to 1 Inter-RAT periodical measurement reporting where triggerType is set to periodical and purpose is set to reportStrongestCells for UTRAN FDD or UTRAN TDD, if the UE supports both UTRAN FDD and UTRAN TDD and has set bit number 22 or 39 to 1, respectively Inter-RAT periodical measurement reporting where triggerType is set to periodical and purpose is set to reportStrongestCells for GERAN, 1xRTT or HRPD, if the UE has set bit number 23, 24 or 26 to 1, respectively NOTE: Event triggered periodical reporting (i.e. with triggerType set to event and with reportAmount > 1) is a mandatory functionality of event triggered |   | Yes   | Rel-9          |                      |                  |  |
| 17   | reporting and therefore not the subject of this bit.  Support of Intra-frequency ANR features including: - Intra-frequency periodical measurement reporting where triggerType is set to periodical and purpose is set to reportStrongestCells - Intra-frequency periodical measurement reporting where triggerType is set to periodical and purpose is set to reportCGI  | - can only be set to<br>1 if the UE has set<br>bit number 5 to 1.<br>- If a category M1<br>or M2 UE does not<br>support this feature<br>group, this bit shall<br>be set to 0. | Yes   | Rel-8<br>Rel-9 | 36.331, Annex<br>B.1 | pc_FeatrGrp_17_T | Corresponding to the Index of Indicator, the leftmost binary bit 17. Set to true if supporting all functionalities in the feature group. If UE supports FDD and TDD this item shall be set to same value as for item 17 in Table A.4.5-1a for FDD. |
| 18   | Support of Inter-frequency ANR features including: - Inter-frequency periodical measurement reporting where triggerType is set to periodical and purpose is set to reportStrongestCells - Inter-frequency periodical measurement reporting where triggerType is set to periodical and purpose is set to reportCGI  | - can only be set to<br>1 if the UE has set<br>bit number 5 to 1.<br>- If a category M1<br>or M2 UE does not<br>support this feature<br>group, this bit shall<br>be set to 0. | Yes, unless UE<br>only supports<br>band 13  | Rel-8<br>Rel-9 | 36.331, Annex<br>B.1 | pc_FeatrGrp_18_T | Corresponding to the Index of Indicator, the leftmost binary bit 18. Set to true if supporting all functionalities in the feature grouplf UE supports FDD and TDD this item shall be set to same value as for item 18 in Table A.4.5-1a for FDD.   |

| Item | Additional information  | Notes   | If indicated "Yes" the feature shall be implemented and successfully tested for the corresponding release | Release | Ref.                 | Mnemonic         | Comments  |
|------|---|---|---|---------|----------------------|------------------|---|
| 19   | the UE has set bit number 23 to 1 - Inter-RAT periodical measurement reporting where triggerType is set to periodical and purpose is set to reportStrongestCellsForSON for UTRAN, 1xRTT or HRPD, if the UE has set bit number 22, 24 or 26 to 1, respectively - Inter-RAT periodical measurement reporting where triggerType is set | - can only be set to 1 if the UE has set bit number 5 to 1 and the UE has set at least one of the bit number 22, 23, 24 or 26 to 1 even if the UE sets bits 33 to 36, it shall still set bit 19 to 1 if inter-RAT ANR features are tested for all RATs for which inter-RAT measurement reporting is indicated as tested |   | Rel-8   | 36.331, Annex<br>B.1 | pc_FeatrGrp_19_T | Corresponding to the Index of Indicator, the leftmost binary bit 19.Set to true if supporting all functionalities in the feature group. |
| 20   |   |   |   | Rel-8   |                      | pc_FeatrGrp_20_T |   |

| Item | Additional information  | Notes   | If indicated "Yes" the feature shall be implemented and successfully tested for the | Release        | Ref.                 | Mnemonic         | Comments   |
|------|---|---|---|----------------|----------------------|------------------|--|
|      |   |   | corresponding release   |                |                      |                  |  |
|      | If bit number 7 is set to '0': - SRB1 and SRB2 for DCCH + 8x AM DRB If bit number 7 is set to '1': - SRB1 and SRB2 for DCCH + 8x AM DRB - SRB1 and SRB2 for DCCH + 5x AM DRB + 3x UM DRB NOTE: UE which indicate support for a DRB combination also support all subsets of the DRB combination. Therefore, release of DRB(s) never results in an unsupported DRB combination.   | - Regardless of what bit number 7 and bit number 20 is set to, UE shall support at least SRB1 and SRB2 for DCCH + 4x AM DRB - Regardless of what bit number 20 is set to, if bit number 7 is set to '1', UE shall support at least SRB1 and SRB2 for DCCH + 4x AM DRB + 1x UM DRB | Yes   | Rel-9          | 36.331, Annex<br>B.1 |                  | Corresponding to the Index of Indicator, the leftmost binary bit 20. Set to true if supporting all functionalities in the feature group. If UE supports FDD and TDD this item shall be set to same value as for item 20 in Table A.4.5-1a for FDD. |
| 21   | Support of - Predefined intra- and inter-subframe frequency hopping for PUSCH with N_sb > 1 - Predefined inter-subframe frequency hopping for PUSCH with N_sb > 1   | - If a category M1<br>or M2 UE does not<br>support this feature<br>group, this bit shall<br>be set to 0.  |   | Rel-8          | 36.331, Annex<br>B.1 | pc_FeatrGrp_21_T | Corresponding to the Index of Indicator, the leftmost binary bit 21. Set to true if supporting all functionalities in the feature group. If UE supports FDD and TDD this item shall be set to same value as for item 21 in Table A.4.5-1a for FDD. |
| 22   | Support of - UTRAN measurements, reporting and measurement reporting event B2 in E-UTRA connected mode Support of - UTRAN FDD or UTRAN TDD measurements, reporting and measurement reporting event B2 in E-UTRA connected mode, if the UE supports either only UTRAN FDD or only UTRAN TDD - UTRAN FDD measurements, reporting and measurement reporting event B2 in E-UTRA connected mode, if the UE supports both UTRAN FDD and UTRAN TDD | - If a category M1<br>or M2 UE does not<br>support this feature<br>group, this bit shall<br>be set to 0.  |   | Rel-8<br>Rel-9 | 36.331, Annex<br>B.1 | pc_FeatrGrp_22_T | Corresponding to the Index of Indicator, the leftmost binary bit 22. Set to true if supporting all functionalities in the feature group.   |
| 23   | Support of - GERAN measurements, reporting and measurement reporting event B2 in E-UTRA connected mode  | - If a category M1<br>or M2 UE does not<br>support this feature<br>group, this bit shall<br>be set to 0.  |   | Rel-8          | 36.331, Annex<br>B.1 | pc_FeatrGrp_23_T | Corresponding to the Index of Indicator, the leftmost binary bit 23. Set to true if supporting all functionalities in the feature group.   |
| 24   |   |   |   | Rel-8          |                      | pc_FeatrGrp_24_T |  |

| Item | Additional information  | Notes  | If indicated "Yes" the feature shall be  | Release        | Ref.                 | Mnemonic         | Comments   |
|------|---|--|--|----------------|----------------------|------------------|--|
|      |   |  | implemented<br>and<br>successfully<br>tested for the<br>corresponding<br>release |                |                      |                  |  |
|      | Support of - 1xRTT measurements, reporting and measurement reporting event B2 in E-UTRA connected mode  | - If a category M1<br>or M2 UE does not<br>support this feature<br>group, this bit shall<br>be set to 0.   | Yes, if UE<br>supports<br>enhanced 1xRTT<br>CSFB                                 | Rel-9          | 36.331, Annex<br>B.1 |                  | Corresponding to the Index of Indicator, the leftmost binary bit 24. Set to true if supporting all functionalities in the feature group.   |
| 25   | Support of - Inter-frequency measurements and reporting in E-UTRA connected mode NOTE: The UE setting this bit to 1 and indicating support for FDD and TDD frequency bands in the UE capability signalling implements and is tested for FDD measurements while the UE is in TDD, and for TDD measurements while the UE is in FDD. | - If a category M1<br>or M2 UE does not<br>support this feature<br>group, this bit shall<br>be set to 0.   | Yes, unless UE<br>only supports<br>band 13                                       | Rel-9          | 36.331, Annex<br>B.1 | pc_FeatrGrp_25_T | Corresponding to the Index of Indicator, the leftmost binary bit 25. Set to true if supporting all functionalities in the feature group. If UE supports FDD and TDD this item shall be set to same value as for item 25 in Table A.4.5-1a for FDD. |
| 26   | Support of - HRPD measurements, reporting and measurement reporting event B2 in E-UTRA connected mode   | - If a category M1<br>or M2 UE does not<br>support this feature<br>group, this bit shall<br>be set to 0.   | Yes, if UE<br>supports HRPD  | Rel-8<br>Rel-9 | 36.331, Annex<br>B.1 | pc_FeatrGrp_26_T | Corresponding to the Index of Indicator, the leftmost binary bit 26. Set to true if supporting all functionalities in the feature group.   |
| 27   | Support of - EUTRA RRC_CONNECTED to UTRA CELL_DCH CS handover Support of - EUTRA RRC_CONNECTED to UTRA FDD or UTRA TDD CELL_DCH CS handover, if the UE supports either only UTRAN FDD or only UTRAN TDD - EUTRA RRC_CONNECTED to UTRA FDD CELL_DCH CS handover, if the UE supports both UTRAN FDD and UTRAN TDD                   | - related to SR-VCC - can only be set to 1 if the UE has set bit number 8 to 1 and supports SR- VCC from EUTRA defined in TS 24.008 - If a category M1 or M2 UE does not support this feature group, this bit shall be set to 0. |  | Rel-8<br>Rel-9 | 36.331, Annex<br>B.1 | pc_FeatrGrp_27_T | Corresponding to the Index of Indicator, the leftmost binary bit 27. Set to true if supporting all functionalities in the feature group.   |
| 28   | Support of - TTI bundling   | - If a category M1<br>or M2 UE does not<br>support this feature<br>group, this bit shall<br>be set to 0.   |  | Rel-9          | 36.331, Annex<br>B.1 | pc_FeatrGrp_28_T | Corresponding to the Index of Indicator, the leftmost binary bit 28. Set to true if supporting all functionalities in the feature group.   |

| Item | Additional information  | Notes   | If indicated "Yes" the feature shall be implemented and successfully tested for the corresponding release | Release | Ref.                 | Mnemonic         | Comments   |
|------|---|---|---|---------|----------------------|------------------|--|
| 29   | Support of - Semi-Persistent Scheduling   | - If a category M1<br>or M2 UE does not<br>support this feature<br>group, this bit shall<br>be set to 0.  |   | Rel-9   | 36.331, Annex<br>B.1 | pc_FeatrGrp_29_T | Corresponding to the Index of Indicator, the leftmost binary bit 29. Set to true if supporting all functionalities in the feature group.   |
| 30   | Support of - Handover between FDD and TDD   | - can only be set to<br>1 if the UE has set<br>bit number 13 to 1   |   | Rel-8   | 36.331, Annex<br>B.1 | pc_FeatrGrp_30_T | Corresponding to the Index of Indicator, the leftmost binary bit 30. Set to true if supporting all functionalities in the feature group. If UE supports FDD and TDD this item shall be set to same value as for item 30 in Table A.4.5-1a for FDD. |
| 31   | Support of - Indicates whether the UE supports the mechanisms defined for cells broadcasting multi band information i.e. comprehending multiBandInfoList, disregarding in RRC_CONNECTED the related system information fields and understanding the EARFCN signalling for all bands, that overlap with the bands supported by the UE, and that are defined in the earliest version of TS 36.101[42] that includes all UE supported bands. | - This FGI bit is concerns an optional release independent feature (as it was difficult to introduce this from REL-8 when using regular UE capability signalling) | Yes   | Rel-8   | 36.331, Annex<br>B.1 | pc_FeatrGrp_31_T | Corresponding to the Index of Indicator, the leftmost binary bit 31. Set to true if supporting all functionalities in the feature group. If UE supports FDD and TDD this item shall be set to same value as for item 31 in Table A.4.5-1a for FDD. |
| 32   | Undefined   |   | 165   | Rel-8   | 36.331, Annex<br>B.1 |                  | Corresponding to the Index of Indicator, the leftmost binary bit 32.   |

Table A.4.5-1c: Void

Table A.4.5-1d: Feature group indicators 33-64 for FDD

| Item | Additional information   | Notes  | If indicated "Yes" the feature shall be implemented and successfully tested for the corresponding release | Release | Ref.              | Mnemonic         | Comments   |
|------|--|--|---|---------|-------------------|------------------|--|
| 1    | Inter-RAT ANR features for UTRAN including: - Inter-RAT periodical measurement reporting where triggerType is set to periodical and purpose is set to reportStrongestCellsForSON - Inter-RAT periodical measurement reporting where triggerType is set to periodical and purpose is set to reportCGI     | - can only be set to<br>1 if the UE has set<br>bit number 5 and bit<br>number 22 to 1.   |   | Rel-9   | 36.331, Annex B.1 | pc_FeatrGrp_33_F | Corresponding to the Index of Indicator, the leftmost binary bit 33. Set to true if supporting all functionalities in the feature group. |
| 2    | Inter-RAT ANR features for GERAN including: - Inter-RAT periodical measurement reporting where triggerType is set to periodical and purpose is set to reportStrongestCells - Inter-RAT periodical measurement reporting where triggerType is set to periodical and purpose is set to reportCGI           | - can only be set to<br>1 if the UE has set<br>bit number 5 and bit<br>number 23 to 1.   |   | Rel-9   | 36.331, Annex B.1 | pc_FeatrGrp_34_F | Corresponding to the Index of Indicator, the leftmost binary bit 34. Set to true if supporting all functionalities in the feature group. |
| 3    | Inter-RAT ANR features for 1xRTT including: - Inter-RAT periodical measurement reporting where triggerType is set to periodical and purpose is set to reportStrongestCellsForSON - Inter-RAT periodical measurement reporting where triggerType is set to periodical and purpose is set to reportCGI     | - can only be set to<br>1 if the UE has set<br>bit number 5 and bit<br>number 24 to 1.   |   | Rel-9   | 36.331, Annex B.1 | pc_FeatrGrp_35_F | Corresponding to the Index of Indicator, the leftmost binary bit 35. Set to true if supporting all functionalities in the feature group. |
| 4    | Inter-RAT ANR features for HRPD including: - Inter-RAT periodical measurement reporting where triggerType is set to periodical and purpose is set to reportStrongestCellsForSON - Inter-RAT periodical measurement reporting where triggerType is set to periodical and purpose is set to reportCGI      | - can only be set to<br>1 if the UE has set<br>bit number 5 and bit<br>number 26 to 1.   |   | Rel-9   | 36.331, Annex B.1 | pc_FeatrGrp_36_F | Corresponding to the Index of Indicator, the leftmost binary bit 36. Set to true if supporting all functionalities in the feature group. |
| 5    | Inter-RAT ANR features for UTRAN TDD including: - Inter-RAT periodical measurement reporting where triggerType is set to periodical and purpose is set to reportStrongestCellsForSON - Inter-RAT periodical measurement reporting where triggerType is set to periodical and purpose is set to reportCGI | - can only be set to<br>1 if the UE has set<br>bit number 5 and at<br>least one of the bit<br>number 22 (for UEs<br>supporting only<br>UTRA TDD) or the<br>bit number 39 to 1. |   | Rel-9   | 36.331, Annex B.1 | pc_FeatrGrp_37_F | Corresponding to the Index of Indicator, the leftmost binary bit 37. Set to true if supporting all functionalities in the feature group. |
| 6    | - EUTRA RRC_CONNECTED to UTRA TDD CELL_DCH PS handover, if the UE supports both UTRAN FDD and UTRAN TDD  | - can only be set to<br>1 if the UE has set<br>bit number 39 to 1.   |   | Rel-9   | 36.331, Annex B.1 | pc_FeatrGrp_38_F | Corresponding to the Index of Indicator, the leftmost binary bit 38. Set to true if supporting all functionalities in the feature group. |
| 7    | - UTRAN TDD measurements, reporting and measurement reporting event B2 in E-UTRA connected mode, if the UE supports both UTRAN FDD and UTRAN TDD   | - If a category M1<br>or M2 UE does not<br>support this feature<br>group, this bit shall<br>be set to 0.   |   | Rel-9   | 36.331, Annex B.1 | pc_FeatrGrp_39_F | Corresponding to the Index of Indicator, the leftmost binary bit 39. Set to true if supporting all functionalities in the feature group. |

| Item | Additional information   | Notes  | If indicated "Yes" the feature shall be implemented and successfully tested for the corresponding release | Release | Ref.              | Mnemonic         | Comments   |
|------|--|--|---|---------|-------------------|------------------|--|
| 8    | - EUTRA RRC_CONNECTED to UTRA TDD CELL_DCH CS handover, if the UE supports both UTRAN FDD and UTRAN TDD                                  | - related to SR-VCC<br>- can only be set to<br>1 if the UE has set<br>bit number 38 to 1.                |   | Rel-9   | 36.331, Annex B.1 | pc_FeatrGrp_40_F | Corresponding to the Index of Indicator, the leftmost binary bit 40. Set to true if supporting all functionalities in the feature group. |
| 9    | Measurement reporting event: Event B1 - Neighbour > threshold for UTRAN FDD, if the UE supports UTRAN FDD and has set bit number 22 to 1 | - If a category M1<br>or M2 UE does not<br>support this feature<br>group, this bit shall<br>be set to 0. | Yes for FDD, unless UE<br>has set bit number 15<br>to 1   | Rel-9   | 36.331, Annex B.1 | pc_FeatrGrp_41_F | Corresponding to the Index of Indicator, the leftmost binary bit 41. Set to true if supporting all functionalities in the feature group. |
| 10   | DCI format 3a (TPC commands for PUCCH and PUSCH with single bit power adjustments)   |  |   | Rel-13  | 36.331, Annex B.1 | pc_FeatrGrp_42_F | Corresponding to the Index of Indicator, the leftmost binary bit 42.   |
| 11   | Undefined  |  |   | Rel-9   | 36.331, Annex B.1 |                  | Corresponding to the Index of Indicator, the leftmost binary bit 43.   |
| 12   | Undefined  |  |   | Rel-9   | 36.331, Annex B.1 |                  | Corresponding to the Index of Indicator, the leftmost binary bit 44.   |
| 13   | Undefined  |  |   | Rel-9   | 36.331, Annex B.1 |                  | Corresponding to the Index of Indicator, the leftmost binary bit 45.   |
| 14   | Undefined  |  |   | Rel-9   | 36.331, Annex B.1 |                  | Corresponding to the Index of Indicator, the leftmost binary bit 46.   |
| 15   | Undefined  |  |   | Rel-9   | 36.331, Annex B.1 |                  | Corresponding to the Index of Indicator, the leftmost binary bit 47.   |
| 16   | Undefined  |  |   | Rel-9   | 36.331, Annex B.1 |                  | Corresponding to the Index of Indicator, the leftmost binary bit 48.   |
| 17   | Undefined  |  |   | Rel-9   | 36.331, Annex B.1 |                  | Corresponding to the Index of Indicator, the leftmost binary bit 49.   |
| 18   | Undefined  |  |   | Rel-9   | 36.331, Annex B.1 |                  | Corresponding to the Index of Indicator, the leftmost binary bit 50.   |
| 19   | Undefined  |  |   | Rel-9   | 36.331, Annex B.1 |                  | Corresponding to the Index of Indicator, the leftmost binary bit 51.   |
| 20   | Undefined  |  |   | Rel-9   | 36.331, Annex B.1 |                  | Corresponding to the Index of Indicator, the leftmost binary bit 52.   |

| Item | Additional information | Notes | If indicated "Yes" the feature shall be implemented and successfully tested for the corresponding release | Release | Ref.              | Mnemonic | Comments   |
|------|------------------------|-------|---|---------|-------------------|----------|--|
| 21   | Undefined              |       |   | Rel-9   | 36.331, Annex B.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 53. |
| 22   | Undefined              |       |   | Rel-9   | 36.331, Annex B.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 54. |
| 23   | Undefined              |       |   | Rel-9   | 36.331, Annex B.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 55. |
| 24   | Undefined              |       |   | Rel-9   | 36.331, Annex B.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 56. |
| 25   | Undefined              |       |   | Rel-9   | 36.331, Annex B.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 57. |
| 26   | Undefined              |       |   | Rel-9   | 36.331, Annex B.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 58. |
| 27   | Undefined              |       |   | Rel-9   | 36.331, Annex B.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 59. |
| 28   | Undefined              |       |   | Rel-9   | 36.331, Annex B.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 60. |
| 29   | Undefined              |       |   | Rel-9   | 36.331, Annex B.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 61. |
| 30   | Undefined              |       |   | Rel-9   | 36.331, Annex B.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 62. |
| 31   | Undefined              |       |   | Rel-9   | 36.331, Annex B.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 63. |
| 32   | Undefined              |       |   | Rel-9   | 36.331, Annex B.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 64. |

Table A.4.5-1e: Feature group indicators 33-64 for TDD

| Item | Additional information   | Notes  | If indicated "Yes" the feature shall be implemented and successfully tested for the corresponding release | Release | Ref.              | Mnemonic         | Comments   |
|------|--|--|---|---------|-------------------|------------------|--|
| 1    | Inter-RAT ANR features for UTRAN including: - Inter-RAT periodical measurement reporting where triggerType is set to periodical and purpose is set to reportStrongestCellsForSON - Inter-RAT periodical measurement reporting where triggerType is set to periodical and purpose is set to reportCGI     | - can only be set to<br>1 if the UE has set<br>bit number 5 and bit<br>number 22 to 1.   |   | Rel-9   | 36.331, Annex B.1 | pc_FeatrGrp_33_T | Corresponding to the Index of Indicator, the leftmost binary bit 33. Set to true if supporting all functionalities in the feature group. |
| 2    | Inter-RAT ANR features for GERAN including: - Inter-RAT periodical measurement reporting where triggerType is set to periodical and purpose is set to reportStrongestCells - Inter-RAT periodical measurement reporting where triggerType is set to periodical and purpose is set to reportCGI           | - can only be set to<br>1 if the UE has set<br>bit number 5 and bit<br>number 23 to 1.   |   | Rel-9   | 36.331, Annex B.1 | pc_FeatrGrp_34_T | Corresponding to the Index of Indicator, the leftmost binary bit 34. Set to true if supporting all functionalities in the feature group. |
| 3    | Inter-RAT ANR features for 1xRTT including: - Inter-RAT periodical measurement reporting where triggerType is set to periodical and purpose is set to reportStrongestCellsForSON - Inter-RAT periodical measurement reporting where triggerType is set to periodical and purpose is set to reportCGI     | - can only be set to<br>1 if the UE has set<br>bit number 5 and bit<br>number 24 to 1.   |   | Rel-9   | 36.331, Annex B.1 | pc_FeatrGrp_35_T | Corresponding to the Index of Indicator, the leftmost binary bit 35. Set to true if supporting all functionalities in the feature group. |
| 4    | Inter-RAT ANR features for HRPD including: - Inter-RAT periodical measurement reporting where triggerType is set to periodical and purpose is set to reportStrongestCellsForSON - Inter-RAT periodical measurement reporting where triggerType is set to periodical and purpose is set to reportCGI      | - can only be set to<br>1 if the UE has set<br>bit number 5 and bit<br>number 26 to 1.   |   | Rel-9   | 36.331, Annex B.1 | pc_FeatrGrp_36_T | Corresponding to the Index of Indicator, the leftmost binary bit 36. Set to true if supporting all functionalities in the feature group. |
| 5    | Inter-RAT ANR features for UTRAN TDD including: - Inter-RAT periodical measurement reporting where triggerType is set to periodical and purpose is set to reportStrongestCellsForSON - Inter-RAT periodical measurement reporting where triggerType is set to periodical and purpose is set to reportCGI | - can only be set to<br>1 if the UE has set<br>bit number 5 and at<br>least one of the bit<br>number 22 (for UEs<br>supporting only<br>UTRA TDD) or the<br>bit number 39 to 1. |   | Rel-9   | 36.331, Annex B.1 | pc_FeatrGrp_37_T | Corresponding to the Index of Indicator, the leftmost binary bit 37. Set to true if supporting all functionalities in the feature group. |
| 6    | - EUTRA RRC_CONNECTED to UTRA TDD CELL_DCH PS handover, if the UE supports both UTRAN FDD and UTRAN TDD  | - can only be set to<br>1 if the UE has set<br>bit number 39 to 1.   |   | Rel-9   | 36.331, Annex B.1 | pc_FeatrGrp_38_T | Corresponding to the Index of Indicator, the leftmost binary bit 38. Set to true if supporting all functionalities in the feature group. |
| 7    | - UTRAN TDD measurements, reporting and measurement reporting event B2 in E-UTRA connected mode, if the UE supports both UTRAN FDD and UTRAN TDD   | - If a category M1<br>or M2 UE does not<br>support this feature<br>group, this bit shall<br>be set to 0.   |   | Rel-9   | 36.331, Annex B.1 | pc_FeatrGrp_39_T | Corresponding to the Index of Indicator, the leftmost binary bit 39. Set to true if supporting all functionalities in the feature group. |

| Item | Additional information   | Notes  | If indicated "Yes" the feature shall be implemented and successfully tested for the corresponding release | Release | Ref.              | Mnemonic         | Comments   |
|------|--|--|---|---------|-------------------|------------------|--|
| 8    | - EUTRA RRC_CONNECTED to UTRA TDD CELL_DCH CS handover, if the UE supports both UTRAN FDD and UTRAN TDD                                  | - related to SR-VCC<br>- can only be set to<br>1 if the UE has set<br>bit number 38 to 1.                |   | Rel-9   | 36.331, Annex B.1 | pc_FeatrGrp_40_T | Corresponding to the Index of Indicator, the leftmost binary bit 40. Set to true if supporting all functionalities in the feature group. |
| 9    | Measurement reporting event: Event B1 - Neighbour > threshold for UTRAN FDD, if the UE supports UTRAN FDD and has set bit number 22 to 1 | - If a category M1<br>or M2 UE does not<br>support this feature<br>group, this bit shall<br>be set to 0. |   | Rel-9   | 36.331, Annex B.1 | pc_FeatrGrp_41_T | Corresponding to the Index of Indicator, the leftmost binary bit 41. Set to true if supporting all functionalities in the feature group. |
| 10   | DCI format 3a (TPC commands for PUCCH and PUSCH with single bit power adjustments)   |  |   | Rel-13  | 36.331, Annex B.1 | pc_FeatrGrp_42_T | Corresponding to the Index of Indicator, the leftmost binary bit 42.   |
| 11   | Undefined  |  |   | Rel-9   | 36.331, Annex B.1 |                  | Corresponding to the Index of Indicator, the leftmost binary bit 43.   |
| 12   | Undefined  |  |   | Rel-9   | 36.331, Annex B.1 |                  | Corresponding to the Index of Indicator, the leftmost binary bit 44.   |
| 13   | Undefined  |  |   | Rel-9   | 36.331, Annex B.1 |                  | Corresponding to the Index of Indicator, the leftmost binary bit 45.   |
| 14   | Undefined  |  |   | Rel-9   | 36.331, Annex B.1 |                  | Corresponding to the Index of Indicator, the leftmost binary bit 46.   |
| 15   | Undefined  |  |   | Rel-9   | 36.331, Annex B.1 |                  | Corresponding to the Index of Indicator, the leftmost binary bit 47.   |
| 16   | Undefined  |  |   | Rel-9   | 36.331, Annex B.1 |                  | Corresponding to the Index of Indicator, the leftmost binary bit 48.   |
| 17   | Undefined  |  |   | Rel-9   | 36.331, Annex B.1 |                  | Corresponding to the Index of Indicator, the leftmost binary bit 49.   |
| 18   | Undefined  |  |   | Rel-9   | 36.331, Annex B.1 |                  | Corresponding to the Index of Indicator, the leftmost binary bit 50.   |
| 19   | Undefined  |  |   | Rel-9   | 36.331, Annex B.1 |                  | Corresponding to the Index of Indicator, the leftmost binary bit 51.   |
| 20   | Undefined  |  |   | Rel-9   | 36.331, Annex B.1 |                  | Corresponding to the Index of Indicator, the leftmost binary bit 52.   |

| Item | Additional information | Notes | If indicated "Yes" the feature shall be implemented and successfully tested for the corresponding release | Release | Ref.              | Mnemonic | Comments   |
|------|------------------------|-------|---|---------|-------------------|----------|--|
| 21   | Undefined              |       |   | Rel-9   | 36.331, Annex B.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 53. |
| 22   | Undefined              |       |   | Rel-9   | 36.331, Annex B.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 54. |
| 23   | Undefined              |       |   | Rel-9   | 36.331, Annex B.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 55. |
| 24   | Undefined              |       |   | Rel-9   | 36.331, Annex B.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 56. |
| 25   | Undefined              |       |   | Rel-9   | 36.331, Annex B.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 57. |
| 26   | Undefined              |       |   | Rel-9   | 36.331, Annex B.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 58. |
| 27   | Undefined              |       |   | Rel-9   | 36.331, Annex B.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 59. |
| 28   | Undefined              |       |   | Rel-9   | 36.331, Annex B.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 60. |
| 29   | Undefined              |       |   | Rel-9   | 36.331, Annex B.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 61. |
| 30   | Undefined              |       |   | Rel-9   | 36.331, Annex B.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 62. |
| 31   | Undefined              |       |   | Rel-9   | 36.331, Annex B.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 63. |
| 32   | Undefined              |       |   | Rel-9   | 36.331, Annex B.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 64. |

Table A.4.5-2: EUTRA Feature group indicators

| Item | Additional information  | Notes   | Ref.               | Release                      | Mnemonic               | Comments  |
|------|---|---|--------------------|------------------------------|------------------------|---|
| 1    | Support of - UTRA CELL_PCH to EUTRA RRC_IDLE cell reselection - UTRA URA_PCH to EUTRA RRC_IDLE cell reselection |   | 25.331,<br>Annex E | Rel-8                        | pc_UTRA_FeatrGr<br>p_1 | Corresponding to the Index of Indicator, the leftmost binary bit 1 For Rel-8: Set to true if supporting all functionalities in the feature group For Rel-9 or later releases: this FGI bit is set to TRUE s |
| 2    | Support of - EUTRAN measurements and reporting in connected mode  |   | 25.331,<br>Annex E | Rel-8                        | pc_UTRA_FeatrGr<br>p_2 | Corresponding to the Index of Indicator, the leftmost binary bit 2 Set to true if supporting all functionalities in the feature group   |
| 3    | Support of - UTRA CELL_FACH absolute priority cell reselection for high priority layers                         | UE<br>supporting E-<br>UTRAN shall<br>set this bit to<br>'TRUE' in this<br>version of<br>specification. | 25.331,<br>Annex E | Rel-8 to<br>Rel-10<br>Rel-11 | pc_UTRA_FeatrGr<br>p_3 | Corresponding to the Index of Indicator, the leftmost binary bit 3 Set to true if supporting all functionalities in the feature group   |
| 4    | Support of - UTRA CELL_FACH absolute priority cell reselection for all layers                                   | UE<br>supporting E-<br>UTRAN shall<br>set this bit to<br>'TRUE' in this<br>version of<br>specification. | 25.331,<br>Annex E | Rel-8 to<br>Rel-10<br>Rel-11 | pc_UTRA_FeatrGr<br>p_4 | Corresponding to the Index of Indicator, the leftmost binary bit 4 Set to true if supporting all functionalities in the feature group   |

Table A.4.5-3: Void

Table A.4.5-3a: Release 10 AS feature group indicators 101-132 for FDD

| Item | Additional information   | Notes   | If indicated "Yes" the feature shall be implemented and successfully tested for the corresponding release | Release | Ref.              | Mnemonic          | Comments   |
|------|--|---|---|---------|-------------------|-------------------|--|
| 1    | - DMRS with OCC (orthogonal cover code) and SGH (sequence group hopping) disabling                                   | - if the UE supports two or<br>more layers for spatial<br>multiplexing in UL, this bit<br>shall be set to 1.  |   | Rel-10  | 36.331, Annex C.1 | pc_FeatrGrp_101_F | Corresponding to the Index of Indicator, the leftmost binary bit 101. Set to true if supporting all functionalities in the feature group. If UE supports FDD and TDD this item shall be set to same value as for item 1 in Table A.4.5-3b for TDD. |
|      |  | - If a category 0 UE does not<br>support this feature, this bit<br>shall be set to 0.   |   | Rel-12  |                   |                   |  |
| 2    | - Trigger type 1 SRS (aperiodic SRS) transmission (Up to X ports) NOTE: X = number of supported layers on given band |   |   | Rel-10  | 36.331, Annex C.1 | pc_FeatrGrp_102_F | Corresponding to the Index of Indicator, the leftmost binary bit 102. Set to true if supporting all functionalities in the feature group.  |
| 3    | - PDSCH transmission mode 9 when up to 4 CSI reference signal ports are configured                                   | - for Category 8 UEs, this bit<br>shall be set to 1.  |   | Rel-10  | 36.331, Annex C.1 | pc_FeatrGrp_103_F | Corresponding to the Index of Indicator, the leftmost binary bit 103.  Set to true if supporting all functionalities in the feature group.   |
|      |  | - for Category 8 UEs, this bit<br>shall be set to 1.<br>- for Category 11 and higher<br>UEs, this bit shall be set to 1.<br>- for DL Category 11 and<br>higher UEs (except for DL<br>Category 13), this bit shall be<br>set to 1. | Yes for the UE categories listed in the column "Notes"  | Rel-15  |                   |                   |  |
| 4    | - PDSCH transmission mode 9 for TDD when 8 CSI reference signal ports are configured                                 | - if the UE does not support<br>TDD, this bit is irrelevant<br>(capability signalling exists for<br>FDD for this feature), and this<br>bit shall be set to 0.<br>- for Category 8 UEs, this bit<br>shall be set to 1.             |   | Rel-10  | 36.331, Annex C.1 | pc_FeatrGrp_104_F | Corresponding to the Index of Indicator, the leftmost binary bit 104. Set to true if supporting all functionalities in the feature group. If UE supports FDD and TDD this item shall be set to same value as for item 4 in Table A.4.5-3b for TDD. |

| Item     | Additional information   | Notes  | If indicated "Yes"    | Release | Ref.              | Mnemonic          | Comments   |
|----------|--|--|-----------------------|---------|-------------------|-------------------|--|
| item     | Additional information   | Notes  | the feature shall be  | Release | Kei.              | winemonic         | Comments   |
|          |  |  | implemented and       |         |                   |                   |  |
|          |  |  | successfully tested   |         |                   |                   |  |
|          |  |  | for the               |         |                   |                   |  |
|          |  |  | corresponding         |         |                   |                   |  |
|          |  |  | release               |         |                   |                   |  |
|          |  | - if the UE does not support                                   | Yes for TDD, for the  | Rel-15  |                   |                   |  |
|          |  | TDD, this bit is irrelevant, and                               | UE categories listed  |         |                   |                   |  |
|          |  | this bit shall be set to 0.                                    | in the column "Notes" |         |                   |                   |  |
|          |  | - this bit is not applicable to                                |                       |         |                   |                   |  |
|          |  | FDD (capability signalling exists for FDD for this             |                       |         |                   |                   |  |
|          |  | feature).  |                       |         |                   |                   |  |
|          |  | - for Category 8 UEs, this bit                                 |                       |         |                   |                   |  |
|          |  | shall be set to 1.   |                       |         |                   |                   |  |
|          |  | - for Category 11 and higher                                   |                       |         |                   |                   |  |
|          |  | UEs, this bit shall be set to 1.                               |                       |         |                   |                   |  |
|          |  | - for DL Category 11 and                                       |                       |         |                   |                   |  |
|          |  | higher UEs (except for DL                                      |                       |         |                   |                   |  |
|          |  | Category 13), this bit shall be                                |                       |         |                   |                   |  |
|          | Desire the COL/DMI/DL seasonthe season DLICOLL Meeter 0.0  | set to 1 this bit can be set to 1 only if                      |                       | Rel-10  | 36.331, Annex C.1 | F+-O 405 F        |  |
| 5        | - Periodic CQI/PMI/RI reporting on PUCCH: Mode 2-0 - UE selected subband CQI without PMI, when PDSCH | indices 2 (Table B.1-1) and                                    |                       | Rei-10  | 36.331, Annex C.1 | pc_FeatrGrp_105_F | Corresponding to the Index of Indicator, the leftmost binary bit |
|          | transmission mode 9 is configured  | 103 are set to 1.  |                       |         |                   |                   | 105.   |
|          | - Periodic CQI/PMI/RI reporting on PUCCH: Mode 2-1 -   | 100 010 001 10 11  |                       |         |                   |                   | Set to true if supporting all                                    |
|          | UE selected subband CQI with single PMI, when PDSCH  |  |                       |         |                   |                   | functionalities in the feature                                   |
|          | transmission mode 9 and up to 4 CSI reference signal   |  |                       |         |                   |                   | group.   |
|          | ports are configured   |  |                       |         |                   |                   |  |
|          |  | - For UEs capable of TDD-                                      |                       | Rel-12  |                   |                   |  |
|          |  | FDD CA, this bit can be set to                                 |                       |         |                   |                   |  |
|          |  | 1 for both FDD and TDD if index 2 is set to 1 for both         |                       |         |                   |                   |  |
|          |  | FDD and TDD, and index 103                                     |                       |         |                   |                   |  |
|          |  | is set to 1 either for FDD and                                 |                       |         |                   |                   |  |
|          |  | TDD.   |                       |         |                   |                   |  |
| 6        | - Periodic CQI/PMI/RI/PTI reporting on PUCCH: Mode 2-1   | - this bit can be set to 1 only if                             |                       | Rel-10  | 36.331, Annex C.1 | pc_FeatrGrp_106_F | Corresponding to the Index of                                    |
|          | - UE selected subband CQI with single PMI, when  | the UE supports PDSCH  |                       |         |                   |                   | Indicator, the leftmost binary bit                               |
|          | PDSCH transmission mode 9 and 8 CSI reference signal   | transmission mode 9 with 8                                     |                       |         |                   |                   | 106.   |
|          | ports are configured   | CSI reference signal ports                                     |                       |         |                   |                   | Set to true if supporting all                                    |
|          |  | (i.e., for TDD, if index 104 is set to 1, and for FDD, if tm9- |                       |         |                   |                   | functionalities in the feature                                   |
|          |  | With-8Tx-FDD-r10 is set to                                     |                       |         |                   |                   | group.   |
|          |  | 'supported') and if index 2                                    |                       |         |                   |                   |  |
|          |  | (Table B.1-1) is set to 1.                                     |                       |         |                   |                   |  |
|          |  | - For UEs capable of TDD-                                      | 1                     | Rel-12  | 1                 |                   |  |
|          |  | FDD CA, this bit can be set to                                 |                       |         |                   |                   |  |
|          |  | 1 for both FDD and TDD if                                      |                       |         |                   |                   |  |
|          |  | either index 104 is set to 1 or                                |                       |         |                   |                   |  |
|          |  | tm9-With-8Tx-FDD-r10 is set                                    |                       |         |                   |                   |  |
|          |  | to 'supported', and if index 2                                 |                       |         |                   |                   |  |
|          |  | is set to 1 for both FDD and TDD.                              |                       |         |                   |                   |  |
| <u> </u> |  | טטון.  |                       |         | 1                 |                   |  |

| Item | Additional information  | Notes  | If indicated "Yes"   | Release | Ref.              | Mnemonic          | Comments  |
|------|---|--|--|---------|-------------------|-------------------|---|
|      |   |  | the feature shall be implemented and successfully tested for the corresponding release |         |                   |                   |   |
| 7    | - Aperiodic CQI/PMI/RI reporting on PUSCH: Mode 2-0 - UE selected subband CQI without PMI, when PDSCH transmission mode 9 is configured - Aperiodic CQI/PMI/RI reporting on PUSCH: Mode 2-2 - UE selected subband CQI with multiple PMI, when PDSCH transmission mode 9 and up to 4 CSI reference signal ports are configured | - this bit can be set to 1 only if indices 1 (Table B.1-1) and 103 are set to 1.   |  | Rel-10  | 36.331, Annex C.1 | pc_FeatrGrp_107_F | Corresponding to the Index of Indicator, the leftmost binary bit 107. Set to true if supporting all functionalities in the feature group. |
| 8    | - Aperiodic CQI/PMI/RI reporting on PUSCH: Mode 2-2 -<br>UE selected subband CQI with multiple PMI, when<br>PDSCH transmission mode 9 and 8 CSI reference signal<br>ports are configured  | - this bit can be set to 1 only if<br>the UE supports PDSCH<br>transmission mode 9 with 8<br>CSI reference signal ports<br>(i.e., for TDD, if index 104 is<br>set to 1, and for FDD, if tm9-<br>With-8Tx-FDD-r10 is set to<br>'supported') and if index 1<br>(Table B.1-1) is set to 1.  |  | Rel-10  | 36.331, Annex C.1 | pc_FeatrGrp_108_F | Corresponding to the Index of Indicator, the leftmost binary bit 108. Set to true if supporting all functionalities in the feature group. |
| 9    | - Periodic CQI/PMI/RI reporting on PUCCH Mode 1-1, submode 1  | - this bit can be set to 1 only if<br>the UE supports PDSCH<br>transmission mode 9 with 8<br>CSI reference signal ports<br>(i.e., for TDD, if index 104 is<br>set to 1, and for FDD, if tm9-<br>With-8Tx-FDD-r10 is set to<br>'supported').  |  | Rel-10  | 36.331, Annex C.1 | pc_FeatrGrp_109_F | Corresponding to the Index of Indicator, the leftmost binary bit 109. Set to true if supporting all functionalities in the feature group. |
|      |   | - For UEs capable of TDD-<br>FDD CA, this bit can be set to<br>1 for both FDD and TDD if<br>either index 104 is set to 1 or<br>tm9-With-8Tx-FDD-r10 is set<br>to 'supported'.  |  | Rel-12  | -                 |                   |   |
| 10   | - Periodic CQI/PMI/RI reporting on PUCCH Mode 1-1, submode 2  | - this bit can be set to 1 only if the UE supports PDSCH transmission mode 9 with 8 CSI reference signal ports (i.e., for TDD, if index 104 is set to 1, and for FDD, if tm9-With-8Tx-FDD-r10 is set to 'supported').  - For UEs capable of TDD-FDD CA, this bit can be set to 1 for both FDD and TDD if either index 104 is set to 1 or |  | Rel-10  | 36.331, Annex C.1 | pc_FeatrGrp_110_F | Corresponding to the Index of Indicator, the leftmost binary bit 110. Set to true if supporting all functionalities in the feature group. |
|      |   | tm9-With-8Tx-FDD-r10 is set to 'supported'.  |  |         |                   |                   |   |

| Item | Additional information   | Notes   | If indicated "Yes" the feature shall be implemented and successfully tested for the corresponding release | Release | Ref.              | Mnemonic          | Comments  |
|------|--|---|---|---------|-------------------|-------------------|---|
| 11   | - Measurement reporting trigger Event A6   | - this bit can be set to 1 only if<br>the UE supports carrier<br>aggregation.   |   | Rel-10  | 36.331, Annex C.1 | pc_FeatrGrp_111_F | Corresponding to the Index of Indicator, the leftmost binary bit 111. Set to true if supporting all functionalities in the feature group.   |
| 12   | - SCell addition within the Handover to EUTRA procedure  | - this bit can be set to 1 only if<br>the UE supports carrier<br>aggregation and the<br>Handover to EUTRA<br>procedure. |   | Rel-10  | 36.331, Annex C.1 | pc_FeatrGrp_112_F | Corresponding to the Index of Indicator, the leftmost binary bit 112. Set to true if supporting all functionalities in the feature group.   |
| 13   | - Trigger type 0 SRS (periodic SRS) transmission on X Serving Cells NOTE: X = number of supported component carriers in a given band combination   | - this bit can be set to 1 only if<br>the UE supports carrier<br>aggregation in UL.                                     |   | Rel-10  | 36.331, Annex C.1 | pc_FeatrGrp_113_F | Corresponding to the Index of Indicator, the leftmost binary bit 113. Set to true if supporting all functionalities in the feature group.   |
| 14   | - Reporting of both UTRA CPICH RSCP and Ec/N0 in a Measurement Report  | - this bit can be set to 1 only if index 22 (Table B.1-1) is set to 1.  |   | Rel-10  | 36.331, Annex C.1 | pc_FeatrGrp_114_F | Corresponding to the Index of Indicator, the leftmost binary bit 114. Set to true if supporting all functionalities in the feature group. If UE supports FDD and TDD this item shall be set to same value as for item 14 in Table A.4.5-3b for TDD. |
| 15   | - time domain ICIC RLM/RRM measurement subframe restriction for the serving cell - time domain ICIC RRM measurement subframe restriction for neighbour cells - time domain ICIC CSI measurement subframe restriction | - If a category M1 or M2 UE<br>does not support this feature<br>group, this bit shall be set to<br>0.                   |   | Rel-10  | 36.331, Annex C.1 | pc_FeatrGrp_115_F | Corresponding to the Index of Indicator, the leftmost binary bit 115. Set to true if supporting all functionalities in the feature group.   |
| 16   | - Relative transmit phase continuity for spatial multiplexing in UL  | - this bit can be set to 1 only if<br>the UE supports two or more<br>layers for spatial multiplexing<br>in UL.          |   | Rel-10  | 36.331, Annex C.1 | pc_FeatrGrp_116_F | Corresponding to the Index of Indicator, the leftmost binary bit 116. Set to true if supporting all functionalities in the feature group.   |
| 17   | Undefined  |   |   | Rel-10  | 36.331, Annex C.1 |                   | Corresponding to the Index of Indicator, the leftmost binary bit 117.   |
| 18   | Undefined  |   |   | Rel-10  | 36.331, Annex C.1 |                   | Corresponding to the Index of Indicator, the leftmost binary bit 118.   |

| Item | Additional information | Notes | If indicated "Yes" the feature shall be implemented and successfully tested for the corresponding release | Release | Ref.              | Mnemonic | Comments  |
|------|------------------------|-------|---|---------|-------------------|----------|---|
| 19   | Undefined              |       |   | Rel-10  | 36.331, Annex C.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 119. |
| 20   | Undefined              |       |   | Rel-10  | 36.331, Annex C.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 120. |
| 21   | Undefined              |       |   | Rel-10  | 36.331, Annex C.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 121. |
| 22   | Undefined              |       |   | Rel-10  | 36.331, Annex C.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 122. |
| 23   | Undefined              |       |   | Rel-10  | 36.331, Annex C.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 123. |
| 24   | Undefined              |       |   | Rel-10  | 36.331, Annex C.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 124. |
| 25   | Undefined              |       |   | Rel-10  | 36.331, Annex C.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 125. |
| 26   | Undefined              |       |   | Rel-10  | 36.331, Annex C.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 126. |
| 27   | Undefined              |       |   | Rel-10  | 36.331, Annex C.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 127. |
| 28   | Undefined              |       |   | Rel-10  | 36.331, Annex C.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 128. |
| 29   | Undefined              |       |   | Rel-10  | 36.331, Annex C.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 129. |
| 30   | Undefined              |       |   | Rel-10  | 36.331, Annex C.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 130. |
| 31   | Undefined              |       |   | Rel-10  | 36.331, Annex C.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 131. |
| 32   | Undefined              |       |   | Rel-10  | 36.331, Annex C.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 132. |

Table A.4.5-3b: Release 10 AS feature group indicators 101-132 for TDD

| Item | Additional information   | Notes   | If indicated "Yes" the feature shall be implemented and successfully tested for the | Release | Ref.              | Mnemonic          | Comments   |
|------|--|---|---|---------|-------------------|-------------------|--|
|      |  |   | corresponding release   |         |                   |                   |  |
| 1    | - DMRS with OCC (orthogonal cover code) and SGH (sequence group hopping) disabling                                   | - if the UE supports two or<br>more layers for spatial<br>multiplexing in UL, this bit<br>shall be set to 1.  |   | Rel-10  | 36.331, Annex C.1 | pc_FeatrGrp_101_T | Corresponding to the Index of Indicator, the leftmost binary bit 101.  Set to true if supporting all functionalities in the feature group.  If UE supports FDD and TDD this item shall be set to same value as for item 1 in Table A.4.5-3a for FDD. |
|      |  | - If a category 0 UE does not support this feature, this bit shall be set to 0.   |   | Rel-12  |                   |                   |  |
| 2    | - Trigger type 1 SRS (aperiodic SRS) transmission (Up to X ports) NOTE: X = number of supported layers on given band |   |   | Rel-10  | 36.331, Annex C.1 | pc_FeatrGrp_102_T | Corresponding to the Index of Indicator, the leftmost binary bit 102. Set to true if supporting all functionalities in the feature group.  |
| 3    | - PDSCH transmission mode 9 when up to 4 CSI reference signal ports are configured                                   | - for Category 8 UEs, this bit shall be set to 1.   |   | Rel-10  | 36.331, Annex C.1 | pc_FeatrGrp_103_T | Corresponding to the Index of Indicator, the leftmost binary bit 103. Set to true if supporting all functionalities in the feature group.  |
|      |  | - for Category 11 and higher<br>UEs, this bit shall be set to 1.<br>- for DL Category 11 and<br>higher UEs (except for DL<br>Category 13), this bit shall be<br>set to 1.   | Yes for the UE categories listed in the column "Notes"                              | Rel-15  |                   |                   |  |
| 4    | - PDSCH transmission mode 9 for TDD when 8 CSI reference signal ports are configured                                 | - if the UE does not support<br>TDD, this bit is irrelevant<br>(capability signalling exists for<br>FDD for this feature), and this<br>bit shall be set to 0.<br>- for Category 8 UEs, this bit<br>shall be set to 1. |   | Rel-10  | 36.331, Annex C.1 | pc_FeatrGrp_104_T | Corresponding to the Index of Indicator, the leftmost binary bit 104. Set to true if supporting all functionalities in the feature group. If UE supports FDD and TDD this item shall be set to same value as for item 4 in Table A.4.5-3a for FDD.   |

| Item | Additional information  | Notes   | If indicated "Yes"   | Release | Ref.              | Mnemonic                                | Comments  |
|------|---|---|--|---------|-------------------|---|---|
|      | Additional mornidation  | Notes   | the feature shall be implemented and successfully tested for the corresponding release |         | ite.              | ······································· | Gammana   |
|      |   | - if the UE does not support TDD, this bit is irrelevant, and this bit shall be set to 0 this bit is not applicable to FDD (capability signalling exists for FDD for this feature) for Category 8 UEs, this bit shall be set to 1 for Category 11 and higher UEs, this bit shall be set to 1 for DL Category 11 and higher UEs (except for DL Category 13), this bit shall be set to 1. | Yes for TDD, for the UE categories listed in the column "Notes"                        | Rel-15  |                   |   |   |
| 5    | - Periodic CQI/PMI/RI reporting on PUCCH: Mode 2-0 - UE selected subband CQI without PMI, when PDSCH transmission mode 9 is configured - Periodic CQI/PMI/RI reporting on PUCCH: Mode 2-1 - UE selected subband CQI with single PMI, when PDSCH transmission mode 9 and up to 4 CSI reference signal ports are configured | - this bit can be set to 1 only if indices 2 (Table B.1-1) and 103 are set to 1.  |  | Rel-10  | 36.331, Annex C.1 | pc_FeatrGrp_105_T                       | Corresponding to the Index of Indicator, the leftmost binary bit 105. Set to true if supporting all functionalities in the feature group. |
|      |   | - For UEs capable of TDD-<br>FDD CA, this bit can be set to<br>1 for both FDD and TDD if<br>index 2 is set to 1 for both<br>FDD and TDD, and index 103<br>is set to 1 either for FDD and<br>TDD.  |  | Rel-12  |                   |   |   |
| 6    | - Periodic CQI/PMI/RI/PTI reporting on PUCCH: Mode 2-1 - UE selected subband CQI with single PMI, when PDSCH transmission mode 9 and 8 CSI reference signal ports are configured  | - this bit can be set to 1 only if<br>the UE supports PDSCH<br>transmission mode 9 with 8<br>CSI reference signal ports<br>(i.e., for TDD, if index 104 is<br>set to 1, and for FDD, if tm9-<br>With-8Tx-FDD-r10 is set to<br>'supported') and if index 2<br>(Table B.1-1) is set to 1.   |  | Rel-10  | 36.331, Annex C.1 | pc_FeatrGrp_106_T                       | Corresponding to the Index of Indicator, the leftmost binary bit 106. Set to true if supporting all functionalities in the feature group. |
|      |   | For UEs capable of TDD-FDD CA, this bit can be set to 1 for both FDD and TDD if either index 104 is set to 1 or tm9-With-8Tx-FDD-r10 is set to 'supported', and if index 2 is set to 1 for both FDD and TDD.  |  | Rel-12  |                   |   |   |

| Item | Additional information  | Notes   | If indicated "Yes"   | Release | Ref.              | Mnemonic          | Comments  |
|------|---|---|--|---------|-------------------|-------------------|---|
| Kem  |   |   | the feature shall be implemented and successfully tested for the corresponding release |         |                   |                   |   |
| 7    | - Aperiodic CQI/PMI/RI reporting on PUSCH: Mode 2-0 - UE selected subband CQI without PMI, when PDSCH transmission mode 9 is configured - Aperiodic CQI/PMI/RI reporting on PUSCH: Mode 2-2 - UE selected subband CQI with multiple PMI, when PDSCH transmission mode 9 and up to 4 CSI reference signal ports are configured | - this bit can be set to 1 only if indices 1 (Table B.1-1) and 103 are set to 1.  |  | Rel-10  | 36.331, Annex C.1 | pc_FeatrGrp_107_T | Corresponding to the Index of Indicator, the leftmost binary bit 107. Set to true if supporting all functionalities in the feature group. |
| 8    | - Aperiodic CQI/PMI/RI reporting on PUSCH: Mode 2-2 -<br>UE selected subband CQI with multiple PMI, when<br>PDSCH transmission mode 9 and 8 CSI reference signal<br>ports are configured  | - this bit can be set to 1 only if<br>the UE supports PDSCH<br>transmission mode 9 with 8<br>CSI reference signal ports<br>(i.e., for TDD, if index 104 is<br>set to 1, and for FDD, if tm9-<br>With-8Tx-FDD-r10 is set to<br>'supported') and if index 1<br>(Table B.1-1) is set to 1. |  | Rel-10  | 36.331, Annex C.1 | pc_FeatrGrp_108_T | Corresponding to the Index of Indicator, the leftmost binary bit 108. Set to true if supporting all functionalities in the feature group. |
| 9    | - Periodic CQI/PMI/RI reporting on PUCCH Mode 1-1, submode 1  | - this bit can be set to 1 only if the UE supports PDSCH transmission mode 9 with 8 CSI reference signal ports (i.e., for TDD, if index 104 is set to 1, and for FDD, if tm9-With-8Tx-FDD-r10 is set to 'supported').  - For UEs capable of TDD-FDD CA, this bit can be set to          |  | Rel-10  | 36.331, Annex C.1 | pc_FeatrGrp_109_T | Corresponding to the Index of Indicator, the leftmost binary bit 109. Set to true if supporting all functionalities in the feature group. |
|      |   | 1 for both FDD and TDD if<br>either index 104 is set to 1 or<br>tm9-With-8Tx-FDD-r10 is set<br>to 'supported'.  |  |         |                   |                   |   |
| 10   | - Periodic CQI/PMI/RI reporting on PUCCH Mode 1-1, submode 2  | - this bit can be set to 1 only if the UE supports PDSCH transmission mode 9 with 8 CSI reference signal ports (i.e., for TDD, if index 104 is set to 1, and for FDD, if tm9-With-8Tx-FDD-r10 is set to 'supported').  - For UEs capable of TDD-  |  | Rel-10  | 36.331, Annex C.1 | pc_FeatrGrp_110_T | Corresponding to the Index of Indicator, the leftmost binary bit 110. Set to true if supporting all functionalities in the feature group. |
|      |   | FDD CA, this bit can be set to 1 for both FDD and TDD if either index 104 is set to 1 or tm9-With-8Tx-FDD-r10 is set to 'supported'.  |  |         |                   |                   |   |

| Item | Additional information   | Notes   | If indicated "Yes" the feature shall be implemented and successfully tested for the corresponding release | Release | Ref.              | Mnemonic          | Comments  |
|------|--|---|---|---------|-------------------|-------------------|---|
| 11   | - Measurement reporting trigger Event A6   | - this bit can be set to 1 only if<br>the UE supports carrier<br>aggregation.   |   | Rel-10  | 36.331, Annex C.1 | pc_FeatrGrp_111_T | Corresponding to the Index of Indicator, the leftmost binary bit 111.  Set to true if supporting all functionalities in the feature group.  |
| 12   | - SCell addition within the Handover to EUTRA procedure  | - this bit can be set to 1 only if<br>the UE supports carrier<br>aggregation and the<br>Handover to EUTRA<br>procedure. |   | Rel-10  | 36.331, Annex C.1 | pc_FeatrGrp_112_T | Corresponding to the Index of Indicator, the leftmost binary bit 112. Set to true if supporting all functionalities in the feature group.   |
| 13   | - Trigger type 0 SRS (periodic SRS) transmission on X Serving Cells NOTE: X = number of supported component carriers in a given band combination   | - this bit can be set to 1 only if<br>the UE supports carrier<br>aggregation in UL.                                     |   | Rel-10  | 36.331, Annex C.1 | pc_FeatrGrp_113_T | Corresponding to the Index of Indicator, the leftmost binary bit 113.  Set to true if supporting all functionalities in the feature group.  |
| 14   | - Reporting of both UTRA CPICH RSCP and Ec/N0 in a Measurement Report  | - this bit can be set to 1 only if index 22 (Table B.1-1) is set to 1.  |   | Rel-10  | 36.331, Annex C.1 | pc_FeatrGrp_114_T | Corresponding to the Index of Indicator, the leftmost binary bit 114.  Set to true if supporting all functionalities in the feature group.  If UE supports FDD and TDD this item shall be set to same value as for item 14 in Table A.4.5-3a for FDD. |
| 15   | - time domain ICIC RLM/RRM measurement subframe restriction for the serving cell - time domain ICIC RRM measurement subframe restriction for neighbour cells - time domain ICIC CSI measurement subframe restriction | - If a category M1 or M2 UE<br>does not support this feature<br>group, this bit shall be set to<br>0.                   |   | Rel-10  | 36.331, Annex C.1 | pc_FeatrGrp_115_T | Corresponding to the Index of Indicator, the leftmost binary bit 115. Set to true if supporting all functionalities in the feature group.   |
| 16   | - Relative transmit phase continuity for spatial multiplexing in UL  | - this bit can be set to 1 only if<br>the UE supports two or more<br>layers for spatial multiplexing<br>in UL.          |   | Rel-10  | 36.331, Annex C.1 | pc_FeatrGrp_116_T | Corresponding to the Index of Indicator, the leftmost binary bit 116. Set to true if supporting all functionalities in the feature group.   |
| 17   | Undefined  |   |   | Rel-10  | 36.331, Annex C.1 |                   | Corresponding to the Index of Indicator, the leftmost binary bit 117.   |
| 18   | Undefined  |   |   | Rel-10  | 36.331, Annex C.1 |                   | Corresponding to the Index of Indicator, the leftmost binary bit 118.   |

| Item | Additional information | Notes | If indicated "Yes" the feature shall be implemented and successfully tested for the corresponding | Release | Ref.              | Mnemonic | Comments  |
|------|------------------------|-------|---|---------|-------------------|----------|---|
| 19   | Undefined              |       | release   | Rel-10  | 36.331, Annex C.1 |          | Corresponding to the Index of   |
|      |                        |       |   |         |                   |          | Indicator, the leftmost binary bit 119.                               |
| 20   | Undefined              |       |   | Rel-10  | 36.331, Annex C.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 120. |
| 21   | Undefined              |       |   | Rel-10  | 36.331, Annex C.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 121. |
| 22   | Undefined              |       |   | Rel-10  | 36.331, Annex C.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 122. |
| 23   | Undefined              |       |   | Rel-10  | 36.331, Annex C.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 123. |
| 24   | Undefined              |       |   | Rel-10  | 36.331, Annex C.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 124. |
| 25   | Undefined              |       |   | Rel-10  | 36.331, Annex C.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 125. |
| 26   | Undefined              |       |   | Rel-10  | 36.331, Annex C.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 126. |
| 27   | Undefined              |       |   | Rel-10  | 36.331, Annex C.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 127. |
| 28   | Undefined              |       |   | Rel-10  | 36.331, Annex C.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 128. |
| 29   | Undefined              |       |   | Rel-10  | 36.331, Annex C.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 129. |
| 30   | Undefined              |       |   | Rel-10  | 36.331, Annex C.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 130. |
| 31   | Undefined              |       |   | Rel-10  | 36.331, Annex C.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 131. |
| 32   | Undefined              |       |   | Rel-10  | 36.331, Annex C.1 |          | Corresponding to the Index of Indicator, the leftmost binary bit 132. |

## Annex B (informative): Test Case Branching

#### B.1 Introduction

Test Case dynamic behaviour consist of a sequence of actions taken e.g. by the UE or the SS. Depending e.g. on the UE capabilities, configuration or implementation different paths within this sequence may be executed or skipped. For the purpose of the present annex the existence of such pats is denoted as 'branching' and the paths as 'branches'.

Test Cases consist of a Preamble, a Test body (procedure) and a Postamble. Each of these 3 distinctive parts may contain multiple test branches.

Preambles will be the same for many (most) TCs. For example UE state Registered, Idle mode (state 2). Similarly Postambles will in their majority contain common actions. It should be noted that the basic Preambles and Postambles are part of the Test body (procedure) in a number of TCs

The UE capabilities/configuration options in general are identified by ICS/IXIT defined in TS 36.523-2 and 36.523-3 respectively. Many of these ICS/IXIT have then been used to determine which of a set of branches a TC may go during execution; some have been used to define TC Applicability, and, some have been used for both.

Table 4-1 'Applicability of tests and additional information for testing' contains two columns dedicated to Specific ICS and IXIT which have impact on the TC dynamic behaviour branching and are used in the TC prose and the TTCN implementation. These columns are intended to cover ICS/IXIT which have impact only on the TC body where the TC verdict(s) are assigned and not on the Preamble/Postamble of the TC.

Whereas most of the TC branches have one or more associated ICS/IXIT, in exceptional cases optional UE behaviour which is handled by the SS "on the go", i.e. if the UE does it then the SS will respond accordingly, does not have associated ICS/IXIT.

Note:

Providing information which makes the existence of optional behaviour branches more explicit and details on the ICS and IXIT which have impact on the branching of the Preambles/Postambles can be useful e.g. for certification organisations validation purposes.

Information on the Specific ICS and IXIT which have impact on the branching of the Preambles/Postambles is provided in B.3. Special ICS to identify optional branches are defined in section B.2.

### B.2 Special ICS to identify optional branches

Table B.2-1 provides a list of ICS definitions describing optional UE behaviour which is not associated with a ICS defined in Annex A.

The ICS specified in the present section are not used in TTCN or in TC prose specification. The provision of answer if the UE supports any of one these ICS is not a prerequisite for TC execution. Rather, the ICS are specified for the sole purpose of facilitating the work of any organisation, e.g. TC validation in Certification organisation, in identifying the optional test branches through which an UE has gone during test execution.

Table B.2-1: UE optional behaviour

| Item | Definition   | Ref. | Release | Mnemonic                       | Comments |
|------|--|------|---------|--------------------------------|----------|
| 1    | The UE performs IPv4<br>address allocation by<br>DHCPv4 on the user plane                  |      | Rel-8   | pb_IPv4_DHCPv4_AAUP            |          |
| 2    | The UE sets the ESM information transfer flag in the last PDN CONNECTIVITY REQUEST message |      | Rel-8   | pb_ESM_InfoTransFlag_P<br>DNCR |          |

## B.3 Test Case Preambles and Postambles specific information

The present section is dedicated for providing additional information on Preambles and Postambles used in the TCs specified in TS 36.523-1. The ICS included in column 'Specific ICS' are defined in Annex A and Annex B.2; the IXIT included in column 'Specific IXIT' are defined in 36.523-3 section 9; for ICS/IXIT specified in other documents, specific reference is provided.

Table B.3-1: TC Preambles specific information

| 1 UE Registration (State 2)  36.508, pc_eFDD pc_eTDD pc_IMS pc_Provide_Internet_as_second_APN pc_IPv4  pc_IPv4  | Item | Preamble Title  | Ref.    | Specific ICS   | Specific IXIT |
|---|------|-----------------|---------|--|---------------|
| pc_IFV0 pc_XCAP_only_APN pc_UE_supports_user_initiated_PDN_discon nect pc_Attach pc_Combined_Attach pc_Multiple_PDN pc_IMS_APN_default pc_Provide_IMS_APN pc_DSMIPv6 pc_RequestIPv6HAAddress_DuringAttach pc_RequestIPv4HAAddress_DuringAttach pb_ESM_InfoTransFlag_PDNCR | 1    | UE Registration | 36.508, | pc_eFDD pc_eTDD pc_IMS pc_Provide_Internet_as_second_APN pc_Provide_IMS_as_second_APN pc_IPv4 pc_IPv6 pc_XCAP_only_APN pc_UE_supports_user_initiated_PDN_discon nect pc_Attach pc_Combined_Attach pc_Multiple_PDN pc_IMS_APN_default pc_Provide_IMS_APN pc_DSMIPv6 pc_RequestIPv6HAAddress_DuringAttach pc_RequestIPv4HAAddress_DuringAttach | Specific IXIT |

# Annex C (informative): Change history

| Date    | TSG #                  | TSG Doc.      | CR   | R<br>e<br>v | Subject/Comment  | Old   | New   |
|---------|------------------------|---------------|------|-------------|--|-------|-------|
| 2007-11 | -                      | -             | -    | -           | Initial version  |       | 0.0.1 |
| 2008-02 | -                      | -             | -    | 1-          | Addition applicability 6 new LTE RRC test cases.   | 0.0.1 | 0.1.0 |
| 2008-04 | -                      | -             | -    | -           | Editorial corrections  | 0.1.0 | 0.1.1 |
| 2008-05 | -                      | -             | -    | -           | Extend the Applicability table scope with additional information for testing which may include: - relevant per TC Specific PICS statements - relevant per TC Specific PIXIT statements Updated TC applicability with contributions to RAN5#39  | 0.1.1 | 0.2.0 |
| 2008-06 | -                      | -             | -    | -           | <ul> <li>Added TCs agreed at RAN5#39bis</li> <li>Updating TCs names, numbers, removed TCs deleted from the TC list</li> <li>Editorial update</li> </ul>  | 0.2.0 | 0.3.0 |
| 2008-09 | RP-41                  | RP-<br>080595 | -    | -           | Submitted for information. Update in accordance with RAN5#40 (Editorial update and input from R5-083453, R5-083517, R5-083654)   | 0.3.0 | 1.0.0 |
| 2008-09 | post<br>RAN5#4<br>0    | -             | -    | -           | Update to reflect the agreed during the RAN5#40 extended e-mail agreement input: - All agreed new TCs added - One modified TCs title reflected   | 1.0.0 | 1.0.1 |
| 2008-10 | post<br>RAN5#4<br>0bis | -             | -    | -           | - Added new agreed at RAN5#40bis TCs - Removed TCs that are removed from the LTE/SAE WP (R5-084008) - Added TCs that exist as 80% completed in the LTE/SAE WP (R5-084008) but do not exist in 36.523-2 - Modified agreed RAN5#40bis new TC numbers - Updated TCs titles to match those in the LTE/SAE WP (R5-084008) | 1.0.1 | 1.1.0 |
| 2008-11 | Post<br>RAN5#4<br>1    | -             | -    | -           | R5-085361: - New TCs added to applicability table - TCs titles updated - TC 9.2.2.1.2 removed from applicability table - Table for provision of test loops added - Editorial changes   | 1.1.0 | 2.0.0 |
| 2008-12 | RAN#42                 | RP-<br>080860 |      |             | Approval of version 2.0.0 at RAN#42, then put to version 8.0.0.  | 2.0.0 | 8.0.0 |
| 2008-01 |                        |               |      |             | Editorial corrections.   | 8.0.0 | 8.0.1 |
| 2009-03 | RAN#43                 | R5-<br>090101 | 0001 | -           | Removal of reference to 11-bit Length Indicator in E-UTRA RLC test cases   | 8.0.1 | 8.1.0 |
| 2009-03 | RAN#43                 | R5-<br>090292 | 0002 | 1           | Applicability of new E-UTRA PDCP test case - 7.3.5.4   | 8.0.1 | 8.1.0 |
| 2009-03 | RAN#43                 | R5-<br>090569 | 0003 | -           | Updating applicability table with input relevant to agreed at RAN5#41bis 36.523-1 CRs  | 8.0.1 | 8.1.0 |
| 2009-03 | RAN#43                 | R5-<br>090668 | 0004 | -           | Batch 1B - Applicability of new E-UTRA PDCP test cases   | 8.0.1 | 8.1.0 |
| 2009-03 | RAN#43                 | R5-<br>090737 | 0005 | -           | Update of Applicability table for EPS mobility management test cases   | 8.0.1 | 8.1.0 |
| 2009-03 | RAN#43                 | R5-<br>090738 | 0006 | -           | Batch 1: Applicability for new MAC test cases 7.1.3.9 & 7.1.4.12   | 8.0.1 | 8.1.0 |
| 2009-03 | RAN#43                 | R5-<br>090751 | 0007 | -           | Addition of Applicability new LTE test cases   | 8.0.1 | 8.1.0 |
| 2009-05 | RAN#44                 | R5-<br>092056 | 8000 |             | GCF Priority 2 - Adding TC 9.1.2.5 to applicability  | 8.1.0 | 8.2.0 |
| 2009-05 | RAN#44                 | R5-<br>092091 | 0009 |             | GCF Priority 2 - Addition of applicability statement for E-UTRAN test case 6.1.2.7 for Cell reselection: Equivalent PLMN   | 8.1.0 | 8.2.0 |
| 2009-05 | RAN#44                 | R5-<br>092116 | 0010 |             | GCF Priority 1 - Applicability of new E-UTRA MAC test cases  | 8.1.0 | 8.2.0 |
| 2009-05 | RAN#44                 | R5-<br>092117 | 0011 | T           | GCF Priority 1 - Proposal to remove E-UTRA RLC test case 7.2.3.19 (Part 2)   | 8.1.0 | 8.2.0 |
| 2009-05 | RAN#44                 | R5-<br>092207 | 0012 |             | GCF Priority 2 - Addition of applicability for new EMM test case   | 8.1.0 | 8.2.0 |
| 2009-05 | RAN#44                 | R5-<br>092215 | 0013 |             | GCF Priority 2 - Addition of applicability for new idle mode and RRC test cases  | 8.1.0 | 8.2.0 |
| 2009-05 | RAN#44                 | R5-<br>092254 | 0014 | T           | Update of Applicability table for agreed EMM test cases in RAN5#42bis  | 8.1.0 | 8.2.0 |
| 2009-05 | RAN#44                 | R5-<br>092255 | 0015 |             | GCF Priority 2 - Applicability for new idle mode test cases  | 8.1.0 | 8.2.0 |
| 2009-05 | RAN#44                 | R5-<br>092279 | 0016 |             | Addition of Applicability New LTE Test cases   | 8.1.0 | 8.2.0 |
| 2009-05 | RAN#44                 | R5-<br>092404 | 0017 |             | GCF priority 2: Applicability statements for the new MAC DRX test cases  | 8.1.0 | 8.2.0 |
| 2009-05 | RAN#44                 | R5-<br>092407 | 0018 |             | GCF Priority 2 - Addition of applicability for UM RLC test case 7.2.2.11   | 8.1.0 | 8.2.0 |

| 2009-05   RANN444   R5-   0924   GCF Priority 2: Applicability of new Cell Selection test cases   8.1.0   8.2.0  | Date    | TSG #  | TSG Doc. | CR   | R<br>e<br>v | Subject/Comment   | Old   | New   |
|--|---------|--------|----------|------|-------------|---|-------|-------|
| 2009-05   RANN44   RS-   0021   0021   0021   0021   0021   0021   0021   0021   0021   0021   0021   0021   0021   0021   0022   002 | 2009-05 | RAN#44 | -        | 0019 |             | GCF Priority 2: Applicability of new EMM test cases                 | 8.1.0 | 8.2.0 |
| 2009-05   RANH44   R5-   | 2009-05 | RAN#44 | R5-      | 0020 |             | GCF Priority 2: Applicability of new Cell Selection test cases      | 8.1.0 | 8.2.0 |
| 2009-05   RANM-44   R5-  | 2009-05 | RAN#44 | R5-      | 0021 |             |   | 8.1.0 | 8.2.0 |
| 2009-05   RANI#44   R5-  | 2009-05 | RAN#44 | R5-      | 0022 |             | GCF Priority 2 - Addition of Applicability statement for MAC test   | 8.1.0 | 8.2.0 |
| 2009-05   RANI#44   R5-  | 2009-05 | RAN#44 | R5-      | 0023 |             |   | 8.1.0 | 8.2.0 |
| 2009-05   RAN#44   R5-   | 2009-05 | RAN#44 | R5-      | 0024 |             | Update of Applicability for Feature Group Indicators                | 8.1.0 | 8.2.0 |
| 2009-05   RANE44   RS- 092508   0026   Missing applicability of EMM/ESM test cases   8.1.0   8.2.0   2009-05   RANE44   RS- 092509   0027   Applicability of new EMM & ESM test cases   8.1.0   8.2.0   2009-05   RANE44   RS- 092586   0028   GCF Priority 1 - Update of applicability for RLC test cases   8.1.0   8.2.0   2009-05   RANE44   RS- 092769   0027   O000   GCF Priority 2 - Applicability of new RRC test case 8.3.2.6   8.1.0   8.2.0   002769   002770   0000   GCF Priority 2 - Update of applicability for MAC test cases based   8.1.0   8.2.0   0.009270   0000   0000   00000   00000   00000   00000   00000   00000   00000   000000  | 2009-05 | RAN#44 | R5-      | 0025 |             |   | 8.1.0 | 8.2.0 |
| 2009-05   RANIH44   RS-  | 2009-05 | RAN#44 | R5-      | 0026 |             |   | 8.1.0 | 8.2.0 |
| 2009-05   RANH44   R5-   | 2009-05 | RAN#44 | R5-      | 0027 |             | Applicability of new EMM & ESM test cases                           | 8.1.0 | 8.2.0 |
| 2009-05   RAN#44   R5-   0030   0029   0030   003 | 2009-05 | RAN#44 | R5-      | 0028 |             | GCF Priority 1 - Update of applicability for RLC test cases         | 8.1.0 | 8.2.0 |
| 2009-05  | 2009-05 | RAN#44 | R5-      | 0029 |             | GCF Priority 2 - Applicability of new RRC test case 8.3.2.6         | 8.1.0 | 8.2.0 |
| 2009-09  | 2009-05 | RAN#44 | R5-      | 0030 |             |   | 8.1.0 | 8.2.0 |
| 2009-09   RAN#45   RS- 094183   0032   - Missing TCs applicability in 36-523-2   8.2.0   8.3.0   2009-09   RAN#45   RS- 094206   0034   1 Update of Feature Group Indicators   8.2.0   8.3.0   2009-09   RAN#45   RS- 094302   0035   GCF Priority 2 - Applicability Statement for 8.3.2.1   8.2.0   8.3.0   2009-09   RAN#45   RS- 094404   0035   GCF Priority 2 - Applicability for PDCP to based on FGI   8.2.0   8.3.0   2009-09   RAN#45   RS- 094635   0036   - Update of Applicability for PDCP to based on FGI   8.2.0   8.3.0   2009-09   RAN#45   RS- 094683   0036   - Update of Applicability for RLC test case 7.2.2.11   8.2.0   8.3.0   2009-09   RAN#45   RS- 094683   0036   - Update of Applicability for RLC test case 7.2.2.11   8.2.0   8.3.0   2009-09   RAN#45   RS- 094722   0038   - Correction of TC titles on RRC part 2 (8.2 RRC Connection   8.2.0   8.3.0   8.3.0   2009-09   RAN#45   RS- 094727   0039   1 Update of test case applicability for feature group indicators for RRC part 2 (8.2 RRC Connection   8.2.0   8.3.0   8.3.0   2009-09   RAN#45   RS- 094727   0040   - GCF Priority 2 - Update of applicability for reature group indicators for RRC part 2 (8.2 RRC Connection   8.2.0   8.3.0    | 2009-05 | RAN#44 | R5-      | 0031 |             |   | 8.1.0 | 8.2.0 |
| 2009-09  | 2009-09 | RAN#45 | R5-      | 0032 | -           | Missing TCs applicability in 36-523-2                               | 8.2.0 | 8.3.0 |
| 2009-09         RAN#45         R5-<br>094302         0034         1         Update of Feature Group Indicators         8.2.0         8.3.0           2009-09         RAN#45         R5-<br>094404         0035         GCF Priority 2 - Applicability Statement for 8.3.2.1         8.2.0         8.3.0           2009-09         RAN#45         R5-<br>094535         0036         - Update of Applicability for PDCP to based on FGI         8.2.0         8.3.0           2009-09         RAN#45         R5-<br>094683         0037         - GCF Priority 2 - Update of Applicability for RLC test case 7.2.2.11         8.2.0         8.3.0           2009-09         RAN#45         R5-<br>094722         0038         - Correction of TC titles on RRC part 2 (8.2 RRC Connection Reconfiguration)         8.2.0         8.3.0           2009-09         RAN#45         R5-<br>094727         0039         1 Update of test case applicability for feature group indicators for RRC part 2 (8.2 RRC Connection Reconfiguration)         8.2.0         8.3.0           2009-09         RAN#45         R5-<br>095033         0040         - GCF Priority 2 - Addition of applicability for feature group indicators for RRC part 2 (8.2 RRC Connection Reconfiguration)         8.2.0         8.3.0           2009-09         RAN#45         R5-<br>095033         0040         - GCF Priority 2 - Update of applicability for new SMS over SGs Its accordance and part of test cases applica   | 2009-09 | RAN#45 | R5-      | 0033 | -           | GCF Priority 3 - Remove RRC test case 8.1.3.3 applicability         | 8.2.0 | 8.3.0 |
| 2009-09   RAN#45   R5-   | 2009-09 | RAN#45 | R5-      | 0034 | 1           | Update of Feature Group Indicators                                  | 8.2.0 | 8.3.0 |
| 2009-09   RAN#45   R5-   | 2009-09 | RAN#45 | R5-      | 0035 | -           | GCF Priority 2 - Applicability Statement for 8.3.2.1                | 8.2.0 | 8.3.0 |
| 2009-09  | 2009-09 | RAN#45 | R5-      | 0036 | -           | Update of Applicability for PDCP tc based on FGI                    | 8.2.0 | 8.3.0 |
| RAN#45   | 2009-09 | RAN#45 | R5-      | 0037 | -           | GCF Priority 2 - Update of applicability for RLC test case 7.2.2.11 | 8.2.0 | 8.3.0 |
| 2009-09  | 2009-09 | RAN#45 | R5-      | 0038 | -           |   | 8.2.0 | 8.3.0 |
| 2009-09  | 2009-09 | RAN#45 | R5-      | 0039 | 1           | Update of test case applicability for feature group indicators for  | 8.2.0 | 8.3.0 |
| 2009-09  | 2009-09 | RAN#45 | R5-      | 0040 | -           | GCF Priority 2 - Addition of applicability for new SMS over SGs     | 8.2.0 | 8.3.0 |
| 2009-09  | 2009-09 | RAN#45 | R5-      | 0041 | 1           | GCF Priority 2 - Update of applicability for LTE-C2k interworking   | 8.2.0 | 8.3.0 |
| 2009-09  | 2009-09 | RAN#45 | R5-      | 0042 | 1           | Corrections to PICS for PS and CS registration and applicability of | 8.2.0 | 8.3.0 |
| 2009-09  | 2009-09 | RAN#45 | R5-      | 0043 | 1           |   | 8.2.0 | 8.3.0 |
| 2009-11         GERAN #44         GP- 092406         0045         - Addition of new Test Case 6.2.3.21         8.3.0         8.4.0           2009-12         RAN#46         R5- 095479         0046         - Applicability of new TC 6.2.3.6         8.3.0         8.4.0           2009-12         RAN#46         R5- 095480         0047         - Applicability of new/removed RRC Part 2 test cases         8.3.0         8.4.0           2009-12         RAN#46         R5- 095483         - Applicability of new ESM test cases         8.3.0         8.4.0           2009-12         RAN#46         R5- 095526         0049         - GCF Priority 1 - Update of RLC test case applicability         8.3.0         8.4.0           2009-12         RAN#46         R5- 095673         0050         - Applicability for new IDLE MODE test case 6.1.2.13         8.3.0         8.4.0           2009-12         RAN#46         R5- 095797         0051         - Addition of applicability for new DSMIPv6 test cases         8.3.0         8.4.0           2009-12         RAN#46         R5- 095989         0052         - Wrong reference in TC applicability condition C01         8.3.0         8.4.0           2009-12         RAN#46         R5- 095989         0053         - GCF Priority 1 - Corrections to MAC test case applicability         8.3.0         8.4.0  | 2009-09 | RAN#45 | R5-      | 0044 | -           | Applicability for Idle Mode test cases                              | 8.2.0 | 8.3.0 |
| 2009-12         RAN#46         R5-<br>095479         0046         - Applicability of new TC 6.2.3.6         8.3.0         8.4.0           2009-12         RAN#46         R5-<br>095480         0047         - Applicability of new/removed RRC Part 2 test cases         8.3.0         8.4.0           2009-12         RAN#46         R5-<br>095483         0048         - Applicability of new ESM test cases         8.3.0         8.4.0           2009-12         RAN#46         R5-<br>095526         0049         - GCF Priority 1 - Update of RLC test case applicability         8.3.0         8.4.0           2009-12         RAN#46         R5-<br>095673         0050         - Applicability for new IDLE MODE test case 6.1.2.13         8.3.0         8.4.0           2009-12         RAN#46         R5-<br>095797         0051         - Addition of applicability for new DSMIPv6 test cases         8.3.0         8.4.0           2009-12         RAN#46         R5-<br>095989         0052         - Wrong reference in TC applicability condition C01         8.3.0         8.4.0           2009-12         RAN#46         R5-<br>095989         0053         - GCF Priority 1 - Corrections to MAC test case applicability         8.3.0         8.4.0  | 2009-11 |        | GP-      | 0045 | -           | Addition of new Test Case 6.2.3.21                                  | 8.3.0 | 8.4.0 |
| 2009-12         RAN#46         R5-<br>095480         0047         - Applicability of new/removed RRC Part 2 test cases         8.3.0         8.4.0           2009-12         RAN#46         R5-<br>095483         0048         - Applicability of new ESM test cases         8.3.0         8.4.0           2009-12         RAN#46         R5-<br>095526         0049         - GCF Priority 1 - Update of RLC test case applicability         8.3.0         8.4.0           2009-12         RAN#46         R5-<br>095673         0050         - Applicability for new IDLE MODE test case 6.1.2.13         8.3.0         8.4.0           2009-12         RAN#46         R5-<br>095797         0051         - Addition of applicability for new DSMIPv6 test cases         8.3.0         8.4.0           2009-12         RAN#46         R5-<br>095989         0052         - Wrong reference in TC applicability condition C01         8.3.0         8.4.0           2009-12         RAN#46         R5-<br>095989         0053         - GCF Priority 1 - Corrections to MAC test case applicability         8.3.0         8.4.0  | 2009-12 |        | R5-      | 0046 | -           | Applicability of new TC 6.2.3.6                                     | 8.3.0 | 8.4.0 |
| 2009-12         RAN#46         R5-<br>095483         0048 - Applicability of new ESM test cases         8.3.0         8.4.0           2009-12         RAN#46         R5-<br>095526         0049 - GCF Priority 1 - Update of RLC test case applicability         8.3.0         8.4.0           2009-12         RAN#46         R5-<br>095673         0050 - Applicability for new IDLE MODE test case 6.1.2.13         8.3.0         8.4.0           2009-12         RAN#46         R5-<br>095797         0051 - Addition of applicability for new DSMIPv6 test cases         8.3.0         8.4.0           2009-12         RAN#46         R5-<br>095989         0052 - Wrong reference in TC applicability condition C01         8.3.0         8.4.0           2009-12         RAN#46         R5-<br>095989         0053 - GCF Priority 1 - Corrections to MAC test case applicability         8.3.0         8.4.0   | 2009-12 | RAN#46 | R5-      | 0047 | -           | Applicability of new/removed RRC Part 2 test cases                  | 8.3.0 | 8.4.0 |
| 2009-12         RAN#46         R5-<br>095526         0049<br>095526         - GCF Priority 1 - Update of RLC test case applicability         8.3.0         8.4.0           2009-12         RAN#46         R5-<br>095673         0050<br>095673         - Applicability for new IDLE MODE test case 6.1.2.13         8.3.0         8.4.0           2009-12         RAN#46         R5-<br>095797         0051<br>095989         - Addition of applicability for new DSMIPv6 test cases<br>095797         8.3.0         8.4.0           2009-12         RAN#46         R5-<br>095989         0052<br>095989         - Wrong reference in TC applicability condition C01         8.3.0         8.4.0           2009-12         RAN#46         R5-<br>095989         0053         - GCF Priority 1 - Corrections to MAC test case applicability         8.3.0         8.4.0   | 2009-12 | RAN#46 | R5-      | 0048 | -           | Applicability of new ESM test cases                                 | 8.3.0 | 8.4.0 |
| 2009-12         RAN#46         R5-<br>095673         0050         - Applicability for new IDLE MODE test case 6.1.2.13         8.3.0         8.4.0           2009-12         RAN#46         R5-<br>095797         0051         - Addition of applicability for new DSMIPv6 test cases         8.3.0         8.4.0           2009-12         RAN#46         R5-<br>095989         0052         - Wrong reference in TC applicability condition C01         8.3.0         8.4.0           2009-12         RAN#46         R5-         0053         - GCF Priority 1 - Corrections to MAC test case applicability         8.3.0         8.4.0  | 2009-12 | RAN#46 | R5-      | 0049 | -           | GCF Priority 1 - Update of RLC test case applicability              | 8.3.0 | 8.4.0 |
| 2009-12         RAN#46         R5-<br>095797         0051         - Addition of applicability for new DSMIPv6 test cases         8.3.0         8.4.0           2009-12         RAN#46         R5-<br>095989         0052         - Wrong reference in TC applicability condition C01         8.3.0         8.4.0           2009-12         RAN#46         R5-         0053         - GCF Priority 1 - Corrections to MAC test case applicability         8.3.0         8.4.0   | 2009-12 | RAN#46 | R5-      | 0050 | -           | Applicability for new IDLE MODE test case 6.1.2.13                  | 8.3.0 | 8.4.0 |
| 2009-12         RAN#46         R5-<br>095989         0052         -         Wrong reference in TC applicability condition C01         8.3.0         8.4.0           2009-12         RAN#46         R5-         0053         -         GCF Priority 1 - Corrections to MAC test case applicability         8.3.0         8.4.0  | 2009-12 | RAN#46 | R5-      | 0051 | -           | Addition of applicability for new DSMIPv6 test cases                | 8.3.0 | 8.4.0 |
| 2009-12 RAN#46 R5- 0053 - GCF Priority 1 - Corrections to MAC test case applicability 8.3.0 8.4.0  | 2009-12 | RAN#46 | R5-      | 0052 | -           | Wrong reference in TC applicability condition C01                   | 8.3.0 | 8.4.0 |
| 1000004  | 2009-12 | RAN#46 |          | 0053 | -           | GCF Priority 1 - Corrections to MAC test case applicability         | 8.3.0 | 8.4.0 |

| Date    | TSG #  | TSG Doc.                | CR   | R<br>e<br>v | Subject/Comment  | Old   | New   |
|---------|--------|-------------------------|------|-------------|--|-------|-------|
| 2009-12 | RAN#46 | R5-<br>096119           | 0054 | 2           | Applicability for section 8.4 RRC Inter-RAT test cases NTT DOCOMO  | 8.3.0 | 8.4.0 |
| 2009-12 | RAN#46 | R5-<br>096134           | 0055 | -           | GCF Priority 3 - Correction to E-UTRA DRB test case 12.3   | 8.3.0 | 8.4.0 |
| 2009-12 | RAN#46 | R5-<br>096136           | 0056 | -           | GCF Priority 3 - Applicability of new E-UTRA DRB test case 12.3  | 8.3.0 | 8.4.0 |
| 2009-12 | RAN#46 | R5-<br>096659           | 0057 | -           | GCF Priority 2 - Addition of applicability for new test case 11.1.4  | 8.3.0 | 8.4.0 |
| 2009-12 | RAN#46 | R5-<br>096702           | 0058 | -           | Add applicabilities for test case 8.1.3.7 and 8.5.2.1  | 8.3.0 | 8.4.0 |
| 2009-12 | RAN#46 | R5-<br>096703           | 0059 | -           | GCF Priority 3 - Add applicabilities for new test case 8.3.1.11  | 8.3.0 | 8.4.0 |
| 2009-12 | RAN#46 | R5-<br>096704           | 0060 | -           | Update of Applicability table for Multi-layer Procedure test cases   | 8.3.0 | 8.4.0 |
| 2009-12 | RAN#46 | R5-<br>096705           | 0062 | -           | EMM CRs from RAN5#45   | 8.3.0 | 8.4.0 |
| 2009-12 | RAN#46 | R5-<br>096710           | 0061 | -           | GCF Priority 3 - Addition of applicability for new LTE-C2k interworking test cases   | 8.3.0 | 8.4.0 |
| 2010-03 | RAN#47 | R5-<br>100080           | 0063 | -           | Addition of applicability for new multi-layer test case  | 8.4.0 | 8.5.0 |
| 2010-03 | RAN#47 | R5-<br>100179           | 0064 | -           | Applicability for new EMM test case 9.2.1.2.14   | 8.4.0 | 8.5.0 |
| 2010-03 | RAN#47 | R5-<br>100286           | 0065 | -           | Update of Applicability table of TC 8.4.2.4  | 8.4.0 | 8.5.0 |
| 2010-03 | RAN#47 | R5-<br>100333           | 0066 | -           | Addition of TDD RF Baseline Implementation Capabilities  | 8.4.0 | 8.5.0 |
| 2010-03 | RAN#47 | R5-<br>100479           | 0067 | -           | Addition of applicability for new DSMIPv6 test cases   | 8.4.0 | 8.5.0 |
| 2010-03 | RAN#47 | R5-<br>100498           | 0068 | -           | GCF priority 3 - Applicability Statements for new PUSCH Hopping test cases   | 8.4.0 | 8.5.0 |
| 2010-03 | RAN#47 | R5-<br>100747           | 0069 | -           | Adding PICS for UE UTRAN and GERAN types   | 8.4.0 | 8.5.0 |
| 2010-03 | RAN#47 | R5-<br>101030           | 0070 | -           | GCF Priority 3 - Adding TC 9-1-5-1 EMM Information Procedure applicability   | 8.4.0 | 8.5.0 |
| 2010-03 | RAN#47 | R5-<br>101143           | 0071 | -           | Addition of applicability for new LTE-C2k interworking test cases  | 8.4.0 | 8.5.0 |
| 2010-03 | RAN#47 | R5-<br>101193           | 0072 | -           | GCF Priority 3 - Addition of applicability statement for E-UTRAN test case 13.4.1.2  | 8.4.0 | 8.5.0 |
| 2010-03 | RAN#47 | R5-<br>101194           | 0073 | -           | Applicability of new RRC part 1 test case  | 8.4.0 | 8.5.0 |
| 2010-03 | RAN#47 | R5-<br>101195           | 0074 | -           | Correcting applicability and PICS for EMM test cases   | 8.4.0 | 8.5.0 |
| 2010-03 | RAN#47 | R5-<br>101196           | 0075 | -           | Removal of LTE test cases 9.3.1.2 and 10.5.2   | 8.4.0 | 8.5.0 |
| 2010-03 | RAN#47 | R5-<br>101197           | 0076 | -           | Corrections to applicability table to align to TS 36.523-1   | 8.4.0 | 8.5.0 |
| 2010-03 | RAN#47 | R5-<br>101198           | 0077 | -           | Correction of the Applicability of GCF Priority 2 NAS test case 9.2.2.1.1  | 8.4.0 | 8.5.0 |
| 2010-03 | RAN#47 | R5-<br>101199           | 0078 | -           | Update of applicability of ESM test cases  | 8.4.0 | 8.5.0 |
| 2010-03 | RAN#47 | RP-<br>100116           | 0079 | -           | Test Case titles alignment   | 8.4.0 | 8.5.0 |
| 2010-03 | RAN#47 | GP-<br>100099           | 0064 | -           | Addition of new Test Case 6.2.3.22   | 8.4.0 | 8.5.0 |
| 2010-03 | RAN#47 | -                       | _    | -           | Moved to v9.0.0 with no change   | 8.5.0 | 9.0.0 |
| 2010-06 | RAN#48 | GP-                     | 0080 | Ì           | Addition of new GELTE test cases 6.2.3.28 and 6.2.3.30   | 9.0.0 | 9.1.0 |
| 2010-06 | RAN#48 | 100627<br>GP-           | 0081 |             | New test cases for GERAN to LTE added Part 2   | 9.0.0 | 9.1.0 |
| 2010-06 | RAN#48 | 100674<br>R5-<br>103122 | 0082 | F           | Adding band 20 and 21 to TS36.523-2  | 9.0.0 | 9.1.0 |
| 2010-06 | RAN#48 | R5-<br>103146           | 0083 | -           | GCF Priority 4 - Addition of applicability statement for E-UTRAN test case 14.1 and 14.2   | 9.0.0 | 9.1.0 |
| 2010-06 | RAN#48 | R5-<br>103246           | 0094 | -           | Applicability of new TC 13.1.5  Note: This CR is wrongly identified on its cover page and in RP-100510 as CR0802.  | 9.0.0 | 9.1.0 |
| 2010-06 | RAN#48 | R5-<br>103270           | 0084 | -           | Modification of applicability condition for UTRAN in 36.523-2  | 9.0.0 | 9.1.0 |
| 2010-06 | RAN#48 | R5-<br>103314           | 0085 | -           | GCF Priority 2 - Correction to applicability of test case 7.1.4.3  Note: This CR is wrongly identified on its cover page and in RP-100510 as being to 34.123-2 | 9.0.0 | 9.1.0 |

| Date    | TSG #        | TSG Doc.                | CR   | R<br>e        | Subject/Comment  | Old   | New   |
|---------|--------------|-------------------------|------|---------------|--|-------|-------|
| 2010-06 | RAN#48       | R5-                     | 0086 | -             | GCF Priority 1: Update of TC titles and formatting in applicability  | 9.0.0 | 9.1.0 |
| 2010-06 | RAN#48       | 103369<br>R5-<br>103370 | 0087 | -             | GCF Priority 3: New TC 9.3.1.6 applicability   | 9.0.0 | 9.1.0 |
| 2010-06 | RAN#48       | R5-<br>103621           | 0088 | -             | Correction for feature group indicators in Annex A.4.5   | 9.0.0 | 9.1.0 |
| 2010-06 | RAN#48       | R5-<br>103874           | 0089 | -             | GCF Priority 2: Update of EMM test case applicability using new UE implementation capabilities to control UE attach type | 9.0.0 | 9.1.0 |
| 2010-06 | RAN#48       | R5-<br>103878           | 0090 | -             | GCF Priority 3: Applicability statements for new P3&P4 TCs   | 9.0.0 | 9.1.0 |
| 2010-06 | RAN#48       | R5-<br>103879           | 0091 | -             | Applicability for GCF Priority test cases 9.2.1.1.4, 9.3.1.18, 13.1.8  | 9.0.0 | 9.1.0 |
| 2010-06 | RAN#48       | R5-<br>103880           | 0092 | -             | GCF priority 3 - Adding new 6.2.1 test cases to the applicability table  | 9.0.0 | 9.1.0 |
| 2010-06 | -            | -                       | -    | -             | Adds note to the entry for CR0094 above.   | 9.1.0 | 9.1.1 |
| 2010-06 | -            | -                       | -    | -             | Adds note to the entry for CR0085 above.   | 9.1.1 | 9.1.2 |
| 2010-09 | GERAN#<br>47 | GP-<br>101176           | 0095 | -             | CR 36.523-2-0095 6.2.3.19 : Redirection to E-UTRA upon the release of the CS connection                                  | 9.1.2 | 9.2.0 |
| 2010-09 | GERAN#<br>47 | GP-<br>101178           | 0096 | -             | CR 36.523-2-0096 6.2.3.20: Redirection to E-UTRA upon the release of the CS connection and no suitable cell available    | 9.1.2 | 9.2.0 |
| 2010-09 | GERAN#<br>47 | GP-<br>101564           | 0097 | -             | CR 36.523-2-0097 Addition of new GELTE test cases- 6.2.3.27 and 6.2.3.29   | 9.1.2 | 9.2.0 |
| 2010-09 | GERAN#<br>47 | GP-<br>101565           | 0098 | -             | CR 36.523-2-0098 Adding TC 6.2.3.14 and 6.2.3.15   | 9.1.2 | 9.2.0 |
| 2010-09 | RAN#49       | R5-<br>104068           | 0099 | -             | Correction to test case applicability C41  | 9.1.2 | 9.2.0 |
| 2010-09 | RAN#49       | R5-<br>104116           | 0100 | -             | Addition of applicability for new EMM test case  | 9.1.2 | 9.2.0 |
| 2010-09 | RAN#49       | R5-<br>104117           | 0101 | -             | Update of applicability for EMM test case 9.2.1.1.4  | 9.1.2 | 9.2.0 |
| 2010-09 | RAN#49       | R5-<br>104290           | 0102 | -             | GCF Priority 4 - Addition of applicability statement for E-UTRAN test case 14.3  | 9.1.2 | 9.2.0 |
| 2010-09 | RAN#49       | R5-<br>104315           | 0103 | -             | Add pics for IMS   | 9.1.2 | 9.2.0 |
| 2010-09 | RAN#49       | R5-<br>104337           | 0104 | -             | Applicability of new EMM TCs   | 9.1.2 | 9.2.0 |
| 2010-09 | RAN#49       | R5-<br>104338           | 0105 | -             | Applicability of new IDLE mode TCs   | 9.1.2 | 9.2.0 |
| 2010-09 | RAN#49       | R5-<br>104339           | 0106 | -             | Applicability of new RRC part 1 TCs  | 9.1.2 | 9.2.0 |
| 2010-09 | RAN#49       | R5-<br>104391           | 0107 | -             | Removal of applicability for DSMIPv6 test case 15.3  | 9.1.2 | 9.2.0 |
| 2010-09 | RAN#49       | R5-<br>104540           | 0108 | -             | Clarification of UE behaviour when a UTRAN or GERAN capable UE is configured to initiate EPS attach                      | 9.1.2 | 9.2.0 |
| 2010-09 | RAN#49       | R5-<br>104636           | 0109 | -             | Addition of applicability for new multi-layer test case 13.1.2   | 9.1.2 | 9.2.0 |
| 2010-09 | RAN#49       | R5-<br>104638           | 0110 | -             | Applicability for new test case 8.2.4.12   | 9.1.2 | 9.2.0 |
| 2010-09 | RAN#49       | R5-<br>104641           | 0111 | -             | Applicability for new emergency call TC  | 9.1.2 | 9.2.0 |
| 2010-09 | RAN#49       | R5-<br>104642           | 0112 | -             | Add capability for IMS emergency call  | 9.1.2 | 9.2.0 |
| 2010-09 | RAN#49       | R5-<br>105029           | 0113 | -             | Clarification to release column in tables A.4.3.1-1 and A.4.3.1-2  | 9.1.2 | 9.2.0 |
| 2010-09 | RAN#49       | R5-<br>105036           | 0114 | -             | Correction to test case applicability condition C59  | 9.1.2 | 9.2.0 |
| 2010-09 | RAN#49       | R5-<br>105037           | 0115 | -             | Correction to test case applicability condition for test case 9.3.1.16   | 9.1.2 | 9.2.0 |
| 2010-09 | RAN#49       | R5-<br>105038           | 0116 | -             | Correction to test case applicability for test cases 12.3.3 & 12.3.4   | 9.1.2 | 9.2.0 |
| 2010-09 | RAN#49       | R5-<br>105042           | 0117 | -             | Addition of some EMM TCs applicability to 36.523-2   | 9.1.2 | 9.2.0 |
| 2010-09 | RAN#49       | R5-<br>105043           | 0118 | <del> -</del> | Corrections to applicability conditions C58 and C65  | 9.1.2 | 9.2.0 |
| 2010-09 | RAN#49       | R5-<br>105044           | 0119 | -             | GCF Priority X: Adding applicability of new ESM test case 10.9.1   | 9.1.2 | 9.2.0 |
| 2010-09 | RAN#49       | R5-<br>105045           | 0120 | -             | for UE routing of uplinks packets Addition of applicability statement of new TC 6.3.3                                    | 9.1.2 | 9.2.0 |
| 2010-09 | RAN#49       | R5-<br>105048           | 0121 | <del> </del>  | GCF Priority 2 - Addition of applicability statement for E-UTRAN test case 6.2.3.4                                       | 9.1.2 | 9.2.0 |

| Date    | TSG#         | TSG Doc.      | CR   | R<br>e<br>v | Subject/Comment  | Old   | New   |
|---------|--------------|---------------|------|-------------|--|-------|-------|
| 2010-09 | RAN#49       | R5-<br>105049 | 0122 | -           | GCF Priority 2 - Correction of applicability statement for E-UTRAN test case 8.1.3.7, 8.4.2.2 & 8.4.2.4  | 9.1.2 | 9.2.0 |
| 2010-09 | RAN#49       | R5-<br>104766 | 0124 | -           | GCF Priority 2 - Correction to EUTRA RRC Test Case 8.3.1.9   | 9.1.2 | 9.2.0 |
| 2010-09 | RAN#49       | R5-<br>104775 | 0125 | -           | Addition of applicabilities for new test cases   | 9.1.2 | 9.2.0 |
| 2010-09 | RAN#49       | R5-<br>105039 | 0126 | -           | GCF Priority 3 - Add Applicability for Multi-layer test case 13.1.4  | 9.1.2 | 9.2.0 |
| 2010-09 | RAN#49       | R5-<br>105040 | 0127 | -           | GCF Priority 3 - Add Applicability for EMM test case 9.2.2.1.3   | 9.1.2 | 9.2.0 |
| 2010-12 | RAN#50       | R5-<br>106141 | 0132 | -           | Applicability for RRC connection establishment of emergency call / Limited Service   | 9.2.0 | 9.3.0 |
| 2010-12 | RAN#50       | R5-<br>106142 | 0133 | -           | Correct TC number emergency call   | 9.2.0 | 9.3.0 |
| 2010-12 | RAN#50       | R5-<br>106184 | 0134 | -           | GCF Priority 3 - Correction of applicability statement for E-UTRAN test case 6.1.2.13  | 9.2.0 | 9.3.0 |
| 2010-12 | RAN#50       | R5-<br>106185 | 0135 | -           | Addition of applicability statement for E-UTRAN test case 6.2.3.31   | 9.2.0 | 9.3.0 |
| 2010-12 | RAN#50       | R5-<br>106191 | 0136 | -           | GCF Priority 1, P3 and P4 : Addition of new PICS to table A.4.4-1  | 9.2.0 | 9.3.0 |
| 2010-12 | RAN#50       | R5-<br>106258 | 0137 | -           | Applicability of new RRC part 1 TC   | 9.2.0 | 9.3.0 |
| 2010-12 | RAN#50       | R5-<br>106259 | 0138 | -           | Applicability of new Multilayer Procedures TC  | 9.2.0 | 9.3.0 |
| 2010-12 | RAN#50       | R5-<br>106299 | 0139 | -           | Addition of applicability for new idle mode test case on inter-freq cell reselection based on CSG autonomous search                                    | 9.2.0 | 9.3.0 |
| 2010-12 | RAN#50       | R5-<br>106359 | 0140 | -           | Applicability for New TCs of cell reselection when 1xRTT is higher/lower priority  | 9.2.0 | 9.3.0 |
| 2010-12 | RAN#50       | R5-<br>106389 | 0141 | -           | GCF Priority 4 - Add Applicability for PLMN selection test case 6.1.1.2  | 9.2.0 | 9.3.0 |
| 2010-12 | RAN#50       | R5-<br>106467 | 0142 | -           | Correction to applicability condition for test case 13.1.5   | 9.2.0 | 9.3.0 |
| 2010-12 | RAN#50       | R5-<br>106554 | 0143 | -           | CR to 36.523-2: Update Table A.4.3.1-2 for band 41 TDD LTE 2600MHz to RF baseline implementation capabilities.   | 9.2.0 | 9.3.0 |
| 2010-12 | RAN#50       | R5-<br>106562 | 0144 | -           | GCF Priority 2 – Addition of PICS statement related with UTRA compressed mode  | 9.2.0 | 9.3.0 |
| 2010-12 | RAN#50       | R5-<br>106639 | 0151 | -           | GCF Priority 4 - Applicability of Section 6.3 TCs  | 9.2.0 | 9.3.0 |
| 2010-12 | RAN#50       | R5-<br>106646 | 0145 | -           | GCF priority x: Applicability for new test cases 9.2.1.2.1c and 9.2.3.2.1c   | 9.2.0 | 9.3.0 |
| 2010-12 | RAN#50       | R5-<br>106663 | 0146 | -           | Update of Applicability table for EMM test cases   | 9.2.0 | 9.3.0 |
| 2010-12 | RAN#50       | R5-<br>106664 | 0147 | -           | GCF Priority 3 - Correction to applicability condition C48   | 9.2.0 | 9.3.0 |
| 2010-12 | RAN#50       | R5-<br>106668 | 0148 | -           | GCF Priority 4 - Correction to the applicability for test case 8.1.7.3   | 9.2.0 | 9.3.0 |
| 2010-12 | RAN#50       | R5-<br>106677 | 0149 | -           | GCF Priority 3 - Add Applicability for EMM test case 9.2.3.2.13  | 9.2.0 | 9.3.0 |
| 2010-12 | RAN#50       | R5-<br>106683 | 0150 | -           | GCF Priority 3 - Addition of test case selection expression for test case 9.2.3.3.4  | 9.2.0 | 9.3.0 |
| 2011-03 | GERAN#<br>49 | GP-<br>110022 | 0152 | -           | CR 36.523-2-0152 New test cases 6.2.3.17 and 6.2.3.18 added Part 2   | 9.3.0 | 9.4.0 |
| 2011-03 | GERAN#<br>49 | GP-<br>110045 | 0153 | -           | CR 36.523-2-0153 Addition of new GELTE test case 6.2.3.29  | 9.3.0 | 9.4.0 |
| 2011-03 | GERAN#<br>49 | GP-<br>110096 | 0155 | -           | CR 36.523-2-0155 New test cases 6.2.1.6, 6.2.3.16, 6.2.3.17, 6.2.3.24, 6.2.3.26 added in Part 2  | 9.3.0 | 9.4.0 |
| 2011-03 | GERAN#<br>49 | GP-<br>110431 | 0154 | 1           | CR 36.523-2-0154 Addition of new Test cases 8.4.4.1 and 8.4.4.2  | 9.3.0 | 9.4.0 |
| 2011-03 | RAN#51       | R5-<br>110188 | 0180 | -           | GCF Priority 4 - Addition of test case selection expression for test case 6.1.1.3  | 9.3.0 | 9.4.0 |
| 2011-03 | RAN#51       | R5-<br>110196 | 0181 | -           | GCF Priority 3 - Correction to EMM test case 9.3.1.15  | 9.3.0 | 9.4.0 |
| 2011-03 | RAN#51       | R5-<br>110213 | 0182 | -           | GCF Priority 2 Correction of applicability statement for Non-<br>supported FGI 16 test cases   | 9.3.0 | 9.4.0 |
| 2011-03 | RAN#51       | R5-<br>110214 | 0183 | -           | Addition of applicability statement for E-UTRAN test case 6.2.3.32 for Inter-RAT cell reselection / From E-UTRA RRC_IDLE to UTRA_Idle, Snonintrasearch | 9.3.0 | 9.4.0 |
| 2011-03 | RAN#51       | R5-<br>110339 | 0184 | -           | Addition of applicability for new idle mode test case on manual CSG ID selection across PLMNs  | 9.3.0 | 9.4.0 |
| 2011-03 | RAN#51       | R5-<br>110340 | 0185 | -           | Addition of applicability for new idle mode test case on inter-freq cell reselection to hybrid cell based on CSG autonomous search                     | 9.3.0 | 9.4.0 |

| Date    | TSG#   | TSG Doc.      | CR   | R<br>e<br>v | Subject/Comment   | Old   | New   |
|---------|--------|---------------|------|-------------|---|-------|-------|
| 2011-03 | RAN#51 | R5-<br>110236 | 0156 | -           | Correction to applicability of tests conditions for RRC part 3 TCs  | 9.3.0 | 9.4.0 |
| 2011-03 | RAN#51 | R5-<br>110238 | 0157 | -           | Correction to applicability of tests conditions for inter-RAT TCs   | 9.3.0 | 9.4.0 |
| 2011-03 | RAN#51 | R5-<br>110314 | 0158 | -           | GCF Priority 4 - Correction to 8.2.4.10 test applicability  | 9.3.0 | 9.4.0 |
| 2011-03 | RAN#51 | R5-<br>110315 | 0159 | -           | GCF Priority 3 - Correction to applicability condition for test case 13.1.4   | 9.3.0 | 9.4.0 |
| 2011-03 | RAN#51 | R5-<br>110343 | 0160 | -           | Addition of applicability for new test case on Service request for mobile originating 1xCS fallback emergency call  | 9.3.0 | 9.4.0 |
| 2011-03 | RAN#51 | R5-<br>110344 | 0161 | -           | Addition of applicability for new test case on emergency call in non-allowed CSG cell   | 9.3.0 | 9.4.0 |
| 2011-03 | RAN#51 | R5-<br>110409 | 0162 | -           | Applicability condition for new test case 11.2.1 for CT1 aspects of emergency calls   | 9.3.0 | 9.4.0 |
| 2011-03 | RAN#51 | R5-<br>110461 | 0163 | -           | Correct condition for emergency   | 9.3.0 | 9.4.0 |
| 2011-03 | RAN#51 | R5-<br>110474 | 0164 | -           | Addition of applicability for new test case 6.3.2   | 9.3.0 | 9.4.0 |
| 2011-03 | RAN#51 | R5-<br>110476 | 0165 | -           | GCF Priority 4: Applicability for New TC 13.1.9   | 9.3.0 | 9.4.0 |
| 2011-03 | RAN#51 | R5-<br>110480 | 0166 | -           | Applicability for New IMS Emergency TCs   | 9.3.0 | 9.4.0 |
| 2011-03 | RAN#51 | R5-<br>110537 | 0167 | -           | Adding new operating bands 42 and 43 (3500MHz)  | 9.3.0 | 9.4.0 |
| 2011-03 | RAN#51 | R5-<br>110568 | 0168 | -           | Corrections of idle mode test case titles in applicability table  | 9.3.0 | 9.4.0 |
| 2011-03 | RAN#51 | R5-<br>110592 | 0169 | -           | GCF Priority X: Adding applicability for test case 9.2.1.2.1d<br>Combined attach procedure / Success / EPS and CS Fallback not<br>preferred/data centric UE | 9.3.0 | 9.4.0 |
| 2011-03 | RAN#51 | R5-<br>110598 | 0170 | -           | GCF Priority 3 - Correction to applicability of EMM test case 9.1.5.1   | 9.3.0 | 9.4.0 |
| 2011-03 | RAN#51 | R5-<br>110720 | 0171 | -           | GCF Priority 1 - Addition of applicability for multiple PDN   | 9.3.0 | 9.4.0 |
| 2011-03 | RAN#51 | R5-<br>110761 | 0172 | -           | GCF Priority 3 - Correction to selection expression for SPS scheduling and TTI bundling test cases  | 9.3.0 | 9.4.0 |
| 2011-03 | RAN#51 | R5-<br>110762 | 0173 | -           | GCF Priority 3 - Addition of applicability statement for new test case 6.2.2.x  | 9.3.0 | 9.4.0 |
| 2011-03 | RAN#51 | R5-<br>110763 | 0174 | -           | GCF Priority 3-add part2 for TC 9.2.3.2.1a  | 9.3.0 | 9.4.0 |
| 2011-03 | RAN#51 | R5-<br>110780 | 0175 | -           | Add Applicability for new Multilayer Procedures test case 13.4.1.3  | 9.3.0 | 9.4.0 |
| 2011-03 | RAN#51 | R5-<br>110782 | 0176 | -           | GCF Priority 4 - Addition of test case selection expression for test case 6.1.2.1   | 9.3.0 | 9.4.0 |
| 2011-03 | RAN#51 | R5-<br>110799 | 0177 | -           | Update of applicability for test case 8.1.2.10  | 9.3.0 | 9.4.0 |
| 2011-03 | RAN#51 | R5-<br>110800 | 0178 | 3           | GCF Priority X: Addition of applicability for SIG TC 7.1.8.1:<br>Periodic RI reporting using PUCCH / Category 1 UE /<br>Transmission mode 3/4               | 9.3.0 | 9.4.0 |
| 2011-03 | RAN#51 | R5-<br>110801 | 0179 | -           | Clarification to applicability of measurements requirements for<br>Inter-RAT  | 9.3.0 | 9.4.0 |
| 2011-06 | RAN#52 | R5-<br>112132 | 0190 | -           | Correction to Band 12 frequency range in 36.523-2   | 9.4.0 | 9.5.0 |
| 2011-06 | RAN#52 | R5-<br>112163 | 0191 | -           | Applicability of new Multi-layer Procedure TCs  | 9.4.0 | 9.5.0 |
| 2011-06 | RAN#52 | R5-<br>112179 | 0192 | -           | Add applicability for GCF Priority 3 TC 9.2.3.3.5a  | 9.4.0 | 9.5.0 |
| 2011-06 | RAN#52 | R5-<br>112272 | 0193 | -           | Applicability of new test case 9.2.3.1.22   | 9.4.0 | 9.5.0 |
| 2011-06 | RAN#52 | R5-<br>112273 | 0194 | -           | Add capability for SRVCC  | 9.4.0 | 9.5.0 |
| 2011-06 | RAN#52 | R5-<br>112277 | 0195 | -           | Add GSMA PRD IR.92 IMS voice capability   | 9.4.0 | 9.5.0 |
| 2011-06 | RAN#52 | R5-<br>112292 | 0196 | -           | GCF Priority 4 - Correction to applicability of TC 6.3.4 on UTRA FGI bit 1  | 9.4.0 | 9.5.0 |
| 2011-06 | RAN#52 | R5-<br>112303 | 0197 | -           | GCF Priority 3 - Addition of applicability for new test case 13.4.2.4   | 9.4.0 | 9.5.0 |
| 2011-06 | RAN#52 | R5-<br>112369 | 0198 | -           | Addition of applicability statement for new GCF Priority 3 EMM test case 9.2.2.1.4  | 9.4.0 | 9.5.0 |
| 2011-06 | RAN#52 | R5-<br>112394 | 0199 | -           | Addition of applicability for new HeNB test case on intra-frequency SI acquisition  | 9.4.0 | 9.5.0 |

| Date    | TSG#         | TSG Doc.                | CR   | R<br>e<br>v | Subject/Comment  | Old   | New   |
|---------|--------------|-------------------------|------|-------------|--|-------|-------|
| 2011-06 | RAN#52       | R5-                     | 0201 | -           | Addition of band 24 in Table A.4.3.1-1   | 9.4.0 | 9.5.0 |
| 2011-06 | RAN#52       | 112489<br>R5-<br>112512 | 0202 | -           | Applicability for new TC for IMS Emergency 11.2.7  | 9.4.0 | 9.5.0 |
| 2011-06 | RAN#52       | R5-<br>112530           | 0203 | -           | GCF Priority 4 -: Applicability for new LTE CSFB TC 13.1.10  | 9.4.0 | 9.5.0 |
| 2011-06 | RAN#52       | R5-<br>112568           | 0204 | -           | GCF Priority 3 - Correction to applicability condition for TC 9.2.3.1.25   | 9.4.0 | 9.5.0 |
| 2011-06 | RAN#52       | R5-<br>112596           | 0205 | -           | Addition of applicability for new test case 6.4.6 and 6.4.7  | 9.4.0 | 9.5.0 |
| 2011-06 | RAN#52       | R5-<br>112613           | 0206 | -           | Add applicability for GCF Priority 2 test case 9.2.3.3.6   | 9.4.0 | 9.5.0 |
| 2011-06 | RAN#52       | R5-<br>112633           | 0207 | -           | GCF Priority 3 - Addition of Applicability for new test case 8.4.3.1   | 9.4.0 | 9.5.0 |
| 2011-06 | RAN#52       | R5-<br>112635           | 0208 | -           | GCF Priority 3 - Update of Applicability table for Multi-layer Procedures Procedure test cases 13.4.2.2  | 9.4.0 | 9.5.0 |
| 2011-06 | RAN#52       | R5-<br>112637           | 0209 | -           | Addition applicability condition for test Case 13.3.2.1 in 36.523-2  | 9.4.0 | 9.5.0 |
| 2011-06 | RAN#52       | R5-<br>112655           | 0210 | -           | Add applicability for test case 11.2.2   | 9.4.0 | 9.5.0 |
| 2011-06 | RAN#52       | R5-<br>112656           | 0211 | -           | Addition of applicability for new test case on Attach for emergency bearer services / Rejected / No suitable cells in tracking area / Emergency call using the CS domain | 9.4.0 | 9.5.0 |
| 2011-06 | RAN#52       | R5-<br>112662           | 0212 | -           | GCF priority 4 -Addition of applicability for new Multi-layer<br>Procedures test case 13.1.11 and 13.1.12  | 9.4.0 | 9.5.0 |
| 2011-06 | RAN#52       | R5-<br>112663           | 0213 | -           | GCF priority 4 - Addition of applicability for new Multi-layer Procedures test case 13.1.13  | 9.4.0 | 9.5.0 |
| 2011-06 | RAN#52       | R5-                     | 0214 | -           | Addition of applicability statement for E-UTRAN test case 9.2.3.1.9  | 9.4.0 | 9.5.0 |
| 2011-06 | RAN#52       | 112664<br>R5-           | 0215 | -           | for normal tracking area update / Correct handling of CSG list Add applicability for new test case 13.4.3.1  | 9.4.0 | 9.5.0 |
| 2011-06 | RAN#52       | 112669<br>R5-<br>112670 | 0216 | -           | Correction to the contents of Release information of Tables of A.4.3.1-1, A.4.3.1-2 and A.4.3.2-1  | 9.4.0 | 9.5.0 |
| 2011-06 | RAN#52       | R5-                     | 0217 | -           | Addition of applicability statement for E-UTRAN test cases 6.4.3,  | 9.4.0 | 9.5.0 |
| 2011-06 | RAN#52       | 112681<br>R5-<br>112684 | 0218 | -           | 6.4.4 and 6.4.5 Addition of applicability for new test case on manual CSG ID selection on Hybrid non-member cell.  | 9.4.0 | 9.5.0 |
| 2011-06 | RAN#52       | R5-<br>112696           | 0219 | -           | Addition of applicability for new MBMS test cases 17.1.1, 17.1.2 and 17.1.3  | 9.4.0 | 9.5.0 |
| 2011-06 | RAN#52       | R5-<br>112704           | 0220 | -           | GCF priority 4 - Addition of applicability for new EMM test case 9.2.3.3.3   | 9.4.0 | 9.5.0 |
| 2011-06 | RAN#52       | R5-<br>112758           | 0200 | -           | Addition of applicability for new test case 9.2.2.1.10   | 9.4.0 | 9.5.0 |
| 2011-06 | GERAN#       | GP-<br>110833           | 0222 | -           | CR 36.523-2-0222 Addition of new Test cases 8.4.4.2 and 8.4.4.3  | 9.4.0 | 9.5.0 |
| 2011-06 | GERAN#<br>50 | GP-<br>110840           | 0186 | 1           | CR 36.523-2-0186 Applicability correction for Geran to Eutran test cases   | 9.4.0 | 9.5.0 |
| 2011-06 | GERAN#<br>50 | GP-<br>110841           | 0188 | 1           | CR 36.523-2-0188 Removal of LTE TC 6.2.3.2 applicability due to duplication  | 9.4.0 | 9.5.0 |
| 2011-09 | RAN#53       | R5-                     | 0241 | -           | GCF Priority 4 - Update of applicability statement for Rel-8 test  | 9.5.0 | 9.6.0 |
| 2011-09 | RAN#53       | 113088<br>R5-           | 0223 | -           | cases on handover between FDD and TDD for dual mode UE Addition of band 25 in Table A.4.3.1-1  | 9.5.0 | 9.6.0 |
| 2011-09 | RAN#53       | 113156<br>R5-           | 0224 | -           | Addition of applicability statement for new Rel-9 test case for  | 9.5.0 | 9.6.0 |
| 2011-09 | RAN#53       | 113159<br>R5-           | 0225 | -           | e1xCSFB / MT call  Addition of applicability statement for new Rel-9 test case for   | 9.5.0 | 9.6.0 |
| 2011-09 | RAN#53       | 113160<br>R5-           | 0226 | -           | e1xCSFB / MO call Applicability of new E-UTRA MAC test case for padding BSR  | 9.5.0 | 9.6.0 |
| 2011-09 | RAN#53       | 113349<br>R5-           | 0227 | -           | Add applicability for SRVCC test cases   | 9.5.0 | 9.6.0 |
| 2011-09 | RAN#53       | 113398<br>R5-<br>113612 | 0228 | -           | Update IMS emergency applicability   | 9.5.0 | 9.6.0 |
| 2011-09 | RAN#53       | R5-<br>113631           | 0229 | -           | GCF Priority 2: Correction to condition C97  | 9.5.0 | 9.6.0 |
| 2011-09 | RAN#53       | R5-<br>113669           | 0230 | -           | Update Table A.4.3.1-2 for Band 23 FDD LTE in 36.523-2   | 9.5.0 | 9.6.0 |
| 2011-09 | RAN#53       | R5-<br>113686           | 0231 | -           | GCF Priority 2 - Correction to the applicability statement of TC 9.2.3.1.2   | 9.5.0 | 9.6.0 |
| 2011-09 | RAN#53       | R5-<br>113724           | 0232 | -           | GCF Priority 4 - Update TS36.523-2 for new test case 8.4.1.5   | 9.5.0 | 9.6.0 |

| Date    | TSG#   | TSG Doc.      | CR   | R<br>e<br>v    | Subject/Comment   | Old   | New   |
|---------|--------|---------------|------|----------------|---|-------|-------|
| 2011-09 | RAN#53 | R5-<br>113731 | 0233 | -              | Correction the title for test case 8.5.2.1 of 36.523-2  | 9.5.0 | 9.6.0 |
| 2011-09 | RAN#53 | R5-<br>113732 | 0234 | -              | Correction to the duplicated condition of 36.523-2  | 9.5.0 | 9.6.0 |
| 2011-09 | RAN#53 | R5-<br>113733 | 0235 | -              | Indication of Number of TC Executions for TCs that contain multi-<br>RAT branches   | 9.5.0 | 9.6.0 |
| 2011-09 | RAN#53 | R5-<br>113760 | 0236 | -              | GCF Priority X - New TC 8.3.4.2.3.4 Applicability   | 9.5.0 | 9.6.0 |
| 2011-09 | RAN#53 | R5-<br>113768 | 0237 | -              | Addition of a applicability statements for new eMBMS tests in clause 17.2   | 9.5.0 | 9.6.0 |
| 2011-09 | RAN#53 | R5-<br>113785 | 0238 | -              | Applicability for new TC 8.2.1.8  | 9.5.0 | 9.6.0 |
| 2011-09 | RAN#53 | R5-<br>113814 | 0239 | -              | Correction of EMM TC applicability  | 9.5.0 | 9.6.0 |
| 2011-09 | RAN#53 | R5-<br>113327 | 0240 | -              | Addition applicability condition for test Case 13.3.2.2 in 36.523-2   | 9.5.0 | 9.6.0 |
| 2011-12 | RAN#54 | R5-<br>115168 | 0244 | -              | GCF Priority 4 - Correction to test case selection expression for test case 9.2.3.1.20  | 9.6.0 | 9.7.0 |
| 2011-12 | RAN#54 | R5-<br>115171 | 0245 | -              | Correction to the applicability condition of test case 8.4.7.6 in TS 36.523-2   | 9.6.0 | 9.7.0 |
| 2011-12 | RAN#54 | R5-<br>115178 | 0246 | -              | GCF Priority 4 - Removal of applicability for test case 14.3  | 9.6.0 | 9.7.0 |
| 2011-12 | RAN#54 | R5-<br>115190 | 0247 | -              | Adding band 22 (3500MHz FDD) to 36.523-2  | 9.6.0 | 9.7.0 |
| 2011-12 | RAN#54 | R5-<br>115238 | 0248 | -              | Correction to the applicability statements - PSHO from E to G is mapped incorrectly and other corrections to Multi-layer procedures | 9.6.0 | 9.7.0 |
| 2011-12 | RAN#54 | R5-<br>115273 | 0249 | -              | Addition of applicability statement for new Rel-9 test case 6.2.3.7a  | 9.6.0 | 9.7.0 |
| 2011-12 | RAN#54 | R5-<br>115274 | 0250 | -              | Addition of applicability statement for new Rel-9 test case 6.2.3.8a  | 9.6.0 | 9.7.0 |
| 2011-12 | RAN#54 | R5-<br>115276 | 0251 | -              | Addition of applicability statement for new Rel-9 test case 6.2.3.9a  | 9.6.0 | 9.7.0 |
| 2011-12 | RAN#54 | R5-<br>115277 | 0252 | -              | Addition of applicability statement for new Rel-9 test case   | 9.6.0 | 9.7.0 |
| 2011-12 | RAN#54 | R5-<br>115301 | 0253 | -              | 6.2.3.10a Editorial correction to conditionals C32 and C33  | 9.6.0 | 9.7.0 |
| 2011-12 | RAN#54 | R5-<br>115302 | 0254 | -              | Corrections to the applicability of CSG test cases  | 9.6.0 | 9.7.0 |
| 2011-12 | RAN#54 | R5-<br>115312 | 0255 | -              | GCF Priority x - New TC 6.1.2.2a_3a_17_18 Applicability   | 9.6.0 | 9.7.0 |
| 2011-12 | RAN#54 | R5-           | 0256 | -              | Update of Indication of Number of TC Executions for TCs that contain multi-RAT branches   | 9.6.0 | 9.7.0 |
| 2011-12 | RAN#54 | 115317<br>R5- | 0257 | -              | GCF Priority 3 - Correction to applicability EMM test case  | 9.6.0 | 9.7.0 |
| 2011-12 | RAN#54 | 115356<br>R5- | 0258 | -              | 9.2.1.1.25 GCF Priority 2 - Correction to applicability EMM test case 9.2.3.3.5   | 9.6.0 | 9.7.0 |
| 2011-12 | RAN#54 | 115362<br>R5- | 0259 | -              | Correction of PICS pc_HO_from_UTRA  | 9.6.0 | 9.7.0 |
| 2011-12 | RAN#54 | 115364<br>R5- | 0260 | -              | Update to conditional C55 for GCF P2 - P4 test cases 10.8.1 -   | 9.6.0 | 9.7.0 |
| 2011-12 | RAN#54 | 115372<br>R5- | 0261 | -              | 10.8.7 GCF priority 4 - Corrections to applicability of EMM test case   | 9.6.0 | 9.7.0 |
| 2011-12 | RAN#54 | 115551<br>R5- | 0262 | -              | 9.2.3.3.5a  Correction to the applicability of the MIMO RB test cases 12.3.x  | 9.6.0 | 9.7.0 |
| 2011-12 | RAN#54 | 115577<br>R5- | 0263 | -              | Update the title of test case 11.2.4  | 9.6.0 | 9.7.0 |
| 2011-12 | RAN#54 | 115632<br>R5- | 0264 | -              | Removal of TC 11.2.9 Applicability  | 9.6.0 | 9.7.0 |
| 2011-12 | RAN#54 | 115643<br>R5- | 0265 | -<br> -        | Addition of applicability statement for 1xCSFB emergency call   | 9.6.0 | 9.7.0 |
| 2011-12 | RAN#54 | 115714<br>R5- | 0266 | <br> -         | Clarification of Release-dependency in EUTRA test applicability   | 9.6.0 | 9.7.0 |
| 2011-12 | RAN#54 | 115715<br>R5- | 0267 | -              | Correction to the title of test case 13.1.9 and 13.1.11 in TS 36.523-   | 9.6.0 | 9.7.0 |
| 2011-12 | RAN#54 | 115716<br>R5- | 0268 | <br> -         | 2 Applicability of new test case for Dedicated RLF timer  | 9.6.0 | 9.7.0 |
| 2011-12 | RAN#54 | 115717<br>R5- | 0269 | <u> </u><br> - | Applicability of new test case for High speed flag  | 9.6.0 | 9.7.0 |
| 2011-12 | RAN#54 | 115718<br>R5- | 0270 | <br> -         | GCF Priority X: Addition of Applicability for new test cases 8.3.1.9a   | 9.6.0 | 9.7.0 |
|         |        | 115719        |      | <u> </u>       | and 8.3.1.11a   |       |       |

| Date    | TSG #  | TSG Doc.      | CR   | R<br>e<br>v | Subject/Comment  | Old             | New        |
|---------|--------|---------------|------|-------------|--|-----------------|------------|
| 2011-12 | RAN#54 | R5-<br>115894 | 0271 | ŀ           | Addition of applicability for new test case 6.2.3.1a   | 9.6.0           | 9.7.0      |
| 2011-12 | RAN#54 | R5-<br>115799 | 0272 | -           | GCF priority x - Addition of applicability of new test case 6.1.1.1a   | 9.6.0           | 9.7.0      |
| 2011-12 | RAN#54 | R5-<br>115895 | 0273 | -           | GCF Priority 2 - Update of applicability of EMM test case 9.2.2.1.7  | 9.6.0           | 9.7.0      |
| 2011-12 | RAN#54 | R5-<br>115772 | 0274 | -           | GCF Priority 3 - Update of EMM test cases 9.2.3.1.26   | 9.6.0           | 9.7.0      |
| 2011-12 | RAN#54 | R5-<br>115773 | 0275 | -           | GCF Priority 3 - Correction to applicability EMM test cases 9.2.1.2.4 and 9.2.3.2.4  | 9.6.0           | 9.7.0      |
| 2012-03 | RAN#55 | R5-<br>120121 | 0276 | -           | Addition of applicability for test case 11.2.5   | 9.7.0           | 9.8.0      |
| 2012-03 | RAN#55 | R5-<br>120164 | 0277 | -           | Addition of applicability statement for E-UTRAN test cases 6.2.3.3a and 6.2.3.5a   | 9.7.0           | 9.8.0      |
| 2012-03 | RAN#55 | R5-<br>120201 | 0278 | -           | Addition of applicability for new MBMS test case   | 9.7.0           | 9.8.0      |
| 2012-03 | RAN#55 | R5-<br>120205 | 0279 | -           | Addition of applicability statement for new Rel-9 test case 13.4.4.1   | 9.7.0           | 9.8.0      |
| 2012-03 | RAN#55 | R5-<br>120206 | 0280 | -           | Addition of applicability statement for new Rel-9 test case 13.4.4.2   | 9.7.0           | 9.8.0      |
| 2012-03 | RAN#55 | R5-<br>120260 | 0281 | -           | Addition applicability for new 13.4.4.3 LTE-CDMA2000-HRPD interworking test case   | 9.7.0           | 9.8.0      |
| 2012-03 | RAN#55 | R5-<br>120416 | 0283 | -           | Update title for test case 11.2.2  | 9.7.0           | 9.8.0      |
| 2012-03 | RAN#55 | R5-<br>120452 | 0284 | -           | Applicability of new test case 8.3.1.3a  | 9.7.0           | 9.8.0      |
| 2012-03 | RAN#55 | R5-<br>120453 | 0285 | -           | Applicability of new test case 8.3.2.3a  | 9.7.0           | 9.8.0      |
| 2012-03 | RAN#55 | R5-           | 0286 | -           | Correction to applicability for test cases 9.2.3.3.2, 9.2.3.3.3 and 9.2.3.3.5  | 9.7.0           | 9.8.0      |
| 2012-03 | RAN#55 | 120455<br>R5- | 0287 | -           | GCF priority U1 - Add speech support for CSFB test cases in  | 9.7.0           | 9.8.0      |
| 2012-03 | RAN#55 | 120499<br>R5- | 0288 | -           | Multilayer section  GCF priority U1 - Correction to test case selection expression for   | 9.7.0           | 9.8.0      |
| 2012-03 | RAN#55 | 120501<br>R5- | 0289 | -           | IRAT EMM test cases Addition of applicability statement for new Rel-9 test cases 18.1.1  | 9.7.0           | 9.8.0      |
| 2012-03 | RAN#55 | 120586<br>R5- | 0301 | -           | GCF Priority x : Update of titles of test cases 8.3.1.9a and   | 9.7.0           | 9.8.0      |
| 2012-03 | RAN#55 | 120702<br>R5- | 0290 | -           | 8.3.1.11a Addition of applicability statement for new test case 11.2.10  | 9.7.0           | 9.8.0      |
| 2012-03 | RAN#55 | 120704<br>R5- | 0291 | -           | Applicability addition for new inter-mode test cases   | 9.7.0           | 9.8.0      |
| 2012-03 | RAN#55 | 120716<br>R5- | 0294 | -           | Addition applicability for new 13.4.4.4 LTE-CDMA2000-HRPD  | 9.7.0           | 9.8.0      |
| 2012-03 | RAN#55 | 120746<br>R5- | 0295 | -           | interworking test case Applicability of new test case 6.2.3.x  | 9.7.0           | 9.8.0      |
| 2012-03 | RAN#55 | 120747<br>R5- | 0296 | -           | Update of FGI bit table  | 9.7.0           | 9.8.0      |
| 2012-03 | RAN#55 | 120748<br>R5- | 0297 | -           | Addition of new PICS for Support of automatic re-activation of the   | 9.7.0           | 9.8.0      |
| 2012-03 | RAN#55 | 120755<br>R5- | 0298 | -           | EPS bearer(s) after the TAU reject with cause #40 GCF Priority 2 : Introduction of applicability statements for new                        | 9.7.0           | 9.8.0      |
|         |        | 120759        |      |             | equivalent 6.1.1.x and 6.1.2.x test cases to cater for bands with single frequency operation   |                 |            |
| 2012-03 | RAN#55 | R5-<br>120762 | 0299 | Ŀ           | GCF priority 4: Cleanup and aligning applicability of SRVCC  | 9.7.0           | 9.8.0      |
| 2012-03 | RAN#55 | R5-<br>120763 | 0300 | [-          | GCF Priority 3 - Correction to applicability for EMM test cases 9.2.1.2.4 and 9.2.3.2.4  | 9.7.0           | 9.8.0      |
| 2012-03 | RAN#55 | R5-<br>120348 | 0282 | -           | Addition of applicability statement for new Rel-10 test case 7.1.3.11 CA / Correct HARQ process handling / DCCH and DTCH / Pcell and Scell | 9.8.0           | 10.0.<br>0 |
| 2012-03 | RAN#55 | R5-<br>120735 | 0292 | -           | Applicability for new CA test cases  | 9.8.0           | 10.0.<br>0 |
| 2012-03 | RAN#55 | R5-<br>120745 | 0293 | ļ-          | Applicability of new MDT test cases  | 9.8.0           | 10.0.<br>0 |
| 2012-06 | RAN#56 | R5-<br>121200 | 0303 | -           | Addition of applicability statement for new Rel-9 SRVCC test case 13.4.3.6   | 10.0.           | 10.1.<br>0 |
| 2012-06 | RAN#56 | R5-<br>121204 | 0304 | -           | GCF priority x - Update applicability of test case 6.1.1.1a  | 10.0.           | 10.1.<br>0 |
| 2012-06 | RAN#56 | R5-<br>121213 | 0305 | -           | Applicability of new MDT test cases 8.6.2.5  | 0<br>10.0.<br>0 | 10.1.      |

| Date    | TSG #        | TSG Doc.      | CR   | R<br>e<br>v | Subject/Comment   | Old        | New        |
|---------|--------------|---------------|------|-------------|---|------------|------------|
| 2012-06 | RAN#56       | R5-<br>121215 | 0306 | -           | Applicability of new MDT test cases 8.6.2.6   | 10.0.<br>0 | 10.1.<br>0 |
| 2012-06 | RAN#56       | R5-<br>121217 | 0307 | -           | Applicability of new MDT test cases 8.6.2.7   | 10.0.<br>0 | 10.1.<br>0 |
| 2012-06 | RAN#56       | R5-<br>121220 | 0308 | -           | Applicability of new MDT test cases 8.6.2.8   | 10.0.<br>0 | 10.1.<br>0 |
| 2012-06 | RAN#56       | R5-<br>121224 | 0309 | -           | Adding operating band 26 to TS 36.523-2   | 10.0.<br>0 | 10.1.<br>0 |
| 2012-06 | RAN#56       | R5-<br>121302 | 0310 | -           | Correction to applicability for test case 9.2.3.3.5a  | 10.0.<br>0 | 10.1.<br>0 |
| 2012-06 | RAN#56       | R5-<br>121399 | 0311 | -           | Addition of applicability statement for Logged MDT test case 8.6.3.1                                      | 10.0.<br>0 | 10.1.<br>0 |
| 2012-06 | RAN#56       | R5-<br>121401 | 0312 | -           | Correction of PICS for RSRQ Cell Reselection Applicability  | 10.0.      | 10.1.      |
| 2012-06 | RAN#56       | R5-<br>121421 | 0313 | -           | GCF Priority 2 and 3 - Removal of 'Active' flag test cases from 36.523-2                                  | 10.0.      | 10.1.      |
| 2012-06 | RAN#56       | R5-<br>121427 | 0314 | -           | Editorial clean up of 36.523-2  | 10.0.      | 10.1.      |
| 2012-06 | RAN#56       | R5-<br>121429 | 0315 | -           | Update of Number of TC Executions for multi-frequency TCs   | 10.0.      | 10.1.      |
| 2012-06 | RAN#56       | R5-<br>121512 | 0316 | -           | Introduction of applicability of new PWS test case 18.1.4   | 10.0.      | 10.1.      |
| 2012-06 | RAN#56       | R5-           | 0317 | -           | Addition of new PICS item   | 10.0.      | 10.1.      |
| 2012-06 | RAN#56       | 121542<br>R5- | 0318 | -           | Add applicability for TC 11.2.11  | 10.0.      | 10.1.      |
| 2012-06 | RAN#56       | 121638<br>R5- | 0319 | -           | GCF Priority 3 - Update of applicability for EMM test case 9.2.2.1.7                                      | 10.0.      | 10.1.      |
| 2012-06 | RAN#56       | 121670<br>R5- | 0320 | -           | GCF Priority 2: Addition of applicability for equivalent EMM test   | 10.0.      | 10.1.      |
| 2012-06 | RAN#56       | 121741<br>R5- | 0321 | -           | cases for single frequency operation GCF priority 3 - Correction to applicability of idle mode test case  | 10.0.      | 10.1.      |
| 2012-06 | RAN#56       | 121751<br>R5- | 0322 | -           | 6.2.2.5 GCF Priority 3 - Correction to applicability of EMM test case                                     | 10.0.      | 10.1.      |
| 2012-06 | RAN#56       | 121752<br>R5- | 0323 | -           | 9.2.3.2.17 GCF Priority X - Addition of applicability for new E-UTRA inter-                               | 10.0.      | 10.1.      |
| 2012-06 | RAN#56       | 121797<br>R5- | 0324 | -           | band test cases  Correction to applicability for test cases 9.2.3.3.2, 9.2.3.3.3 and                      | 10.0.      | 0<br>10.1. |
| 2012-06 | RAN#56       | 121798<br>R5- | 0325 | -           | 9.2.3.3.5 Updates to ICS for inter-mode TCs   | 10.0.      | 10.1.      |
| 2012-06 | RAN#56       | 121799<br>R5- | 0326 | -           | Correction to applicability of EMM test cases 9.2.3.1.9, 9.2.1.2.1b,                                      | 10.0.      | 10.1.      |
| 2012-06 | RAN#56       | 121800<br>R5- | 0327 | -           | 9.2.2.1.4 and 9.2.3.2.1b  Addition of missing applicability conditions in 36.523-2 for E-UTRA             | 0<br>10.0. | 0<br>10.1. |
| 2012-06 | RAN#56       | 121801<br>R5- | 0328 | -           | Inter-System mobility Test Cases from 36.523-1.  Correction of TC release                                 | 0 10.0.    | 0 10.1.    |
| 2012-06 | RAN#56       | 121802<br>R5- | 0329 | -           | Applicability of new UTRAN ANR/E-UTRAN test case  | 0 10.0.    | 0 10.1.    |
| 2012-06 | RAN#56       | 121827<br>R5- | 0330 | _           | Applicability of new test case for RLF reporting  | 0<br>10.0. | 0<br>10.1. |
| 2012-06 | RAN#56       | 121845<br>R5- | 0331 | _           | Correction of CA TC 8.2.4.17 Applicability, and removal of TC   | 0          | 0          |
| 2012-06 | RAN#56       | 121864<br>R5- | 0332 | _           | 8.2.4.16 Applicability of new CA test case for intra-frequency handover                                   | 0 10.0.    | 0          |
| 2012-06 | RAN#56       | 121867<br>R5- | 0333 | L           | Introduction of applicability of new Rel10 CA test case   | 0 10.0.    | 0 10.1.    |
|         |              | 121868        |      |             |   | 0          | 0          |
| 2012-06 | RAN#56       | R5-<br>122117 | 0334 | Ĺ           | Addition and Update of applicability statement for Rel-9 e1xCSFB test cases                               | 10.0.      | 10.1.      |
| 2012-06 | RAN#56       | R5-<br>122118 | 0335 |             | Clarification of PICS conditions  | 10.0.      | 10.1.      |
| 2012-06 | RAN#56       | R5-<br>122123 | 0336 | -           | Applicability for new MDT TCs   | 10.0.      | 10.1.      |
| 2012-06 | RAN#56       | R5-<br>122128 | 0337 | _           | Addition of applicability statement for new PWS Rel-9 test case 18.1.7                                    | 10.0.      | 10.1.      |
| 2012-06 | RAN#56       | R5-<br>122137 | 0338 | -           | Addition of applicability statement for E-UTRAN test cases 13.3.1.3                                       | 10.0.      | 10.1.      |
| 2012-06 | RAN#56       | -             | -    | -           | Corrections to table sizes  | 10.1.<br>0 | 10.1.<br>1 |
| 2012-09 | GERAN#<br>56 | GP-<br>121044 | 0339 | 1           | CR 36.523-2-0339 GCF priority g1 - Correction to applicability of Idle mode test cases 6.2.3.19, 6.2.3.20 | 10.1.<br>1 | 10.2.<br>0 |

| Date    | TSG#         | TSG Doc.      | CR   | R<br>e<br>v | Subject/Comment  | Old        | New        |
|---------|--------------|---------------|------|-------------|--|------------|------------|
| 2012-09 | GERAN#<br>56 | GP-<br>121045 | 0340 | 1           | CR 36.523-2-0340 Correction to applicability of test case 6.2.3.29   | 10.1.      | 10.2.<br>0 |
| 2012-09 | RAN#57       | R5-<br>123109 | 0341 | -           | GCF Priority X - Addition applicability of test case 8.4.7.11  | 10.1.<br>1 | 10.2.<br>0 |
| 2012-09 | RAN#57       | R5-<br>123159 | 0342 | -           | Correct applicability for TC 8.2.4.12  | 10.1.<br>1 | 10.2.<br>0 |
| 2012-09 | RAN#57       | R5-<br>123219 | 0343 | -           | GCF Priority 3 - Correction to applicability of EMM test case 9.2.3.2.17   | 10.1.<br>1 | 10.2.<br>0 |
| 2012-09 | RAN#57       | R5-<br>123226 | 0344 | -           | Update Applicability Table for all PWS Test Cases  | 10.1.<br>1 | 10.2.<br>0 |
| 2012-09 | RAN#57       | R5-<br>123229 | 0345 | -           | Correction to applicability of CA TC 7.1.3.11  | 10.1.<br>1 | 10.2.<br>0 |
| 2012-09 | RAN#57       | R5-<br>123243 | 0346 | -           | GCF Priority X - Correction to applicability of Rel9 EUTRA Interband test cases  | 10.1.<br>1 | 10.2.<br>0 |
| 2012-09 | RAN#57       | R5-<br>123260 | 0347 | -           | Clarify support for ROHC   | 10.1.<br>1 | 10.2.<br>0 |
| 2012-09 | RAN#57       | R5-<br>123320 | 0348 | -           | Correction to PICS conditions  | 10.1.<br>1 | 10.2.      |
| 2012-09 | RAN#57       | R5-<br>123353 | 0349 | -           | Clarification of EMM TC applicability  | 10.1.<br>1 | 10.2.<br>0 |
| 2012-09 | RAN#57       | R5-<br>123419 | 0352 | -           | Addition of applicability statement for E-UTRAN test case 13.4.1.5   | 10.1.      | 10.2.      |
| 2012-09 | RAN#57       | R5-<br>123425 | 0353 | -           | Introduction of new PICS for PWS   | 10.1.      | 10.2.      |
| 2012-09 | RAN#57       | R5-<br>123484 | 0355 | -           | Applicability for new CA test cases  | 10.1.      | 10.2.      |
| 2012-09 | RAN#57       | R5-<br>123551 | 0357 | -           | GCF priority 4 - Correction to EMM test case 9.3.1.18 test case applicability  | 10.1.      | 10.2.      |
| 2012-09 | RAN#57       | R5-<br>123593 | 0358 | -           | Addition of Applicability for new InterRAT cell reselection Test Case  | 10.1.<br>1 | 10.2.<br>0 |
| 2012-09 | RAN#57       | R5-<br>123628 | 0359 | -           | GCF Priority 3 - Correction to applicability statement of EMM test case 9.2.2.1.3  | 10.1.<br>1 | 10.2.<br>0 |
| 2012-09 | RAN#57       | R5-<br>123639 | 0360 | -           | GCF Priority 2: Introduction of missing applicability for test case 9.2.1.1.7a   | 10.1.<br>1 | 10.2.      |
| 2012-09 | RAN#57       | R5-<br>123679 | 0361 | -           | GCF Priority X: Addition of Applicability for new Inter band test case 6.1.2.15b   | 10.1.<br>1 | 10.2.<br>0 |
| 2012-09 | RAN#57       | R5-<br>123707 | 0362 | -           | Corrections to title of 8.6.5.3 and applicability of test case 8.6.5.1   | 10.1.      | 10.2.      |
| 2012-09 | RAN#57       | R5-<br>123710 | 0363 | -           | Addition of applicability statement for new eICIC test cases   | 10.1.<br>1 | 10.2.<br>0 |
| 2012-09 | RAN#57       | R5-<br>123750 | 0364 | -           | Upgrade LTE-UTRA TDD TCs to Rel-9  | 10.1.      | 10.2.      |
| 2012-09 | RAN#57       | R5-<br>123764 | 0365 | -           | Addition of applicability statement for new CA test case 8.4.2.7   | 10.1.      | 10.2.<br>0 |
| 2012-09 | RAN#57       | R5-<br>123765 | 0366 | -           | Correction of CA TCs Applicability   | 10.1.      | 10.2.      |
| 2012-09 | RAN#57       | R5-<br>123368 | 0350 | -           | Addition of applicability statement for new Test Case 7.3.4.3: Integrity protection / Correct functionality of EPS AS integrity algorithms / ZUC | 10.2.      | 11.0.<br>0 |
| 2012-09 | RAN#57       | R5-<br>123376 | 0351 | -           | Addition of applicability statement for new ZUC test case 7.3.3.6  | 10.2.      | 11.0.<br>0 |
| 2012-09 | RAN#57       | R5-<br>123441 | 0354 | -           | Addition of applicability statement for new ZUC Rel-11 test cases  | 10.2.      | 11.0.      |
| 2012-12 | RAN#58       | R5-<br>125075 | 0367 | -           | GCF P3: Update of applicability of TC 9.2.1.1.19   | 11.0.      | 11.1.      |
| 2012-12 | RAN#58       | R5-<br>125117 | 0368 | -           | Addition of new PICS for Support of automatic ATTACH in E-UTRAN  | 11.0.      | 11.1.      |
| 2012-12 | RAN#58       | R5-<br>125128 | 0369 | -           | Correction of LTE-UTRA FDD TCs Release   | 11.0.      | 11.1.      |
| 2012-12 | RAN#58       | R5-<br>125131 | 0370 | -           | Split of CA TC 7.1.3.11 Applicability  | 11.0.      | 11.1.      |
| 2012-12 | RAN#58       | R5-<br>125208 | 0371 | -           | Update of EMM TC applicability   | 11.0.      | 11.1.      |
| 2012-12 | RAN#58       | R5-<br>125270 | 0372 | -           | GCF Priority 3 - Correction to applicability for test case 6.2.2.5   | 11.0.      | 11.1.<br>0 |
| 2012-12 | RAN#58       | R5-<br>125277 | 0373 | -           | Additional information applicability to TDD devices  | 11.0.      | 11.1.      |
| 2012-12 | RAN#58       | R5-<br>125282 | 0374 | -           | Editorial updates to 36.523-2  | 11.0.      | 11.1.      |
| 2012-12 | RAN#58       | R5-<br>125286 | 0375 | -           | Correction to applicability condition C134 for Carrier Aggregation   | 11.0.      | 11.1.<br>0 |

| Date    | TSG#     | TSG Doc.                | CR       | R<br>e<br>v    | Subject/Comment   | Old        | New             |
|---------|----------|-------------------------|----------|----------------|---|------------|-----------------|
| 2012-12 | RAN#58   | R5-<br>125348           | 0376     | -              | Adding bands 28 and 44 to TS36.523-2  | 11.0.<br>0 | 11.1.<br>0      |
| 2012-12 | RAN#58   | R5-<br>125406           | 0377     | -              | Addition of applicability of new E-UTRAN MDT test cases   | 11.0.<br>0 | 11.1.<br>0      |
| 2012-12 | RAN#58   | R5-<br>125524           | 0378     | -              | Applicability of new MDT test cases   | 11.0.<br>0 | 11.1.<br>0      |
| 2012-12 | RAN#58   | R5-<br>125637           | 0380     | -              | GCF Priority X - Correction to applicability of Rel9 EUTRA Interband test cases   | 11.0.<br>0 | 11.1.<br>0      |
| 2012-12 | RAN#58   | R5-<br>125727           | 0382     | -              | GCF Priority 4: Corrections to user PLMN reselection test cases   | 11.0.<br>0 | 11.1.<br>0      |
| 2012-12 | RAN#58   | R5-<br>125745           | 0383     | -              | Introduction of Band 27 to TS 36.523-2  | 11.0.<br>0 | 11.1.<br>0      |
| 2012-12 | RAN#58   | R5-<br>125760           | 0384     | -              | GCF Priority x - Update to Squal based EUTRA Idle mode test cases   | 11.0.<br>0 | 11.1.           |
| 2012-12 | RAN#58   | R5-<br>125777           | 0385     | -              | GCF Priority X - Updates Applicability for renumbering 8.4.7.11 to 8.4.7.10   | 11.0.<br>0 | 11.1.           |
| 2012-12 | RAN#58   | R5-<br>125784           | 0386     | -              | Addition of applicability statement for new H(e)NB test cases   | 11.0.      | 11.1.<br>0      |
| 2012-12 | RAN#58   | R5-<br>125791           | 0387     | -              | Applicability for new UL MIMO test case 7.1.4.22  | 11.0.      | 11.1.           |
| 2012-12 | RAN#58   | R5-<br>126002           | 0388     | -              | Applicability of new test cases for aSRVCC  | 11.0.      | 11.1.           |
| 2012-12 | RAN#58   | R5-<br>126009           | 0389     | -              | Applicability for split CA test cases 7.1.4.19 and 7.1.4.20   | 11.0.      | 11.1.           |
| 2012-12 | RAN#58   | R5-<br>126010           | 0390     | -              | Aligning LTE CA ICS proforma tables for test case applicability   | 11.0.      | 11.1.           |
| 2012-12 | RAN#58   | R5-                     | 0391     | -              | conditions with UE Capability signalling Split of CA TC 7.1.9.1   | 11.0.      | 11.1.           |
| 2012-12 | RAN#58   | 126011<br>R5-<br>126031 | 0392     | -              | Applicability of new CA test case 7.1.4.18 CA / Correct handling of MAC control information / Buffer Status / UL data arrive in the UE Tx buffer / Extended buffer size | 11.0.<br>0 | 0<br>11.1.<br>0 |
| 2012-12 | RAN#58   | R5-<br>126072           | 0393     | -              | Addition of applicability statement for new Rel-10 Carrier Aggregation test cases   | 11.0.<br>0 | 11.1.<br>0      |
| 2013-03 | RAN#59   | R5-<br>130089           | 0393     | -              | Addition of reference to TS 34.229-2  | 11.1.      | 11.2.<br>0      |
| 2013-03 | RAN#59   | R5-<br>130090           | 0394     | -              | Corrections to inter-RAT(UTRA to EUTRA) TCs applicability   | 11.1.      | 11.2.           |
| 2013-03 | RAN#59   | R5-<br>130181           | 0395     | -              | Adding applicability for new aSRVCC TCs 13_4_3_15 and 13_4_3_17   | 11.1.      | 11.2.           |
| 2013-03 | RAN#59   | R5-<br>130193           | 0396     | -              | Addition of new PICS for supporting Update UE Location  | 11.1.      | 11.2.           |
| 2013-03 | RAN#59   | R5-<br>130339           | 0397     | -              | Applicability of new MDT test cases   | 11.1.      | 11.2.           |
| 2013-03 | RAN#59   | R5-<br>130359           | 0398     | -              | Adding applicability for new LTE Rel-9 TC for UE rejection of NAS security mode command with EIA0   | 11.1.      | 11.2.<br>0      |
| 2013-03 | RAN#59   | R5-<br>130360           | 0399     | -              | Update of single-multiple frequency tests execution   | 11.1.      | 11.2.           |
| 2013-03 | RAN#59   | R5-<br>130368           | 0400     | -              | Correction to the EPS capability PICS   | 11.1.      | 11.2.           |
| 2013-03 | RAN#59   | R5-<br>130371           | 0401     | -              | Correction to the applicability statement of GCF U1 EMM test cases 9.2.1.2.1b and 9.2.3.2.1b  | 11.1.      | 11.2.           |
| 2013-03 | RAN#59   | R5-<br>130446           | 0402     | -              | Correction to CA physical layer implementation capabilities   | 11.1.      | 11.2.           |
| 2013-03 | RAN#59   | R5-                     | 0403     | -              | Addition of CA physical layer implementation capabilities for   | 11.1.      | 11.2.           |
| 2013-03 | RAN#59   | 130447<br>R5-           | 0404     | -              | CA_4-5 and CA_4-13 Updating spec titles in References   | 11.1.      | 11.2.           |
| 2013-03 | RAN#59   | 130473<br>R5-           | 0405     | -              | GCF Priority X-Correction to applicability of TC 6.2.3.33   | 11.1.      | 11.2.           |
| 2013-03 | RAN#59   | 130667<br>R5-           | 0406     | -              | Addition of Applicability for new SMS test cases 11.1.5 and 11.1.6  | 11.1.      | 11.2.           |
| 2013-03 | RAN#59   | 130668<br>R5-           | 0407     | -              | Addition of applicability of new NIMTC test cases   | 11.1.      | 11.2.           |
| 2013-03 | RAN#59   | 130724<br>R5-           | 0408     | -              | Addition of applicability statement for new MDT test case   | 11.1.      | 11.2.           |
| 2013-03 | RAN#59   | 130731<br>R5-           | 0409     | -<br> -        | Applicability of new test cases for event A5 measurement report   | 11.1.      | 11.2.           |
| 2013-03 | RAN#59   | 130736<br>R5-           | 0414     | -              | Correction to applicability of Rel9 EUTRA PWS test cases  | 11.1.      | 11.2.           |
| 2013-03 | RAN#59   | 130737<br>R5-           | 0410     | <u> </u><br> - | Correction of applicability for EUTRA-1xRTT test case 8.4.7.3 and   | 11.1.      | 11.2.           |
|         | <u> </u> | 130744                  | <u> </u> | <u></u>        | 8.4.7.4   | 0          | 0               |

| Date    | TSG #        | TSG Doc.      | CR   | R<br>e<br>v | Subject/Comment  | Old        | New        |
|---------|--------------|---------------|------|-------------|--|------------|------------|
| 2013-03 | RAN#59       | R5-<br>130745 | 0411 | -           | GCF Priority X-Correction to applicability of TC 8.1.3.11 and 8.1.3.12                                       | 11.1.<br>0 | 11.2.<br>0 |
| 2013-03 | RAN#59       | R5-<br>130749 | 0412 | -           | Add capabilities for CSFB and IMS devices  | 11.1.<br>0 | 11.2.<br>0 |
| 2013-03 | RAN#59       | R5-<br>130766 | 0413 | -           | Addition of applicability for new Inter-Rat test case for Event B1 measurement                               | 11.1.<br>0 | 11.2.<br>0 |
| 2013-03 | RAN#59       | -             | -    | -           | history box error fix  | 11.2.<br>0 | 11.2.<br>1 |
| 2013-03 | RAN#59       | -             | -    | -           | Substitution in C164 of 'yyy' with '72' depending on the Table A.4.4-1: Additional information of R5-130668. | 11.2.<br>1 | 11.2.<br>2 |
| 2013-06 | GERAN#<br>58 | GP-<br>130372 | 0415 | -           | Removal of TC 6.2.3.22 from applicability table  | 11.2.<br>2 | 11.3.<br>0 |
| 2013-06 | RAN#60       | R5-<br>131144 | 0416 | -           | ICS Correction to Idle Mode TC6.3.10   | 11.2.<br>2 | 11.3.<br>0 |
| 2013-06 | RAN#60       | R5-<br>131219 | 0417 | -           | GCF Priority 4 - Correction to applicability criteria for EUTRA Test case 6.2.1.4                            | 11.2.<br>2 | 11.3.<br>0 |
| 2013-06 | RAN#60       | R5-<br>131246 | 0418 | -           | Addition of new CA Band and CA Band Combination for supported CA configurations for signalling test          | 11.2.<br>2 | 11.3.      |
| 2013-06 | RAN#60       | R5-<br>131321 | 0419 | -           | Addition of new PICS pc_KeepEpsBearerParametersAfterNormalDetach   | 11.2.<br>2 | 11.3.<br>0 |
| 2013-06 | RAN#60       | R5-<br>131388 | 0420 | -           | Applicability for new TC 8.3.4.5 Inter-frequency E-UTRAN FDD -   | 11.2.      | 11.3.<br>0 |
| 2013-06 | RAN#60       | R5-<br>131451 | 0421 | -           | Addition of CA physical layer implementation capabilities for CA_1-19 and CA_1-21                            | 11.2.      | 11.3.<br>0 |
| 2013-06 | RAN#60       | R5-<br>131455 | 0422 | -           | Update pics for CSFB and IMS devices   | 11.2.      | 11.3.      |
| 2013-06 | RAN#60       | R5-<br>131493 | 0423 | -           | Update pics pc_CS  | 11.2.      | 11.3.      |
| 2013-06 | RAN#60       | R5-<br>131495 | 0424 | -           | GCF Priority X - Correction to applicability of RSRQ TC 6.2.3.1a   | 11.2.      | 11.3.      |
| 2013-06 | RAN#60       | R5-<br>131497 | 0425 | -           | GCF Priority X - Correction to applicability of test case 13.1.2a  | 11.2.      | 11.3.      |
| 2013-06 | RAN#60       | R5-<br>131499 | 0426 | -           | GCF Priority X - Correction to applicability of test case 8.1.3.6a   | 11.2.      | 11.3.      |
| 2013-06 | RAN#60       | R5-<br>131690 | 0427 | -           | Addition of Inter-Band CA configurations for CA_2-17 and CA_4-17   | 11.2.      | 11.3.      |
| 2013-06 | RAN#60       | R5-<br>131714 | 0428 | -           | Addition of operating band 29 to TS 36.523-2   | 11.2.      | 11.3.<br>0 |
| 2013-06 | RAN#60       | R5-<br>131715 | 0429 | -           | Addition of PICS items for Rel-10 UE category 6-8  | 11.2.      | 11.3.      |
| 2013-06 | RAN#60       | R5-<br>131862 | 0430 | -           | Applicability of new test cases for setting the FGI 28.  | 11.2.      | 11.3.      |
| 2013-06 | RAN#60       | R5-           | 0431 | -           | GCF Priority 2: Changing the TC 9.1.4.2 title  | 11.2.      | 11.3.      |
| 2013-06 | RAN#60       | 131863<br>R5- | 0432 | -           | Splitting TC 11.2.8 in two TCs one for UTRA/GERAN and one for 1xRTT - Applicability                          | 11.2.      | 11.3.      |
| 2013-06 | RAN#60       | 131864<br>R5- | 0433 | -           | Correction of applicable minimum releases for UTRA and GERAN   | 11.2.      | 11.3.      |
| 2013-06 | RAN#60       | 131867<br>R5- | 0434 | -           | in Inter-RAT test cases Update of Applicability of test case 8.3.3.5   | 11.2.      | 11.3.      |
| 2013-06 | RAN#60       | 131869<br>R5- | 0435 | -           | Adding applicability for new NIMTC test cases  | 11.2.      | 11.3.      |
| 2013-06 | RAN#60       | 131893<br>R5- | 0436 | -           | Applicability for new test cases of TDD Special subframe   | 11.2.      | 11.3.      |
| 2013-06 | RAN#60       | 131896<br>R5- | 0437 | -           | configuration Update of FGI tables in TS 36.523-2  | 11.2.      | 11.3.      |
| 2013-06 | RAN#60       | 132016<br>R5- | 0438 | -           | Applicability of New Carrier Aggregation test case   | 2<br>11.2. | 0<br>11.3. |
| 2013-06 | RAN#60       | 132023<br>R5- | 0439 | -           | Update of applicability for NIMTC test cases   | 2<br>11.2. | 11.3.      |
| 2013-06 | RAN#60       | 132026<br>R5- | 0440 | -           | Modification of pc_SMS_SGs PICS dependencies   | 2<br>11.2. | 0<br>11.3. |
| 2013-06 | RAN#60       | 132040<br>R5- | 0441 | -           | Applicability of new test cases for eMDT   | 2<br>11.2. | 0<br>11.3. |
| 2013-09 | RAN#61       | 132055<br>R5- | 0443 | -           | Addition of CA physical layer implementation capabilities for  | 2<br>11.3. | 0<br>11.4. |
| 2013-09 | RAN#61       | 133111<br>R5- | 0445 | -           | CA_3-8 Update of Applicability Conditions for CA test cases  | 0<br>11.3. | 0<br>11.4. |
| 2013-09 | RAN#61       | 133229<br>R5- | 0446 | <u> </u> -  | Addition of Inter-Band CA configurations for CA_1-18 and CA_11-  | 0<br>11.3. | 0<br>11.4. |
|         |              | 133294        |      |             | 18   | 0          | 0          |

| Date    | TSG#     | TSG Doc.                | CR   | R<br>e<br>v  | Subject/Comment  | Old             | New             |
|---------|----------|-------------------------|------|--------------|--|-----------------|-----------------|
| 2013-09 | RAN#61   | R5-<br>133307           | 0447 | -            | Addition of Band 31 to 36.523-2  | 11.3.<br>0      | 11.4.<br>0      |
| 2013-09 | RAN#61   | R5-<br>133353           | 0448 | -            | Addition of applicability for new elCIC test case 8.3.1.21   | 11.3.<br>0      | 11.4.<br>0      |
| 2013-09 | RAN#61   | R5-<br>133413           | 0449 | -            | Addition of applicability of new test cases for eMDT   | 11.3.<br>0      | 11.4.<br>0      |
| 2013-09 | RAN#61   | R5-<br>133450           | 0450 | -            | Addition and modification of CA Band for supported CA configurations for signalling test in 36.523-2           | 11.3.           | 11.4.           |
| 2013-09 | RAN#61   | R5-<br>133458           | 0451 | -            | Add applicability for E-UTRA VoLTE test cases  | 11.3.           | 11.4.<br>0      |
| 2013-09 | RAN#61   | R5-<br>133607           | 0452 | -            | Update Applicability for ZUC test cases  | 11.3.           | 11.4.           |
| 2013-09 | RAN#61   | R5-<br>133608           | 0453 | -            | Execution of TCs when UE supports a single E-UTRA band   | 11.3.<br>0      | 11.4.           |
| 2013-09 | RAN#61   | R5-<br>133609           | 0454 | -            | Updating specific condition for setting the FGI 28.  | 11.3.<br>0      | 11.4.<br>0      |
| 2013-09 | RAN#61   | R5-<br>133625           | 0455 | -            | Correction of CA test case entries in applicability table  | 11.3.           | 11.4.<br>0      |
| 2013-09 | RAN#61   | R5-<br>133626           | 0456 | -            | Addition of UE capability information Bandwidth Combination Set for Carrier Aggregation in ICS proforma tables | 11.3.           | 11.4.<br>0      |
| 2013-09 | RAN#61   | R5-<br>133627           | 0457 | -            | Addition of CA physical layer implementation capabilities for CA 3-5   | 11.3.           | 11.4.           |
| 2013-09 | RAN#61   | R5-<br>133649           | 0458 | -            | Update of title of test case 8.3.1.20  | 11.3.           | 11.4.           |
| 2013-09 | RAN#61   | R5-<br>133678           | 0459 | -            | Applicability for new power preference indication test cases   | 11.3.<br>0      | 11.4.           |
| 2013-09 | RAN#61   | R5-<br>133681           | 0460 | -            | Applicability for new ePDCCH related test cases  | 11.3.           | 11.4.           |
| 2013-09 | RAN#61   | R5-<br>133697           | 0461 | -            | Define new test applicability for MFBI signalling test cases   | 11.3.           | 11.4.           |
| 2013-09 | RAN#61   | R5-                     | 0462 | -            | Execution of TCs when UE supports multiple modes of  | 11.3.           | 11.4.           |
| 2013-09 | RAN#61   | 133698<br>R5-<br>133701 | 0463 | -            | configuration Update of Applicability for LTE TC 6.2.1.1   | 0<br>11.3.<br>0 | 0<br>11.4.<br>0 |
| 2013-09 | RAN#61   | R5-<br>133702           | 0464 | -            | Applicability of new eMBMS service continuity test cases   | 11.3.           | 11.4.<br>0      |
| 2013-09 | RAN#61   | R5-<br>133731           | 0444 | -            | Applicability of new eICIC test case 8.3.1.27  | 11.3.           | 11.4.           |
| 2013-12 | RAN#62   | R5-<br>134090           | 0465 | -            | Editorial correction to Test Case Applicability Table 4-1  | 11.4.           | 11.5.           |
| 2013-12 | RAN#62   | R5-<br>134112           | 0466 | -            | Applicability of new test case 8.1.3.12b   | 11.4.           | 11.5.<br>0      |
| 2013-12 | RAN#62   | R5-                     | 0467 | -            | Applicability of new eMBMS SC test cases   | 11.4.<br>0      | 11.5.           |
| 2013-12 | RAN#62   | 134245<br>R5-           | 0468 | -            | GCF Priority 2 - Removal of applicability for EMM test case  | 11.4.           | 11.5.           |
| 2013-12 | RAN#62   | 134263<br>R5-           | 0469 | -            | 9.2.3.3.6 Editorial correction of pc_CS reference  | 11.4.           | 11.5.           |
| 2013-12 | RAN#62   | 134265<br>R5-           | 0471 | -            | Correction of editorial issues in ICS proforma specification   | 11.4.           | 11.5.           |
| 2013-12 | RAN#62   | 134392<br>R5-           | 0472 | -            | Correction to the applicability of CSG test cases  | 11.4.           | 11.5.           |
| 2013-12 | RAN#62   | 134567<br>R5-           | 0473 | -            | Correction to the item number of Table A.4.5-1c, 4.5-1d, 4.5-1e  | 11.4.           | 11.5.           |
| 2013-12 | RAN#62   | 134571<br>R5-           | 0474 | -            | and 4.5.3 Addition of applicability for test case 9.2.1.1.7b   | 11.4.           | 11.5.           |
| 2013-12 | RAN#62   | 134671<br>R5-           | 0475 | -            | Addition of applicability of new SIMTC test cases  | 11.4.           | 11.5.           |
| 2013-12 | RAN#62   | 134672<br>R5-           | 0476 | -            | Addition of CA band combinations CA_2A_29A, CA_4A_29A and  | 11.4.           | 11.5.           |
| 2013-12 | RAN#62   | 134685<br>R5-           | 0478 | -            | CA_5A_17A Applicability of new aSRVCC test cases   | 11.4.           | 11.5.           |
| 2013-12 | RAN#62   | 134725<br>R5-           | 0479 | -            | Correction to Selection Expressions for SMS over SGs test cases  | 11.4.           | 0<br>11.5.      |
| 2013-12 | RAN#62   | 134772<br>R5-           | 0480 | -            | Correction to applicability of SRVCC test cases 13.4.3.3 and   | 0<br>11.4.      | 0<br>11.5.      |
| 2013-12 | RAN#62   | 134773<br>R5-           | 0481 | <del> </del> | 13.4.3.5 Addition of applicability for test case 9.2.3.1.20a   | 11.4.           | 0<br>11.5.      |
| 2013-12 | RAN#62   | 134774<br>R5-           | 0482 | -            | Split of CA Test Case 8.4.2.7  | 0<br>11.4.      | 0<br>11.5.      |
|         | <u> </u> | 134783                  |      |              |  | 0               | 0               |

| Date    | TSG#     | TSG Doc.      | CR   | R<br>e<br>v   | Subject/Comment  | Old        | New        |
|---------|----------|---------------|------|---------------|--|------------|------------|
| 2013-12 | RAN#62   | R5-<br>134952 | 0484 | -             | Add applicabilities for test cases 6.2.4.1 and 6.2.4.3   | 11.4.<br>0 | 11.5.<br>0 |
| 2013-12 | RAN#62   | R5-<br>135006 | 0485 | -             | Removal of TC 6.3.10, 6.3.11, 6.3.12   | 11.4.<br>0 | 11.5.<br>0 |
| 2013-12 | RAN#62   | R5-<br>135009 | 0486 | -             | Applicability for Rel-11 CA enhancements related new test cases                                    | 11.4.<br>0 | 11.5.<br>0 |
| 2013-12 | RAN#62   | R5-<br>134367 | 0470 | -             | Addition of Inter-Band CA configurations for CA_1A-26A   | 11.5.<br>0 | 12.0.<br>0 |
| 2013-12 | RAN#62   | R5-<br>134686 | 0477 | -             | Addition of CA band combination CA_2A_5A   | 11.5.<br>0 | 12.0.<br>0 |
| 2013-12 | RAN#62   | R5-<br>134792 | 0483 | -             | Addition of CA physical layer implementation capabilities for CA_3-19 and CA_19-21                 | 11.5.<br>0 | 12.0.<br>0 |
| 2014-03 | RAN#63   | R5-<br>140129 | 0487 | -             | Removal of technical content in 36.523-2 v11.5.0 and substitution with pointer to the next Release | 12.0.<br>0 | 12.1.<br>0 |
| 2014-03 | RAN#63   | R5-<br>140570 | 0488 | -             | Correct applicabilities for test cases 6.2.4.1 and 6.2.4.3   | 12.0.<br>0 | 12.1.<br>0 |
| 2014-03 | RAN#63   | R5-<br>140590 | 0489 | -             | Removal of pc_ETWS_message_security PICS   | 12.0.<br>0 | 12.1.<br>0 |
| 2014-03 | RAN#63   | R5-<br>140782 | 0490 | -             | Various updates to 36.523-2  | 12.0.<br>0 | 12.1.<br>0 |
| 2014-03 | RAN#63   | R5-<br>140783 | 0491 | -             | Addition of the applicability of eMDT test cases   | 12.0.<br>0 | 12.1.      |
| 2014-03 | RAN#63   | R5-<br>140784 | 0492 | -             | Update the applicability of EMM test case  | 12.0.      | 12.1.<br>0 |
| 2014-03 | RAN#63   | R5-<br>140785 | 0493 | -             | Update to applicability of inter-mode test cases   | 12.0.      | 12.1.      |
| 2014-03 | RAN#63   | R5-<br>140786 | 0494 | -             | Correction to pc_UL_MIMO PICS  | 12.0.<br>0 | 12.1.      |
| 2014-03 | RAN#63   | R5-<br>140790 | 0495 | -             | Addition of Intra-band contiguous CA for signalling test   | 12.0.<br>0 | 12.1.<br>0 |
| 2014-03 | RAN#63   | R5-<br>140939 | 0496 | -             | Applicability of new eMBMS SC test cases   | 12.0.      | 12.1.      |
| 2014-03 | RAN#63   | R5-<br>140941 | 0497 | -             | Applicability of new elCIC test case   | 12.0.      | 12.1.      |
| 2014-03 | RAN#63   | R5-<br>140942 | 0498 | -             | Addition of applicability for test cases 6.2.4.4 and 6.2.4.6                                       | 12.0.<br>0 | 12.1.<br>0 |
| 2014-03 | RAN#63   | R5-<br>140963 | 0499 | -             | Addition and Update of applicabilities for SIMTC TCs   | 12.0.<br>0 | 12.1.<br>0 |
| 2014-03 | RAN#63   | R5-<br>140966 | 0500 | -             | Addition of applicability for bSRVCC test cases 13.4.3.21, 13.4.3.22 and 13.4.3.23                 | 12.0.<br>0 | 12.1.<br>0 |
| 2014-03 | RAN#63   | R5-<br>140973 | 0502 | -             | Title update for Multilayer aSRVCC test cases 13.4.3.12 and 13.4.3.13                              | 12.0.      | 12.1.<br>0 |
| 2014-03 | RAN#63   | R5-           | 0503 | -             | Addition of applicability for new aSRVCC test cases  | 12.0.      | 12.1.      |
| 2014-03 | RAN#63   | 141110<br>R5- | 0504 | -             | Introduction of UE CA Inter-band uplink capabilities   | 12.0.      | 12.1.      |
| 2014-03 | RAN#63   | 141112<br>R5- | 0501 | -             | Applicability of new test cases for bSRVCC   | 12.0.      | 12.1.      |
| 2014-06 | RAN#64   | 141138<br>R5- | 0505 | -             | Addition of CA 3A-28A to 36.523-2  | 12.1.      | 12.2.      |
| 2014-06 | RAN#64   | 142115<br>R5- | 0506 | -             | Editorial correction to "Supported CA configurations for Intra-band                                | 12.1.      | 12.2.      |
| 2014-06 | RAN#64   | 142230<br>R5- | 0507 | -             | contiguous CA" table Correcting applicability of 9.2.3.2.12  | 12.1.      | 12.2.      |
| 2014-06 | RAN#64   | 142267<br>R5- | 0508 | -             | Updates of Table A.4.3.3.3-3 for CA_3A-26A and CA_3A-27A   | 12.1.      | 12.2.      |
| 2014-06 | RAN#64   | 142300<br>R5- | 0509 | -             | Correction in Applicability of tests Conditions (C81) for Multi-layer                              | 12.1.      | 12.2.      |
| 2014-06 | RAN#64   | 142323<br>R5- | 0510 | -             | test case 13.1.4 and 13.1.5 Addition of CA band combination CA_39A-41A to Table A.4.3.3.3-         | 12.1.      | 12.2.      |
| 2014-06 | RAN#64   | 142346<br>R5- | 0511 | -             | 3 in TS 36.523-2<br>Editorial CR aligning titles in TS 36.523-2 with TS 36.523-1                   | 12.1.      | 12.2.      |
| 2014-06 | RAN#64   | 142363<br>R5- | 0512 | <del> -</del> | Applicability of new EPS test cases  | 12.1.      | 12.2.      |
| 2014-06 | RAN#64   | 142414<br>R5- | 0513 | -             | Update to Applicability of bSRVCC Test Cases 13.4.3.18,  | 0<br>12.1. | 0<br>12.2. |
| 2014-06 | RAN#64   | 142430<br>R5- | 0514 | <u> </u> -    | 13.4.3.19 and 13.4.3.20  Correction to Note 1 in Inter-band CA table A.4.3.3.3-3                   | 0<br>12.1. | 0<br>12.2. |
| 2014-06 | RAN#64   | 142448<br>R5- | 0515 | -             | Correction to Applicability of MDT Test Case 8.6.2.9 and Update                                    | 0<br>12.1. | 0<br>12.2. |
|         | <u> </u> | 142451        |      |               | to pc_standaloneGNSS-Location Applicability Comment  | 0          | 0          |

| Date    | TSG#   | TSG Doc.      | CR   | R<br>e<br>v | Subject/Comment   | Old        | New        |
|---------|--------|---------------|------|-------------|---|------------|------------|
| 2014-06 | RAN#64 | R5-<br>142484 | 0516 | -           | Correct applicabilities for test cases 6.2.4.1, 6.2.4.3-4 and 6.2.4.6   | 12.1.      | 12.2.      |
| 2014-06 | RAN#64 | R5-<br>142584 | 0517 | -           | Update of FGI definitions in TS 36.523-2  | 12.1.<br>0 | 12.2.      |
| 2014-06 | RAN#64 | R5-<br>142648 | 0518 | -           | Addition of new ICS item for E-UTRAN CSG proximity test   | 12.1.<br>0 | 12.2.<br>0 |
| 2014-06 | RAN#64 | R5-<br>142673 | 0519 | -           | Addition of CA_27B related information into A.4.3.3 in TS 36.523-2  | 12.1.<br>0 | 12.2.<br>0 |
| 2014-06 | RAN#64 | R5-<br>142726 | 0520 | -           | APN configuration for IR.92 devices   | 12.1.<br>0 | 12.2.<br>0 |
| 2014-06 | RAN#64 | R5-<br>142730 | 0521 | -           | Correction of NITZ capabilities   | 12.1.<br>0 | 12.2.<br>0 |
| 2014-06 | RAN#64 | R5-<br>142773 | 0522 | -           | Addition of CA_2A-4A and CA_5A-7A to 36.523-2 Annex A4  | 12.1.<br>0 | 12.2.<br>0 |
| 2014-06 | RAN#64 | R5-<br>142779 | 0523 | -           | Applicability of new NIMTC test case 6.1.1.7a   | 12.1.<br>0 | 12.2.<br>0 |
| 2014-06 | RAN#64 | R5-<br>142816 | 0524 | -           | Update 7.1.4.18 and 7.1.4.21 to non-CA test cases   | 12.1.<br>0 | 12.2.<br>0 |
| 2014-06 | RAN#64 | R5-<br>142891 | 0525 | -           | Correction to the Applicability of LAP and EAB test cases   | 12.1.<br>0 | 12.2.<br>0 |
| 2014-06 | RAN#64 | R5-<br>142892 | 0526 | -           | Correction to the Applicability comments of some test cases   | 12.1.<br>0 | 12.2.<br>0 |
| 2014-06 | RAN#64 | R5-<br>142893 | 0527 | -           | Update applicability for TDD additional special subframe configuration test cases   | 12.1.<br>0 | 12.2.<br>0 |
| 2014-06 | RAN#64 | R5-<br>142894 | 0528 | -           | Update conditions in Table4-1a for CS fall back test cases  | 12.1.<br>0 | 12.2.<br>0 |
| 2014-06 | RAN#64 | R5-<br>142895 | 0529 | -           | Correction to Applicability of EUTRA eMDT Test Case 8.6.5.1a and Addition of New PICS   | 12.1.<br>0 | 12.2.<br>0 |
| 2014-06 | RAN#64 | R5-<br>142896 | 0530 | -           | Update of test case 8.3.3.3 applicability test condition  | 12.1.<br>0 | 12.2.<br>0 |
| 2014-06 | RAN#64 | R5-<br>142898 | 0532 | -           | Update of applicability of E-UTRA DL-SCH two layer transport block size selection test cases 7.1.7.1.5 and 7.1.7.1.6 for higher UE categories | 12.1.<br>0 | 12.2.<br>0 |
| 2014-06 | RAN#64 | R5-<br>142899 | 0533 | -           | Applicability of GCF WI-172 EUTRA<>UTRA aSRVCC Testcase 13.4.3.12   | 12.1.<br>0 | 12.2.<br>0 |
| 2014-06 | RAN#64 | R5-<br>142900 | 0534 | -           | Addition of PICS for IPv4 and IPv6  | 12.1.<br>0 | 12.2.<br>0 |
| 2014-06 | RAN#64 | R5-<br>142915 | 0535 | -           | Applicability of new eMBMS test case 17.4.1a  | 12.1.<br>0 | 12.2.<br>0 |
| 2014-06 | RAN#64 | R5-<br>142916 | 0536 | -           | Correction to applicability table for eMBMS test cases  | 12.1.<br>0 | 12.2.<br>0 |
| 2014-06 | RAN#64 | R5-<br>142927 | 0537 | -           | Applicability of new Intra-band non-Contiguous CA test cases  | 12.1.<br>0 | 12.2.<br>0 |
| 2014-06 | RAN#64 | R5-<br>142935 | 0538 | -           | Adding new test cases for further Enhancements to CELL-FACH   | 12.1.<br>0 | 12.2.<br>0 |
| 2014-06 | RAN#64 | R5-<br>142939 | 0539 | -           | Correction to Applicability of CA Test Cases 7.1.4.19.2 and 7.1.4.20.2  | 12.1.<br>0 | 12.2.<br>0 |
| 2014-06 | RAN#64 | R5-<br>142980 | 0540 | -           | Addition of release applicable in Release column for CA enh test cases  | 12.1.<br>0 | 12.2.<br>0 |
| 2014-06 | RAN#64 | R5-<br>142981 | 0541 | -           | Addition of applicability for new Intra-band non-Contiguous CA test cases   | 12.1.<br>0 | 12.2.<br>0 |
| 2014-06 | RAN#64 | R5-<br>142986 | 0542 | -           | Update of MDT test case 8.6.11.1 applicability  | 12.1.<br>0 | 12.2.<br>0 |
| 2014-06 | RAN#64 | R5-<br>142990 | 0543 | -           | Applicability for new TC 8.2.4.23 Handover failure and RRC re-<br>establishment on PCell or SCell successfully                                | 12.1.<br>0 | 12.2.<br>0 |
| 2014-06 | RAN#64 | R5-<br>143214 | 0531 | -           | Update description of extending applicability test cases  | 12.1.<br>0 | 12.2.<br>0 |
| 2014-06 | RAN#64 | -             | -    | -           | Small editorial corrections concerning table lines and font size  | 12.2.<br>0 | 12.2.      |
| 2014-06 | RAN#64 | -             | -    | -           | implementation of forgotten CR R5-142981  | 12.2.<br>1 | 12.2.<br>2 |
| 2014-09 | RAN#65 | R5-<br>144079 | 0544 | -           | Addition of E-UTRA FDD Band 30 information to Annex A.4   | 12.2.<br>2 | 12.3.<br>0 |
| 2014-09 | RAN#65 | R5-<br>144253 | 0545 | -           | Remove LTE MDT Test cases on PLMN change  | 12.2.<br>2 | 12.3.<br>0 |
| 2014-09 | RAN#65 | R5-<br>144255 | 0546 | -           | Add IMS APN configuration for IR.92 devices   | 12.2.<br>2 | 12.3.<br>0 |
| 2014-09 | RAN#65 | R5-<br>144309 | 0547 | -           | Addition of test applicability for new TCs - Intra-band non-<br>contiguous CA   | 12.2.<br>2 | 12.3.<br>0 |
| 2014-09 | RAN#65 | R5-<br>144330 | 0548 | -           | Update of FGI definitions in TS 36.523-2  | 12.2.<br>2 | 12.3.<br>0 |

| Date    | TSG#   | TSG Doc.                | CR   | R<br>e<br>v   | Subject/Comment   | Old             | New             |
|---------|--------|-------------------------|------|---------------|---|-----------------|-----------------|
| 2014-09 | RAN#65 | R5-<br>144338           | 0549 | -             | Update of MDT test case 8.6.5.2 applicability   | 12.2.<br>2      | 12.3.<br>0      |
| 2014-09 | RAN#65 | R5-<br>144407           | 0550 | -             | Add applicability for test cases 6.2.4.2  | 12.2.<br>2      | 12.3.<br>0      |
| 2014-09 | RAN#65 | R5-<br>144497           | 0551 | -             | Addition of Rel.12 Intra-Band Non-Contiguous CA Combinations to 36.523-2 Annex A4                               | 12.2.<br>2      | 12.3.<br>0      |
| 2014-09 | RAN#65 | R5-<br>144503           | 0552 | -             | CA: Review of CA capabilities tables (Sig)  | 12.2.<br>2      | 12.3.<br>0      |
| 2014-09 | RAN#65 | R5-<br>144506           | 0553 | -             | New CA band combination CA_NC_42 and CA_4-27-Update to 36.523-2   | 12.2.<br>2      | 12.3.<br>0      |
| 2014-09 | RAN#65 | R5-<br>144521           | 0554 | -             | Addition of applicability for new Intra-band non-Contiguous CA test cases                                       | 12.2.<br>2      | 12.3.<br>0      |
| 2014-09 | RAN#65 | R5-<br>144652           | 0555 | -             | Addition of applicability for new test case, Inter-RAT Cell reselection EUTRAN to UTRAN MFBI test case 6.2.3.34 | 12.2.<br>2      | 12.3.           |
| 2014-09 | RAN#65 | R5-<br>144677           | 0556 | -             | Remove applicability of test case 13.4.3.29 and 13.4.3.17   | 12.2.<br>2      | 12.3.<br>0      |
| 2014-09 | RAN#65 | R5-<br>144681           | 0557 | -             | Adding applicability for new test cases 8.2.4.16.3, 8.2.4.18.3 and 8.2.4.20.3                                   | 12.2.<br>2      | 12.3.           |
| 2014-09 | RAN#65 | R5-<br>144726           | 0558 | -             | Addition of applicability for new UL CoMP SIG test cases  | 12.2.<br>2      | 12.3.           |
| 2014-09 | RAN#65 | R5-<br>144733           | 0559 | -             | Update applicability of EUTRA Idle test case 6.2.1.4  | 12.2.<br>2      | 12.3.<br>0      |
| 2014-09 | RAN#65 | R5-<br>144794           | 0560 | -             | Add IMS APN as the second PDN configuration for IR.92 devices   | 12.2.           | 12.3.<br>0      |
| 2014-12 | RAN#66 | R5-<br>145068           | 0561 | -             | Update of test case 8.6.7.2 applicability test condition  | 12.3.           | 12.4.<br>0      |
| 2014-12 | RAN#66 | R5-<br>145182           | 0562 | -             | New CA band combination CA_1A-3A - Updates of Table A.4.3.3.3-3   | 12.3.<br>0      | 12.4.<br>0      |
| 2014-12 | RAN#66 | R5-<br>145228           | 0663 | -             | Introduction of CA_42C into TS36.523-2  | 12.3.<br>0      | 12.4.<br>0      |
| 2014-12 | RAN#66 | R5-<br>145272           | 0664 | -             | Update applicability for 10.4.2   | 12.3.           | 12.4.           |
| 2014-12 | RAN#66 | R5-                     | 0665 | -             | Update the applicability of test case 8.2.2.8   | 0<br>12.3.<br>0 | 0<br>12.4.<br>0 |
| 2014-12 | RAN#66 | 145336<br>R5-<br>145349 | 0666 | -             | Existing CA band combination CA_39C: update ICS proforma for protocol   | 12.3.<br>0      | 12.4.           |
| 2014-12 | RAN#66 | R5-<br>145371           | 0667 | -             | Addition of CA_18A-28A configuration in Table A.4.3.3.3-3   | 12.3.           | 0<br>12.4.<br>0 |
| 2014-12 | RAN#66 | R5-                     | 0668 | -             | Addition of CA_1A-28A configuration in Table A.4.3.3.3-3  | 12.3.           | 12.4.           |
| 2014-12 | RAN#66 | 145373<br>R5-           | 0669 | -             | Add applicability for new test case Inter-RAT cell reselection from   | 12.3.           | 12.4.           |
| 2014-12 | RAN#66 | 145395<br>R5-           | 0670 | -             | UTRA to E-UTRA / MFBI Editorial correction to 6.1.2.20 title  | 12.3.           | 12.4.           |
| 2014-12 | RAN#66 | 145398<br>R5-           | 0671 | -             | Update of applicability statements for mandatory Rel-11   | 12.3.           | 12.4.           |
| 2014-12 | RAN#66 | 145412<br>R5-           | 0672 | -             | capabilities Update of References   | 12.3.           | 12.4.           |
| 2014-12 | RAN#66 | 145413<br>R5-           | 0673 | -             | Update of elCIC test case 8.3.1.20 title  | 12.3.           | 12.4.           |
| 2014-12 | RAN#66 | 145435<br>R5-           | 0674 | -             | Introduction of 1+11 and 8+11 in 36.523-2   | 12.3.           | 12.4.           |
| 2014-12 | RAN#66 | 145442<br>R5-           | 0675 | -             | Update applicability for 9.2.1.1.28   | 12.3.           | 12.4.           |
| 2014-12 | RAN#66 | 145575<br>R5-           | 0676 | -             | Add applicability for new EMM test case 9.2.1.1.28a   | 12.3.           | 12.4.           |
| 2014-12 | RAN#66 | 145582<br>R5-           | 0677 | -             | Editorial corrections to 36.523-2 (CA test cases)   | 0<br>12.3.      | 0<br>12.4.      |
| 2014-12 | RAN#66 | 145632<br>R5-           | 0678 | <del> -</del> | Correct IR.92 capability  | 12.3.           | 12.4.           |
| 2014-12 | RAN#66 | 145636<br>R5-           | 0679 | -             | Addition of applicability of 6.1.1.8 and 6.1.1.9 test cases for   | 12.3.           | 12.4.           |
| 2014-12 | RAN#66 | 145703<br>R5-           | 0680 | -             | RFT119 Correction to test case title of 6.1.1.7   | 0<br>12.3.      | 0<br>12.4.      |
| 2014-12 | RAN#66 | 145704<br>R5-           | 0681 | <u> </u> -    | Correction to applicability of test case 9.2.1.2.1b and 9.2.3.2.1b  | 0<br>12.3.      | 0<br>12.4.      |
| 2014-12 | RAN#66 | 145706<br>R5-           | 0682 | -             | Correction to applicability of test case 9.2.2.1.3  | 0<br>12.3.      | 0<br>12.4.      |
| 2014-12 | RAN#66 | 145707<br>R5-           | 0683 | -             | Remove Inter-RAT CSG test case 6.3.8 applicability  | 0<br>12.3.      | 0<br>12.4.      |
|         |        | 145708                  |      |               | ,   | 0               | 0               |

| Date    | TSG #  | TSG Doc.                | CR   | R<br>e<br>v | Subject/Comment  | Old        | New        |
|---------|--------|-------------------------|------|-------------|--|------------|------------|
| 2014-12 | RAN#66 | R5-<br>145709           | 0684 | -           | Correction to ICS of EUTRA ZUC algorithm Test Cases  | 12.3.      | 12.4.<br>0 |
| 2014-12 | RAN#66 | R5-<br>145710           | 0685 | -           | Addition applicability of short DRX test cases   | 12.3.<br>0 | 12.4.      |
| 2014-12 | RAN#66 | R5-<br>145711           | 0686 | -           | Update of FGI definitions in TS 36.523-2   | 12.3.      | 12.4.<br>0 |
| 2014-12 | RAN#66 | R5-<br>145712           | 0687 | -           | Update of test case 10.5.1.b   | 12.3.      | 12.4.      |
| 2014-12 | RAN#66 | R5-<br>145744           | 0688 | -           | Addition of applicability statements for new rSRVCC test cases   | 12.3.      | 12.4.<br>0 |
| 2014-12 | RAN#66 | R5-                     | 0689 | -           | Update of applicability of ROHC tc 8.2.1.8   | 12.3.<br>0 | 12.4.<br>0 |
| 2014-12 | RAN#66 | 145783<br>R5-           | 0690 | -           | Updates to VoLTE UE capabilities to support XCAP over Internet   | 12.3.      | 12.4.      |
| 2014-12 | RAN#66 | 145788<br>R5-           | 0691 | -           | PDN Addition of CA_4A-7A and CA_3A-20A to Annex A4   | 12.3.      | 12.4.      |
| 2015-03 | RAN#67 | 145798<br>R5-           | 0692 | -           | Correction to applicability for CA test cases 8.2.4.16.3, 8.2.4.18.3   | 12.4.      | 12.5.      |
| 2015-03 | RAN#67 | 150094<br>R5-           | 0693 | -           | and 8.2.4.20.3<br>Addition of CA_8A-20A to Annex A.4.3.3 of TS 36.523-2  | 12.4.      | 12.5.      |
| 2015-03 | RAN#67 | 150368<br>R5-           | 0694 | -           | Introduction of SIG applicability for CA band combinations 5+25  | 12.4.      | 12.5.      |
| 2015-03 | RAN#67 | 150375<br>R5-           | 0695 | -           | and 12+25 Applicability update of IDLE mode test case 6.2.2.5  | 12.4.      | 12.5.      |
| 2015-03 | RAN#67 | 150403<br>R5-           | 0696 | -           | Addition of applicability statements for new rSRVCC to GERAN   | 12.4.      | 12.5.      |
| 2015-03 | RAN#67 | 150430<br>R5-           | 0697 | -           | test cases Addition of CA_1-41 and CA_26-41 in 36.523-2  | 12.4.      | 12.5.      |
| 2015-03 | RAN#67 | 150432<br>R5-           | 0698 | -           | Addition of CA_1A-20A to Annex A.4.3.3 of TS 36.523-2  | 12.4.      | 12.5.      |
| 2015-03 | RAN#67 | 150481<br>R5-           | 0699 | -           | Correction to the applicability of EUTRA to UTRA HSUPA test  | 12.4.      | 12.5.      |
| 2015-03 | RAN#67 | 150490<br>R5-           | 0700 | -           | case 8.4.1.5 Update of applicability for TC 8.3.4.4 'Inter-RAT SI acquisition /  | 12.4.      | 12.5.      |
| 2015-03 | RAN#67 | 150539<br>R5-           | 0701 | -           | RRC_CONNECTED / UMTS member CSG cell' Addition of Multiple 2DL Interband CA combinations to 36.523-2   | 12.4.      | 12.5.      |
| 2015-03 | RAN#67 | 150548<br>R5-           | 0702 | -           | Table A.4.3.3.3-3<br>Update of FGI definitions in TS 36.523-2  | 12.4.      | 0<br>12.5. |
| 2015-03 | RAN#67 | 150557<br>R5-           | 0703 | -           | Addition of CA_1-7, CA_23 and CA_23-29 to TS 36.523-2  | 12.4.      | 0<br>12.5. |
| 2015-03 | RAN#67 | 150581<br>R5-           | 0704 | -           | Remove applicability for test case 8.2.4.22  | 12.4.      | 0<br>12.5. |
| 2015-03 | RAN#67 | 150601<br>R5-           | 0705 | -           | Correction to Applicability for eMDT test cases  | 0<br>12.4. | 0<br>12.5. |
| 2015-03 | RAN#67 | 150674<br>R5-           | 0706 | -           | Corrections in applicability conditions of Table 4-1a for 1x CS  | 0<br>12.4. | 0<br>12.5. |
| 2015-03 | RAN#67 | 150675<br>R5-           | 0707 | -           | Fallback test cases  Corrections to applicability statements for MIMO test cases   | 0<br>12.4. | 0<br>12.5. |
| 2015-03 | RAN#67 | 150676<br>R5-           | 0708 | L           | 8.2.4.12 and 12.3.1 Applicability of new test cases 8.5.4.2 and 8.5.4.3 (Network-  | 0 12.4.    | 0          |
|         |        | 150677                  |      |             | requested CA Band Combination Capability Signalling)   | 0          | 0          |
| 2015-03 | RAN#67 | R5-<br>150678           | 0709 | -           | Addition of applicability statements for new test case "Inter-system mobility / E-UTRA PS voice to GSM CS voice / HO cancelled / Notification procedure / SRVCC" | 12.4.<br>0 | 12.5.<br>0 |
| 2015-03 | RAN#67 | R5-<br>150685           | 0710 | -           | Addition of CA_2-30 to Annex A.4.3 of TS 36.523-2.   | 12.4.<br>0 | 12.5.<br>0 |
| 2015-03 | RAN#67 | R5-<br>150686           | 0711 | 1-          | Addition of CA_4-30 to Annex A.4.3 of TS 36.523-2.   | 12.4.<br>0 | 12.5.<br>0 |
| 2015-03 | RAN#67 | R5-<br>150687           | 0712 | -           | Addition of CA_5-30 to Annex A.4.3 of TS 36.523-2.   | 12.4.<br>0 | 12.5.      |
| 2015-03 | RAN#67 | R5-<br>150721           | 0713 | -           | Applicability of new test cases 13.4.3.39 and 13.4.3.40  | 12.4.      | 12.5.      |
| 2015-03 | RAN#67 | R5-                     | 0714 | -           | Addition of CA_41-42 to TS 36.523-2  | 12.4.      | 12.5.      |
| 2015-06 | RAN#68 | 150744<br>R5-           | 0715 | -           | CA: Corrections to CA capability tables  | 12.5.      | 12.6.      |
| 2015-06 | RAN#68 | 151130<br>R5-           | 0717 | -           | Correction to Applicability for eMDT test cases 8.6.9.3  | 12.5.      | 12.6.      |
| 2015-06 | RAN#68 | 151147<br>R5-           | 0718 | -           | Correction to C113dT in the applicability of test conditions   | 12.5.      | 12.6.      |
| 2015-06 | RAN#68 | 151169<br>R5-<br>151170 | 0719 | -           | Editorial correction in the applicability of test conditions   | 12.5.<br>0 | 0<br>12.6. |

| Date    | TSG#   | TSG Doc.      | CR   | R<br>e<br>v | Subject/Comment   | Old        | New        |
|---------|--------|---------------|------|-------------|---|------------|------------|
| 2015-06 | RAN#68 | R5-<br>151239 | 0716 | 1           | Update to the applicability of Intra/inter-frequencySI acquisition Home eNB test cases  | 12.5.<br>0 | 12.6.<br>0 |
| 2015-06 | RAN#68 | R5-<br>151240 | 0723 | -           | Update VoLTE definition in A.4.5  | 12.5.<br>0 | 12.6.<br>0 |
| 2015-06 | RAN#68 | R5-<br>151255 | 0724 | -           | Update of CA Physical Layer Baseline Implementation Capabilities for Rel-12 CA 2UL configurations   | 12.5.<br>0 | 12.6.<br>0 |
| 2015-06 | RAN#68 | R5-<br>151394 | 0732 | -           | Implementation Capability statement for Half-Duplex operation Type B for UE Cat 0   | 12.5.<br>0 | 12.6.<br>0 |
| 2015-06 | RAN#68 | R5-<br>151731 | 0754 | -           | Applicability of a new TC 13.5.2 (Smart Congestion Mitigation)  | 12.5.<br>0 | 12.6.<br>0 |
| 2015-06 | RAN#68 | R5-<br>151785 | 0729 | 1           | Update of elCIC test case 8.3.1.21 title  | 12.5.<br>0 | 12.6.<br>0 |
| 2015-06 | RAN#68 | R5-<br>151786 | 0730 | 1           | Update of elCIC test case 8.3.1.28 title  | 12.5.<br>0 | 12.6.<br>0 |
| 2015-06 | RAN#68 | R5-<br>151787 | 0743 | 1           | Applicability correction to test case 13.4.3.41   | 12.5.<br>0 | 12.6.<br>0 |
| 2015-06 | RAN#68 | R5-<br>151788 | 0749 | 1           | Correction to IMS Emergency Call test cases 11.2.8  | 12.5.      | 12.6.<br>0 |
| 2015-06 | RAN#68 | R5-<br>151789 | 0751 | 1           | Editorial correction to C32 in 36.523-2   | 12.5.<br>0 | 12.6.<br>0 |
| 2015-06 | RAN#68 | R5-<br>151790 | 0752 | 1           | Editorial correction to C216F and C216T in 36.523-2   | 12.5.<br>0 | 12.6.      |
| 2015-06 | RAN#68 | R5-<br>151793 | 0726 | 1           | Addition of 3DL CA Configurations to 36.523-2   | 12.5.<br>0 | 12.6.<br>0 |
| 2015-06 | RAN#68 | R5-<br>151966 | 0727 | 1           | Addition of frequency for E-UTRA band 32  | 12.5.<br>0 | 12.6.<br>0 |
| 2015-06 | RAN#68 | R5-<br>151974 | 0720 | 1           | Applicability of New Low Cost MTC protocol test cases   | 12.5.<br>0 | 12.6.<br>0 |
| 2015-06 | RAN#68 | R5-<br>152057 | 0745 | 1           | Applicability of New 3GPP/WLAN Offload Test Cases   | 12.5.<br>0 | 12.6.<br>0 |
| 2015-06 | RAN#68 | R5-<br>152061 | 0721 | 1           | Addition of new D2D test case 19.2.1 - Successful Announce Request Procedure/Direct Discovery   | 12.5.<br>0 | 12.6.<br>0 |
| 2015-06 | RAN#68 | R5-<br>152064 | 0740 | 1           | Addition of new applicability for SCM TCs   | 12.5.<br>0 | 12.6.<br>0 |
| 2015-06 | RAN#68 | R5-<br>152086 | 0728 | 1           | Applicability Update of EMM information procedure test case 9.1.5.1   | 12.5.<br>0 | 12.6.<br>0 |
| 2015-06 | RAN#68 | R5-<br>152087 | 0739 | 1           | Addition of applicability for LTE Coverage Enhancements   | 12.5.<br>0 | 12.6.<br>0 |
| 2015-06 | RAN#68 | R5-<br>152089 | 0736 | 1           | Addition of applicability for newly added TC "cell reselection / MFBI/UE does not support multiBandInfoList"  | 12.5.<br>0 | 12.6.<br>0 |
| 2015-06 | RAN#68 | R5-<br>152106 | 0733 | 1           | Add Applicability for New TC 8.2.4.24.1 - CA / RRC connection reconfiguration / SCell Addition / Success /RRC Processing Delay/Intra-Band Contiguous CA | 12.5.<br>0 | 12.6.<br>0 |
| 2015-06 | RAN#68 | R5-<br>152113 | 0735 | 1           | Addition of applicability for newly added TC "SRVCC Emergency Call Handover to GERAN"   | 12.5.<br>0 | 12.6.<br>0 |
| 2015-06 | RAN#68 | R5-<br>152146 | 0755 | 1           | Correction to applicability statement of rSRVCC test case 13.4.3.39   | 12.5.      | 12.6.<br>0 |
| 2015-09 | RAN#69 | R5-<br>153232 | 0761 | -           | Add applicability of new and update applicability of existing protocol test cases for Category 0 UE   | 12.6.      | 12.7.      |
| 2015-09 | RAN#69 | R5-<br>153235 | 0762 | -           | Update of applicability for CA 2UL protocol test cases  | 12.6.      | 12.7.      |
| 2015-09 | RAN#69 | R5-<br>153279 | 0764 | -           | Void applicability of eICIC test case 8.3.1.20  | 12.6.      | 12.7.      |
| 2015-09 | RAN#69 | R5-<br>153336 | 0765 | -           | Addition of applicability of new EUTRAN-WLAN interworking test cases  | 12.6.      | 12.7.      |
| 2015-09 | RAN#69 | R5-<br>153347 | 0766 | -           | Correction to content of comments item A.4.2.1.1-1/1  | 12.6.<br>0 | 12.7.<br>0 |
| 2015-09 | RAN#69 | R5-<br>153417 | 0767 | -           | Correction to information of feature group indicators   | 12.6.<br>0 | 12.7.      |
| 2015-09 | RAN#69 | R5-<br>153438 | 0768 | -           | Applicability for new TDD-FDD CA protocol test cases  | 12.6.<br>0 | 12.7.<br>0 |
| 2015-09 | RAN#69 | R5-<br>153501 | 0769 | -           | Aligning 36.521-2 and 36.523-2 Supported CA Configurations Tables   | 12.6.<br>0 | 12.7.<br>0 |
| 2015-09 | RAN#69 | R5-<br>153529 | 0770 | -           | Update of FGI definitions in TS 36.523-2  | 12.6.<br>0 | 12.7.<br>0 |
| 2015-09 | RAN#69 | R5-<br>153541 | 0772 | -           | Updates to applicability of rSRVCC test cases   | 12.6.<br>0 | 12.7.<br>0 |
| 2015-09 | RAN#69 | R5-<br>153554 | 0773 | -           | Correction to applicability conditions C154F and C154T  | 12.6.<br>0 | 12.7.<br>0 |
| 2015-09 | RAN#69 | R5-<br>153560 | 0774 | -           | Correction to Test Case Selection Expressions of test cases 9.2.1.1.30, 9.2.1.2.4a and 9.2.3.2.4a   | 12.6.<br>0 | 12.7.<br>0 |

| 2015-09   | l New             |
|---|-------------------|
| 153742  | . 12.7.           |
| 2015-09   | . 12.7.<br>0      |
| 2015-09   | . 12.7.           |
| 2015-09   | . 12.7.           |
| 2015-09   RAN#69   RS-   153770   RS-   2015-09   RAN#69   RS-   153962   0784   - Addition of applicability of new D2D test cases   12.   153962   0785   - Deletion of TC 8.2.4.24   12.   0.   0.   0.   0.   0.   0.   0.   | . 12.7.<br>0      |
| 2015-09   RAN#69   RS-  | . 12.7.           |
| 2015-09   RAN#69   R5-   153963   0784   - Addition of applicability of new D2D test cases   12.  | . 12.7.<br>0      |
| 2015-09   |                   |
| 2015-09   | . 12.7.           |
| 2015-09   |                   |
| 2015-09   |                   |
| 2015-09   |                   |
| 2015-12   RAN#70   R5-   155347     0791   -   Addition of applicability for new WLAN interworking test cases   12.   | . 12.7.           |
| 2015-12   RAN#70   R5-   155364   0792   -  |                   |
| 2015-12   RAN#70   R5-   155432   0794   -   Addition of applicability for new D2D test cases 8.8.1.5 and 8.8.2.5   12.   |                   |
| 2015-12   RAN#70   R5-   155621   |                   |
| 2015-12   |                   |
| 2015-12   RAN#70   R5-   155682   0801   -   Addition of applicability of new 3GPP/WLAN test case   12.7 |                   |
| 2015-12   |                   |
| 2015-12   RAN#70   R5-<br>  155723   0804   -   Addition of applicability for new D2D test case on Successful ProSe Direct Communication/Limited Service state   0   0   0   0   0   0   0   0   0  |                   |
| 2015-12   | -                 |
| 2015-12   |                   |
| 2015-12     RAN#70     R5-<br>155908     0809 -<br>155908     - Correction to execution guideline of 7.1.3.11.2     12.7       2015-12     RAN#70     R5-<br>155911     0805     1 36.523-2: CA_2A-2A-13A editorial update     12.7   |                   |
| 2015-12 RAN#70 R5- 0805 1 36.523-2: CA_2A-2A-13A editorial update 12. 0   |                   |
|   |                   |
| 2015-12 RAN#70 R5- 0790 1 Add UE implementation capability for ProSe 12.  |                   |
| 2015-12 RAN#70 R5- 3173 1 Update to title of MTC test case 7.1.1.1a in 36.523-2 12.   | . 12.8.           |
| 2015-12 RAN#70 R5- 0810 - Addition of applicability for new Direct Communication test cases 12.   | . 12.8.           |
| 155941  | _                 |
| 2015-12 RAN#70 R5- 0802 1 Addition of applicability statements for new UEPCOP test case 12.   | _                 |
| 155956   0<br>  2015-12 RAN#70 R5- 0793   1 Addition of applicability for new SCE-L1 test cases 7.1.7.1.8, 12.1<br>  7.1.7.1.9 and 7.1.7.1.10   0   | . 12.8.           |
| 2015-12 RAN#70 R5- 0811 - Update the applicability of loopback mode test cases for Multi-PDN 12.  | _                 |
| 2016-03 RAN#71 R5- 0817 - Update of 1x Pre-registration test cases 8.4.7.x and 13.4.4.x 12.4  |                   |
| 160314   applicability   0<br>  2016-03   RAN#71   R5-<br>  160323   Remove applicability of SSAC test cases 13.5.1b and 13.5.2b   12.4   |                   |
| 160323   0<br>  2016-03   RAN#71   R5-<br>  160402   -   Correction to applicability of eMBMS test case 17.2.4   12.4   | 0<br>. 12.9.<br>0 |

| Date    | TSG #  | TSG Doc.      | CR   | R<br>e<br>v    | Subject/Comment   | Old        | New        |
|---------|--------|---------------|------|----------------|---|------------|------------|
| 2016-03 | RAN#71 | R5-<br>160415 | 0828 | -              | CA_20A-67A: Update of CA Physical Layer Baseline Implementation   | 12.8.<br>0 | 12.9.<br>0 |
| 2016-03 | RAN#71 | R5-<br>160434 | 0829 | -              | Addition of applicability statements for new UEPCOP test cases  | 12.8.<br>0 | 12.9.<br>0 |
| 2016-03 | RAN#71 | R5-<br>160513 | 0831 | -              | Update of applicabality due to merge of WLAN offload Idle mode test cases 6.5.6 in 6.5.1                            | 12.8.<br>0 | 12.9.<br>0 |
| 2016-03 | RAN#71 | R5-<br>160518 | 0832 | -              | Correction to the Tables A.4.3.3.1-3, A.4.3.3.2-3, A.4.3.3.3-3 and A.4.3.3.3-4                                      | 12.8.      | 12.9.<br>0 |
| 2016-03 | RAN#71 | R5-<br>160606 | 0835 | -              | Add IR.51 IMS Profile for Voice, Video and SMS over Wi-Fi   | 12.8.      | 12.9.<br>0 |
| 2016-03 | RAN#71 | R5-<br>160648 | 0837 | -              | Correction to applicability of EMM test case 9.2.1.1.27   | 12.8.      | 12.9.<br>0 |
| 2016-03 | RAN#71 | R5-<br>160662 | 0838 | -              | Add ePDG FQDN capability  | 12.8.      | 12.9.      |
| 2016-03 | RAN#71 | R5-<br>160760 | 0814 | 1              | Correction to test case 6.2.3.1 in table 4-1  | 12.8.      | 12.9.<br>0 |
| 2016-03 | RAN#71 | R5-<br>160761 | 0816 | 1              | Update of Inter-RAT MFBI test case 6.2.3.35 applicability   | 12.8.      | 12.9.<br>0 |
| 2016-03 | RAN#71 | R5-<br>160762 | 0819 | 1              | Addition of Note.7 in Rel-12 SSAC TCs   | 12.8.<br>0 | 12.9.      |
| 2016-03 | RAN#71 | R5-           | 0823 | 1              | Update applicability of test case 8.2.4.20.2  | 12.8.      | 12.9.      |
| 2016-03 | RAN#71 | 160763<br>R5- | 0826 | 1              | Update of applicability of MAC test case 7.1.8.1  | 12.8.      | 12.9.      |
| 2016-03 | RAN#71 | 160780<br>R5- | 0815 | 1              | Editorial update of EUTRAN PICS Mnemonics   | 12.8.      | 12.9.      |
| 2016-03 | RAN#71 | 160908<br>R5- | 0822 | 1              | Add applicability for test case for Selection of ePDG   | 12.8.      | 12.9.      |
| 2016-03 | RAN#71 | 160941<br>R5- | 0827 | 1              | Applicability for new DC protocol test cases  | 12.8.      | 12.9.      |
| 2016-03 | RAN#71 | 160960<br>R5- | 0812 | 1              | Addition of applicability for new SCE-L1 test cases   | 12.8.      | 12.9.      |
| 2016-03 | RAN#71 | 160970<br>R5- | 0836 | 1              | Update of 36523-2 in regard to ProSe  | 12.8.      | 12.9.      |
| 2016-03 | RAN#71 | 160972<br>R5- | 0833 | -              | Addition of CA Physical Layer Baseline Implementation   | 12.9.      | 13.0.      |
| 2016-06 | RAN#72 | 160532<br>R5- | 0841 | -              | Capabilities for the new CA configuration  Clarify the IR.51 applicability  | 13.0.      | 13.1.      |
| 2016-06 | RAN#72 | 162063<br>R5- | 0846 | -              | Addition of CA Physical Layer Baseline Implementation   | 13.0.      | 13.1.      |
| 2016-06 | RAN#72 | 162108<br>R5- | 0850 | -              | Capabilities for new CA combinations to TS36.523-2 Applicability updates for Dual Connectivity tests 8.2.2.9.5 and  | 13.0.      | 13.1.      |
| 2016-06 | RAN#72 | 162370<br>R5- | 0852 | -              | 8.5.1.8.2 Addition of CA Physical Layer Baseline Implementation   | 13.0.      | 0<br>13.1. |
| 2016-06 | RAN#72 | 162408<br>R5- | 0854 | -              | Capabilities for CA_1A-3A-7A and CA_3A-7A-8A to 36.523-2 Update of Rel-13 CA Physical Layer Baseline Implementation | 13.0.      | 0<br>13.1. |
| 2016-06 | RAN#72 | 162447<br>R5- | 0855 | -              | Applicability of new test cases 7.1.4.26.1 / 8.2.2.9.3 / 8.2.2.9.4  | 13.0.      | 13.1.      |
| 2016-06 | RAN#72 | 162452<br>R5- | 0859 | -              | Update of 36523-2 D2D   | 13.0.      | 13.1.      |
| 2016-06 | RAN#72 | 162622<br>R5- | 0861 | -              | Band 65 introduction to 36.523-2  | 0<br>13.0. | 0<br>13.1. |
| 2016-06 | RAN#72 | 162652<br>R5- | 0864 | -              | Correction to test condition C179   | 13.0.      | 0<br>13.1. |
| 2016-06 | RAN#72 | 162705<br>R5- | 0858 | 1              | New CA band combination CA_8A-40A – Updates of Table  | 0<br>13.0. | 0<br>13.1. |
| 2016-06 | RAN#72 | 162793<br>R5- | 0869 | -              | A.4.3.3.3-3 Added Applicability of new eDRX test cases  | 0<br>13.0. | 0<br>13.1. |
| 2016-06 | RAN#72 | 162901<br>R5- | 0843 | 1              | Editorial correction of EUTRAN PICS Mnemonics   | 0<br>13.0. | 0<br>13.1. |
| 2016-06 | RAN#72 | 162924<br>R5- | 0842 | 1              | Add applicability for test case for Tunnel establishment  | 0<br>13.0. | 0 13.1.    |
| 2016-06 | RAN#72 | 162949<br>R5- | 0868 | 1              | Introduction of ICS and applicability for new e-MTC protocol test   | 13.0.      | 0 13.1.    |
| 2016-06 | RAN#72 | 163000<br>R5- | 0849 | 1              | cases Applicability of new eIMTA test cases   | 0 13.0.    | 0 13.1.    |
| 2016-06 | RAN#72 | 163005<br>R5- | 0853 | 1              | Add applicability for new dual connectivity test cases  | 0 13.0.    | 0 13.1.    |
| 2016-06 | RAN#72 | 163034<br>R5- | 0870 | <u> </u><br> - | Update to Table 1 Note12  | 0 13.0.    | 0          |
|         |        | 163061        | 30.0 |                | Specie to Table 1 Total 2   | 0          | 0          |

|         |        | TSG Doc.                | CR   | R<br>e<br>v | Subject/Comment  | Old             | New             |
|---------|--------|-------------------------|------|-------------|--|-----------------|-----------------|
| 2016-06 | RAN#72 | R5-<br>163063           | 0856 | 1           | Applicability for FDD-TDD CA updates   | 13.0.<br>0      | 13.1.<br>0      |
| 2016-06 | RAN#72 | R5-<br>163065           | 0871 | -           | Addition of test applicability for MFBI enhancement test case 6.1.2.23                                   | 13.0.<br>0      | 13.1.<br>0      |
|         | RAN#72 | R5-<br>163066           | 0872 | -           | Correction of TC applicability for EMM test case 9.2.1.1.30  | 13.0.<br>0      | 13.1.<br>0      |
| 2016-06 | RAN#72 | R5-<br>163090           | 0844 | 1           | Add B66 information in TS 36.523-2   | 13.0.<br>0      | 13.1.<br>0      |
| 2016-06 | RAN#72 | R5-<br>163150           | 0857 | 1           | Addition of applicability for new SC-PTM test cases  | 13.0.<br>0      | 13.1.<br>0      |
| 2016-06 | RAN#72 | R5-<br>163203           | 0873 | -           | Introduction of CA Physical Layer Baseline Implementation for CA_1A-8A-11A                               | 13.0.<br>0      | 13.1.<br>0      |
| 2016-09 | -      | -                       | -    | -           | editorial cleanup of table   | 13.1.<br>0      | 13.2.<br>0      |
| 2016-09 | RAN#73 | R5-<br>165091           | 0876 | -           | Applicability of new protocol test cases for CAT-M1 UE and UE in enhanced coverage                       | 13.1.<br>0      | 13.2.<br>0      |
| 2016-09 | RAN#73 | R5-<br>165144           | 0878 | -           | Corrections to the titles of SC-PTM test cases   | 13.1.<br>0      | 13.2.<br>0      |
| 2016-09 | RAN#73 | R5-<br>165157           | 0879 | -           | Removal of technical content in 36.523-2 v12.9.0 and substitution with pointer to the next Release       | 13.1.<br>0      | 13.2.<br>0      |
| 2016-09 | RAN#73 | R5-<br>165217           | 0880 | -           | New CA band combination CA_1A-40A and CA_3A-40A - Updates of Table A.4.3.3.3-3                           | 13.1.<br>0      | 13.2.<br>0      |
| 2016-09 | RAN#73 | R5-<br>165241           | 0881 | -           | Addition of applicability statement for new D2D test case 7.3.8.3  | 13.1.<br>0      | 13.2.<br>0      |
| 2016-09 | RAN#73 | R5-<br>165355           | 0886 | -           | Correction to applicability of loopback mode test cases for IMS enabled devices                          | 13.1.<br>0      | 13.2.           |
| 2016-09 | RAN#73 | R5-<br>165401           | 0890 | -           | Updates of CA Physical Layer Baseline Implementation Capabilities for CA_1A-3C in Annex A.4.3.3          | 13.1.<br>0      | 13.2.           |
| 2016-09 | RAN#73 | R5-<br>165404           | 0892 | -           | Update of Feature Group Indicators for eMTC  | 13.1.<br>0      | 13.2.<br>0      |
| 2016-09 | RAN#73 | R5-<br>165418           | 0894 | -           | Additional CA Physical Layer Baseline Implementation Capabilities for new CA combinations to TS36.523-2  | 13.1.<br>0      | 13.2.           |
| 2016-09 | RAN#73 | R5-<br>165471           | 0897 | -           | Update of 36523-2 D2D  | 13.1.<br>0      | 13.2.<br>0      |
| 2016-09 | RAN#73 | R5-<br>165506           | 0898 | -           | Introduction of Band 45 into 36.523-2  | 13.1.<br>0      | 13.2.<br>0      |
| 2016-09 | RAN#73 | R5-<br>165759           | 0907 | -           | Removing EMM test case 9.2.1.1.30 from TS 36.523-2   | 13.1.<br>0      | 13.2.           |
| 2016-09 | RAN#73 | R5-<br>165872           | 0911 | -           | Added Applicability of new eDRX MAC test case  | 13.1.<br>0      | 13.2.<br>0      |
| 2016-09 | RAN#73 | R5-<br>165917           | 0885 | 1           | Correction to the applicability of Rel-11 eMBMS_CA test case 17.4.11.2                                   | 13.1.           | 13.2.<br>0      |
| 2016-09 | RAN#73 | R5-<br>165920           | 0913 | -           | Correction to applicability of Rel-11 SIMTC test cases   | 13.1.<br>0      | 13.2.<br>0      |
| 2016-09 | RAN#73 | R5-<br>165924           | 0874 | 1           | Addition of CA Physical Layer Baseline Implementation Capabilities for new CA combinations to TS36.523-2 | 13.1.<br>0      | 13.2.           |
| 2016-09 | RAN#73 | R5-<br>165925           | 0884 | 1           | Introduction of CA physical layer capabilities for CA_8A-42A (2DL) and CA_8A-42C (3DL)                   | 13.1.           | 13.2.           |
| 2016-09 | RAN#73 | R5-<br>165926           | 0887 | 1           | Addition of CA Physical Layer Baseline Implementation Capabilities for CA_1A-3A-28A to 36.523-2.         | 13.1.<br>0      | 13.2.<br>0      |
| 2016-09 | RAN#73 | R5-<br>165927           | 0900 | 1           | Update of Rel-13 CA Physical Layer Baseline Implementation   | 13.1.<br>0      | 13.2.<br>0      |
| 2016-09 | RAN#73 | R5-<br>165931           | 0882 | 1           | Addition of applicability statement for new eDRX test cases 8.1.1.2a and 9.2.4.1.3                       | 13.1.           | 13.2.<br>0      |
| 2016-09 | RAN#73 | R5-                     | 0902 | 1           | Applicability of new eIMTA MAC CA test cases   | 13.1.           | 13.2.           |
| 2016-09 | RAN#73 | 165971<br>R5-<br>165981 | 0903 | 1           | Cleanup of 36.523-2 Table 4-1a for XML conversion  | 13.1.           | 13.2.           |
| 2016-09 | RAN#73 | R5-                     | 0904 | 1           | Cleanup of 36.523-2 Table 4-1 for XML conversion - general   | 13.1.           | 13.2.           |
| 2016-09 | RAN#73 | 165982<br>R5-           | 0905 | 1           | corrections Cleanup of 36.523-2 Table 4-1 for XML conversion - XML specific                              | 13.1.           | 13.2.           |
| 2016-09 | RAN#73 | 165983<br>R5-           | 0889 | 1           | Corrections  Correction to the release version for DC test cases   | 13.1.           | 13.2.           |
| 2016-09 | RAN#73 | 166200<br>R5-           | 0875 | 1           | Addition of applicability for new SC-PTM test cases  | 13.1.           | 13.2.           |
| 2016-09 | RAN#73 | 166218<br>R5-           | 0877 | 1           | Addition of applicability for new SC-PTM test cases  | 13.1.           | 13.2.           |
| 2016-09 | RAN#73 | 166219<br>R5-<br>166220 | 0915 | -           | Addition of test applicability for newly introduced NB-IoT TCs   | 0<br>13.1.<br>0 | 0<br>13.2.<br>0 |

| Date    | TSG#   | TSG Doc.      | CR   | R<br>e<br>v | Subject/Comment   | Old        | New        |
|---------|--------|---------------|------|-------------|---|------------|------------|
| 2016-09 | RAN#73 | R5-<br>166224 | 0916 | -           | Addition of applicabilty statements for LWA test cases  | 13.1.<br>0 | 13.2.<br>0 |
| 2016-09 | RAN#73 | R5-<br>166254 | 0914 | 1           | Addition of new PICs for Rel11 Capabilities and Update of applicability to Testase 8.2.2.8  | 13.1.<br>0 | 13.2.<br>0 |
| 2016-09 | RAN#73 | R5-<br>166256 | 0899 | 1           | Correction to the execution guidelines of MO SMS over SGs test cases for IMS enabled devices  | 13.1.<br>0 | 13.2.<br>0 |
| 2016-09 | RAN#73 | R5-<br>166258 | 0912 | 1           | Correction to applicability of test case 9.2.1.1.2a   | 13.1.<br>0 | 13.2.<br>0 |
| 2016-09 | RAN#73 | R5-<br>166272 | 0906 | 1           | Update of MAC legacy UE Cat o test cases to expand applicability to UE Cat M1   | 13.1.<br>0 | 13.2.<br>0 |
| 2016-09 | RAN#73 | R5-<br>166328 | 0910 | 1           | Modification of test applicability for TC6.1.2.23   | 13.1.<br>0 | 13.2.<br>0 |
| 2016-09 | RAN#73 | R5-<br>166329 | 0917 | 1           | Applicabity update of GERAN test cases for IMS enabled UE   | 13.1.<br>0 | 13.2.<br>0 |
| 2016-12 | RAN#74 | R5-<br>168186 | 0920 | F           | Correction of the applicability of testcase 8.2.4.26 eIMTA / RRC connection reconfiguration / Handover / Success                        | 13.2.<br>0 | 13.3.<br>0 |
| 2016-12 | RAN#74 | R5-<br>168342 | 0921 | F           | Voiding Table 4-1b Note15 and Note16  | 13.2.<br>0 | 13.3.<br>0 |
| 2016-12 | RAN#74 | R5-<br>168378 | 0923 | F           | Maintenance of 36.523-2 Table 4-1 for XML conversion  | 13.2.<br>0 | 13.3.<br>0 |
| 2016-12 | RAN#74 | R5-<br>168386 | 0925 | F           | Adapted applicability for UEPCOP test cases 9.2.1.1.7c, 9.2.3.1.1a and 9.2.3.1.5b.  | 13.2.<br>0 | 13.3.<br>0 |
| 2016-12 | RAN#74 | R5-<br>168437 | 0929 | F           | Voiding Table 4-1b Note12   | 13.2.<br>0 | 13.3.<br>0 |
| 2016-12 | RAN#74 | R5-<br>168458 | 0932 | F           | Updated applicability conditions for eDRX test cases 9.2.4.1.1, 9.2.4.1.2 and 9.2.4.1.3   | 13.2.<br>0 | 13.3.<br>0 |
| 2016-12 | RAN#74 | R5-<br>168609 | 0935 | F           | Applicability of legacy LTE protocol test cases for CAT-M1 UE   | 13.2.      | 13.3.<br>0 |
| 2016-12 | RAN#74 | R5-<br>168641 | 0937 | F           | Correction of 36.523-2 Table 4-1a to update the use of E-UTRA FDD and E-UTRA TDD in the condition statements.                           | 13.2.      | 13.3.<br>0 |
| 2016-12 | RAN#74 | R5-<br>168720 | 0938 | F           | Editorial Correction to pics declaration  | 13.2.      | 13.3.      |
| 2016-12 | RAN#74 | R5-<br>168780 | 0939 | F           | Correction to applicability test condition C266   | 13.2.      | 13.3.<br>0 |
| 2016-12 | RAN#74 | R5-<br>168783 | 0940 | F           | Correction of test applicability expression for test case 17.4.11.2   | 13.2.      | 13.3.<br>0 |
| 2016-12 | RAN#74 | R5-<br>168919 | 0948 | F           | Addition of CA Physical Layer Baseline Implementation for CA_3A-7A-28A, CA_3A-7B, CA_7A-22A, CA_7B, CA_7B-28A, CA_7C-28A and CA_20A-40A | 13.2.<br>0 | 13.3.<br>0 |
| 2016-12 | RAN#74 | R5-<br>168931 | 0950 | F           | Additional new PICS items to handle LAA test cases  | 13.2.<br>0 | 13.3.<br>0 |
| 2016-12 | RAN#74 | R5-<br>168937 | 0952 | F           | Applicability of new protocol Dual Connectivity test cases  | 13.2.<br>0 | 13.3.<br>0 |
| 2016-12 | RAN#74 | R5-<br>169002 | 0953 | F           | Correction to add Band 66 Intra-band CA applicability to 36.523-2   | 13.2.      | 13.3.      |
| 2016-12 | RAN#74 | R5-<br>169079 | 0944 | F           | Add applicability for new WLAN test cases   | 13.2.      | 13.3.<br>0 |
| 2016-12 | RAN#74 | R5-<br>169083 | 0922 | F           | Maintenance of 36.523-2 Table 4-1a for XML conversion   | 13.2.      | 13.3.<br>0 |
| 2016-12 | RAN#74 | R5-<br>169084 | 0924 | F           | Maintenance of 36.523-2 Table 4-1 for XML conversion; removal of merged cells   | 13.2.      | 13.3.      |
| 2016-12 | RAN#74 | R5-<br>169112 | 0931 | F           | Applicability of new eMDT2 testcase: Radio Link Failure logging / Logging and reporting / Dropped QCI                                   | 13.2.      | 13.3.<br>0 |
| 2016-12 | RAN#74 | R5-<br>169114 | 0933 | F           | Applicability of eMTC protocol test cases   | 13.2.      | 13.3.      |
| 2016-12 | RAN#74 | R5-<br>169148 | 0918 | F           | Applicabilities for NB-IoT protocol test cases  | 13.2.      | 13.3.<br>0 |
| 2016-12 | RAN#74 | R5-<br>168397 | 0927 | F           | Band 70 applicability information to 36.523-2   | 13.3.      | 14.0.<br>0 |
| 2016-12 | RAN#74 | R5-<br>168626 | 0936 | F           | CA_20A-28A: Update of CA Physical Layer Baseline Implementation   | 13.3.      | 14.0.      |
| 2016-12 | RAN#74 | R5-<br>168841 | 0943 | F           | CA_70C applicability information to 36.523-2  | 13.3.      | 14.0.      |
| 2016-12 | RAN#74 | R5-<br>169050 | 0954 | F           | CA_3A-20A-32A: Update of CA Physical Layer Baseline Implementation  | 13.3.      | 14.0.<br>0 |
| 2017-03 | RAN#75 | R5-<br>170523 | 0955 | -           | Updates of CA Physical Layer Baseline Implementation Capabilities for R14 CA configurations   | 14.0.      | 14.1.<br>0 |
| 2017-03 | RAN#75 | R5-<br>170804 | 0961 | -           | Editorial correction of boolean expressions in table 4-1a.  | 14.0.      | 14.1.      |
| 2017-03 | RAN#75 | R5-<br>170987 | 0973 | -           | Applicability of V2V SIG test cases   | 14.0.      | 14.1.      |

| Date    | TSG#   | TSG Doc.                | CR   | R<br>e<br>v   | Subject/Comment  | Old             | New             |
|---------|--------|-------------------------|------|---------------|--|-----------------|-----------------|
| 2017-03 | RAN#75 | R5-<br>171351           | 0981 | -             | CA_29A-66A, CA_29A-66A-66A, CA_29A-66C, CA_46A-66A<br>addition to 36.523-2                                       | 14.0.<br>0      | 14.1.<br>0      |
| 2017-03 | RAN#75 | R5-<br>171378           | 0983 | -             | Addition of applicability statement for LWIP test case 8.2.5.6   | 14.0.<br>0      | 14.1.           |
| 2017-03 | RAN#75 | R5-<br>171380           | 0985 | -             | Update applicability of TC 19.1.8  | 14.0.           | 14.1.           |
| 2017-03 | RAN#75 | R5-<br>171421           | 0986 | -             | Update of NB-IoT testcase applicabilities  | 14.0.           | 14.1.           |
| 2017-03 | RAN#75 | R5-<br>171456           | 0960 | 1             | Correction to add pc_LAP into conditions C194, C197 and C261 for test cases 8.1.1.7, 9.2.3.1.8b and 9.2.1.1.27a. | 14.0.           | 14.1.           |
| 2017-03 | RAN#75 | R5-<br>171457           | 0974 | 1             | Correction to Inter-RAT absolute priority based reselection test cases applicability                             | 14.0.           | 14.1.           |
| 2017-03 | RAN#75 | R5-<br>171463           | 0962 | 1             | Introduction of CA_3A-11A to section A4.3  | 14.0.           | 14.1.           |
| 2017-03 | RAN#75 | R5-<br>171464           | 0963 | 1             | Introduction of CA_8A-28A to section A4.3  | 14.0.<br>0      | 14.1.           |
| 2017-03 | RAN#75 | R5-<br>171465           | 0964 | 1             | Introduction of CA_11A-28A to section A4.3   | 14.0.           | 14.1.           |
| 2017-03 | RAN#75 | R5-<br>171466           | 0965 | 1             | Introduction of CA_1A-8A-28A to section A4.3   | 14.0.           | 14.1.           |
| 2017-03 | RAN#75 | R5-<br>171467           | 0966 | 1             | Introduction of CA_3A-8A-28A to section A4.3   | 14.0.           | 14.1.           |
| 2017-03 | RAN#75 | R5-<br>171468           | 0967 | 1             | Introduction of CA_3A-28A-41A to section A4.3  | 14.0.           | 14.1.           |
| 2017-03 | RAN#75 | R5-<br>171472           | 0956 | 1             | Update TS 36.523-2 with Addition of LTE Band 48  | 14.0.           | 14.1.           |
| 2017-03 | RAN#75 | R5-                     | 0957 | 1             | Maintenance of 36.523-2 Table 4-1a for XML conversion  | 14.0.           | 14.1.           |
| 2017-03 | RAN#75 | 171521<br>R5-<br>171569 | 0969 | 1             | Correction to applicability conditions for UL CA   | 0<br>14.0.<br>0 | 14.1.           |
| 2017-03 | RAN#75 | R5-<br>171575           | 0989 | -             | New PICS for Daylight Saving Time  | 14.0.           | 14.1.           |
| 2017-03 | RAN#75 | R5-                     | 0978 | 1             | Addition of new PICS for Rel-12 capability with impact on applicability of TC 6.1.1.7 and 6.1.1.7a               | 14.0.           | 14.1.           |
| 2017-03 | RAN#75 | 171579<br>R5-<br>171584 | 0991 | 1             | Applicability of new LAA Test Cases  | 14.0.           | 0<br>14.1.<br>0 |
| 2017-03 | RAN#75 | R5-<br>171588           | 0982 | 1             | Applicability for new UE Power Class 2 TC  | 14.0.           | 14.1.           |
| 2017-03 | RAN#75 | R5-<br>171591           | 0988 | 1             | Applicability of new eMDT2 testcase  | 14.0.           | 14.1.           |
| 2017-03 | RAN#75 | R5-                     | 0990 | 1             | Correction to applicability of EMM TC 9.3.1.16   | 14.0.           | 14.1.           |
| 2017-03 | RAN#75 | 171954<br>R5-           | 0987 | 2             | Addition of CA configurations for new LAA Band   | 14.0.           | 14.1.           |
| 2017-03 | RAN#75 | 171990<br>R5-           | 0977 | 1             | Applicability of protocol test cases for eMTC  | 14.0.           | 14.1.           |
| 2017-06 | RAN#76 | 171993<br>R5-           | 0992 | -             | Editorial update to the title of test case 19.1.8  | 14.1.           | 14.2.           |
| 2017-06 | RAN#76 | 172051<br>R5-           | 0994 | -             | Removing TDD Applicability - Direct Communication Security   | 14.1.           | 14.2.           |
| 2017-06 | RAN#76 | 172073<br>R5-<br>172155 | 0996 | -             | Aspects Test Cases  Removing TDD Applicability - Direct Communication Test Cases                                 | 14.1.           | 14.2.           |
| 2017-06 | RAN#76 | R5-                     | 0998 | -             | Correction to PC2 PICS item  | 14.1.           | 14.2.           |
| 2017-06 | RAN#76 | 172168<br>R5-           | 1004 | -             | Addition of new CA configurations containing Band 66 to 36.523-2   | 14.1.           | 14.2.           |
| 2017-06 | RAN#76 | 172379<br>R5-<br>172505 | 1008 | -             | Correction to test case 7.1.7.2.3 title  | 14.1.           | 14.2.           |
| 2017-06 | RAN#76 | R5-                     | 1009 | -             | Introduction of CA_1A-11A-28A to Annex A4.3.3  | 14.1.           | 14.2.           |
| 2017-06 | RAN#76 | 172525<br>R5-           | 1010 | -             | Introduction of CA_8A-11A-28A to Annex A4.3.3  | 14.1.           | 14.2.           |
| 2017-06 | RAN#76 | 172529<br>R5-           | 1015 | -             | Addition of new CA configuration CA_3A-69A to 36.523-2   | 0<br>14.1.<br>0 | 14.2.           |
| 2017-06 | RAN#76 | 172698<br>R5-<br>172700 | 1016 | <del> -</del> | Addition of new CA configuration CA_2A-2A-12A to 36.523-2  | 14.1.           | 14.2.           |
| 2017-06 | RAN#76 | R5-                     | 1021 | 1             | Correction to applicability conditions of legacy eICIC test cases for  | 14.1.           | 14.2.           |
| 2017-06 | RAN#76 | 172888<br>R5-           | 1025 | -             | CAT M1 UEs  Applicability of protocol test cases for eMTC  | 14.1.           | 14.2.           |
|         |        | 172894                  |      | 1             |  | 0               | 0               |

| Date    | TSG#   | TSG Doc.      | CR   | R<br>e<br>v   | Subject/Comment   | Old        | New        |
|---------|--------|---------------|------|---------------|---|------------|------------|
| 2017-06 | RAN#76 | R5-<br>172922 | 1020 | 1             | Correction to applicability conditions of EMM test cases 9.2.1.1.18 and 9.2.3.2.1c            | 14.1.<br>0 | 14.2.<br>0 |
| 2017-06 | RAN#76 | R5-<br>172923 | 1017 | 1             | Adding missing UE categories to Annex A.4.3.2   | 14.1.<br>0 | 14.2.<br>0 |
| 2017-06 | RAN#76 | R5-<br>172940 | 1006 | 1             | Updates of CA Physical Layer Baseline Implementation Capabilities for Rel13 CA configurations | 14.1.<br>0 | 14.2.<br>0 |
| 2017-06 | RAN#76 | R5-<br>172942 | 0999 | 1             | New CA band combination CA_3C-8A - Updates of Table A.4.3.3.3-3                               | 14.1.<br>0 | 14.2.<br>0 |
| 2017-06 | RAN#76 | R5-<br>172943 | 1003 | 1             | Addition of CA_2A-66A, CA_5A-66A and CA_13A-66A to TS 36.523-2                                | 14.1.<br>0 | 14.2.<br>0 |
| 2017-06 | RAN#76 | R5-<br>172952 | 1000 | 1             | Maintenance of 36.523-2 for XML conversion  | 14.1.<br>0 | 14.2.<br>0 |
| 2017-06 | RAN#76 | R5-<br>172953 | 1001 | 1             | Corrected use of ( ) in Table 4-1a  | 14.1.<br>0 | 14.2.<br>0 |
| 2017-06 | RAN#76 | R5-<br>172960 | 1014 | 1             | Change title of test cases 8.2.4.25.6 and 8.2.4.25.7  | 14.1.<br>0 | 14.2.<br>0 |
| 2017-06 | RAN#76 | R5-<br>172998 | 1007 | 1             | Update of NB-IoT testcase applicabilities   | 14.1.<br>0 | 14.2.<br>0 |
| 2017-06 | RAN#76 | R5-<br>173014 | 0997 | 1             | Correction to applicability condition C179a   | 14.1.<br>0 | 14.2.<br>0 |
| 2017-06 | RAN#76 | R5-<br>173016 | 1002 | 1             | Applicability of new TC for reselection using Pcompensation                                   | 14.1.<br>0 | 14.2.<br>0 |
| 2017-06 | RAN#76 | R5-<br>173018 | 1005 | 1             | Corrections to PICS naming in TS 36.523-2   | 14.1.<br>0 | 14.2.<br>0 |
| 2017-09 | RAN#77 | R5-<br>173691 | 1031 | -             | Addition of CA_29A-70A, CA_29A-46A-66A, CA_46A-66A-66A, CA_46A-66C, CA_46A-70A to 36.523-2    | 14.2.<br>0 | 14.3.<br>0 |
| 2017-09 | RAN#77 | R5-<br>173700 | 1032 | -             | New CA band combination CA_1A-3C-8A - Updates of Table A.4.3.3.3-4                            | 14.2.<br>0 | 14.3.<br>0 |
| 2017-09 | RAN#77 | R5-<br>173728 | 1033 | -             | Adding applicability for new ProSe Rel-13 TCs 36523-2   | 14.2.<br>0 | 14.3.<br>0 |
| 2017-09 | RAN#77 | R5-<br>173778 | 1036 | -             | Addition of CA_2A-66A to TS 36.523-2  | 14.2.<br>0 | 14.3.<br>0 |
| 2017-09 | RAN#77 | R5-<br>173813 | 1037 | -             | Correction to applicability of legacy MAC test cases for CAT-M1 Ues                           | 14.2.<br>0 | 14.3.<br>0 |
| 2017-09 | RAN#77 | R5-<br>173815 | 1038 | -             | Correction to applicability condition C01a  | 14.2.<br>0 | 14.3.<br>0 |
| 2017-09 | RAN#77 | R5-<br>173970 | 1044 | -             | Introduction of CA_1A-3A-11A to Annex   | 14.2.<br>0 | 14.3.<br>0 |
| 2017-09 | RAN#77 | R5-<br>173979 | 1045 | -             | Introduction of CA configuration CA_2A-7A   | 14.2.<br>0 | 14.3.<br>0 |
| 2017-09 | RAN#77 | R5-<br>173980 | 1046 | -             | Introduction of CA_3A-8A-11A to Annex   | 14.2.<br>0 | 14.3.<br>0 |
| 2017-09 | RAN#77 | R5-<br>173988 | 1047 | -             | Introduction of CA_3A-11A-28A to Annex  | 14.2.<br>0 | 14.3.<br>0 |
| 2017-09 | RAN#77 | R5-<br>174045 | 1048 | -             | Merging "MTSI over WLAN" test cases 20.1 and 20.2   | 14.2.<br>0 | 14.3.      |
| 2017-09 | RAN#77 | R5-<br>174068 | 1050 | -             | Addition of applicability for new V2X Sidelink test case 24.1.14 and 24.1.15                  | 14.2.<br>0 | 14.3.      |
| 2017-09 | RAN#77 | R5-<br>174070 | 1051 | -             | Addition of applicability for new V2V Sidelink test case 24.1.9                               | 14.2.<br>0 | 14.3.      |
| 2017-09 | RAN#77 | R5-<br>174079 | 1052 | -             | Update of NB-IoT testcase applicabilities   | 14.2.<br>0 | 14.3.      |
| 2017-09 | RAN#77 | R5-<br>174145 | 1054 | -             | Addition of new CA configurations to 36.523-2   | 14.2.      | 14.3.      |
| 2017-09 | RAN#77 | R5-<br>174175 | 1055 | -             | Introduction of CA_3A-32A to Table A.4.3.3.3-3  | 14.2.      | 14.3.      |
| 2017-09 | RAN#77 | R5-<br>174214 | 1057 | -             | Add applicability for incmon test cases   | 14.2.      | 14.3.      |
| 2017-09 | RAN#77 | R5-<br>174228 | 1058 | <del> -</del> | Addition of applicability for new V2X Sidelink test case 24.1.6                               | 14.2.<br>0 | 14.3.      |
| 2017-09 | RAN#77 | R5-<br>174254 | 1059 | -             | Addition of applicability statements for new LWA test case 8.5.2.7                            | 14.2.<br>0 | 14.3.<br>0 |
| 2017-09 | RAN#77 | R5-<br>174286 | 1060 | -             | Correction of 'Release other RAT' information for 36.523-2 6.2.3.3a and 6.2.3.4a              | 14.2.<br>0 | 14.3.<br>0 |
| 2017-09 | RAN#77 | R5-<br>174391 | 1064 | ŀ             | Removal of Rel-12 DC test cases 8.2.2.9.4   | 14.2.<br>0 | 14.3.<br>0 |
| 2017-09 | RAN#77 | R5-<br>174423 | 1067 | ŀ             | Corrections to CA Physical Layer Baseline Implementation Capabilities                         | 14.2.<br>0 | 14.3.      |
| 2017-09 | RAN#77 | R5-<br>174439 | 1071 | -             | Correction to applicability of Rel-11 eMDT test case 8.6.5.4                                  | 14.2.<br>0 | 14.3.<br>0 |

| 2017-99   RANNT7   R5-   1072   1   Clarify applicability for SCM test cases for UE category M1   4.2   4.3.   | Date    | TSG#   | TSG Doc. | CR   | R<br>e<br>v | Subject/Comment  | Old        | New        |
|--|---------|--------|----------|------|-------------|--|------------|------------|
| CAT-M1 Ues   | 2017-09 | RAN#77 | _        | 1027 | 1           |  |            | 14.3.<br>0 |
| RANNYT RS  | 2017-09 | RAN#77 | -        | 1072 | -           | CAT-M1 Ues   | 14.2.<br>0 | 0          |
| Case 7.1.3.1.4 and 7.1.3.1.5 Applicability   0   0   0   0   0   0   0   0   0   |         |        | 174517   |      | -           | •  | 0          | 0          |
| 174520   |         |        | _        |      | 1           | Case 7.1.3.11.4 and 7.1.3.11.5 Applicability                       | 0          | 0          |
| 174521   13.5.6   0.0  | 2017-09 | RAN#77 | _        | 1042 | 1           |  | 0          | 0          |
| 174522   1074   174528   1074   174529   1074   14.2   14.3   1074   14.2   14.3   14.3   14.2   14.3   14.3   14.2   14.3   14.3   14.2   14.3   14.3   14.4   14.2   14.3   14.3   14.2   14.3   1 | 2017-09 | RAN#77 |          | 1049 | 1           | 13.5.6   | 14.2.<br>0 | 14.3.<br>0 |
| 174523   1056   1   Add applicability for new eCall over IMS test cases   14.2   14.3   14.2   14.3   174540   1   Addition of V2V applicability PICS for SIG test cases   14.2   14.3   14.2   14.3   174655   174655   1   Applicability of eMTC protocol test cases   14.2   14.3   14.2   14.3   174655   177656   1070   1   Algimment of PICS naming in TS 36.523-2   14.2   14.3   14.4   14.2   14.3   14.2   14.3   14.4   14.2   14.3   14.2   14.3   14.4   14.2   14.3   14.2   14.3   14.4   14.2   14.3   14.4   14.2   14.3   14.4   14.2   14.3   14.4   14.2   14.3   14.2   14.3   14.3   14.4   14.2   14.3   14.4   14.2   14.3   14.4   14.2   14.3   14.3   14.4   14.2   14.3   14.3   14.4   14.2   14.3    | 2017-09 | RAN#77 | -        | 1069 | 1           |  | _          |            |
| 174540   | 2017-09 | RAN#77 | _        | 1074 | -           | Clarification of Applicability of TC 11.2.10                       | 14.2.<br>0 | 14.3.<br>0 |
| 174635   1035   1 Applicability of eMTC protocol test cases   14.2   14.3   0   0   0   0   0   0   0   0   0  | 2017-09 | RAN#77 | _        | 1056 | 1           | Add applicability for new eCall over IMS test cases                | _          |            |
| 174652   | 2017-09 | RAN#77 | -        | 1043 | 1           | Addition of V2V applicability PICS for SIG test cases              |            |            |
| 174653   | 2017-09 | RAN#77 | _        | 1035 | 1           | Applicability of eMTC protocol test cases                          |            | 14.3.<br>0 |
| 174655   | 2017-09 | RAN#77 | -        | 1070 | 1           | Alignment of PICS naming in TS 36.523-2                            |            |            |
| 2017-09  | 2017-09 | RAN#77 | R5-      | 1077 | 1           | 1  |            | 14.3.<br>0 |
| 2017-09   RAN#77   R5-   174665   174665   174665   174665   174665   174665   174665   174665   174665   174665   174667   174 | 2017-09 | RAN#77 | R5-      | 1062 | 1           |  | 14.2.<br>0 | 14.3.<br>0 |
| 2017-09   RAN#77   R5-   1076   1   Applicability of new TBS test cases   14.2.   14.3.   0   0   0   0   0   0   0   0   0  | 2017-09 | RAN#77 | R5-      | 1078 | -           | Addition of applicability for new V2X test cases 24.1.3            |            |            |
| 2017-19   RAN#77   R5-   1080   2   Adding note to test case applicability for LTE test cases with   14.2.   14.3.   14.4.   17.50   | 2017-09 | RAN#77 | R5-      | 1076 | 1           | Applicability of new TBS test cases                                |            | 14.3.      |
| 2017-12   RAN#78   R5-   | 2017-09 | RAN#77 | R5-      | 1080 | 2           |  | _          |            |
| 2017-12   RAN#78   R5-   1084   Removal of applicability of MDT test case 8.6.5.4   14.3.   14.4.   0  | 2017-12 | RAN#78 | R5-      | 1081 | -           | Removing note from test case applicability for LTE test cases with |            | 14.4.      |
| 2017-12   RAN#78   R5-   1084   -  | 2017-12 | RAN#78 | R5-      | 1083 | -           |  |            | 14.4.      |
| 2017-12  | 2017-12 | RAN#78 | R5-      | 1084 | -           | Merge of NB-IoT RLF test cases 22.4.19 and 22.4.22 - Part2         | _          |            |
| 2017-12  | 2017-12 | RAN#78 | R5-      | 1085 | -           | Update to some of the NB-IoT PICS                                  | •          | _          |
| 2017-12  | 2017-12 | RAN#78 | R5-      | 1086 | -           | Correction to applicability of NB-IoT test case 22.4.14            |            |            |
| 2017-12   RAN#78   R5-   1090   -   Addition of applicability for new LTE_VoLTE_ViLTE_enh-   14.3.   14.4.   0   0   0   0   0   0   0   0   0   | 2017-12 | RAN#78 | R5-      | 1089 | -           | Added FDD Band 69 to signalling ICS                                | 14.3.      | 14.4.      |
| 2017-12   RAN#78   R5-   1091   -   Adding applicability for new ProSe Rel-13 TCs   14.3.   14.4.   0   0   0   0   0   0   0   0   0  | 2017-12 | RAN#78 | R5-      | 1090 | -           |  | -          | -          |
| 2017-12   RAN#78   R5-   1092   -   Clarify the capability for S1-U data transfer   14.3.   14.4.   0   0   0   0   0   0   0   0   0  | 2017-12 | RAN#78 | R5-      | 1091 | -           |  | _          | _          |
| 2017-12   RAN#78   R5-   176390   -   New CA band combination CA_1A-3A-40A, CA_1A-8A-40A,   0   0   0   0   0   0   0   0   0  | 2017-12 | RAN#78 | R5-      | 1092 | -           | Clarify the capability for S1-U data transfer                      | 14.3.      | 14.4.      |
| 2017-12   RAN#78   R5-   176436   1096   -   Add implementation capabilitys of 3DL/1UL CA_2A-7A-7A and   14.3.   14.4.   0   0   0   0   0   0   0   0   0   | 2017-12 | RAN#78 | R5-      | 1094 | -           |  | 14.3.      | 14.4.      |
| 2017-12   RAN#78   R5-   | 2017-12 | RAN#78 | R5-      | 1096 | -           | Add implementation capabilitys of 3DL/1UL CA_2A-7A-7A and          |            | 14.4.      |
| 2017-12   RAN#78   R5-   1099   -   Update of applicability for RRC test case 8.1.3.5 (not applicable for 14.3.   14.4.   0   0   0   0   0   0   0   0   0  | 2017-12 | RAN#78 | R5-      | 1098 | -           |  | 14.3.      |            |
| 2017-12   RAN#78   R5-   1100   -   Update of applicability for RRC test case 8.1.3.5a (not applicable   14.3.   14.4.   0   0   0   0   0   0   0   0   0   | 2017-12 | RAN#78 | R5-      | 1099 | -           |  | _          | l _        |
| 2017-12   RAN#78   R5-   1101   -  | 2017-12 | RAN#78 | R5-      | 1100 | -           | Update of applicability for RRC test case 8.1.3.5a (not applicable | 14.3.      | 14.4.      |
| 2017-12   RAN#78   R5-   1105   -  | 2017-12 | RAN#78 | R5-      | 1101 | -           | Correction to applicability for 3 and 4 layer transport block size |            | 14.4.      |
| 2017-12       RAN#78       R5-<br>176675       1109       - Correction to typo in test case 7.1.6.3 and 7.1.6.5       14.3.<br>0       14.4.<br>0         2017-12       RAN#78       R5-<br>1112       - Introduction of applicabilities for new eDECOR test cases       14.3.<br>14.4.  | 2017-12 | RAN#78 | R5-      | 1105 | -           |  | 14.3.      | 14.4.      |
| 2017-12 RAN#78 R5- 1112 - Introduction of applicabilities for new eDECOR test cases 14.3. 14.4.  | 2017-12 | RAN#78 | R5-      | 1109 | -           | Correction to typo in test case 7.1.6.3 and 7.1.6.5                | 14.3.      | _          |
|  | 2017-12 | RAN#78 | R5-      | 1112 | -           | Introduction of applicabilities for new eDECOR test cases          |            |            |

| Date    | TSG#   | TSG Doc.                | CR   | R<br>e<br>v | Subject/Comment  | Old             | New             |
|---------|--------|-------------------------|------|-------------|--|-----------------|-----------------|
| 2017-12 | RAN#78 | R5-<br>176906           | 1107 | 1           | Corrected test condition with wrong ICS matching   | 14.3.<br>0      | 14.4.<br>0      |
| 2017-12 | RAN#78 | R5-<br>176907           | 1110 | 1           | Correction to the duplicate conditions in Table 4-1.   | 14.3.<br>0      | 14.4.<br>0      |
| 2017-12 | RAN#78 | R5-<br>176908           | 1117 | 1           | Correction to applicability of legacy MAC test case 7.1.4.12 for CAT-M1 UEs  | 14.3.<br>0      | 14.4.<br>0      |
| 2017-12 | RAN#78 | R5-<br>176911           | 1102 | 1           | Addition of test applicability of b5C_PUCCH TC7.1.4.29.1 and TC7.1.4.29.2  | 14.3.           | 14.4.           |
| 2017-12 | RAN#78 | R5-<br>176980           | 1108 | 1           | Addition of applicability and tests conditions for V2X test cases  | 14.3.           | 14.4.           |
| 2017-12 | RAN#78 | R5-<br>176986           | 1103 | 1           | Applicability statement for HST sig TCs  | 14.3.<br>0      | 14.4.<br>0      |
| 2017-12 | RAN#78 | R5-<br>177071           | 1082 | 1           | Add applicability for eCall over IMS test cases  | 14.3.           | 14.4.           |
| 2017-12 | RAN#78 | R5-<br>177081           | 1093 | 1           | Add CP CloT capability for RRC connection re-establishment   | 14.3.           | 14.4.           |
| 2017-12 | RAN#78 | R5-<br>177083           | 1097 | 1           | Addition of test applicability of 8.2.2.5.4  | 14.3.           | 14.4.           |
| 2017-12 | RAN#78 | R5-<br>176295           | 1088 | -           | Added FDD Band 71 to signalling ICS  | 14.4.           | 15.0.<br>0      |
| 2018-03 | RAN#79 | R5-<br>180369           | 1122 | -           | New CA band combination CA_1A-3A-8A-40A - Updates of Table A.4.3.3.3-5   | 15.0.<br>0      | 15.1.           |
| 2018-03 | RAN#79 | R5-<br>180456           | 1124 | -           | Addition of applicability and tests conditions for V2X test cases  | 15.0.<br>0      | 15.1.<br>0      |
| 2018-03 | RAN#79 | R5-<br>180553           | 1128 | -           | Correction to applicability of 22.6.x series NB-IoT test cases   | 15.0.           | 15.1.           |
| 2018-03 | RAN#79 | R5-                     | 1134 | -           | Addition of new PICS for CAT1bis UL and DL Category  | 15.0.           | 15.1.           |
| 2018-03 | RAN#79 | 180713<br>R5-<br>180718 | 1135 | -           | Addition of applicability of new Enhanced LAA test cases 7.1.4.30 and 7.1.4.31   | 0<br>15.0.<br>0 | 0<br>15.1.<br>0 |
| 2018-03 | RAN#79 | R5-<br>180752           | 1137 | -           | Addition of new R14 CA configurations to 36.523-2  | 15.0.<br>0      | 15.1.           |
| 2018-03 | RAN#79 | R5-<br>180758           | 1138 | -           | Addition of new R15 CA configurations to 36.523-2  | 15.0.           | 15.1.<br>0      |
| 2018-03 | RAN#79 | R5-<br>180781           | 1139 | -           | Addition of CA_29A-66A-66A-70A, CA_29A-66A-66A-70C, CA_29A-66A-70A, CA_29A-66C-70A, CA_29A-66C-70C, CA_29A-66C-70A, CA_29A-66C-70C, CA_29A-70C, CA_66A-70A, CA_66A-70C, CA_66A-70C, CA_66C-70A, CA_66C-70C to 36.523-2 | 15.0.<br>0      | 15.1.<br>0      |
| 2018-03 | RAN#79 | R5-<br>180920           | 1142 | -           | Added FDD Band 74 to signalling ICS  | 15.0.<br>0      | 15.1.<br>0      |
| 2018-03 | RAN#79 | R5-<br>181069           | 1145 | -           | Correction to applicability of SMS-over-SGs test cases 11.1.5 and 11.1.6 in case of CAT-M1 UEs   | 15.0.<br>0      | 15.1.<br>0      |
| 2018-03 | RAN#79 | R5-<br>181159           | 1149 | 1           | Addition of DL Category 20 to Table A.4.3.2-2  | 15.0.<br>0      | 15.1.<br>0      |
| 2018-03 | RAN#79 | R5-<br>181160           | 1151 | 1           | Removing the applicability of test case 22.4.17  | 15.0.<br>0      | 15.1.<br>0      |
| 2018-03 | RAN#79 | R5-<br>181162           | 1152 | -           | Correction to applicability of CA test cases when executed using LAA band combination  | 15.0.<br>0      | 15.1.<br>0      |
| 2018-03 | RAN#79 | R5-<br>181163           | 1120 | 1           | Addition of FDD Band 72 to signalling ICS  | 15.0.<br>0      | 15.1.<br>0      |
| 2018-03 | RAN#79 | R5-<br>181164           | 1121 | 1           | Addition of FDD Band 68 to signalling ICS  | 15.0.           | 15.1.<br>0      |
| 2018-03 | RAN#79 | R5-<br>181168           | 1153 | -           | Addition of applicability statements for LWA Test Case 8.2.5.4 & LWIP Test Case 8.2.5.5.   | 15.0.<br>0      | 15.1.<br>0      |
| 2018-03 | RAN#79 | R5-<br>181200           | 1136 | 1           | Addition of applicability for eCall over IMS test cases  | 15.0.           | 15.1.<br>0      |
| 2018-03 | RAN#79 | R5-<br>181229           | 1148 | 1           | Introduction of CA_3A-7A-20A-32A 4DL/1UL to Annex A  | 15.0.<br>0      | 15.1.<br>0      |
| 2018-03 | RAN#79 | R5-<br>181230           | 1127 | 1           | Update the wrong TC number in Table 4-1  | 15.0.<br>0      | 15.1.<br>0      |
| 2018-03 | RAN#79 | R5-<br>181274           | 1130 | 1           | Update for ProSe Rel-13 TCs applicability  | 15.0.<br>0      | 15.1.<br>0      |
| 2018-03 | RAN#79 | R5-<br>181280           | 1125 | 1           | Addition of applicability for new Enhancements of NB-IoT Test testcases  | 15.0.<br>0      | 15.1.<br>0      |
| 2018-03 | RAN#79 | R5-<br>181282           | 1144 | 1           | Applicabilities for new feMTC TC   | 15.0.           | 15.1.<br>0      |
| 2018-03 | RAN#79 | R5-<br>181292           | 1154 | -           | Applicability for new Layer 2 Latency Reduction  | 15.0.           | 15.1.<br>0      |
| 2018-03 | RAN#79 | R5-<br>181322           | 1129 | 1           | Addition of applicability for new V2X Sidelink test case 24.1.19   | 15.0.           | 15.1.<br>0      |

| Date    | TSG#   | TSG Doc.      | CR   | R<br>e<br>v | Subject/Comment  | Old        | New        |
|---------|--------|---------------|------|-------------|--|------------|------------|
| 2018-03 | RAN#79 | R5-<br>181326 | 1118 |             | Add applicability for radio link failure test cases  | 15.0.<br>0 | 15.1.<br>0 |
| 2018-06 | RAN#80 | R5-<br>182345 | 1157 | -           | Correction to ICS for Latency Reduction  | 15.1.<br>0 | 15.2.<br>0 |
| 2018-06 | RAN#80 | R5-<br>182514 | 1159 | -           | Correction of Release other RAT information for 6.2.3.5a, 6.2.4.1, 6.2.4.3, 6.2.4.4, 6.2.4.5, 6.2.4.6 and 6.2.4.7  | 15.1.<br>0 | 15.2.<br>0 |
| 2018-06 | RAN#80 | R5-<br>183277 | 1166 | 1           | UL CA capability reporting for different CA band combination types   | 15.1.<br>0 | 15.2.<br>0 |
| 2018-06 | RAN#80 | R5-<br>182646 | 1169 | -           | Change the title of DC testcase 8.2.4.25.1 and 8.2.4.25.2  | 15.1.<br>0 | 15.2.<br>0 |
| 2018-06 | RAN#80 | R5-<br>182659 | 1170 | -           | Addition of test applicability of multiple SRS switching test cases  | 15.1.<br>0 | 15.2.<br>0 |
| 2018-06 | RAN#80 | R5-<br>182759 | 1172 | -           | Addition of new R15 CA configurations to 36.523-2  | 15.1.<br>0 | 15.2.<br>0 |
| 2018-06 | RAN#80 | R5-<br>182822 | 1174 | -           | Update to applicability condition of test case 11.2.3 to include CSG PICS  | 15.1.<br>0 | 15.2.<br>0 |
| 2018-06 | RAN#80 | R5-<br>182841 | 1178 | -           | Removal of Enhanced LAA test case 7.1.4.30 applicability   | 15.1.<br>0 | 15.2.<br>0 |
| 2018-06 | RAN#80 | R5-<br>183027 | 1182 | -           | Addition of CA_66A-66A-70C-71A, CA_66A-66A-70A-71A, CA_66A-70C-71A, CA_66A-70C-71A, CA_66A-70C-71A, CA_66A-71A, CA_70A-71A, CA_66C-71A, CA_66C-70C-71A, CA_66C-70A-71A, CA_70C-71A, CA_66C-71A to 36.523-2 | 15.1.<br>0 | 15.2.<br>0 |
| 2018-06 | RAN#80 | R5-<br>183070 | 1158 | 1           | Addition of DL Category 21 to Table A.4.3.2-2  | 15.1.<br>0 | 15.2.<br>0 |
| 2018-06 | RAN#80 | R5-<br>183071 | 1160 | 1           | Correction of Release other RAT information for 6.2.3.35   | 15.1.<br>0 | 15.2.<br>0 |
| 2018-06 | RAN#80 | R5-<br>183072 | 1161 | 1           | Correction of applicability condition C133, C190, C229 and C230  | 15.1.<br>0 | 15.2.<br>0 |
| 2018-06 | RAN#80 | R5-<br>183073 | 1164 | 1           | Update of UE DL Categories and UL Categories   | 15.1.<br>0 | 15.2.<br>0 |
| 2018-06 | RAN#80 | R5-<br>183074 | 1180 | 1           | Corrections to table "Table 4-1a" and "Table A.4.4-1" Applicability of test case Conditions and additional information from 3GPP TS 36.523-2   | 15.1.<br>0 | 15.2.<br>0 |
| 2018-06 | RAN#80 | R5-<br>183075 | 1183 | -           | Updating execution guidelines for some NAS reject scenarios to remove Note 20  | 15.1.<br>0 | 15.2.<br>0 |
| 2018-06 | RAN#80 | R5-<br>183077 | 1171 | 1           | New CA band combination CA_1A-41A-42A, CA_1A-41C-42A, CA_1A-41A-42C and CA_1A-41C-42C updates in Table A.4.3.3.3-4.  | 15.1.<br>0 | 15.2.<br>0 |
| 2018-06 | RAN#80 | R5-<br>183175 | 1173 | 1           | Test applicability statement for eLAA  | 15.1.<br>0 | 15.2.<br>0 |
| 2018-06 | RAN#80 | R5-<br>183178 | 1162 | 1           | Addition of applicability and tests conditions for LTE_VoLTE_ViLTE_enh test cases  | 15.1.<br>0 | 15.2.<br>0 |
| 2018-06 | RAN#80 | R5-<br>183191 | 1165 | 1           | Addition of applicability and tests conditions for V2X test cases  | 15.1.<br>0 | 15.2.<br>0 |
| 2018-06 | RAN#80 | R5-<br>183192 | 1167 | 1           | Addition of test applicability for new V2X TC24.2.1,TC24.2.2 and TC24.2.3  | 15.1.<br>0 | 15.2.<br>0 |
| 2018-06 | RAN#80 | R5-<br>183200 | 1168 | 1           | Addition of applicability and tests conditions for Enhancements of NB-IoT test cases   | 15.1.<br>0 | 15.2.<br>0 |
| 2018-06 | RAN#80 | R5-<br>183206 | 1176 | 1           | Update to applicability condition of Intra-freq measurement report test cases for CAT-M1 UEs   | 15.1.<br>0 | 15.2.<br>0 |
| 2018-06 | RAN#80 | R5-<br>183248 | 1156 | 1           | New capability for IMS UE behaviour when IMS VoPS is set to 0  | 15.1.<br>0 | 15.2.<br>0 |
| 2018-09 | RAN#81 | R5-<br>184060 | 1185 | -           | Adding SMS over SGs configuration to applicabilities   | 15.2.<br>0 | 15.3.<br>0 |
| 2018-09 | RAN#81 | R5-<br>184146 | 1188 | -           | Addition of Applicability statement for WLAN/3GPP Radio Level Integration and Interworking Enhancement test case: "LWA / T351 Expiry"  | 15.2.<br>0 | 15.3.<br>0 |
| 2018-09 | RAN#81 | R5-<br>184217 | 1189 | -           | Update of applicability and tests conditions for<br>LTE_VoLTE_ViLTE_enh test cases   | 15.2.<br>0 | 15.3.<br>0 |
| 2018-09 | RAN#81 | R5-<br>184266 | 1190 | -           | Correction of test case title of 8.2.2.5a.2  | 15.2.<br>0 | 15.3.<br>0 |
| 2018-09 | RAN#81 | R5-<br>184287 | 1191 | -           | Addition of multiple CA configurations to capability tables in TS 36.523-2   | 15.2.<br>0 | 15.3.<br>0 |
| 2018-09 | RAN#81 | R5-<br>184399 | 1192 | -           | New CA band combination CA_8A-27A - Updates of Table A.4.3.3.3-3   | 15.2.<br>0 | 15.3.<br>0 |
| 2018-09 | RAN#81 | R5-<br>184512 | 1193 | -           | Correction to applicability of TC 7.1.7.1.6a   | 15.2.<br>0 | 15.3.<br>0 |
| 2018-09 | RAN#81 | R5-<br>184513 | 1194 | -           | Correction to applicability of DL 256QAM TCs   | 15.2.<br>0 | 15.3.<br>0 |
| 2018-09 | RAN#81 | R5-<br>184514 | 1195 | -           | Editorial correction of referred table number  | 15.2.<br>0 | 15.3.<br>0 |

| Date    | TSG #  | TSG Doc.      | CR   | R<br>e<br>v | Subject/Comment  | Old        | New        |
|---------|--------|---------------|------|-------------|--|------------|------------|
| 2018-09 | RAN#81 | R5-<br>184536 | 1196 | -           | Correction to testcases 9.2.1.2.1c and 9.2.1.2.1d applicability conditions for CAT-M1 UEs            | 15.2.<br>0 | 15.3.<br>0 |
| 2018-09 | RAN#81 | R5-<br>184633 | 1200 | -           | Addition of new applicability of emergency call via CS domain TC for IMS capable UE                  | 15.2.<br>0 | 15.3.<br>0 |
| 2018-09 | RAN#81 | R5-<br>184637 | 1201 | -           | Addition of test applicability for new V2X TC24.2.4 and Specific ICS for V2X TC24.2.1 and TC24.2.2   | 15.2.<br>0 | 15.3.<br>0 |
| 2018-09 | RAN#81 | R5-<br>184730 | 1202 | -           | Correction to Inter-RAT absolute priority based reselection test cases                               | 15.2.<br>0 | 15.3.<br>0 |
| 2018-09 | RAN#81 | R5-<br>184731 | 1203 | -           | Update to applicability condition of test case 11.2.3 to include CSG PICS                            | 15.2.<br>0 | 15.3.<br>0 |
| 2018-09 | RAN#81 | R5-<br>184780 | 1207 | -           | Update of applicability and tests conditions for NB_IOT enhancement test cases                       | 15.2.<br>0 | 15.3.<br>0 |
| 2018-09 | RAN#81 | R5-<br>184814 | 1208 | -           | Addition of test applicability for new V2X TC 24.1.13  | 15.2.<br>0 | 15.3.<br>0 |
| 2018-09 | RAN#81 | R5-<br>184849 | 1210 | -           | Correction of condition for Measurement configuration and reporting                                  | 15.2.<br>0 | 15.3.<br>0 |
| 2018-09 | RAN#81 | R5-<br>185022 | 1212 | -           | Correction to NB-IoT test case 22.4.20a execution guideline  | 15.2.<br>0 | 15.3.<br>0 |
| 2018-09 | RAN#81 | R5-<br>185024 | 1198 | 1           | Addition of new R15 CA configurations to 36.523-2  | 15.2.<br>0 | 15.3.<br>0 |
| 2018-09 | RAN#81 | R5-<br>185121 | 1213 | -           | Addition of applicability and tests conditions for new Enhancements NB-IoT TC 22.3.2.6               | 15.2.<br>0 | 15.3.<br>0 |
| 2018-09 | RAN#81 | R5-<br>185137 | 1204 | 1           | Update to applicability condition of Intra-frequency measurement reporting test cases for CAT-M1 UEs | 15.2.<br>0 | 15.3.<br>0 |
| 2018-09 | RAN#81 | R5-<br>185138 | 1206 | 1           | Removal of 1xPre-Registation and 1xCSFB test cases applicability                                     | 15.2.<br>0 | 15.3.<br>0 |
| 2018-09 | RAN#81 | R5-<br>185140 | 1187 | 1           | New CA band combination CA_1A-3A-7A-20A - Update of table A.4.3.3.3-5                                | 15.2.<br>0 | 15.3.<br>0 |
| 2018-12 | RAN#82 | R5-<br>186594 | 1228 | -           | Addition of new CA configurations into 36.523-2  | 15.3.<br>0 | 15.4.<br>0 |
| 2018-12 | RAN#82 | R5-<br>186780 | 1229 | -           | Addition of applicability and tests conditions for UDC test cases                                    | 15.3.<br>0 | 15.4.<br>0 |
| 2018-12 | RAN#82 | R5-<br>186999 | 1234 | -           | Correction to applicability for NB-IoT testcase 22.3.2.7   | 15.3.<br>0 | 15.4.<br>0 |
| 2018-12 | RAN#82 | R5-<br>187342 | 1236 | -           | Introduction of CA configurations CA_2A-66C-71A and CA_2C-66A-66A                                    | 15.3.<br>0 | 15.4.<br>0 |
| 2018-12 | RAN#82 | R5-<br>187449 | 1237 | -           | Addition of Rel-13 CA configurations   | 15.3.<br>0 | 15.4.<br>0 |
| 2018-12 | RAN#82 | R5-<br>187542 | 1239 | -           | Correction to test case applicability for CAT-M1 UEs   | 15.3.<br>0 | 15.4.<br>0 |
| 2018-12 | RAN#82 | R5-<br>187555 | 1240 | -           | Removal of eHRPD test cases applicability  | 15.3.<br>0 | 15.4.<br>0 |
| 2018-12 | RAN#82 | R5-<br>187564 | 1242 | -           | Update to applicability condition of measurement reporting test cases for CAT-M1 UEs                 | 15.3.<br>0 | 15.4.<br>0 |
| 2018-12 | RAN#82 | R5-<br>187638 | 1241 | 1           | Update of test case 6.2.1.4 applicability  | 15.3.<br>0 | 15.4.<br>0 |
| 2018-12 | RAN#82 | R5-<br>187645 | 1235 | 1           | Updates to feMTC test case applicabilities   | 15.3.<br>0 | 15.4.<br>0 |
| 2018-12 | RAN#82 | R5-<br>187743 | 1230 | 1           | Addition of applicability statements for LTE QMC test cases  | 15.3.<br>0 | 15.4.<br>0 |
| 2018-12 | RAN#82 | R5-<br>187766 | 1238 | 1           | Update of applicability for QCI 66 in 36.523-2   | 15.3.<br>0 | 15.4.<br>0 |
| 2018-12 | RAN#82 | R5-<br>187774 | 1233 | 1           | Addition of DL and UL Category 22,23,24,25,26 to Table A.4.3.2-2 and A.4.3.2-3                       | 15.3.<br>0 | 15.4.<br>0 |
| 2018-12 | RAN#82 | R5-<br>188108 | 1224 | 1           | Addition CA 2A2A29A and CA 2A2A29A30A 36.523-2   | 15.3.<br>0 | 15.4.<br>0 |
| 2018-12 | RAN#82 | R5-<br>188109 | 1225 | 1           | Addition CA 2A29A66A 36.523-2  | 15.3.<br>0 | 15.4.<br>0 |
| 2018-12 | RAN#82 | R5-<br>188110 | 1226 | 1           | Addition CA 2A30A66A66A 36.523-2   | 15.3.<br>0 | 15.4.<br>0 |
| 2018-12 | RAN#82 | R5-<br>188111 | 1227 | 1           | Addition CA 7A66A and CA 2A7A66A 36.523-2  | 15.3.<br>0 | 15.4.<br>0 |
| 2018-12 | RAN#82 | R5-<br>188112 | 1218 | 1           | Addition CA 2A2A7A and CA 2A2A7A66A 36.523-2   | 15.3.<br>0 | 15.4.<br>0 |
| 2018-12 | RAN#82 | R5-<br>188113 | 1219 | 1           | Addition CA 2A2A14A and CA 2A2A14A30A and CA 2A2A14A66A and CA 2A2A14A30A66A 36.523-2                | 15.3.<br>0 | 15.4.<br>0 |
| 2018-12 | RAN#82 | R5-<br>188114 | 1220 | 1           | Addition CA 2A12A30A66A66A 36.523-2  | 15.3.<br>0 | 15.4.<br>0 |
| 2018-12 | RAN#82 | R5-<br>188115 | 1221 | 1           | Addition CA 2A14A30A66A66A 36.523-2  | 15.3.<br>0 | 15.4.<br>0 |

| Date    | TSG#   | TSG Doc.                | CR   | R<br>e<br>v    | Subject/Comment   | Old        | New             |
|---------|--------|-------------------------|------|----------------|---|------------|-----------------|
| 2018-12 | RAN#82 | R5-<br>188116           | 1222 | 1              | Addition CA 2A14A66A66A and CA 2A2A14A66A66A 36.523-2                                       | 15.3.<br>0 | 15.4.<br>0      |
| 2018-12 | RAN#82 | R5-<br>188117           | 1223 | 1              | Addition CA 2A29A30A66A 36.523-2  | 15.3.<br>0 | 15.4.<br>0      |
| 2018-12 | RAN#82 | R5-<br>188199           | 1243 | 2              | Removal of the test applicability for testcase 7.1.4.36                                     | 15.3.<br>0 | 15.4.<br>0      |
| 2019-03 | RAN#83 | R5-<br>191068           | 1244 | -              | Test case applicability and ICS for uplink capacity enhancement for LTE (UL 256QAM)         | 15.4.<br>0 | 15.5.<br>0      |
| 2019-03 | RAN#83 | R5-<br>191215           | 1246 | -              | Update to applicability condition of ETWS and PWS test cases for CAT-M1 UEs                 | 15.4.<br>0 | 15.5.<br>0      |
| 2019-03 | RAN#83 | R5-<br>192034           | 1251 | -              | Addition of missing UE DL categories to Annex A.4.3.2                                       | 15.4.<br>0 | 15.5.<br>0      |
| 2019-03 | RAN#83 | R5-<br>192075           | 1252 | -              | Update of test condition C155F/C155T, C155aF/C155aT and C155bF/C155bT                       | 15.4.<br>0 | 15.5.<br>0      |
| 2019-03 | RAN#83 | R5-<br>192080           | 1253 | -              | Updates to feMTC test case applicabilities  | 15.4.      | 15.5.           |
| 2019-03 | RAN#83 | R5-<br>192269           | 1247 | 1              | Update to applicability condition of SMS test cases for CAT-M1 UEs                          | 15.4.<br>0 | 15.5.<br>0      |
| 2019-03 | RAN#83 | R5-<br>192337           | 1250 | 1              | Band 53 introduction in TS 36.523-2   | 15.4.<br>0 | 15.5.<br>0      |
| 2019-03 | RAN#83 | R5-<br>192360           | 1245 | 1              | Applicability statements for new test cases for BT WLAN measurement collection in LTE MDT   | 15.4.<br>0 | 15.5.           |
| 2019-03 | RAN#83 | R5-<br>192726           | 1249 | 1              | Update to applicability condition of mobility test cases for CAT-M1 UEs                     | 15.4.      | 15.5.<br>0      |
| 2019-03 | RAN#83 | R5-<br>192727           | 1256 | 1              | Change in applicability of test cases which do not require SIM                              | 15.4.      | 15.5.           |
| 2019-03 | RAN#83 | R5-<br>192729           | 1248 | 1              | Update the description of FGI bits 103 and 104 in 36.523-2                                  | 15.4.<br>0 | 15.5.           |
| 2019-03 | RAN#83 | R5-<br>192733           | 1255 | 1              | Applicability for new feMTC SCPTM test cases  | 15.4.<br>0 | 15.5.<br>0      |
| 2019-03 | RAN#83 | R5-<br>192337           | 1250 | 1              | Band 53 introduction in TS 36.523-2   | 15.5.<br>0 | 16.0.           |
| 2019-06 | RAN#84 | R5-                     | 1259 | -              | Introduction of Baseline Implementation Capability for LTE Band 85                          | 16.0.<br>0 | 16.1.           |
| 2019-06 | RAN#84 | 193737<br>R5-<br>193954 | 1263 | -              | Remove CA_3A-8A-27A from Inter-band CA Physical Layer Baseline Implementation Capabilities. | 16.0.      | 0<br>16.1.<br>0 |
| 2019-06 | RAN#84 | R5-<br>194242           | 1268 | -              | Correction to applicability of test case 9.2.1.1.28   | 16.0.      | 16.1.           |
| 2019-06 | RAN#84 | R5-                     | 1270 | -              | Applicability for new feMTC test case   | 16.0.      | 16.1.           |
| 2019-06 | RAN#84 | 194277<br>R5-           | 1271 | -              | Updates to Feature Group Indicators for feMTC   | 16.0.      | 16.1.           |
| 2019-06 | RAN#84 | 194278<br>R5-           | 1260 | 1              | Applicability update of condition C366  | 16.0.      | 16.1.           |
| 2019-06 | RAN#84 | 194766<br>R5-           | 1277 | 1              | CA Physical Layer Baseline Implementation Capabilities                                      | 16.0.      | 16.1.           |
| 2019-06 | RAN#84 | 194767<br>R5-           | 1279 | 1              | Introduction of CA_7C_28A to Annex A.4.3.3.3  | 16.0.      | 16.1.           |
| 2019-06 | RAN#84 | 194768<br>R5-           | 1262 | 1              | Addition of ICS for UE support of ce-PUSCH-NB-MaxTBS-r14                                    | 16.0.      | 16.1.           |
| 2019-06 | RAN#84 | 194769<br>R5-           | 1257 | 1              | Applicability of new Event H1 and H2 measurement and reporting                              | 16.0.      | 16.1.           |
| 2019-06 | RAN#84 | 194779<br>R5-           | 1261 | 1              | test cases for Aerial UE Addition of new Aerial vehicle test cases applicability            | 16.0.      | 0<br>16.1.      |
| 2019-06 | RAN#84 | 194780<br>R5-           | 1274 | 1              | Addition of new test case applicability for Aerial Vehicles                                 | 16.0.      | 16.1.           |
| 2019-06 | RAN#84 | 194781<br>R5-           | 1278 | 1              | Addition of idle mode measurement test case applicabilities                                 | 16.0.      | 0<br>16.1.      |
| 2019-06 | RAN#84 | 195207<br>R5-           | 1275 | 1              | Update to applicability condition of mobility test cases for CAT-M1                         | 16.0.      | 0<br>16.1.      |
| 2019-06 | RAN#84 | 195315<br>R5-           | 1276 | 1              | UEs Additional of Note for SIG category NB declaration                                      | 16.0.      | 16.1.           |
| 2019-06 | RAN#84 | 195317<br>R5-           | 1269 | 1              | Addition and updates to PICs for feMTC  | 16.0.      | 16.1.           |
| 2019-06 | RAN#84 | 195319<br>R5-           | 1281 | 1              | Addition of new feMTC test cases for transport block selection                              | 0<br>16.0. | 0<br>16.1.      |
| 2019-09 | RAN#85 | 195320<br>R5-           | 1283 | <u> </u><br> - | Update of applicability condition C139 and C231 for SRVCC HO                                | 0<br>16.1. | 0<br>16.2.      |
| 2019-09 | RAN#85 | 196009<br>R5-           | 1287 | <br> -         | support Addition of Rel-13 capabilities of multiple CA in 36.523-2                          | 0<br>16.1. | 0<br>16.2.      |
|         |        | 196569                  |      | 1              |   | 0          | 0               |

| Date    | TSG#   | TSG Doc.      | CR   | R<br>e<br>v | Subject/Comment   | Old        | New        |
|---------|--------|---------------|------|-------------|---|------------|------------|
| 2019-09 | RAN#85 | R5-<br>196570 | 1288 | -           | Addition of Re-15 capabilities of multiple CA in 36.523-2   | 16.1.<br>0 | 16.2.      |
| 2019-09 | RAN#85 | R5-<br>196833 | 1292 | -           | Addition of Band 73 to signalling ICS   | 16.1.<br>0 | 16.2.      |
| 2019-09 | RAN#85 | R5-<br>196976 | 1282 | 1           | Introduction of CA_11A_41A, CA_11A_41C, CA_11A_42A, CA_11A_42C, CA_3A_41A_42C, CA_3A_41C_42A and                        | 16.1.<br>0 | 16.2.<br>0 |
| 2019-09 | RAN#85 | R5-<br>197180 | 1284 | 1           | CA_3A_41C_42C to Annex A.4.3.3.3  Addition of new Aerial vehicle test cases applicability                               | 16.1.<br>0 | 16.2.<br>0 |
| 2019-09 | RAN#85 | R5-<br>197183 | 1289 | 1           | Addition of dormant mode SCell test case applicability  | 16.1.<br>0 | 16.2.<br>0 |
| 2019-09 | RAN#85 | R5-<br>197237 | 1292 | -           | Add and use reference to NG.108   | 16.1.<br>0 | 16.2.<br>0 |
| 2019-09 | RAN#85 | R5-<br>197238 | 1286 | 1           | Removal of test applicability of NB-IoT test case 22.5.19   | 16.1.<br>0 | 16.2.<br>0 |
| 2019-12 | RAN#86 | R5-<br>197965 | 1295 | 1           | Applicability statements for new test cases for BT WLAN measurement collection in LTE MDT                               | 16.2.<br>0 | 16.3.<br>0 |
| 2019-12 | RAN#86 | R5-<br>198228 | 1297 |             | Correction to LTE test case 6.1.2.21  | 16.2.<br>0 | 16.3.<br>0 |
| 2019-12 | RAN#86 | R5-<br>198230 | 1298 |             | Correction to NBIOT testcase 22.2.2   | 16.2.<br>0 | 16.3.<br>0 |
| 2019-12 | RAN#86 | R5-<br>198844 | 1296 | 1           | Correction of release column in CA configuration tables   | 16.2.<br>0 | 16.3.<br>0 |
| 2019-12 | RAN#86 | R5-<br>199007 | 1294 | 1           | Addition of test applicabilites for B5C test cases  | 16.2.<br>0 | 16.3.<br>0 |
| 2019-12 | RAN#86 | R5-<br>199073 | 1299 | 2           | Update to euCA applicabilities  | 16.2.      | 16.3.<br>0 |
| 2019-12 | RAN#86 | R5-<br>197965 | 1295 | 1           | Applicability statements for new test cases for BT WLAN measurement collection in LTE MDT                               | 16.2.<br>0 | 16.3.<br>0 |
| 2020-03 | RAN#87 | R5-<br>200753 | 1302 |             | Addition of a new test applicability for new P-CSCF discovery test case   | 16.3.<br>0 | 16.4.<br>0 |
| 2020-06 | RAN#88 | R5-<br>202559 | 1303 | 1           | Addition of CA_48C and CA_48D to 36.523-2 proforma Table A.4.3.3.1-3  | 16.4.<br>0 | 16.5.<br>0 |
| 2020-06 | RAN#88 | R5-<br>202560 | 1305 | 1           | Addition of Rel-14 capabilities of multiple CA in 36.523-2  | 16.4.<br>0 | 16.5.<br>0 |
| 2020-06 | RAN#88 | R5-<br>202697 | 1306 | 1           | Addition of Rel-15 capabilities of multiple CA in 36.523-2  | 16.4.<br>0 | 16.5.<br>0 |
| 2020-06 | RAN#88 | R5-<br>203055 | 1310 | 1           | Addition of test applicability for short TTI test cases   | 16.4.<br>0 | 16.5.<br>0 |
| 2020-06 | RAN#88 | R5-<br>203059 | 1307 | 1           | Addition of applicability for eMTC4   | 16.4.<br>0 | 16.5.<br>0 |
| 2020-06 | RAN#88 | R5-<br>203068 | 1304 | 1           | Addition of TS36.523-2 CA Band 5A-29A and 2A-5A-29A   | 16.4.<br>0 | 16.5.<br>0 |
| 2020-06 | RAN#88 | R5-<br>203069 | 1308 | 1           | Updates to legacy TC applicability for feck   | 16.4.<br>0 | 16.5.<br>0 |
| 2020-06 | RAN#88 | R5-<br>203070 | 1309 | 1           | Addition of new PICs for UP-CIOT capability in NB-IoT with impact on applicability of TCs 22.3.3.5, 22.4.15 and 22.4.16 | 16.4.<br>0 | 16.5.<br>0 |
| 2020-06 | RAN#88 | R5-<br>203071 | 1311 | 1           | Addition of new RRC TC for checking extended / spare field handling in SI   | 16.4.<br>0 | 16.5.<br>0 |
| 2020-06 | RAN#88 | R5-<br>203072 | 1312 | 1           | Addition of new NB-IoT RRC TC for checking extended / spare field handling in SI  | 16.4.<br>0 | 16.5.<br>0 |
| 2020-09 | RAN#89 | R5-<br>203583 | 1315 | -           | Updates to TC execution guidance  | 16.5.<br>0 | 16.6.<br>0 |
| 2020-09 | RAN#89 | R5-<br>203861 | 1316 | -           | Update of capability for 6.1.2.5a cell re-selection for HPUE  | 16.5.<br>0 | 16.6.<br>0 |
| 2020-09 | RAN#89 | R5-<br>203898 | 1317 | -           | Test applicability for new NAS TC 9.2.1.1.31  | 16.5.<br>0 | 16.6.<br>0 |
| 2020-09 | RAN#89 | R5-<br>204006 | 1319 | -           | Update of test applicabilities for NB_IOTenh2   | 16.5.<br>0 | 16.6.<br>0 |
| 2020-09 | RAN#89 | R5-<br>204495 | 1318 | 1           | Correction to test applicability for sTTI test cases  | 16.5.<br>0 | 16.6.<br>0 |
| 2020-09 | RAN#89 | R5-<br>204504 | 1313 | 1           | Addition of Applicability for new test cases to test Paging with WUS in enhanced coverage in Idle mode                  | 16.5.<br>0 | 16.6.<br>0 |
| 2020-09 | RAN#89 | R5-<br>204505 | 1314 | 1           | Addition of applicability for new test case to test CE-level based access barring                                       | 16.5.<br>0 | 16.6.<br>0 |
| 2020-09 | RAN#89 | R5-<br>204506 | 1320 | 1           | Addition of applicability for eMTC4 TC 23.2.4   | 16.5.<br>0 | 16.6.<br>0 |
| 2020-09 | RAN#89 | R5-<br>204529 | 1321 | 1           | Updates to legacy TC applicability for feMTC  | 16.5.<br>0 | 16.6.<br>0 |
| 2020-12 | RAN#90 | R5-<br>205088 | 1322 |             | Introduction of Baseline Implementation Capability for LTE Bands 87 and 88  | 16.6.<br>0 | 16.7.<br>0 |

| Date    | TSG #  | TSG Doc.      | CR   | R      | Subject/Comment   | Old        | New        |
|---------|--------|---------------|------|--------|---|------------|------------|
|         |        |               |      | e<br>v |   |            |            |
| 2020-12 | RAN#90 | R5-<br>205102 | 1324 |        | Update applicability of NB-IoT RRC 22.4.26 to Rel-15  | 16.6.<br>0 | 16.7.<br>0 |
| 2020-12 | RAN#90 | R5-<br>205108 | 1325 |        | Addition of D-A, C-D, and D-C combos to Table A.4.3.3.3-1 and 41-48 combos to Table A.4.3.3.3-3 | 16.6.<br>0 | 16.7.<br>0 |
| 2020-12 | RAN#90 | R5-<br>206391 | 1326 | 1      | Addition of applicabilities for NB-IoTenh2 test cases   | 16.6.<br>0 | 16.7.<br>0 |
| 2020-12 | RAN#90 | R5-<br>206393 | 1329 | 1      | Addition of applicability for eMTC4 test case   | 16.6.<br>0 | 16.7.<br>0 |
| 2020-12 | RAN#90 | R5-<br>206402 | 1330 | 1      | Applicability for ethernet header compression and decompression for eutran                      | 16.6.<br>0 | 16.7.<br>0 |
| 2020-12 | RAN#90 | R5-<br>206439 | 1323 | 1      | Update applicability of RRC 8.1.2.15 to Rel-15  | 16.6.<br>0 | 16.7.<br>0 |
| 2020-12 | RAN#90 | R5-<br>206440 | 1328 | 1      | Correction to applicability of NB-IoT test case 22.3.3.5  | 16.6.<br>0 | 16.7.<br>0 |
| 2021-03 | RAN#91 | R5-<br>210050 | 1332 | _      | Update of LTE_MDT_BT_WLAN test cases for PICS definition  | 16.7.<br>0 | 16.8.<br>0 |
| 2021-03 | RAN#91 | R5-<br>211351 | 1333 | 1      | Aligning content of 36.523-2 with 36.523-1  | 16.7.<br>0 | 16.8.<br>0 |
| 2021-03 | RAN#91 | R5-<br>211352 | 1335 | 1      | Adding applicability for TC 13.1.22 MCPTT / Attach / Call setup CO                              | 16.7.<br>0 | 16.8.<br>0 |
| 2021-03 | RAN#91 | R5-<br>211448 | 1334 | 1      | Adding missing applicability for TC 8.2.2.14.1  | 16.7.<br>0 | 16.8.<br>0 |
| 2021-03 | RAN#91 | R5-<br>211451 | 1337 | 1      | Completion C384 and C385 of Table 4-1a  | 16.7.<br>0 | 16.8.<br>0 |
| 2021-03 | RAN#91 | R5-<br>211453 | 1338 | 1      | Adding applicability for E-UTRAN TC 8.2.4.30.1 DAPS handover                                    | 16.7.<br>0 | 16.8.<br>0 |
| 2021-03 | RAN#91 | R5-<br>211515 | 1336 | 1      | Addition of LTE TC applicability  | 16.7.<br>0 | 16.8.<br>0 |

## History

| Document history |               |             |
|------------------|---------------|-------------|
| V16.5.0          | July 2020     | Publication |
| V16.6.0          | November 2020 | Publication |
| V16.7.0          | January 2021  | Publication |
| V16.8.0          | May 2021      | Publication |
|                  |               |             |