

# ETSI TS 134 121-2 V13.0.0 (2017-04)



**Universal Mobile Telecommunications System (UMTS);  
User Equipment (UE) conformance specification;  
Radio transmission and reception (FDD);  
Part 2: Implementation Conformance Statement (ICS)  
(3GPP TS 34.121-2 version 13.0.0 Release 13)**



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Reference

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Keywords

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# Contents

Intellectual Property Rights .....	2
Foreword.....	2
Modal verbs terminology.....	2
Foreword.....	4
Introduction .....	4
1 Scope .....	5
2 References .....	5
3 Definitions and abbreviations.....	6
3.1 Definitions .....	6
3.2 Abbreviations .....	7
4 Recommended test case applicability.....	7
<b>Annex A (normative): ICS proforma for 3<sup>rd</sup> Generation User Equipment .....</b>	<b>60</b>
A.1 Guidance for completing the ICS proforma .....	60
A.1.1 Purposes and structure.....	60
A.1.2 Abbreviations and conventions .....	60
A.1.3 Instructions for completing the ICS proforma.....	61
A.2 Identification of the User Equipment .....	61
A.2.1 Date of the statement.....	61
A.2.2 User Equipment Under Test (UEUT) identification.....	61
A.2.3 Product supplier.....	62
A.2.4 Client.....	62
A.2.5 ICS contact person.....	63
A.3 Identification of the protocol.....	63
A.4 ICS proforma tables.....	63
A.4.1 UE Implementation Types.....	63
A.4.2 UE Service Capabilities.....	64
A.4.3 Baseline Implementation Capabilities .....	64
A.4.4 Additional information .....	71
A.4.5 Feature group indicators .....	75
<b>Annex B (informative): Labelling of Inter-RAT RRM test cases .....</b>	<b>76</b>
B.1 FDD/GSM band combinations for inter-RAT RRM tests.....	76
<b>Annex C (informative): Change history .....</b>	<b>77</b>
History .....	82

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# Foreword

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- 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.

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# Introduction

The present document is part 2 of a multi-parts TS:

3GPP TS 34.121-1 [20]: User Equipment (UE) conformance specification; Radio transmission and reception (FDD); Part 1: Conformance specification.

**3GPP TS 34.121-2: User Equipment (UE) conformance specification; Radio transmission and reception (FDD); Part 2: Implementation Conformance Statement (ICS).**

NOTE: TS 34.121 has been converted to multipart TS with version 7.0.0. Previous versions are a single part standard 34.121.

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# 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 requirements, and in accordance with the relevant guidance given in ISO/IEC 9646-7 [2] and ETS 300 406 [3].

The present document also specifies a recommended applicability statement for the test cases included in TS 34.121-1. These applicability statements are based on the features implemented in the UE.

Special conformance testing functions can be found in 3GPP TS 34.109 [19] and the common test environments are included in 3GPP TS 34.108 [18] and 3GPP TS 36.508 [29].

The present document is valid for UE implemented according to 3GPP releases starting from Release 99 up to the Release indicated on the cover page of the present document.

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# 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 unless the context in which the reference is made suggests a different Release is relevant (information on the applicable release in a particular context can be found in e.g. test case title, description or applicability, message description or content).
  - For a Release 1999 UE, references to 3GPP documents are to version 3.x.y, when available.
  - For a Release 4 UE, references to 3GPP documents are to version 4.x.y, when available.
  - For a Release 5 UE, references to 3GPP documents are to version 5.x.y, when available.
  - For a Release 6 UE, references to 3GPP documents are to version 6.x.y, when available.
  - For a Release 7 UE, references to 3GPP documents are to version 7.x.y, when available.
  - For a Release 8 UE, references to 3GPP documents are to version 8.x.y, when available.
  - For a Release 9 UE, references to 3GPP documents are to version 9.x.y, when available.

- [1] ISO/IEC 9646-1: "Information technology - Open systems interconnection - Conformance testing methodology and framework - Part 1: General concepts".
- [2] ISO/IEC 9646-7: "Information technology - Open systems interconnection - Conformance testing methodology and framework - Part 7: Implementation Conformance Statements".
- [3] ETSI ETS 300 406 (1995): "Methods for testing and Specification (MTS); Protocol and profile conformance testing specifications; Standardization methodology".
- [4] 3GPP TR 21.904: "UE capability requirements".
- [5] 3GPP TS 22.002: "Circuit Bearer Services (BS) supported by Public Land Mobile Network (PLMN)".
- [6] 3GPP TS 22.060: "General Packet Radio Service (GPRS); Service description, Stage 1".

- [7] 3GPP TS 22.105: "Services and Service Capabilities".
- [8] 3GPP TS 24.008: "Mobile radio interface Layer 3 specification; Core Network Protocols - Stage 3".
- [9] 3GPP TS 25.101: "UE radio Transmission and Reception (FDD)".
- [10] 3GPP TS 25.102: "UTRA (UE) TDD; Radio Transmission and Reception".
- [11] 3GPP TS 25.201: "Physical layer - General Description".
- [12] 3GPP TS 25.306: "UE Radio Access Capabilities".
- [13] 3GPP TS 25.321: "Medium Access Control (MAC) protocol specification".
- [14] 3GPP TS 25.322: "Radio Link Control (RLC) protocol specification".
- [15] 3GPP TS 25.323: "Packet Data Convergence Protocol (PDCP) specification".
- [16] 3GPP TS 25.324: "Broadcast/Multicast Control BMC".
- [17] 3GPP TS 25.331: "Radio Resource Control (RRC) protocol specification".
- [18] 3GPP TS 34.108: "Common Test Environments for User Equipment (UE) Conformance Testing".
- [19] 3GPP TS 34.109: "Terminal logical test interface; Special conformance testing functions".
- [20] 3GPP TS 34.121-1: "User Equipment (UE) Conformance Specification, Radio transmission and reception (FDD); Part 1: Conformance specification".
- [21] 3GPP TS 34.122: "Terminal Conformance Specification, Radio Transmission and Reception (TDD)".
- [22] 3GPP TS 34.123-1: "User Equipment (UE) conformance specification; Part 1: Protocol conformance specification".
- [23] 3GPP TS 34.123-2: " User Equipment (UE) conformance specification; Part 2: Implementation Conformance Statement (ICS) proforma specification".
- [24] 3GPP TS 34.123-3: "User Equipment (UE) conformance specification; Part 3: Abstract Test Suites".
- [25] 3GPP TS 34.124: "Electromagnetic Compatibility (EMC) for Mobile terminals and ancillary equipment".
- [26] 3GPP TS 51.010-1: "Mobile Station (MS) conformance specification; Part 1: Conformance specification".
- [27] 3GPP TS 51.010-2: "Mobile Station (MS) conformance specification; Part 2: Protocol Implementation Conformance Statement (PICS) proforma specification".
- [28] 3GPP TS 36.101: "E-UTRA UE radio transmission and reception".
- [29] 3GPP TS 36.508: "Common test environments for User Equipment (UE)".

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## 3 Definitions and abbreviations

### 3.1 Definitions

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

- terms defined in the relevant 3GPP core specifications (see normative references);
- terms defined in ISO/IEC 9646-1 [1] and in ISO/IEC 9646-7 [2].

In particular, the following terms defined in ISO/IEC 9646-1 [1] apply:

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

The ICS can take several forms: protocol ICS, profile ICS, profile specific ICS, information object ICS, etc.

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

## 3.2 Abbreviations

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

ICS	Implementation Conformance Statement
SCS	System Conformance Statement
UEUT	User Equipment Under Test

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## 4 Recommended test case applicability

The applicability of each individual test is identified in the table 1. This applicability can in some circumstances be changed to not recommended when so specified in table 2. 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.

The columns in tables 1 and 2 have the following meaning:

### Clause

The clause column indicates the clause number in TS 34.121-1 [20] that contains the test body.

### Title

The title column describes the name of the test.

### Release

The release column indicates the earliest release from which each test case is applicable, except if otherwise stated of an individual test case.

### Applicability

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.

### Comments

This column contains a verbal description of the condition included in the applicability column.



**Table 1: Applicability of tests**

Clause	Title	Release	Applicability	Release Applicability	Comments
<b>RF Test cases</b>					
5.2	Maximum Output Power	R99	R	RA99	UEs supporting FDD
5.2A	Maximum Output Power with HS-DPCCH	Rel-5 only	C_RF02	RF_RO_04	UEs supporting FDD and HS-PDSCH
5.2AA	Maximum Output Power with HS-DPCCH (Release 6 and later)	Rel-6	C_RF24	RA6	UEs supporting FDD and HS-PDSCH and not E-DPDCH
5.2AB	UE Maximum output power for UL OLTD	Rel-11	C_RF123	RA11	UEs supporting FDD and UL OLTD and HS-PDSCH and not E-DPDCH
5.2AC	Maximum Output Power for UL CLTD activation state 1	Rel-11	C_RF129	RA11	UEs supporting FDD and UL CLTD and HS-PDSCH and not E-DPDCH
5.2AD	Maximum Output Power for UL CLTD activation state 2 and 3	Rel-11	C_RF129	RA11	UEs supporting FDD and UL CLTD and HS-PDSCH and not E-DPDCH
5.2B	Maximum Output Power with HS-DPCCH and E-DCH	Rel-6	C_RF23	RA6	UEs supporting FDD and HS-PDSCH and E-DPDCH
5.2BA	UE Maximum Output Power for DC-HSUPA (QPSK)	Rel-9	C_RF86	RA9	UEs supporting FDD and HS-PDSCH and Dual Cell E-DCH (E-DCH Category 8 or 9)
5.2BB	UE Maximum Output Power for DC-HSUPA (16QAM)	Rel-9	C_RF111	RA9	UEs supporting FDD and HS-PDSCH and Dual Cell E-DCH (E-DCH Category 9)
5.2BC	UE maximum output power with HS-DPCCH and E-DCH for OLTD	Rel-11	C_RF124	RA11	UEs supporting FDD and UL OLTD and HS-PDSCH and E-DPDCH
5.2BD	Maximum Output Power with HS-DPCCH and E-DCH for UL CLTD activation state 1	Rel-11	C_RF130	RA11	UEs supporting FDD and UL CLTD and HS-PDSCH and E-DPDCH
5.2BE	Maximum Output Power with HS-DPCCH and E-DCH for UL CLTD activation state 2 and 3.	Rel-11	C_RF130	RA11	UEs supporting FDD and UL CLTD and HS-PDSCH and E-DPDCH
5.2C	UE relative code domain power accuracy	Rel-6	C_RF24	RA6	UEs supporting FDD and HS-PDSCH and not E-DPDCH
5.2CA	UE Relative code domain power accuracy for OLTD	Rel-11	C_RF123	RA11	UEs supporting FDD and UL OLTD and HS-PDSCH and not E-DPDCH
5.2CB	UE relative code domain power accuracy for UL CLTD activation state 1	Rel-11	C_RF129	RA11	UEs supporting FDD and UL CLTD and HS-PDSCH and not E-DPDCH
5.2CC	UE relative code domain power accuracy for UL CLTD activation state 2 and 3	Rel-11	C_RF129	RA11	UEs supporting FDD and UL CLTD and HS-PDSCH and not E-DPDCH
5.2D	UE relative code domain power accuracy for HS-DPCCH and E-DCH	Rel-6	C_RF23	RA6	UEs supporting FDD and HS-PDSCH and E-DPDCH
5.2DA	UE Relative Code Domain Power Accuracy for DC-HSUPA with QPSK	Rel-9	C_RF86	RA9	UEs supporting FDD and HS-PDSCH and Dual Cell E-DCH (E-DCH Category 8 or 9)

Clause	Title	Release	Applicability	Release Applicability	Comments
5.2DB	UE Relative code domain power accuracy for HS-DPCCH and E-DCH for OLTD	Rel-11	C_RF124	RA11	UEs supporting FDD and UL OLTD and HS-PDSCH and E-DPDCH
5.2DC	UE Relative Code Domain Power Accuracy for HS-DPCCH and E-DCH for UL CLTD activation state 1	Rel-11	C_RF130	RA11	UEs supporting FDD and UL CLTD and HS-PDSCH and E-DPDCH
5.2DD	UE Relative Code Domain Power Accuracy for HS-DPCCH and E-DCH for UL CLTD activation state 2 and 3	Rel-11	C_RF130	RA11	UEs supporting FDD and UL CLTD and HS-PDSCH and E-DPDCH
5.2E	UE Relative Code Domain Power Accuracy for HS-DPCCH and E-DCH with 16QAM	Rel-7	C_RF43	RA7	UEs supporting FDD and HS-PDSCH, E-DPDCH and supporting 16QAM (E-DCH Category 7)
5.2EA	UE relative code domain power accuracy for DC-HSUPA using HS-DPCCH and E-DCH with 16QAM	Rel-9	C_RF111	RA9	UEs supporting FDD and HS-PDSCH and Dual Cell E-DCH (E-DCH Category 9)
5.2EB	UE Relative code domain power accuracy for HS-DPCCH and E-DCH with 16-QAM for OLTD	Rel-11	C_RF126	R11	UEs supporting FDD and UL OLTD and HS-PDSCH, E-DPDCH and supporting 16QAM (E-DCH Category 7)
5.2EC	UE Relative Code Domain Power Accuracy for HS-DPCCH and E-DCH with 16QAM for UL CLTD activation state 1	Rel-11	C_RF127	RA11	UEs supporting FDD and UL CLTD and HS-PDSCH and E-DPDCH and 16QAM
5.2ED	UE Relative Code Domain Power Accuracy for HS-DPCCH and E-DCH with 16QAM for UL CLTD activation state 2 and 3	Rel-11	C_RF127	RA11	UEs supporting FDD and UL CLTD and HS-PDSCH and E-DPDCH and 16QAM
5.3	Frequency Error	R99	R	RA99	UEs supporting FDD
5.3A	Frequency Error for DC-HSUPA	Rel-9	C_RF86	RA9	UEs supporting FDD and HS-PDSCH and Dual Cell E-DCH (E-DCH Category 8 or 9)
5.3B	Frequency error for UL OLTD	Rel-11	C_RF123	RA11	UEs supporting FDD and UL OLTD and HS-PDSCH and not E-DPDCH
5.3C	Frequency error for UL CLTD Activation state 1	Rel-11	C_RF129	RA11	UEs supporting FDD and UL CLTD and HS-PDSCH and not E-DPDCH
5.3D	Frequency error for UL CLTD Activation state 2 and 3	Rel-11	C_RF129	RA11	UEs supporting FDD and UL CLTD and HS-PDSCH and not E-DPDCH

Clause	Title	Release	Applicability	Release Applicability	Comments
5.4.1	Output Power Dynamics in the Uplink / Power control is used to limit the interference level / Open Loop Power Control in the Uplink	R99	R	RA99	UEs supporting FDD
5.4.1A	Open Loop Power Control in the Uplink for DC-HSUPA	Rel-9	C_RF86	RA9	UEs supporting FDD and HS-PDSCH and Dual Cell E-DCH (E-DCH Category 8 or 9)
5.4.2	Output Power Dynamics in the Uplink / Power control is used to limit the interference level / Inner Loop Power Control in the Uplink	R99	R	RA99	UEs supporting FDD
5.4.2A	Inner Loop Power Control in the Uplink for DC-HSUPA	Rel-9	C_RF86	RA9	UEs supporting FDD and HS-PDSCH and Dual Cell E-DCH (E-DCH Category 8 or 9)
5.4.2B	Inner loop power control in the uplink for OLTD	Rel-11	C_RF122	RA11	UEs supporting FDD and UL OLTD
5.4.2C	Inner Loop Power Control in the Uplink for UL CLTD activation state 1	Rel-11	C_RF121	RA11	UEs supporting FDD and UL CLTD
5.4.2D	Inner Loop Power Control in the Uplink for UL CLTD activation state 2 and 3	Rel-11	C_RF121	RA11	UEs supporting FDD and UL CLTD
5.4.3	Output Power Dynamics in the Uplink / Power control is used to limit the interference level / Minimum Output Power	R99	R	RA99	UEs supporting FDD
5.4.3A	Minimum Output Power for DC-HSUPA	Rel-9	C_RF86	RA9	UEs supporting FDD and HS-PDSCH and Dual Cell E-DCH (E-DCH Category 8 or 9)
5.4.3B	Minimum Output Power for OLTD	Rel-11	C_RF122	RA11	UEs supporting FDD and UL OLTD
5.4.3C	Minimum Output Power for UL CLTD activation state 1	Rel-11	C_RF121	RA11	UEs supporting FDD and UL CLTD
5.4.3D	Minimum Output Power for UL CLTD activation state 2 and 3	Rel-11	C_RF121	RA11	UEs supporting FDD and UL CLTD
5.4.4	Output Power Dynamics in the Uplink / Power control is used to limit the interference level / Out-of-synchronisation handling of output power	R99	C_RF75	RA99	UEs supporting FDD and not supporting type 1 for DCH

Clause	Title	Release	Applicability	Release Applicability	Comments
5.4.4A	Out-of-synchronization handling of output power for a UE which supports the optional enhanced performance requirements type1 for DCH	R7	C_RF76	RA7	UEs supporting FDD and type 1 for DCH
5.4.4B	Out-of-synchronization handling of output power for OLTD	Rel-11	C_RF122	RA11	UEs supporting FDD and UL OLTD
5.4.4C	Out-of-synchronisation handling of output power for UL CLTD activation state 1	Rel-11	C_RF121	RA11	UEs supporting FDD and UL CLTD
5.4.4D	Out-of-synchronisation handling of output power for UL CLTD activation state 2 and 3	Rel-11	C_RF121	RA11	UEs supporting FDD and UL CLTD
5.4.5	Out of quality handling of TPI for UL CLTD activation state 1	Rel-11	C_RF121	RA11	UEs supporting FDD and UL CLTD
5.5.1	Transmit ON/OFF Power / Transmit OFF Power	R99	R	RA99	UEs supporting FDD
5.5.2	Transmit ON/OFF Power / Transmit ON/OFF Time mask	R99	R	RA99	UEs supporting FDD
5.6	Change of TFC	R99	R	RA99	UEs supporting FDD
5.6AA	Change of TFC for OLTD	Rel-11	C_RF122	RA11	UEs supporting FDD and UL OLTD
5.6AB	Change of TFC for UL CLTD activation state 1	Rel-11	C_RF121	RA11	UE supporting UL CLTD
5.6AC	Change of TFC for UL CLTD activation state 2 and 3	Rel-11	C_RF121	RA11	UE supporting UL CLTD
5.7	Power setting in uplink compressed mode	R99	C_RF01	RA99	UEs supporting FDD and uplink compressed mode.
5.7A	HS-DPCCH	Rel-5	C_RF02	RA5	UEs supporting FDD and HS-PDSCH
5.7BA	HS-DPCCH power control for UL OLTD	Rel-11	C_RF123	RA11	UEs supporting FDD, UL OLTD and HS-PDSCH and not E-DPDCH
5.7BB	HS-DPCCH power control for UL CLTD activation state 1	Rel-11	C_RF128	RA11	UEs supporting FDD, UL CLTD and HS-PDSCH
5.7BC	HS-DPCCH power control for UL CLTD activation state 2 and 3	Rel-11	C_RF128	RA11	UEs supporting FDD, UL CLTD and HS-PDSCH
5.8	Occupied Bandwidth (OBW)	R99	R	RA99	UEs supporting FDD
5.8A	Occupied Bandwidth (OBW) for DC-HSUPA	Rel-9	C_RF86	RA9	UEs supporting FDD and HS-PDSCH and Dual Cell E-DCH (E-DCH Category 8 or 9)
5.8B	Occupied bandwidth (OBW) for OLTD	Rel-11	C_RF122	RA11	UEs supporting FDD and UL OLTD
5.8C	Occupied bandwidth (OBW) for UL CLTD Activation state 1	Rel-11	C_RF121	RA11	UEs supporting FDD and UL CLTD
5.9	Spectrum emission mask	R99	R	RA99	UEs supporting FDD
5.9A	Spectrum Emission Mask with HS-DPCCH	Rel-5	C_RF02	RA5	UEs supporting FDD and HS-PDSCH

Clause	Title	Release	Applicability	Release Applicability	Comments
5.9AA	Spectrum Emission Mask with HS-DPCCH for OLTD	Rel-11	C_RF125	RA11	UEs supporting FDD and UL OLTD and HS-PDSCH
5.9AB	Spectrum Emission Mask with HS-DPCCH for UL CLTD activation state 1	Rel-11	C_RF128	RA11	UEs supporting FDD, UL CLTD and HS-PDSCH
5.9AC	Spectrum Emission Mask with HS-DPCCH for UL CLTD activation state 2 and 3	Rel-11	C_RF128	RA11	UEs supporting FDD, UL CLTD and HS-PDSCH
5.9B	Spectrum Emission Mask with E-DCH	Rel-6	C_RF23	RA6	UEs supporting FDD and HS-PDSCH and E-DPDCH
5.9BA	Spectrum Emission Mask with E-DCH for OLTD	Rel-11	C_RF124	RA11	UEs supporting FDD and UL OLTD and HS-PDSCH and E-DPDCH
5.9BB	Spectrum Emission Mask with E-DCH for UL CLTD activation state 1	Rel-11	C_RF130	RA11	UEs supporting FDD, UL CLTD, HS-PDSCH and E-DPDCH
5.9BC	Spectrum Emission Mask with E-DCH for UL CLTD activation state 2 and 3	Rel-11	C_RF130	RA11	UEs supporting FDD, UL CLTD, HS-PDSCH and E-DPDCH
5.9C	Additional Spectrum Emission Mask for DC-HSUPA (QPSK)	Rel-9	C_RF86	RA9	UEs supporting FDD and HS-PDSCH and Dual Cell E-DCH (E-DCH Category 8 or 9)
5.9D	Additional Spectrum Emission Mask for DC-HSUPA (16QAM)	Rel-9	C_RF111	RA9	UEs supporting FDD and HS-PDSCH and Dual Cell E-DCH (E-DCH Category 9)
5.10	Adjacent Channel Leakage Power Ratio (ACLR)	R99	R	RA99	UEs supporting FDD
5.10A	Adjacent Channel Leakage Power Ratio (ACLR) with HS-DPCCH	Rel-5	C_RF02	RA5	UEs supporting FDD and HS-PDSCH
5.10AA	Adjacent Channel Leakage Power Ratio (ACLR) with HS-DPCCH for OLTD	Rel-11	C_RF125	RA11	UEs supporting FDD and UL OLTD and HS-PDSCH
5.10AB	Adjacent Channel Leakage Power Ratio (ACLR) with HS-DPCCH for UL CLTD Activation state 1	Rel-11	C_RF128	RA11	UEs supporting FDD, UL CLTD and HS-PDSCH
5.10AC	Adjacent Channel Leakage Power Ratio (ACLR) with HS-DPCCH for UL CLTD Activation state 2 and 3	Rel-11	C_RF128	RA11	UEs supporting FDD, UL CLTD and HS-PDSCH
5.10B	Adjacent Channel Leakage Power Ratio (ACLR) with E-DCH	Rel-6	C_RF23	RA6	UEs supporting FDD and HS-PDSCH and E-DPDCH
5.10BA	Adjacent Channel Leakage Power Ratio (ACLR) with E-DCH for OLTD	Rel-11	C_RF124	RA11	UEs supporting FDD and UL OLTD and HS-PDSCH and E-DPDCH
5.10BB	Adjacent Channel Leakage Power Ratio (ACLR) with E-DCH for UL CLTD Activation state 1	Rel-11	C_RF130	RA11	UEs supporting FDD, UL CLTD, HS-PDSCH and E-DPDCH

Clause	Title	Release	Applicability	Release Applicability	Comments
5.10BC	Adjacent Channel Leakage Power Ratio (ACLR) with E-DCH for UL CLTD Activation state 2 and 3	Rel-11	C_RF130	RA11	UEs supporting FDD, UL CLTD, HS-PDSCH and E-DPDCH
5.10C	Adjacent Channel Leakage Power Ratio (ACLR) with E-DCH for DC-HSUPA (QPSK)	Rel-9	C_RF86	RA9	UEs supporting FDD and HS-PDSCH and Dual Cell E-DCH (E-DCH Category 8 or 9)
5.10D	Adjacent Channel Leakage Power Ratio (ACLR) with E-DCH for DC-HSUPA (16QAM)	Rel-9	C_RF111	RA9	UEs supporting FDD and HS-PDSCH and Dual Cell E-DCH (E-DCH Category 9)
5.11	Spurious Emissions	R99	R	RA99	UEs supporting FDD
5.11A	Spurious Emissions for DC-HSUPA	Rel-9	C_RF86	RA9	UEs supporting FDD and HS-PDSCH and Dual Cell E-DCH (E-DCH Category 8 or 9)
5.11B	Spurious Emissions for UL OLT	Rel-11	C_RF122	RA11	UEs supporting FDD and UL OLT
5.11C	Spurious Emissions for UL CLTD Activation state 1	Rel-11	C_RF121	RA11	UEs supporting FDD and UL CLTD
5.11D	Spurious Emissions for UL CLTD Activation state 2 and 3	Rel-11	C_RF121	RA11	UEs supporting FDD and UL CLTD
5.12	Transmit Intermodulation	R99	R	RA99	UEs supporting FDD
5.12A	Transmit Intermodulation for DC-HSUPA	Rel-9	C_RF86	RA9	UEs supporting FDD and HS-PDSCH and Dual Cell E-DCH (E-DCH Category 8 or 9)
5.13.1	Transmit Modulation / Error Vector Magnitude (EVM)	R99	R	RA99	UEs supporting FDD
5.13.1A	Error Vector Magnitude (EVM) with HS-DPCCH	Rel-5 only	C_RF02	RF_RO_04	UEs supporting FDD and HS-PDSCH
5.13.1AA	Error Vector Magnitude (EVM) and phase discontinuity with HS-DPCCH	Rel-6	C_RF02	RA6	UEs supporting FDD and HS-PDSCH
5.13.1AB	Error Vector Magnitude (EVM) and phase discontinuity with HS-DPCCH for UL OLT	Rel-11	C_RF125	RA11	UEs supporting FDD, UL OLT and HS-PDSCH
5.13.1AC	Error Vector Magnitude (EVM) and phase discontinuity with HS-DPCCH for UL CLTD Activation state 1	Rel-11	C_RF128	RA11	UEs supporting FDD, UL CLTD and HS-PDSCH
5.13.1AD	Error Vector Magnitude (EVM) and phase discontinuity with HS-DPCCH for UL CLTD Activation state 2 and 3	Rel-11	C_RF128	RA11	UEs supporting FDD, UL CLTD and HS-PDSCH
5.13.1AAA	EVM and IQ origin offset for HS-DPCCH and E-DCH with 16 QAM	Rel-7	C_RF43	RA7	UEs supporting FDD and HS-PDSCH, E-DPDCH and supporting 16QAM (E-DCH Category 7)
5.13.2	Transmit Modulation / Peak code domain error	R99	C_RF11	RA99	UEs supporting FDD and uplink RMC 768 kbps

Clause	Title	Release	Applicability	Release Applicability	Comments
5.13.2A	Relative Code Domain Error with HS-DPCCH	Rel-6	C_RF24	RA6	UEs supporting FDD and HS-PDSCH and not E-DPDCH
5.13.2B	Relative Code Domain Error with HS-DPCCH and E-DCH	Rel-6	C_RF23	RA6	UEs supporting FDD and HS-PDSCH and E-DPDCH
5.13.2BA	Relative Code Domain Error with HS-DPCCH and E-DCH for DC-HSUPA	Rel-9	C_RF86	RA9	UEs supporting FDD and HS-PDSCH and Dual Cell E-DCH (E-DCH Category 8 or 9)
5.13.2C	Relative Code Domain Error for HS-DPCCH and E-DCH with 16QAM	Rel-7	C_RF43	RA7	UEs supporting FDD and HS-PDSCH, E-DPDCH and supporting 16QAM (E-DCH Category 7)
5.13.2CA	Relative Code Domain Error for HS-DPCCH and E-DCH with 16QAM for DC-HSUPA	Rel-9	C_RF111	RA9	UEs supporting FDD and HS-PDSCH and Dual Cell E-DCH (E-DCH Category 9)
5.13.3	Transmit Modulation / UE phase discontinuity	Rel-5	R	RA5	UEs supporting FDD
5.13.4	Transmit Modulation PRACH preamble quality	Rel-5	R	RA5	UEs supporting FDD
5.13.5	In-band emission for DC-HSUPA	Rel-9	C_RF86	RA9	UEs supporting FDD and HS-PDSCH and Dual Cell E-DCH (E-DCH Category 8 or 9)
6.2	Receiver Characteristics / Reference Sensitivity Level	R99	R	RA99	UEs supporting FDD
6.2A	Reference sensitivity level for DC-HSDPA	Rel-8	C_RF66	RA8	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 21-24
		Rel-9	C_RF80	RA9	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 25-28
6.2B	Reference Sensitivity Level for DB-DC-HSDPA	Rel-9	C_RF84	RA9	UEs supporting FDD and dual band operation
6.2C	Reference sensitivity level for single band 4C-HSDPA	Rel-10	C_RF118	RA10	UEs supporting HS-PDSCH and HS-DSCH categories 29-32
6.2D	Reference sensitivity level for Dual band 4C-HSDPA	Rel-10	C_RF120	RA10	UEs supporting HS-PDSCH and HS-DSCH categories 31-32
6.2DA	Reference sensitivity level for Dual band 4C-HSDPA(3 carrier)	Rel-10	C_RF118	RA10	UEs supporting HS-PDSCH and HS-DSCH categories 29-32
6.3	Receiver Characteristics / Maximum Input Level	R99	R	RA99	UEs supporting FDD
6.3A	Maximum Input Level for HS-PDSCH Reception (16QAM)	Rel-5	C_RF26	RA5	UEs supporting FDD and HS-PDSCH and supporting 16QAM (HS-DSCH Categories 1-10)
		Rel-7	C_RF89	RA7	UEs supporting FDD and HS-PDSCH and supporting 16QAM (HS-DSCH Categories 13-18)



Clause	Title	Release	Applicability	Release Applicability	Comments
		Rel-8	C_RF45	RA8	UEs supporting FDD and HS-PDSCH and supporting 16QAM (HS-DSCH Categories 19-20)
6.3B	Maximum Input Level for HS-PDSCH Reception (64QAM)	Rel-7	C_RF35	RA7	UEs supporting FDD and HS-PDSCH and supporting 64QAM (HS-DSCH Categories 13, 14, 17, 18)
		Rel-8	C_RF45	RA8	UEs supporting FDD and HS-PDSCH and supporting 64QAM (HS-DSCH Categories 19-20)
6.3C	Maximum Input Level for DC-HSDPA Reception (16QAM)	Rel-8	C_RF66	RA8	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 21-24
		Rel-9	C_RF80	RA9	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 25-28
6.3D	Maximum Input Level for DC-HSDPA Reception (64QAM)	Rel-8	C_RF67	RA8	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 23-24
		Rel-9	C_RF78	RA9	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 27-28
6.3E	Maximum Input Level for DB-DC-HSDPA Reception (16QAM)	Rel-9	C_RF84	RA9	UEs supporting FDD and dual band operation
6.3F	Maximum Input Level for DB-DC-HSDPA Reception (64QAM)	Rel-9	C_RF85	RA9	UEs supporting FDD and HSDPA UE capability categories 23-24 and dual band operation
6.3G	Maximum Input Level for 4C-HSDPA Reception (16QAM)	Rel-10	C_RF120	RA10	UEs supporting HS-PDSCH and HS-DSCH categories 31-32
6.3GA	Maximum Input Level for 4C-HSDPA Reception (16QAM) (3 carrier)	Rel-10	C_RF118	RA10	UEs supporting HS-PDSCH and HS-DSCH categories 29-32
6.3H	Maximum Input Level for 4C-HSDPA Reception (64QAM)	Rel-10	C_RF120	RA10	UEs supporting HS-PDSCH and HS-DSCH categories 31-32
6.3HA	Maximum Input Level for 4C-HSDPA Reception (64QAM) (3 carrier)	Rel-10	C_RF118	RA10	UEs supporting HS-PDSCH and HS-DSCH categories 29-32
6.4	Receiver Characteristics Adjacent Channel Selectivity (ACS) (Rel-99 and Rel-4)	R99 and Rel-4 only	R	RF_RO_02	UEs supporting FDD
6.4A	Receiver Characteristics Adjacent Channel Selectivity (ACS) (Rel-5 and later releases)	Rel-5	R	RA5	UEs supporting FDD
6.4B	Adjacent channel selectivity (ACS) for DC-HSDPA	Rel-8	C_RF66	RA8	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 21-24

Clause	Title	Release	Applicability	Release Applicability	Comments
		Rel-9	C_RF80	RA9	
6.4C	Adjacent Channel Selectivity (ACS) for DB-DC-HSDPA	Rel-9	C_RF84	RA9	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 25-28
6.5.2.1	Blocking Characteristics / In-band blocking	R99	R	RA99	UEs supporting FDD
6.5.2.2	Blocking Characteristics / Out of-band blocking	R99	R	RA99	UEs supporting FDD
6.5.2.3	Blocking Characteristics / Narrow band blocking	R99	C_RF03	RA99	UEs supporting FDD and Band II or Band III or Band IV or Band V or Band VIII or Band X or Band XII or Band XIII or Band XIV
6.5A	Blocking characteristics for DC-HSDPA	Rel-8	C_RF66	RA8	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 21-24
		Rel-9	C_RF80	RA9	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 25-28
6.5B	Blocking Characteristics for DB-DC-HSDPA	Rel-9	C_RF84	RA9	UEs supporting FDD and dual band operation
6.5C	Blocking characteristics for DC-HSUPA	Rel-9	C_RF86	RA9	UEs supporting FDD and HS-PDSCH and Dual Cell E-DCH (E-DCH Category 8 or 9)
6.5D	Blocking Characteristics for single Uplink Single band 4C-HSDPA	Rel-10	C_RF118	RA10	UEs supporting HS-PDSCH and HS-DSCH categories 29-32
6.5E	Blocking Characteristics for dual Uplink Single band 4C-HSDPA	Rel-10	C_RF118	RA10	UEs supporting HS-PDSCH and HS-DSCH categories 29-32
6.5F	Blocking Characteristics for single Uplink Dual band 4C-HSDPA	Rel-10	C_RF120	RA10	UEs supporting HS-PDSCH and HS-DSCH categories 31-32
6.5FA	Blocking Characteristics for single Uplink Dual band 4C-HSDPA(3 carrier)	Rel-10	C_RF118	RA10	UEs supporting HS-PDSCH and HS-DSCH categories 29-32
6.5G	Blocking Characteristics for dual Uplink Dual band 4C-HSDPA	Rel-10	C_RF120	RA10	UEs supporting HS-PDSCH and HS-DSCH categories 31-32
6.5GA	Blocking Characteristics for dual Uplink Dual band 4C-HSDPA(3 carrier)	Rel-10	C_RF118	RA10	UEs supporting HS-PDSCH and HS-DSCH categories 29-32
6.6	Spurious Response	R99	R	RA99	UEs supporting FDD
6.6A	Spurious Response for DC-HSDPA	Rel-8	C_RF66	RA8	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 21-24

Clause	Title	Release	Applicability	Release Applicability	Comments
		Rel-9	C_RF80	RA9	
6.6B	Spurious Response for DB-DC-HSDPA	Rel-9	C_RF84	RA9	UEs supporting FDD and dual band operation
6.6C	Spurious Response for single band 4C-HSDPA	Rel-10	C_RF118	RA10	UEs supporting HS-PDSCH and HS-DSCH categories 29-32
6.6D	Spurious Response for dual band 4C-HSDPA	Rel-10	C_RF120	RA10	UEs supporting HS-PDSCH and HS-DSCH categories 31-32
6.6DA	Spurious Response for dual band 4C-HSDPA(3 carrier)	Rel-10	C_RF118	RA10	UEs supporting HS-PDSCH and HS-DSCH categories 29-32
6.7	Intermodulation Characteristics / Intermodulation	R99	R	RA99	UEs supporting FDD
	Intermodulation Characteristics / Narrow band intermodulation	R99	C_RF03	RA99	UEs supporting FDD and Band II or Band III or Band IV or Band V or Band VIII or Band X or Band XII or Band XIII or Band XIV
6.7B	Intermodulation Characteristics for DB-DC-HSDPA	Rel-9	C_RF84	RA9	UEs supporting FDD and dual band operation
6.7C	Intermodulation Characteristics for DC-HSUPA	Rel-9	C_RF86	RA9	UEs supporting FDD and HS-PDSCH and Dual Cell E-DCH (E-DCH Category 8 or 9)
6.7D	Intermodulation Characteristics for single uplink single band 4C-HSDPA	Rel-10	C_RF118	RA10	UEs supporting HS-PDSCH and HS-DSCH categories 29-32
6.7E	Intermodulation Characteristics for single uplink dual band 4C-HSDPA	Rel-10	C_RF120	RA10	UEs supporting HS-PDSCH and HS-DSCH categories 31-32
6.7EA	Intermodulation Characteristics for single uplink dual band 4C-HSDPA(3 carrier)	Rel-10	C_RF118	RA10	UEs supporting HS-PDSCH and HS-DSCH categories 29-32
6.8	Spurious Emissions	R99	R	RA99	UEs supporting FDD
6.8A	Spurious Emissions for DB-DC-HSDPA	Rel-9	C_RF144	RA9	UEs supporting FDD and dual band operation with DB-DC-HSDPA Configuration 6
7.2.1	Demodulation in Static Propagation conditions / Demodulation of Dedicated Channel (DCH) / Test 1	R99	R	RA99	UEs supporting FDD
	Demodulation in Static Propagation conditions / Demodulation of Dedicated Channel (DCH) / Test 2	R99	C_RF08	RA99	UEs supporting FDD and downlink RMC 64 kbps
	Demodulation in Static Propagation conditions / Demodulation of Dedicated Channel (DCH) / Test 3	R99	C_RF09	RA99	UEs supporting FDD and downlink RMC 144 kbps

Clause	Title	Release	Applicability	Release Applicability	Comments
	Demodulation in Static Propagation conditions / Demodulation of Dedicated Channel (DCH) / Test 4	R99	C_RF10	RA99	UEs supporting FDD and downlink RMC 384 kbps
7.2.2	Demodulation in Static Propagation conditions / Demodulation of Dedicated Channel (DCH) when (DL_DCH_FET_Config) is configured by higher layers / Test 1	Rel-12	C_RF145	RA12	UEs supporting FDD and DCH Enhancements
7.3.1	Demodulation of DCH in Multi-path Fading Propagation conditions / Single Link Performance / Test 1	R99	R	RA99	UEs supporting FDD
	Demodulation of DCH in Multi-path Fading Propagation conditions / Single Link Performance / Test 2	R99	C_RF08	RA99	UEs supporting FDD and downlink RMC 64 kbps
	Demodulation of DCH in Multi-path Fading Propagation conditions / Single Link Performance / Test 3	R99	C_RF09	RA99	UEs supporting FDD and downlink RMC 144 kbps
	Demodulation of DCH in Multi-path Fading Propagation conditions / Single Link Performance / Test 4	R99	C_RF10	RA99	UEs supporting FDD and downlink RMC 384 kbps
	Demodulation of DCH in Multi-path Fading Propagation conditions / Single Link Performance / Test 5	R99	R	RA99	UEs supporting FDD
	Demodulation of DCH in Multi-path Fading Propagation conditions / Single Link Performance / Test 6	R99	C_RF08	RA99	UEs supporting FDD and downlink RMC 64 kbps
	Demodulation of DCH in Multi-path Fading Propagation conditions / Single Link Performance / Test 7	R99	C_RF09	RA99	UEs supporting FDD and downlink RMC 144 kbps
	Demodulation of DCH in Multi-path Fading Propagation conditions / Single Link Performance / Test 8	R99	C_RF10	RA99	UEs supporting FDD and downlink RMC 384 kbps
	Demodulation of DCH in Multi-path Fading Propagation conditions / Single Link Performance / Test 9	R99	R	RA99	UEs supporting FDD
	Demodulation of DCH in Multi-path Fading Propagation conditions / Single Link Performance / Test 10	R99	C_RF08	RA99	UEs supporting FDD and downlink RMC 64 kbps

Clause	Title	Release	Applicability	Release Applicability	Comments
	Demodulation of DCH in Multi-path Fading Propagation conditions / Single Link Performance / Test 11	R99	C_RF09	RA99	UEs supporting FDD and downlink RMC 144 kbps
	Demodulation of DCH in Multi-path Fading Propagation conditions / Single Link Performance / Test 12	R99	C_RF10	RA99	UEs supporting FDD and downlink RMC 384 kbps
	Demodulation of DCH in Multi-path Fading Propagation conditions / Single Link Performance / Test 13	R99	R	RA99	UEs supporting FDD
	Demodulation of DCH in Multi-path Fading Propagation conditions / Single Link Performance / Test 14	R99	C_RF08	RA99	UEs supporting FDD and downlink RMC 64 kbps
	Demodulation of DCH in Multi-path Fading Propagation conditions / Single Link Performance / Test 15	R99	C_RF09	RA99	UEs supporting FDD and downlink RMC 144 kbps
	Demodulation of DCH in Multi-path Fading Propagation conditions / Single Link Performance / Test 16	R99	C_RF10	RA99	UEs supporting FDD and downlink RMC 384 kbps
	Demodulation of DCH in Multi-path Fading Propagation conditions / Single Link Performance / Test 17	R99	R	RA99	UEs supporting FDD
	Demodulation of DCH in Multi-path Fading Propagation conditions / Single Link Performance / Test 18	R99	C_RF08	RA99	UEs supporting FDD and downlink RMC 64 kbps
	Demodulation of DCH in Multi-path Fading Propagation conditions / Single Link Performance / Test 19	R99	C_RF09	RA99	UEs supporting FDD and downlink RMC 144 kbps
	Demodulation of DCH in Multi-path Fading Propagation conditions / Single Link Performance / Test 20	R99	C_RF10	RA99	UEs supporting FDD and downlink RMC 384 kbps
7.3.2	Demodulation of DCH in Multi-path Fading Propagation conditions / Single Link Performance when (DL_DCH_FET_Config) is configured by higher layers / Test 1	Rel-12	C_RF145	RA12	UEs supporting FDD and DCH Enhancements
7.4.1	Demodulation of DCH in Moving Propagation conditions / Single Link Performance / Test 1	R99	R	RA99	UEs supporting FDD

Clause	Title	Release	Applicability	Release Applicability	Comments
	Demodulation of DCH in Moving Propagation conditions / Single Link Performance / Test 2	R99	C_RF08	RA99	UEs supporting FDD and downlink RMC 64 kbps
7.5.1	Demodulation of DCH in Birth-Death Propagation conditions / Single Link Performance / Test 1	R99	R	RA99	UEs supporting FDD
	Demodulation of DCH in Birth-Death Propagation conditions / Single Link Performance / Test 2	R99	C_RF08	RA99	UEs supporting FDD and downlink RMC 64 kbps
7.5A.1	Demodulation of DCH in high speed train condition/ Single Link Performance/ Test1	Rel-7	R	RA7	UEs supporting FDD
7.6.1	Demodulation of DCH in downlink Transmit diversity modes / Demodulation of DCH in open-loop transmit diversity mode / Test 1	R99	R	RA99	UEs supporting FDD
7.6.2	Demodulation of DCH in downlink Transmit diversity modes / Demodulation of DCH in closed loop transmit diversity mode / Test 1	R99	R	RA99	UEs supporting FDD
	Demodulation of DCH in downlink Transmit diversity modes / Demodulation of DCH in closed loop transmit diversity mode / Test 2	R99 and Rel-4 only	R	RF_RO_02	UEs supporting FDD
7.6.3	Demodulation of DCH in downlink Transmit diversity modes / Demodulation of DCH in site selection diversity transmission power control mode / Test 1	R99 and Rel-4 only	R	RF_RO_02	UEs supporting FDD
	Demodulation of DCH in downlink Transmit diversity modes / Demodulation of DCH in site selection diversity transmission power control mode / Test 2	R99 and Rel-4 only	R	RF_RO_02	UEs supporting FDD
	Demodulation of DCH in downlink Transmit diversity modes / Demodulation of DCH in site selection diversity transmission power control mode / Test 3	R99 and Rel-4 only	R	RF_RO_02	UEs supporting FDD

Clause	Title	Release	Applicability	Release Applicability	Comments
	Demodulation of DCH in downlink Transmit diversity modes / Demodulation of DCH in site selection diversity transmission power control mode / Test 4	R99 and Rel-4 only	R	RF_RO_02	UEs supporting FDD
7.7.1	Demodulation in Handover conditions / Demodulation of DCH in Inter-Cell Soft Handover / Test 1 (Release 5 and earlier)	R99, Rel-4 and Rel-5 only	R	RF_RO_03	UEs supporting FDD
	Demodulation in Handover conditions / Demodulation of DCH in Inter-Cell Soft Handover / Test 2 (Release 5 and earlier)	R99, Rel-4 and Rel-5 only	C_RF08	RF_RO_03	UEs supporting FDD and downlink RMC 64 kbps
	Demodulation in Handover conditions / Demodulation of DCH in Inter-Cell Soft Handover) / Test 3 (Release 5 and earlier)	R99, Rel-4 and Rel-5 only	C_RF09	RF_RO_03	UEs supporting FDD and downlink RMC 144 kbps
	Demodulation in Handover conditions / Demodulation of DCH in Inter-Cell Soft Handover) / Test 4 (Release 5 and earlier)	R99, Rel-4 and Rel-5 only	C_RF10	RF_RO_03	UEs supporting FDD and downlink RMC 384 kbps
7.7.1A	Demodulation in Handover conditions / Demodulation of DCH in Inter-Cell Soft Handover / Test 1 (Release 6 and later)	Rel-6	R	RA6	UEs supporting FDD
	Demodulation in Handover conditions / Demodulation of DCH in Inter-Cell Soft Handover / Test 2 (Release 6 and later)	Rel-6	C_RF08	RA6	UEs supporting FDD and downlink RMC 64 kbps
	Demodulation in Handover conditions / Demodulation of DCH in Inter-Cell Soft Handover) / Test 3 (Release 6 and later)	Rel-6	C_RF09	RA6	UEs supporting FDD and downlink RMC 144 kbps
	Demodulation in Handover conditions / Demodulation of DCH in Inter-Cell Soft Handover) / Test 4 (Release 6 and later)	Rel-6	C_RF10	RA6	UEs supporting FDD and downlink RMC 384 kbps
7.7.1B	Demodulation in Handover conditions / Demodulation of DCH in Inter-Cell soft handover (DL_DCH_FET_Config) / Test1	Rel-12	C_RF145	RA12	UEs supporting FDD and DCH Enhancements

Clause	Title	Release	Applicability	Release Applicability	Comments
7.7.2	Demodulation in Handover conditions / Combining of TPC commands from radio links of different radio link sets / Test 1	R99	R	R199	UEs supporting FDD
	Demodulation in Handover conditions / Combining of TPC commands from radio links of different radio link sets / Test 2	R99	R	RA99	UEs supporting FDD
7.7.2A	Demodulation in Handover conditions / Combining of TPC commands from radio links of different radio link sets (DL_DCH_FET_Config) / Test1	Rel-12	C_RF145	RA12	UEs supporting FDD and DCH Enhancements
7.7.3	Demodulation in Handover conditions / Combining of reliable TPC commands from radio links of different radio link sets / Test 1	R99	R	RA99	UEs supporting FDD
	Demodulation in Handover conditions / Combining of reliable TPC commands from radio links of different radio link sets / Test 2	R99	R	RA99	UEs supporting FDD
7.7.3A	Combining of reliable TPC commands from radio links of different radio link sets when DL_DCH_FET_Config [10] is configured by higher layers	Rel-12	C_RF145	RA12	UEs supporting FDD and DCH Enhancements
7.8.1	Power control in downlink / Power control in the downlink, constant BLER target (Release 5 and earlier)	R99, Rel-4 and Rel-5 only	R	RF_RO_03	UEs supporting FDD
7.8.1A	Power control in downlink / Power control in the downlink, constant BLER target / Test 1 (Release 6 and later)	Rel-6	R	RA6	UEs supporting FDD
	Power control in downlink / Power control in the downlink, constant BLER target / Test 2 (Release 6 and later)	Rel-6	R	RA6	UEs supporting FDD
	Power control in downlink / Power control in the downlink, constant BLER target / Test 3 (Release 6 and later)	Rel-6	C_RF34	RA6	UEs supporting FDD and downlink RMC2 64 kbps



Clause	Title	Release	Applicability	Release Applicability	Comments
	Power control in downlink / Power control in the downlink, constant BLER target / Test 4 (Release 6 and later)	Rel-6	C_RF34	RA6	UEs supporting FDD and downlink RMC2 64 kbps
7.8.1B	Power control in the downlink, constant BLER target when DL_DCH_FET_Config is configured by higher layers	Rel-12	C_RF145	RA12	UEs supporting FDD and DCH Enhancements
7.8.2	Power control in downlink / Power control in the downlink, initial convergence / Test 1	R99	R	RA99	UEs supporting FDD
	Power control in downlink / Power control in the downlink, initial convergence / Test 2	R99	R	RA99	UEs supporting FDD
	Power control in downlink / Power control in the downlink, initial convergence / Test 3	R99	C_RF08	RA99	UEs supporting FDD and downlink RMC 64 kbps
	Power control in downlink / Power control in the downlink, initial convergence / Test 4	R99	C_RF08	RA99	UEs supporting FDD and downlink RMC 64 kbps
7.8.2A	Power control in the downlink, initial convergence when DL_DCH_FET_Config is configured by higher layers	Rel-12	C_RF145	RA12	UEs supporting FDD and DCH Enhancements
7.8.3	Power control in downlink Power control in the downlink, wind up effects / Test 1 (Release 5 and earlier)	R99, Rel-4 and Rel-5 only	R	RF_RO_03	UEs supporting FDD
7.8.3A	Power control in downlink Power control in the downlink, wind up effects / Test 1 (Release 6 and later)	Rel-6	R	RA6	UEs supporting FDD
7.8.3B	Power control in the downlink, wind up effects (Release 6 and later) when DL_DCH_FET_Config is configured by higher layers	Rel-12	C_RF145	RA12	UEs supporting FDD and DCH Enhancements
7.8.4	Power control in the downlink, different transport formats	Rel-5	R	RA5	UEs supporting FDD
7.8.4A	Power control in the downlink, different transport formats when DL_DCH_FET_Config is configured by higher layers	Rel-12	C_RF145	RA12	UEs supporting FDD and DCH Enhancements

Clause	Title	Release	Applicability	Release Applicability	Comments
7.8.5	Power control in the downlink for F-DPCH	Rel-6	C_RF39	RA6	UEs supporting FDD and HS-PDSCH and F-DPCH
7.9.1	Downlink compressed mode / Single link performance / Test 1 (Release 5 and earlier)	R99, Rel-4 and Rel-5 only	C_RF04	RF_RO_03	UEs supporting FDD and downlink compressed mode
	Downlink compressed mode / Single link performance / Test 2 (Release 5 and earlier)	R99, Rel-4 and Rel-5 only	C_RF04	RF_RO_03	UEs supporting FDD and downlink compressed mode
	Downlink compressed mode / Single link performance / Test 3 (Release 4 and earlier)	R99 and Rel-4 only	C_RF04	RF_RO_02	UEs supporting FDD and downlink compressed mode
	Downlink compressed mode / Single link performance / Test 4 (Release 4 and earlier)	R99 and Rel-4 only	C_RF04	RF_RO_02	UEs supporting FDD and downlink compressed mode
7.9.1A	Downlink compressed mode / Single link performance / Test 1 (Release 6 and later)	Rel-6	C_RF04	RA6	UEs supporting FDD and downlink compressed mode
	Downlink compressed mode / Single link performance / Test 2 (Release 6 and later)	Rel-6	C_RF04	RA6	UEs supporting FDD and downlink compressed mode
7.10	Blind transport format detection / Test 1	R99	R	RA99	UEs supporting FDD
	Blind transport format detection / Test 2	R99	R	RA99	UEs supporting FDD
	Blind transport format detection / Test 3	R99	R	RA99	UEs supporting FDD
	Blind transport format detection / Test 4	R99	R	RA99	UEs supporting FDD
	Blind transport format detection / Test 5	R99	R	RA99	UEs supporting FDD
	Blind transport format detection / Test 6	R99	R	RA99	UEs supporting FDD
7.11	Demodulation of Paging Channel (PCH)	Rel-4	C_RF12	RA4	UEs supporting FDD Packet Switched Data
7.12	Detection of Acquisition Indicator (AI)	Rel-4	R	RA4	UEs supporting FDD
7.12A	Detection of E-DCH Acquisition Indicator (E-AI)	Rel-8	C_RF71	RA8	UEs supporting Enhanced Uplink on CELL_FACH state
7.13	UE UL power control operation with discontinuous UL DPCCH transmission operation	Rel-7	C_RF54	RA7	UE supporting FDD and DPCCH Discontinuous Transmission
8.2.2.1	Cell Re-Selection - Scenario 1: Single carrier case	R99	R	RA99	UEs supporting FDD
8.2.2.2	Cell Re-Selection - Scenario 2: Multi carrier case	R99	R	RA99	UEs supporting FDD
8.2.3.1	UTRAN to GSM Cell Re-Selection - Scenario 1: Both UTRA and GSM level changed	R99	C_RF05	RA99	UEs supporting FDD and GSM
8.2.3.2	UTRAN to GSM Cell Re-Selection - Scenario 2: Only UTRA level changed	R99	C_RF05	RA99	UEs supporting FDD and GSM

Clause	Title	Release	Applicability	Release Applicability	Comments
8.2.3.3	UTRAN to GSM Cell Re-Selection - Scenario 3: HCS with only UTRA level changed	Rel-6	C_RF05	RA6	UEs supporting FDD and GSM
8.2.4	FDD/TDD Cell Re-selection	R99	C_RF06	RA99	UE supporting FDD and TDD
8.2.5.1	UTRAN to E-UTRA Cell Re-Selection / E-UTRA is of higher priority	Rel-8	C_RF73	RA8	UE supporting FDD and E-UTRAN FDD
8.2.5.2	UTRAN to E-UTRA Cell Re-Selection / E-UTRA is of lower priority	Rel-8	C_RF73	RA8	UE supporting FDD and E-UTRAN FDD
8.2.5.3	RSRQ based reselection when E-UTRA FDD is of higher priority	Rel-11	C_RF73	RA11	UE supporting FDD and E-UTRAN FDD
8.3.1	UTRAN Connected Mode Mobility FDD/FDD Soft Handover	R99	R	RA99	UEs supporting FDD
8.3.2.1	UTRAN Connected Mode Mobility - FDD/FDD Hard Handover to intra-frequency cell	R99	R	RA99	UEs supporting FDD
8.3.2.2	FDD/FDD Hard Handover to inter-frequency cell	R99	R	RA99	UEs supporting FDD
8.3.3	FDD/TDD Handover	R99 and Rel-4 only	C_RF06	RF_RO_02	UEs supporting FDD and TDD
8.3.4	Inter-system Handover from UTRAN FDD to GSM	R99	C_RF27	RA99	UEs supporting FDD and GSM and supporting speech.
8.3.4a	Inter-system Handover from UTRAN FDD to E-UTRAN FDD	Rel-8	C_RF107	RA8	UE supporting FDD and E-UTRAN FDD and inter-RAT PS handover to E-UTRA(FDD) from UTRA and EUTRA Feature Group Indicator 2
8.3.4b	Inter-system Handover from UTRAN FDD to E-UTRAN TDD	Rel-8	C_RF108	RA8	UE supporting FDD and E-UTRAN TDD and inter-RAT PS handover to E-UTRA(TDD) from UTRA and UTRA Feature Group Indicator 2
8.3.4c	Inter-system Handover from UTRAN FDD to E-UTRAN FDD: Unknown Target Cell	Rel-8	C_RF107	RA8	UE supporting FDD and E-UTRAN FDD and inter-RAT PS handover to E-UTRA(FDD) from UTRA and EUTRA Feature Group Indicator 2
8.3.4d	Inter-system Handover from UTRAN FDD to E-UTRAN TDD; Unknown Target Cell	Rel-8	C_RF108	RA8	UE supporting FDD and E-UTRAN TDD and inter-RAT PS handover to E-UTRA(TDD) from UTRA and EUTRA Feature Group Indicator 2
8.3.5.1	Cell Re-selection in CELL_FACH - One frequency present in neighbour list and FACH measurement occasions configured	R99	R	RA99	UEs supporting FDD

Clause	Title	Release	Applicability	Release Applicability	Comments
8.3.5.1a	Cell Re-selection in CELL_FACH - One frequency present in neighbour list and HS-DSCH DRX configured	Rel-11	C_RF131	RA11	UEs supporting FDD and HS-DSCH DRX operation in CELL_FACH state
8.3.5.2	Cell Re-selection in CELL_FACH - Two frequencies present in the neighbour list and FACH measurement occasions configured	R99	R	RA99	UEs supporting FDD
8.3.5.2a	Cell Re-selection in CELL_FACH - Two frequencies present in the neighbour list and HS-DSCH DRX configured (Absolute priority levels not configured)	Rel-11	C_RF131	RA11	UEs supporting FDD and HS-DSCH DRX operation in CELL_FACH state
8.3.5.2b	Cell Re-selection in CELL_FACH - Two frequencies present in the neighbour list and HS-DSCH DRX configured (Absolute priority levels configured)	Rel-11	C_RF131	RA11	UEs supporting FDD and HS-DSCH DRX operation in CELL_FACH state
8.3.5.2c	Cell Re-selection in CELL_FACH - Two frequencies present in the neighbour list and HS-DSCH 2 <sup>nd</sup> DRX configured (Absolute priority levels not configured)	Rel-11	C_RF132	RA11	UEs supporting FDD and HS-DSCH DRX operation with second DRX cycle in CELL_FACH state
8.3.5.2d	Cell Re-selection in CELL_FACH - Two frequencies present in the neighbour list and HS-DSCH 2 <sup>nd</sup> DRX configured (Absolute priority levels configured)	Rel-11	C_RF132	RA11	UEs supporting FDD and HS-DSCH DRX operation with second DRX cycle in CELL_FACH state
8.3.5.3	Cell Re-selection in CELL_FACH - Cell Reselection to GSM	R99	C_RF07	RA99	UEs supporting FDD Packet Switched Data and GPRS
8.3.5.4	Cell Reselection during an MBMS session, two frequencies present in neighbour list	Rel-6	C_RF29	RA6	UEs supporting FDD and MBMS
8.3.5.5.1	UTRAN to E-UTRA Cell Reselection - Reselection to E-UTRA FDD when HS-DSCH DRX is configured (E-UTRA has higher priority)	Rel-11	C_RF133	RA11	UEs supporting FDD and E-UTRAN FDD and HS-DSCH DRX operation in CELL_FACH state
8.3.5.5.2	UTRAN to E-UTRA Cell Reselection - Reselection to E-UTRA FDD when HS-DSCH DRX is configured (E-UTRA has lower priority)	Rel-11	C_RF133	RA11	UEs supporting FDD and E-UTRAN FDD and HS-DSCH DRX operation in CELL_FACH state

Clause	Title	Release	Applicability	Release Applicability	Comments
8.3.5.5.3	UTRAN to E-UTRA Cell Reselection - Reselection to E-UTRA FDD when HS-DSCH 2 <sup>nd</sup> DRX is configured (E-UTRA has higher priority)	Rel-11	C_RF134	RA11	UEs supporting FDD and E-UTRAN FDD and HS-DSCH DRX operation with second DRX cycle in CELL_FACH state
8.3.5.5.4	UTRAN to E-UTRA Cell Reselection - Reselection to E-UTRA TDD when HS-DSCH DRX is configured (E-UTRA has higher priority)	Rel-11	C_RF135	RA11	UEs supporting FDD and E-UTRAN TDD and HS-DSCH DRX operation in CELL_FACH state
8.3.5.5.5	UTRAN to E-UTRA Cell Reselection - Reselection to E-UTRA TDD when HS-DSCH DRX is configured (E-UTRA has lower priority)	Rel-11	C_RF135	RA11	UEs supporting FDD and E-UTRAN TDD and HS-DSCH DRX operation in CELL_FACH state
8.3.5.5.6	UTRAN to E-UTRA Cell Reselection - Reselection to E-UTRA TDD when HS-DSCH 2 <sup>nd</sup> DRX is configured (E-UTRA has higher priority)	Rel-11	C_RF136	RA11	UEs supporting FDD and E-UTRAN TDD and HS-DSCH DRX operation with second DRX cycle in CELL_FACH state
8.3.6.1	Cell Re-selection in CELL_PCH - One frequency present in the neighbour list	R99	C_RF12	RA99	UEs supporting FDD Packet Switched Data
8.3.6.2	Cell Re-selection in CELL_PCH - Two frequencies present in the neighbour list	R99	C_RF12	RA99	UEs supporting FDD Packet Switched Data
8.3.6.3	Cell re-selection during an MBMS session, one UTRAN inter-frequency and 2 GSM cells present in the neighbour list	Rel-6	C_RF30	RA6	UEs supporting FDD and MBMS and GSM
8.3.7.1	Cell Re-selection in URA_PCH - One frequency present in the neighbour list	R99	C_RF12	RA99	UEs supporting FDD Packet Switched Data
8.3.7.2	Cell Re-selection in URA_PCH - Two frequencies present in the neighbour list	R99	C_RF12	RA99	UEs supporting FDD Packet Switched Data
8.3.8	Serving HS-DSCH cell change	Rel-6	C_RF02	RA6	UEs supporting FDD and HS-PDSCH
8.3.9	Enhanced Serving HS-DSCH cell change	Rel-8	C_RF68	RA8	UEs supporting FDD and HS-PDSCH and additionally supporting Target Cell Pre-Configuration
8.3.10.1	Intrafrequency System Information Acquisition for CSG cell	Rel-9	C_RF87	RA9	UEs supporting FDD, CSG and intra-frequency SI acquisition for HO.
8.3.10.2	Interfrequency System Information Acquisition for CSG cell	Rel-9	C_RF88	RA9	UEs supporting FDD, CSG and inter-frequency SI acquisition for HO.

Clause	Title	Release	Applicability	Release Applicability	Comments
8.4.1.1	RRC Connection Control / RRC Re-establishment delay - Test 1	R99	R	RA99	UEs supporting FDD
8.4.1.2	RRC Connection Control / RRC Re-establishment delay - Test 2	R99	R	RA99	UEs supporting FDD
8.4.2.1	Random Access - Correct behaviour when receiving an ACK	R99, Rel-4 and Rel-5 only	R	RF_RO_03	UEs supporting FDD
8.4.2.1A	Random Access - Correct behaviour when receiving an ACK - Release 6	Rel-6	R	RA6	UEs supporting FDD
8.4.2.2	Random Access - Correct behaviour when receiving an NACK	R99	R	RA99	UEs supporting FDD
8.4.2.3	Random Access - Correct behaviour at Time-out	R99	R	RA99	UEs supporting FDD
8.4.2.4	Random Access - Correct behaviour when reaching maximum transmit power	R99	R	RA99	UEs supporting FDD
8.4.3.1	Transport format combination selection in UE - Interactive or Background, PS, UL: 64 kbps	R99	C_RF13	RA99	UEs supporting FDD and downlink RMC 64 kbps and uplink RMC 64 kbps
8.4.3.1A	Transport format combination selection in UE-Interactive or Background, PS, UL: 64 kbps + Conversational / speech, CS, UL: 12.2kbps	Rel-10	C_RF13	RA10	UEs supporting FDD and downlink RMC 64 kbps and uplink RMC 64 kbps
8.4.4.1	E-TFC restriction in UE - 10ms TTI E-DCH E-TFC restriction	Rel-6	C_RF23	RA6	UEs supporting FDD and HS-PDSCH and E-DPDCH
8.4.4.2	E-TFC restriction in UE - 2ms TTI E-DCH E-TFC restriction	Rel-6	C_RF28	RA6	UEs supporting FDD and HS-PDSCH and E-DPDCH with 2 ms TTI
8.5.1	Timing and Signalling Characteristics - UE Transmit Timing	R99	R	RA99	UEs supporting FDD
8.6.1.1	UE Measurements Procedures / FDD intra frequency measurements - Event triggered reporting in AWGN propagation conditions	R99 only	R	RF_RO_01	UEs supporting FDD
8.6.1.1A	UE Measurements Procedures / FDD intra frequency measurements - Event triggered reporting in AWGN propagation conditions	Rel-4	R	RA4	UEs supporting FDD

Clause	Title	Release	Applicability	Release Applicability	Comments
8.6.1.2	UE Measurements Procedures / FDD intra frequency measurements - Event triggered reporting of multiple neighbours in AWGN propagation condition	R99 only	R	RF_RO_01	UEs supporting FDD
8.6.1.2A	UE Measurements Procedures / FDD intra frequency measurements - Event triggered reporting of multiple neighbours in AWGN propagation condition	Rel-4	R	RA4	UEs supporting FDD
8.6.1.3	UE Measurements Procedures / FDD intra frequency measurements - Event triggered reporting of two detectable neighbours in AWGN propagation condition	R99 only	R	RF_RO_01	UEs supporting FDD
8.6.1.3A	UE Measurements Procedures / FDD intra frequency measurements - Event triggered reporting of two detectable neighbours in AWGN propagation condition	Rel-4	R	RA4	UEs supporting FDD
8.6.1.4	Void				
8.6.1.4A	UE Measurements Procedures / FDD intra frequency measurements - Correct reporting of neighbours in fading propagation condition	Rel-4	R	RA4	UEs supporting FDD
8.6.1.5	UE Measurements Procedures / FDD intra frequency measurements - Event triggered reporting of multiple neighbour cells in Case 1 fading condition	Rel-5	R	RA5	UEs supporting FDD
8.6.1.6	UE Measurements Procedures / FDD intra frequency measurements - Event triggered reporting of multiple neighbour cells in Case 3 fading condition	Rel-5	R	RA5	UEs supporting FDD
8.6.2.1	FDD inter frequency measurements - Correct reporting of neighbours in AWGN propagation condition (Release 5 and earlier)	R99, Rel-4 and Rel-5 only	R	RF_RO_003	UEs supporting FDD

Clause	Title	Release	Applicability	Release Applicability	Comments
8.6.2.1A	FDD inter frequency measurements - Correct reporting of neighbours in AWGN propagation condition (Release 6 and later)	Rel-6	R	RA6	UEs supporting FDD
8.6.2.2	FDD inter frequency measurements - Correct reporting of neighbours in fading propagation condition (Release 5 only)	Rel-5 only	R	RF_RO_04	UEs supporting FDD
8.6.2.2A	FDD inter frequency measurements - Correct reporting of neighbours in fading propagation condition (Release 6 and later)	Rel-6	R	RA6	UEs supporting FDD
8.6.2.3	FDD inter frequency measurements - Correct reporting of neighbours in fading propagation condition using TGL1= 14	Rel-6	R	RA6	UEs supporting FDD
8.6.3.1	TDD measurements - Correct reporting of TDD neighbours in AWGN propagation condition	R99 and Rel-4 only	C_RF06	RF_RO_02	UEs supporting FDD and TDD
8.6.4.1	GSM measurements - Correct reporting of GSM neighbours in AWGN propagation condition	R99	C_RF05	RA99	UEs supporting FDD and GSM
8.6.5.1	Combined Interfrequency and GSM measurements - Correct reporting of neighbours in AWGN propagation condition	Rel-6	C_RF05	RA6	UEs supporting FDD and GSM
8.6.6.1	Correct reporting of E-UTRAN FDD neighbour in fading propagation condition in CELL_DCH	Rel-8	C_RF109	RA8	UE supporting FDD and E-UTRAN FDD and EUTRA Feature Group Indicator 2
8.6.6.2	Correct reporting of E-UTRAN TDD neighbour in fading propagation condition in CELL_DCH	Rel-8	C_RF110	RA8	UE supporting FDD and E-UTRAN TDD and EUTRA Feature Group Indicator 2
8.6.7.1	Correct reporting of E-UTRA FDD neighbours in fading propagation condition	Rel-8	C_RF109	RA8	UE supporting FDD and E-UTRAN FDD and EUTRA Feature Group Indicator 2
8.6.7.2	Correct reporting of E-UTRA TDD neighbours in Fading propagation condition	Rel-8	C_RF110	RA8	UE supporting FDD and E-UTRAN TDD and EUTRA Feature Group Indicator 2
8.7.1.1.1	Measurements Performance Requirements / CPICH RSCP / Intra frequency measurements accuracy - Absolute accuracy requirement	R99	R	RA99	UEs supporting FDD



Clause	Title	Release	Applicability	Release Applicability	Comments
8.7.1.1.2	Measurements Performance Requirements / CPICH RSCP / Intra frequency measurements accuracy - Relative accuracy requirement	R99	R	RA99	UEs supporting FDD
8.7.1.2.1	Inter frequency measurement accuracy - Relative accuracy requirement	R99	R	RA99	UEs supporting FDD
8.7.2.1.1	CPICH Ec/Io / Intra frequency measurements accuracy - Absolute accuracy requirement	R99	R	RA99	UEs supporting FDD
8.7.2.1.2	CPICH Ec/Io / Intra frequency measurements accuracy - Relative accuracy requirement	R99	R	RA99	UEs supporting FDD
8.7.2.2.1	Inter frequency measurement accuracy / Absolute accuracy requirement		Void	Void	
8.7.2.2.2	Inter frequency measurement accuracy / Relative accuracy requirement	R99	R	RA99	UEs supporting FDD
8.7.3.1	UTRA Carrier RSSI - Absolute measurement accuracy requirement	R99	R	RA99	UEs supporting FDD
8.7.3.2	UTRA Carrier RSSI - Relative measurement accuracy requirement	Rel-6	R	RA6	UEs supporting FDD
8.7.3A	GSM Carrier RSSI	R99	C_RF05	RA99	UE supporting FDD and GSM
8.7.3B	Transport channel BLER		Void		
8.7.3C	UE transmitted power (R99 and Rel-4 only)	R99 and Rel-4 only	R	RF_RO_02	UEs supporting FDD
8.7.3D	UE transmitted power (Rel-5 and later)	Rel-5	R	RA5	UEs supporting FDD
8.7.4.1	SFN-CFN observed time difference - Intra frequency measurement requirement	R99	R	RA99	UEs supporting FDD
8.7.4.2	SFN-CFN observed time difference - Inter frequency measurement requirement	R99	R	RA99	UEs supporting FDD
8.7.5.1	SFN-SFN observed time difference type 1	R99	R	RA99	UEs supporting FDD
8.7.5.2	SFN-SFN observed time difference type 2		Void	Void	
8.7.6.1	UE Rx-Tx time difference type 1 (Release 5 and earlier)	R99, Rel-4 and Rel-5 only	R	RF_RO_03	UEs supporting FDD
8.7.6.1A	UE Rx-Tx time difference type 1 (Release 6 and later)	Rel-6	R	RA6	UEs supporting FDD

Clause	Title	Release	Applicability	Release Applicability	Comments
8.7.6.2	UE Rx-Tx time difference type 2		Void	Void	
8.7.7	Observed time difference to GSM cell	R99 and Rel-4 only	Void	Void	
8.7.8.1	P-CCPCH RSCP Absolute measurement accuracy	R99 and Rel-4 only	C_RF06	RF_RO_02	UEs supporting FDD and TDD
8.7.9	UE Transmission Power Headroom	Rel-6	C_RF23	RA6	UEs supporting FDD and HS-PDSCH and E-DPDCH
8.7.10	E-UTRAN FDD RSRP absolute accuracy (CELL_DCH)	Rel-9	C_RF73	RA9	UE supporting FDD and E-UTRAN FDD
8.7.11	E-UTRAN TDD RSRP absolute accuracy (CELL_DCH)	Rel-9	C_RF74	RA9	UE supporting FDD and E-UTRAN TDD
8.7.12	E-UTRAN FDD RSRQ absolute accuracy (CELL_DCH)	Rel-9	C_RF73	RA9	UE supporting FDD and E-UTRAN FDD
8.7.13	E-UTRAN TDD RSRQ absolute accuracy (CELL_DCH)	Rel-9	C_RF74	RA9	UE supporting FDD and E-UTRAN TDD
9.2.1A	Demodulation of HS-DSCH (Fixed Reference Channel) - Single Link Performance - QPSK/16QAM, Fixed Reference Channel (FRC) H-Set 1/2/3	Rel-5	C_RF14	RA5	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 1-6
9.2.1B	Demodulation of HS-DSCH (Fixed Reference Channel) - Single Link Performance - QPSK, Fixed Reference Channel (FRC) H-Set 4/5	Rel-5	C_RF15	RA5	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 11-12
9.2.1C	Demodulation of HS-DSCH (Fixed Reference Channel) - Single Link Performance - QPSK/16QAM, Fixed Reference Channel (FRC) H-Set 6/3	Rel-6	C_RF16	RA6	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 7-10, but not supporting the optional enhanced performance requirements types 1, 2, 3 or 3i.
9.2.1D	Demodulation of HS-DSCH (Fixed Reference Channel) - Single Link Performance - Enhanced Performance Requirements Type 1 - QPSK/16QAM, Fixed Reference Channel (FRC) H-Set 1/2/3	Rel-6	C_RF17	RA6	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 1-6 and Enhanced performance requirements type 1.

Clause	Title	Release	Applicability	Release Applicability	Comments
9.2.1E	Demodulation of HS-DSCH (Fixed Reference Channel) - Single Link Performance - Enhanced Performance Requirements Type 1 - QPSK/16QAM, Fixed Reference Channel (FRC) H-Set 6/3	Rel-6	C_RF18	RA6	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 7-10 and Enhanced performance requirements type 1.
9.2.1F	Demodulation of HS-DSCH (Fixed Reference Channel) - Single Link Performance - Enhanced Performance Requirements Type 2 - QPSK/16QAM, Fixed Reference Channel (FRC) H-Set 6/3	Rel-6	C_RF112	RA6	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 7-10 and Enhanced performance requirements type 2 or Enhanced performance requirements type 3 or Enhanced performance requirements type 3i (Note 4)
		Rel-7	C_RF41	RA7	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 13-14.(Note 4)
9.2.1FA	Demodulation of HS-DSCH (Fixed Reference Channel) - Single Link Performance - Enhanced Performance Requirements Type 2 - QPSK/16QAM, Fixed Reference Channel (FRC) H-Set 6A/3A	Rel-8	C_RF62	RA8	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 21-24 but not supporting dual band operation
9.2.1FB	Demodulation of HS-DSCH (Fixed Reference Channel) - Single Link Performance - Enhanced Performance Requirements Type 2 - QPSK/16QAM, Fixed Reference Channel (FRC) H-Set 6A/3A for DB-DC-HSDPA	Rel-9	C_RF92	RA9	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 21-24 and dual band operation
9.2.1FC	Demodulation of HS-DSCH (Fixed Reference Channel) - Single Link Performance - Enhanced Performance Requirements Type 2 - QPSK/16QAM, Fixed Reference Channel (FRC) H-Set 6B/3B	Rel-10	C_RF95	RA10	UEs supporting FDD and HS-PDSCH and HSDPA UE capability category 29
9.2.1FD	Demodulation of HS-DSCH (Fixed Reference Channel) - Single Link Performance - Enhanced Performance Requirements Type 2 - QPSK/16QAM, Fixed Reference Channel (FRC) H-Set 6C/3C	Rel-10	C_RF96	RA10	UEs supporting FDD and HS-PDSCH and HSDPA UE capability category 31

Clause	Title	Release	Applicability	Release Applicability	Comments
9.2.1G	Demodulation of HS-DSCH (Fixed Reference Channel) - Single Link Performance - Enhanced Performance Requirements Type 3 - QPSK/16QAM, Fixed Reference Channel (FRC) H-Set 6/3	Rel-7	C_RF47	RA7	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 7-10, 13-14 and Enhanced performance requirements type 3. (Note 4)
		Rel-7	C_RF38	RA7	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 15-18. (Note 4)
		Rel-8	C_RF59	RA8	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 7-10, 13-14 and Enhanced performance requirements type 3i (Note 4)
		Rel-8	C_RF45	RA8	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 19-20. (Note 4)
9.2.1GA	Demodulation of HS-DSCH (Fixed Reference Channel) - Single Link Performance - Enhanced Performance Requirements Type 3 - QPSK/16QAM, Fixed Reference Channel (FRC) H-Set 6A/3A	Rel-8	C_RF63	RA8	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 21-24 and Enhanced performance requirements type 3 or Enhanced performance requirements type 3i but not supporting dual band operation
		Rel-9	C_RF81	RA9	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 25-28 and Enhanced performance requirements type 3 or Enhanced performance requirements type 3i but not supporting dual band operation
9.2.1GB	Demodulation of HS-DSCH (Fixed Reference Channel) - Single Link Performance - Enhanced Performance Requirements Type 3 - QPSK/16QAM, Fixed Reference Channel (FRC) H-Set 6A/3A for DB-DC-HSDPA	Rel-9	C_RF139	RA9	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 21-28 and Enhanced performance requirements type 3 or Enhanced performance requirements type 3i and dual band operation
9.2.1GC	Demodulation of HS-DSCH (Fixed Reference Channel) - Single Link Performance - Enhanced Performance Requirements Type 3 - QPSK/16QAM, Fixed Reference Channel (FRC) H-Set 6C/3C	Rel-10	C_RF105	RA10	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 29-30 and Enhanced performance requirements type 3 or Enhanced performance requirements type 3i

Clause	Title	Release	Applicability	Release Applicability	Comments
9.2.1GD	Demodulation of HS-DSCH (Fixed Reference Channel) - Single Link Performance - Enhanced Performance Requirements Type 3 - QPSK/16QAM, Fixed Reference Channel (FRC) H-Set 6D/3D	Rel-10	C_RF106	RA10	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 31-32 and Enhanced performance requirements type 3 or Enhanced performance requirements type 3i
9.2.1H	Demodulation of HS-DSCH (Fixed Reference Channel) - Single Link Performance - Enhanced Performance Requirements Type 2 - 64QAM, Fixed Reference Channel (FRC) H-Set 8	Rel-7	C_RF113	RA7	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 13, 14 and not supporting the optional enhanced performance requirements Type 3 or Type 3i. (Note 4)
9.2.1HA	Demodulation of HS-DSCH (Fixed Reference Channel) - Single Link Performance - Enhanced Performance Requirements Type 2 - 64QAM, Fixed Reference Channel (FRC) H-Set 8 A	Rel-8	C_RF64	RA8	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 23-24 and not supporting the optional enhanced performance requirements Type 3 or Type 3i and not supporting dual band operation
9.2.1HB	Demodulation of HS-DSCH (Fixed Reference Channel) Single Link Performance - Enhanced Performance Requirements Type 2 - 64QAM, Fixed Reference Channel (FRC) H-Set 8 A for DB-DC-HSDPA	Rel-9	C_RF141	RA9	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 23-24 and not supporting the optional enhanced performance requirements Type 3 or Type 3i and supporting dual band operation
9.2.1HC	Demodulation of HS-DSCH (Fixed Reference Channel) - Single Link Performance - Enhanced Performance Requirements Type 2 - QPSK/16QAM, Fixed Reference Channel (FRC) H-Set 8B	Rel-10	C_RF114	RA10	UEs supporting FDD and HS-PDSCH and HSDPA UE capability category 29 and not supporting the optional enhanced performance requirements Type 3 or Type 3i.
9.2.1HD	Demodulation of HS-DSCH (Fixed Reference Channel) - Single Link Performance - Enhanced Performance Requirements Type 2 - QPSK/16QAM, Fixed Reference Channel (FRC) H-Set 8C	Rel-10	C_RF115	RA10	UEs supporting FDD and HS-PDSCH and HSDPA UE capability category 31 and not supporting the optional enhanced performance requirements Type 3 or Type 3i.

Clause	Title	Release	Applicability	Release Applicability	Comments
9.2.11	Demodulation of HS-DSCH (Fixed Reference Channel) - Single Link Performance - Enhanced Performance Requirements Type 3 - 64QAM, Fixed Reference Channel (FRC) H-Set 8	Rel-7	C_RF42	RA7	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 13, 14 and Enhanced performance requirements type 3 (Note 4)
		Rel-7	C_RF44	RA7	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 17, 18. (Note 4)
		Rel-8	C_RF58	RA8	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 13, 14 and Enhanced performance requirements type 3i (Note 4)
		Rel-8	C_RF45	RA8	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 19-20. (Note 4)
9.2.11A	Demodulation of HS-DSCH (Fixed Reference Channel) Single Link Performance - Enhanced Performance Requirements Type 3 - 64QAM, Fixed Reference Channel (FRC) H-Set 8A	Rel-8	C_RF65	RA8	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 23-24 and Enhanced performance requirements type 3 or Enhanced performance requirements type 3i but not supporting dual band operation
		Rel-9	C_RF81	RA9	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 27-28 and Enhanced performance requirements type 3 or Enhanced performance requirements type 3i but not supporting dual band operation
9.2.11B	Demodulation of HS-DSCH (Fixed Reference Channel) Single Link Performance - Enhanced Performance Requirements Type 3 - 64QAM, Fixed Reference Channel (FRC) H-Set 8A for DB-DC-HSDPA	Rel-9	C_RF140	RA9	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 23, 24, 27 or 28 and Enhanced performance requirements type 3 or Enhanced performance requirements type 3i and dual band operation
9.2.11C	Demodulation of HS-DSCH (Fixed Reference Channel) Single Link Performance - Enhanced Performance Requirements Type 3 - 64QAM, Fixed Reference Channel (FRC) H-Set 8B	Rel-10	C_RF105	RA10	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 29-30 and Enhanced performance requirements type 3 or Enhanced performance requirements type 3i.

Clause	Title	Release	Applicability	Release Applicability	Comments
9.2.1ID	Demodulation of HS-DSCH (Fixed Reference Channel) - Single Link Performance - Enhanced Performance Requirements Type 3 - 64QAM, Fixed Reference Channel (FRC) H-Set 8C	Rel-10	C_RF106	RA10	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 31-32 and Enhanced performance requirements type 3 or Enhanced performance requirements type 3i.
9.2.1J	Demodulation of HS-DSCH (Fixed Reference Channel) - Single Link Performance - Enhanced Performance Requirements Type 2 - QPSK/16QAM, Fixed Reference Channel (FRC) H-Set 10	Rel-8	C_RF77	RA8	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 9-10 and Enhanced performance requirements type 2 and not supporting the optional enhanced performance requirements Type3 or Type 3i (Note 4)
		Rel-8	C_RF113	RA8	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 13-14 and not supporting the optional enhanced performance requirements Type 3 or Type 3i. (Note 4)
9.2.1JA	Demodulation of HS-DSCH (Fixed Reference Channel) - Single Link Performance - Enhanced Performance Requirements Type 2 - QPSK/16QAM, Fixed Reference Channel (FRC) H-Set 10A	Rel-8	C_RF116	RA8	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 21-24 and not supporting the optional enhanced performance requirements Type 3 or Type 3i and not supporting dual band operation
9.2.1JB	Demodulation of HS-DSCH (Fixed Reference Channel) - Single Link Performance - Enhanced Performance Requirements Type 2 - QPSK/16QAM, Fixed Reference Channel (FRC) H-Set 10A for DB-DC-HSDPA	Rel-9	C_RF143	RA9	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 21-24 and not supporting the optional enhanced performance requirements Type 3 or Type 3i and supporting Dual band operation
9.2.1JC	Demodulation of HS-DSCH (Fixed Reference Channel) - Single Link Performance - Enhanced Performance Requirements Type 2 - QPSK/16QAM, Fixed Reference Channel (FRC) H-Set 10B	Rel-10	C_RF95	RA10	UEs supporting FDD and HS-PDSCH and HSDPA UE capability category 29 and not supporting the optional enhanced performance requirements Type 3 or Type 3i.

Clause	Title	Release	Applicability	Release Applicability	Comments
9.2.1JD	Demodulation of HS-DSCH (Fixed Reference Channel) - Single Link Performance - Enhanced Performance Requirements Type 2 - QPSK/16QAM, Fixed Reference Channel (FRC) H-Set 10C	Rel-10	C_RF96	RA10	UEs supporting FDD and HS-PDSCH and HSDPA UE capability category 31 and not supporting the optional enhanced performance requirements Type 3 or Type 3i.
9.2.1K	Single Link Performance - Enhanced Performance Requirements Type 3 - QPSK/16QAM, Fixed Reference Channel (FRC) H-Set 10	Rel-8	C_RF50	RA8	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 9-10, 13-14 and Enhanced performance requirements type 3 or Enhanced performance requirements type 3i (Note 4)
		Rel-8	C_RF38	RA8	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 15-18. (Note 4)
		Rel-8	C_RF45	RA8	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 19-20. (Note 4)
9.2.1KA	Demodulation of HS-DSCH (Fixed Reference Channel) - Single Link Performance - Enhanced Performance Requirements Type 3 - QPSK/16QAM, Fixed Reference Channel (FRC) H-Set 10A	Rel-8	C_RF63	RA8	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 21-24 and Enhanced performance requirements type 3 or Enhanced performance requirements type 3i but not supporting dual band operation
		Rel-9	C_RF81	RA9	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 25-28 and Enhanced performance requirements type 3 or Enhanced performance requirements type 3i but not supporting dual band operation
9.2.1KB	Demodulation of HS-DSCH (Fixed Reference Channel) - Single Link Performance - Enhanced Performance Requirements Type 3 - QPSK/16QAM, Fixed Reference Channel (FRC) H-Set 10A for DB-DC-HSDPA	Rel-9	C_RF139	RA9	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 21-28 and Enhanced performance requirements type 3 or Enhanced performance requirements type 3i and dual band operation
9.2.1KC	Demodulation of HS-DSCH (Fixed Reference Channel) - Single Link Performance - Enhanced Performance Requirements Type 3 - QPSK/16QAM, Fixed Reference Channel (FRC) H-Set 10B	Rel-10	C_RF105	RA10	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 29-30 and Enhanced performance requirements type 3 or Enhanced performance requirements type 3i.



Clause	Title	Release	Applicability	Release Applicability	Comments
9.2.1KD	Demodulation of HS-DSCH (Fixed Reference Channel) - Single Link Performance - Enhanced Performance Requirements Type 3 - QPSK/16QAM, Fixed Reference Channel (FRC) H-Set 10C	Rel-10	C_RF106	RA10	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 31-32 and Enhanced performance requirements type 3 or Enhanced performance requirements type 3i.
9.2.1L	Single Link Performance - Enhanced Performance Requirements Type 3i - QPSK, Fixed Reference Channel (FRC) H-Set 6	Rel-8	C_RF57	RA8	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 7-10, 13-20 and Enhanced performance requirements type 3i (Note 4)
9.2.1LA	Enhanced Performance Requirements Type 3i - QPSK, Fixed Reference Channel (FRC) H-Set 6A	Rel-8	C_RF69	RA8	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 21-24 and Enhanced performance requirements type 3i
		Rel-9	C_RF79	RA9	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 25-28 and Enhanced performance requirements type 3i
9.2.1LB	Enhanced Performance Requirements Type 3i - QPSK, Fixed Reference Channel (FRC) H-Set 6A for DB-DC-HSDPA	Rel-9	C_RF142	RA9	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 21-28 and Enhanced performance requirements type 3i and dual band operation
9.2.1LC	Single Link Performance - Enhanced Performance Requirements Type 3i - QPSK, Fixed Reference Channel (FRC) H-Set 6B	Rel-10	C_RF103	RA10	UEs supporting FDD and HS-PDSCH and HSDPA UE capability category 29-30 and Enhanced performance requirements type 3i
9.2.1LD	Single Link Performance - Enhanced Performance Requirements Type 3i - QPSK, Fixed Reference Channel (FRC) H-Set 6C	Rel-10	C_RF104	RA10	UEs supporting FDD and HS-PDSCH and HSDPA UE capability category 31-32 and Enhanced performance requirements type 3i
9.2.1M	Single Link Performance - Enhanced Performance Requirements Type 3i - 16QAM/QPSK, Fixed Reference Channel (FRC) H-Set 6 for Multiflow HSDPA (2 cells)	Rel-11	C_RF137	RA11	UEs supporting FDD and support Multi flow and with HS DSCH categories 21-38.

Clause	Title	Release	Applicability	Release Applicability	Comments
9.2.1MA	Single Link Performance - Enhanced Performance Requirements Type 3i - 16QAM/QPSK, Fixed Reference Channel (FRC) H-Set 6 for Multiflow HSDPA (3 cells)	Rel-11	C_RF138	RA11	UEs supporting FDD and support Multi flow and with HS DSCH categories 29-36 or 38.
9.2.2A	Demodulation of HS-DSCH (Fixed Reference Channel) - Open Loop Diversity Performance - QPSK/16QAM, Fixed Reference Channel (FRC) H-Set 1/2/3	Rel-5	C_RF14a	RA5	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 1-6, but not supporting the optional enhanced performance requirements types 1, 2, 3 or 3i.
		Rel-6	C_RF16	RA6	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 7-10, but not supporting the optional enhanced performance requirements types 1, 2, 3 or 3i.
9.2.2B	Demodulation of HS-DSCH (Fixed Reference Channel) - Open Loop Diversity Performance - QPSK, Fixed Reference Channel (FRC) H-Set 4/5	Rel-5	C_RF15	RA5	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 11-12
9.2.2C	Demodulation of HS-DSCH (Fixed Reference Channel) - Open Loop Diversity Performance - Enhanced Performance Requirements Type 1 - QPSK/16QAM, Fixed Reference Channel (FRC) H-Set 1/2/3	Rel-6	C_RF19	RA6	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 1-10 and Enhanced performance requirements type 1
9.2.2D	Demodulation of HS-DSCH (Fixed Reference Channel) - Open Loop Diversity Performance - Enhanced Performance Requirements Type 2 - QPSK/16QAM, Fixed Reference Channel (FRC) H-Set 3	Rel-6	C_RF20	□□□	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 7-10 and Enhanced performance requirements type 2 and not supporting the optional enhanced performance requirements Type 3 or Type 3i.
		Rel-7	C_RF113	RA7	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 13-14 and not supporting the optional enhanced performance requirements Type 3 or Type 3i.

Clause	Title	Release	Applicability	Release Applicability	Comments
9.2.2E	Demodulation of HS-DSCH (Fixed Reference Channel) - Open Loop Diversity Performance - Enhanced Performance Requirements Type 3 - QPSK/16QAM, Fixed Reference Channel (FRC) H-Set 3	Rel-7	C_RF47	RA7	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 7-10, 13-14 and Enhanced performance requirements type 3
		Rel-7	C_RF38	RA7	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 15-18
		Rel-8	C_RF59	RA8	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 7-10, 13-14 and Enhanced performance requirements type 3i
		Rel-8	C_RF45	RA8	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 19-20.
9.2.3A	Demodulation of HS-DSCH (Fixed Reference Channel) - Closed Loop Diversity Performance - QPSK/16QAM, Fixed Reference Channel (FRC) H-Set 1/2/3	Rel-5	C_RF14a	RA5	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 1-6, but not supporting the optional enhanced performance requirements types 1, 2, 3 or 3i.
		Rel-6	C_RF16	RA6	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 7-10, but not supporting the optional enhanced performance requirements types 1, 2, 3 or 3i.
9.2.3B	Demodulation of HS-DSCH (Fixed Reference Channel) - Closed Loop Diversity Performance - QPSK, Fixed Reference Channel (FRC) H-Set 4/5	Rel-5	C_RF15	RA5	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 11-12
9.2.3C	Demodulation of HS-DSCH (Fixed Reference Channel) - Closed Loop Diversity Performance - Enhanced Performance Requirements Type 1 - QPSK/16QAM, Fixed Reference Channel (FRC) H-Set 1/2/3	Rel-6	C_RF19	RA6	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 1-10 and Enhanced performance requirements type 1
9.2.3D	Demodulation of HS-DSCH (Fixed Reference Channel) - Closed Loop Diversity Performance - Enhanced Performance Requirements Type 2 - QPSK/16QAM, Fixed Reference Channel (FRC) H-Set 6/3	Rel-6	C_RF20	RA6	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 7-10 and Enhanced performance requirements type 2 and not supporting the optional enhanced performance requirements Type 3 or Type 3i.

Clause	Title	Release	Applicability	Release Applicability	Comments
		Rel-7	C_RF113	RA7	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 13-14 and not supporting the optional enhanced performance requirements Type 3 or Type 3i.
9.2.3E	Demodulation of HS-DSCH (Fixed Reference Channel) - Closed Loop Diversity Performance - Enhanced Performance Requirements Type 3 - QPSK/16QAM, Fixed Reference Channel (FRC) H-Set 3	Rel-7	C_RF47	RA7	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 7-10, 13-14 and Enhanced performance requirements type 3
		Rel-7	C_RF38	RA7	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 15-18.
		Rel-8	C_RF59	RA8	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 7-10, 13-14 and Enhanced performance requirements type 3i
		Rel-8	C_RF45	RA8	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 19-20.
9.2.4A	MIMO Performance - Fixed Reference Channel (FRC) H-Set 9	Rel-7	C_RF38	RA7	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 15-18 (Note 4)
9.2.4B	MIMO Performance - Fixed Reference Channel (FRC) H-Set 11	Rel-8	C_RF45	RA8	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 19-20 (Note 4)
9.2.4C	MIMO Performance - Fixed Reference Channel (FRC) H-Set 9A	Rel-9	C_RF80a	RA9	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 25-28 but not supporting dual band operation
9.2.4CA	MIMO Performance - Fixed Reference Channel (FRC) H-Set 9A for DB-DC-HSDPA	Rel-10	C_RF80b	RA10	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 25-28 and supporting dual band operation
9.2.4D	MIMO Performance - Fixed Reference Channel (FRC) H-Set 11A	Rel-9	C_RF78a	RA9	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 27-28 but not supporting dual band operation
9.2.4DA	MIMO Performance - Fixed Reference Channel (FRC) H-Set 11A for DB-DC-HSDPA	Rel-10	C_RF78b	RA10	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 27-28 and supporting dual band operation
9.2.4E	MIMO Performance - Fixed Reference Channel (FRC) H-Set 9 Asymmetric CPICHS	Rel-10 (Note1)	C_RF38	RA7	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 15-18 (Note 4)

Clause	Title	Release	Applicability	Release Applicability	Comments
9.2.4F	MIMO Performance - Fixed Reference Channel (FRC) H-Set 11 Asymmetric CPICHS	Rel-10 (Note2)	C_RF45	RA8	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 19-20 (Note 4)
9.2.4G	MIMO Performance - Fixed Reference Channel (FRC) H-Set 9A Asymmetric CPICHS	Rel-10 (Note3)	C_RF80	RA9	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 25-28
9.2.4H	MIMO Performance - Fixed Reference Channel (FRC) H-Set 11A Asymmetric CPICHS	Rel-10 (Note3)	C_RF78	RA9	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 27-28
9.3.1	Reporting of Channel Quality Indicator - Single Link Performance - AWGN Propagation Conditions	Rel-5 only	C_RF40	RF_RO_04	UEs supporting FDD and HS-PDSCH and HSDPA UE categories 1 - 8, 11 and 12
		Rel-6	C_RF82	RA6	UEs supporting FDD and HS-PDSCH and HSDPA UE categories 1 - 12
		Rel-7	C_RF83	RA7	UEs supporting FDD and HS-PDSCH and HSDPA UE categories 13 - 20
9.3.1A	Reporting of Channel Quality Indicator - Single Link Performance - AWGN Propagation Conditions, 64QAM	Rel-7	C_RF35	RA7	UEs supporting FDD and HS-PDSCH and HSDPA UE categories 13, 14 17 and 18
		Rel-8	C_RF72	RA8	UEs supporting FDD and HS-PDSCH and HSDPA UE categories 13, 14, 17, 18, 19 and 20
9.3.1B	Single Link Performance - AWGN Propagation Conditions, DC-HSDPA requirements	Rel-8	C_RF66	RA8	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 21-24
		Rel-9	C_RF80	RA9	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 25-28
9.3.1BA	Single Link Performance - AWGN Propagation Conditions, DB-DC-HSDPA requirements	Rel-9	C_RF94	RA9	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 21-28 and dual band operation
9.3.1BB	Single Link Performance - AWGN Propagation Conditions, 4C-HSDPA requirements (3 Carriers)	Rel-10	C_RF119	RA10	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 29-30
9.3.1BC	Single Link Performance - AWGN Propagation Conditions, 4C-HSDPA requirements	Rel-10	C_RF120	RA10	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 31-32

Clause	Title	Release	Applicability	Release Applicability	Comments
9.3.2	Reporting of Channel Quality Indicator - Single Link Performance - Fading Propagation Conditions	Rel-5 only	C_RF40	RF_RO_04	UEs supporting FDD and HS-PDSCH and HSDPA UE categories 1 - 8, 11 and 12
		Rel-6	C_RF82	RA6	UEs supporting FDD and HS-PDSCH and HSDPA UE categories 1 -12
		Rel-7	C_RF83	RA7	UEs supporting FDD and HS-PDSCH and HSDPA UE categories 13 - 20
9.3.2A	Single Link Performance - Fading Propagation Conditions, DC-HSDPA requirements	Rel-8	C_RF66	RA7	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 21-24
		Rel-9	C_RF80	RA8	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 25-28
9.3.2AA	Single Link Performance - Fading Propagation Conditions, DB-DC-HSDPA requirements	Rel-9	C_RF94	RA9	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 21-28 and dual band operation
9.3.2AB	Single Link Performance - Fading Propagation Conditions, 4C-HSDPA requirements(3 Carriers)	Rel-10	C_RF119	RA10	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 29-30
9.3.2AC	Single Link Performance - Fading Propagation Conditions, 4C-HSDPA requirements	Rel-10	C_RF120	RA10	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 31-32
9.3.2B	Reporting of Channel Quality Indicator - Single Link Performance - Fading Propagation Conditions, 64QAM	Rel-7 only	C_RF35	RF_RO_05	UEs supporting FDD and HS-PDSCH and HSDPA UE categories 13, 14 17 and 18
		Rel-8	C_RF72	RA8	UEs supporting FDD and HS-PDSCH and HSDPA UE categories 13, 14 ,17, 18, 19 and 20
9.3.2C	Single Link Performance– Fading propagation conditions, Multiflow HSDPA requirements (2 Cells)	Rel-11	C_RF137	RA11	UEs supporting FDD and support Multi flow and with HS DSCH categories 21-38.
9.3.2CA	Single Link Performance – Fading propagation conditions, Multiflow HSDPA requirements (3 cells)	Rel-11	C_RF138	RA11	UEs supporting FDD and support Multi flow and with HS DSCH categories 29-36 or 38.
9.3.3	Reporting of Channel Quality Indicator - Open Loop Diversity Performance - AWGN Propagation Conditions	Rel-6	C_RF82	RA6	UEs supporting FDD and HS-PDSCH and HSDPA UE categories 1 -12
		Rel-7	C_RF83	RA7	UEs supporting FDD and HS-PDSCH and HSDPA UE categories 13 - 20

Clause	Title	Release	Applicability	Release Applicability	Comments
9.3.4	Reporting of Channel Quality Indicator - Open Loop Diversity Performance - Fading Propagation Conditions	Rel-6	C_RF82	RA6	UEs supporting FDD and HS-PDSCH and HSDPA UE categories 1 -12
		Rel-7	C_RF83	RA7	UEs supporting FDD and HS-PDSCH and HSDPA UE categories 13 - 20
9.3.5	Reporting of Channel Quality Indicator - Closed Loop Diversity Performance - AWGN Propagation Conditions	Rel-6	C_RF82	RA6	UEs supporting FDD and HS-PDSCH and HSDPA UE categories 1 -12
		Rel-7	C_RF83	RA7	UEs supporting FDD and HS-PDSCH and HSDPA UE categories 13 - 20
9.3.6	Reporting of Channel Quality Indicator - Closed Loop Diversity Performance - Fading Propagation Conditions	Rel-6	C_RF82	RA6	UEs supporting FDD and HS-PDSCH and HSDPA UE categories 1 -12
		Rel-7	C_RF83	RA7	UEs supporting FDD and HS-PDSCH and HSDPA UE categories 13 - 20
9.3.7A	Reporting of Channel Quality Indicator - MIMO Single Stream Fading Conditions	Rel-7	C_RF38	RA7	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 15-18
		Rel-8	C_RF56	RA8	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 19 and 20
9.3.7B	Reporting of Channel Quality Indicator - MIMO Dual Stream Fading Conditions	Rel-7	C_RF38	RA7	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 15-18
		Rel-8	C_RF56	RA8	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 19 and 20
9.3.7C	Reporting of Channel Quality Indicator - MIMO Dual Stream Fading Conditions – UE categories 19-20	Rel-8	C_RF56	RA8	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 19 and 20
9.3.7D	Reporting of Channel Quality Indicator - MIMO Dual Stream Static Orthogonal Conditions - UE categories 15-20	Rel-8	C_RF55	RA8	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 15 to 20
9.3.7E	Reporting of Channel Quality Indicator - MIMO Dual Stream Static Orthogonal Conditions - UE categories 19-20	Rel-8	C_RF56	RA8	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 19 and 20
9.3.7F	Reporting of Channel Quality Indicator - MIMO Single Stream Fading Conditions- Asymmetric CPICHS	Rel-10 (Note1)	C_RF55	RA7	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 15 to 20

Clause	Title	Release	Applicability	Release Applicability	Comments
9.3.7G	Reporting of Channel Quality Indicator - MIMO Dual Stream Fading Conditions- Asymmetric CPICHs	Rel-10 (Note1)	C_RF55	RA7	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 15 to 20
9.3.7H	Reporting of Channel Quality Indicator - MIMO Dual Stream Fading Conditions – UE categories 19-20 - Asymmetric CPICHs	Rel-10 (Note2)	C_RF56	RA8	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 19 and 20
9.3.7I	Reporting of Channel Quality Indicator - MIMO Dual Stream Static Orthogonal Conditions - UE categories 15-20 - Asymmetric CPICHs	Rel-10 (Note2)	C_RF55	RA8	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 15 to 20
9.3.7J	Reporting of Channel Quality Indicator - MIMO Dual Stream Static Orthogonal Conditions - UE categories 19-20 -20 - Asymmetric CPICHs	Rel-10 (Note2)	C_RF56	RA8	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 19 and 20
9.4.1	HS-SCCH Detection Performance - Single Link Performance	Rel-5	C_RF02	RA5	UEs supporting FDD and HS-PDSCH
9.4.1A	HS-SCCH Detection Performance - Single Link Performance - Enhanced Performance Requirements Type 1	Rel-6	C_RF21	RA6	UEs supporting FDD and HS-PDSCH and Enhanced performance requirements type 1.
		Rel-7	C_RF61	RA7	UEs supporting FDD and HS-PDSCH and Enhanced performance requirements type 3
		Rel-8	C_RF60	RA8	UEs supporting FDD and HS-PDSCH and Enhanced performance requirements type 3i
9.4.2	HS-SCCH Detection Performance - Open Loop Diversity Performance	Rel-6	C_RF02	RA6	UEs supporting FDD and HS-PDSCH
9.4.2A	HS-SCCH Detection Performance - Open Loop Diversity Performance - Enhanced Performance Requirements Type 1	Rel-6	C_RF21	RA6	UEs supporting FDD and HS-PDSCH and Enhanced performance requirements type 1 or type 3
		Rel-7	C_RF61	RA7	UEs supporting FDD and HS-PDSCH and Enhanced performance requirements type 3
		Rel-8	C_RF60	RA8	UEs supporting FDD and HS-PDSCH and Enhanced performance requirements type 3i
9.4.3	HS-SCCH Detection Performance - HS-SCCH Type 3 Performance	Rel-7	C_RF38	RA7	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 15-18



Clause	Title	Release	Applicability	Release Applicability	Comments
9.4.3A	HS-SCCH Type 3 Performance -STTD disabled- Asymmetric CPICHs	Rel-10	C_RF55	RA10	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 15-20
9.4.3B	HS-SCCH Type 3 Performance -STTD enabled- Asymmetric CPICHs	Rel-10	C_RF99	RA10	UEs supporting FDD and HS-PDSCH and HSDPA UE capability categories 15-20 and supporting Tx Diversity on DL control channels
9.4.4	HS-SCCH Detection Performance - HS-SCCH Type 3 Performance for MIMO only with single-stream restriction	Rel-10	C_RF100	RA10	UEs supporting FDD and HS-PDSCH and MIMO only with single-stream restriction and supporting Tx Diversity on DL control channels
9.4.4A	HS-SCCH Detection Performance - HS-SCCH Type 3 Performance for MIMO only with single-stream restriction-Enhanced Performance Requirements Type 1	Rel-10	C_RF101	RA10	UEs supporting FDD and HS-PDSCH and MIMO only with single-stream restriction and supporting Tx Diversity on DL control channels and Enhanced performance requirements type 1
9.4.4B	HS-SCCH Detection Performance - HS-SCCH Type 3 Performance for MIMO only with single-stream restriction-STTD disabled-asymmetric CPICHs	Rel-10	C_RF97	RA10	UEs supporting FDD and HS-PDSCH and MIMO only with single-stream restriction
9.4.4C	HS-SCCH Detection Performance - HS-SCCH Type 3 Performance for MIMO only with single-stream restriction-STTD disabled-asymmetric CPICHs-Enhanced Performance Requirements Type 1	Rel-10	C_RF98	RA10	UEs supporting FDD and HS-PDSCH and MIMO only with single-stream restriction and Enhanced performance requirements type 1
9.4.4D	HS-SCCH Detection Performance - HS-SCCH Type 3 Performance for MIMO only with single-stream restriction-STTD enabled-asymmetric CPICHs	Rel-10	C_RF100	RA10	UEs supporting FDD and HS-PDSCH and MIMO only with single-stream restriction and supporting Tx Diversity on DL control channels
9.4.4E	HS-SCCH Detection Performance - HS-SCCH Type 3 Performance for MIMO only with single-stream restriction-STTD enabled-asymmetric CPICHs-Enhanced Performance Requirements Type 1	Rel-10	C_RF101	RA10	UEs supporting FDD and HS-PDSCH and MIMO only with single-stream restriction-and supporting Tx Diversity on DL control channels and Enhanced performance requirements type 1
9.5.1	HS-SCCH-less demodulation of HS-DSCH	Rel-7	C_RF36	RA7	UEs supporting FDD and HS-SCCH-less HS-DSCH

Clause	Title	Release	Applicability	Release Applicability	Comments
9.5.1A	HS-SCCH-less demodulation of HS-DSCH - Enhanced Performance Requirements Type 1	Rel-7	C_RF37	RA7	UEs supporting FDD and HS-SCCH-less HS-DSCH and Enhanced performance requirements type 1
9.6.1	Single link HS-DSCH Demodulation performance in CELL_FACH state	Rel-7	C_RF70	RA7	UEs supporting FDD and HS-PDSCH in CELL_FACH
9.6.2	Single link HS-SCCH Detection performance in CELL_FACH state	Rel-7	C_RF70	RA7	UEs supporting FDD and HS-PDSCH in CELL_FACH
10.2.1.1	Detection of E-DCH HARQ ACK Indicator Channel (E-HICH) - Single link performance (10 ms TTI)	Rel-6	C_RF23	RA6	UEs supporting FDD and HS-PDSCH and E-DPDCH
10.2.1.1A	Single link performance (10ms TTI, Type 1)	Rel-7	C_RF32	RA7	UEs supporting FDD and HS-PDSCH and E-DPDCH and Enhanced performance requirements type 1
10.2.1.2	Detection of E-DCH HARQ ACK Indicator Channel (E-HICH) - Single link performance (2 ms TTI)	Rel-6	C_RF28	RA6	UEs supporting FDD and HS-PDSCH and E-DPDCH with 2 ms TTI
10.2.1.2A	Single link performance (2ms TTI, Type 1)	Rel-7	C_RF33	RA7	UEs supporting FDD and HS-PDSCH and E-DPDCH with 2 ms TTI and Enhanced performance requirements type 1
10.2.2.1.1	Detection in Inter-Cell Handover conditions - RLS not containing the Serving E-DCH cell (10 ms TTI)	Rel-6	C_RF23	RA6	UEs supporting FDD and HS-PDSCH and E-DPDCH
10.2.2.1.1 A	RLS not containing the Serving E-DCH cell (10ms TTI, Type 1)	Rel-7	C_RF32	RA7	UEs supporting FDD and HS-PDSCH and E-DPDCH and Enhanced performance requirements type 1
10.2.2.1.2	Detection in Inter-Cell Handover conditions - RLS not containing the Serving E-DCH cell (2 ms TTI)	Rel-6	C_RF28	RA6	UEs supporting FDD and HS-PDSCH and E-DPDCH with 2 ms TTI
10.2.2.1.2 A	RLS not containing the Serving E-DCH cell (2ms TTI, Type 1)	Rel-7	C_RF33	RA7	UEs supporting FDD and HS-PDSCH and E-DPDCH with 2 ms TTI and Enhanced performance requirements type 1
10.2.2.2.1	Detection in Inter-Cell Handover conditions - RLS containing the Serving E-DCH cell (10 ms TTI)	Rel-6	C_RF23	RA6	UEs supporting FDD and HS-PDSCH and E-DPDCH
10.2.2.2.1 A	RLS containing the Serving E-DCH cell (10ms TTI, Type 1)	Rel-7	C_RF32	RA7	UEs supporting FDD and HS-PDSCH and E-DPDCH and Enhanced performance requirements type 1

Clause	Title	Release	Applicability	Release Applicability	Comments
10.2.2.2.2	Detection in Inter-Cell Handover conditions - RLS containing the Serving E-DCH cell (2 ms TTI)	Rel-6	C_RF28	RA6	UEs supporting FDD and HS-PDSCH and E-DPDCH with 2 ms TTI
10.2.2.2.2 A	RLS containing the Serving E-DCH cell (2ms TTI, Type 1)	Rel-7	C_RF33	RA7	UEs supporting FDD and HS-PDSCH and E-DPDCH with 2 ms TTI and Enhanced performance requirements type 1
10.3.1.1	Detection of E-DCH Relative Grant Channel (E-RGCH) - Single link performance (10 ms TTI)	Rel-6	C_RF23	RA6	UEs supporting FDD and HS-PDSCH and E-DPDCH
10.3.1.1A	Single link performance (10ms TTI, Type 1)	Rel-7	C_RF32	RA7	UEs supporting FDD and HS-PDSCH and E-DPDCH and Enhanced performance requirements type 1
10.3.1.2	Detection of E-DCH Relative Grant Channel (E-RGCH) - Single link performance (2 ms TTI)	Rel-6	C_RF28	RA6	UEs supporting FDD and HS-PDSCH and E-DPDCH with 2 ms TTI
10.3.1.2A	Single link performance (2ms TTI, Type 1)	Rel-7	C_RF33	RA7	UEs supporting FDD and HS-PDSCH and E-DPDCH with 2 ms TTI and Enhanced performance requirements type 1
10.3.2	Detection of E-DCH Relative Grant Channel (E-RGCH) - Detection in Inter-Cell Handover conditions	Rel-6	C_RF23	RA6	UEs supporting FDD and HS-PDSCH and E-DPDCH
10.3.2A	Detection in Inter-Cell Handover conditions (Type 1)	Rel-7	C_RF32	RA7	UEs supporting FDD and HS-PDSCH and E-DPDCH and Enhanced performance requirements type 1
10.4.1	Demodulation of E-DCH Absolute Grant Channel (E-AGCH) - Single Link Performance	Rel-6	C_RF23	RA6	UEs supporting FDD and HS-PDSCH and E-DPDCH
10.4.1A	Single link performance (Type 1)	Rel-7	C_RF32	RA7	UEs supporting FDD and HS-PDSCH and E-DPDCH and Enhanced performance requirements type 1
11.2	Demodulation of MTCH	Rel-6	C_RF29a	RA6	UEs supporting FDD and MBMS. Note: For UEs for which test case 11.2A is applicable then test case 11.2 is optional.
11.2A	Demodulation of MTCH - Enhanced Performance Requirements Type 1	Rel-7	C_RF31	RA7	UEs supporting FDD and Enhanced performance requirements type 1 for MBMS
11.3	Demodulation of MTCH and cell identification	Rel-6	C_RF29	RA6	UEs supporting FDD and MBMS

NOTE 1: This test case can be optionally tested for Rel 7 and onward UE's supporting MIMO feature

NOTE 2: This test case can be optionally tested for Rel 8 and onward UE's supporting MIMO feature

NOTE 3: This test case can be optionally tested for Rel 9 and onward UE's supporting MIMO feature

NOTE 4: This test case may be identified as redundant according to table 2

**Table 1b: Applicability**

C_RF01	IF A.7/8 OR A.7/10 THEN R ELSE N/A
C_RF02	IF A.7/14 THEN R ELSE N/A
C_RF03	IF A.6/3 OR A.6/14 OR A.6/15 OR A.6/16 OR A.6/19 OR A.6/21 OR A.6/23 OR A.6/24 OR A.6/25 THEN R ELSE N/A
C_RF04	IF A.7/9 OR A.7/10 THEN R ELSE N/A
C_RF05	IF A.1/1 AND A.1/4 THEN R ELSE N/A
C_RF06	IF A.1/1 AND (A.1/2 OR A.1/3) THEN R ELSE N/A
C_RF07	IF A.1/1 AND A.1/5 AND A.2/2 THEN R ELSE N/A
C_RF08	IF A.10/4 THEN R ELSE N/A
C_RF09	IF A.10/6 THEN R ELSE N/A
C_RF10	IF A.10/8 THEN R ELSE N/A
C_RF11	IF A.10/9 THEN R ELSE N/A
C_RF12	IF A.2/2 THEN R ELSE N/A
C_RF13	IF A.10/3 AND A.10/4 THEN R ELSE N/A
C_RF14	IF A.7/14 AND (A.8/1 OR A.8/2 OR A.8/3 OR A.8/4 OR A.8/5 OR A.8/6) THEN R ELSE N/A
C_RF14a	IF A.7/14 AND (A.8/1 OR A.8/2 OR A.8/3 OR A.8/4 OR A.8/5 OR A.8/6) AND NOT(A.11/1 OR A.11/2 OR A.11/3 OR A.11/6) THEN R ELSE N/A
C_RF15	IF A.7/14 AND (A.8/11 OR A.8/12) THEN R ELSE N/A
C_RF16	IF A.7/14 AND (A.8/7 OR A.8/8 OR A.8/9 OR A.8/10) AND NOT(A.11/1 OR A.11/2 OR A.11/3 OR A.11/6) THEN R ELSE N/A
C_RF17	IF A.7/14 AND ((A.11/1 AND (A.8/1 OR A.8/2 OR A.8/3 OR A.8/4 OR A.8/5 OR A.8/6))) THEN R ELSE N/A
C_RF18	IF A.7/14 AND A.11/1 AND (A.8/7 OR A.8/8 OR A.8/9 OR A.8/10) THEN R ELSE N/A
C_RF19	IF A.7/14 AND ((A.11/1 AND (A.8/1 OR A.8/2 OR A.8/3 OR A.8/4 OR A.8/5 OR A.8/6 OR A.8/7 OR A.8/8 OR A.8/9 OR A.8/10))) THEN R ELSE N/A
C_RF20	IF A.7/14 AND A.11/2 AND (A.8/7 OR A.8/8 OR A.8/9 OR A.8/10) AND NOT (A.11/3 OR A.11/6) THEN R ELSE N/A
C_RF21	IF A.7/14 AND A.11/1 THEN R ELSE N/A
C_RF23	IF A.7/14 AND A.7/15 THEN R ELSE N/A
C_RF24	IF A.7/14 AND (NOT A.7/15) THEN R ELSE N/A
C_RF25	Void
C_RF26	IF A.1/1 AND A.7/14 AND (A.8/1 OR A.8/2 OR A.8/3 OR A.8/4 OR A.8/5 OR A.8/6 OR A.8/7 OR A.8/8 OR A.8/9 OR A.8/10) THEN R ELSE N/A
C_RF27	IF A.1/1 AND A.1/4 AND A.2/1 AND (A.2a/1 OR A.2a/2) THEN R ELSE N/A
C_RF28	IF A.7/14 AND A.7/15 AND (A.9/2 OR A.9/4 OR A.9/6 OR A.9/7) THEN R ELSE N/A
C_RF29	IF A.7/16 THEN R ELSE N/A
C_RF29a	IF C_RF31 THEN O ELSE (IF A.7/16 THEN R ELSE N/A)
C_RF30	IF A.7/16 AND A.1/4 THEN R ELSE N/A
C_RF31	IF A.1/1 AND A.11/5 THEN R ELSE N/A
C_RF32	IF A.7/14 AND A.7/15 AND A.11/4 THEN R ELSE N/A
C_RF33	IF A.7/14 AND A.7/15 AND A.11/4 AND (A.9/2 OR A.9/4 OR A.9/6 OR A.9/7) THEN R ELSE N/A
C_RF34	IF A.10/10 THEN R ELSE N/A
C_RF35	IF A.1/1 AND A.7/14 AND (A.8/13 OR A.8/14 OR A.8/17 OR A.8/18) THEN R ELSE N/A
C_RF36	IF A.7/17 THEN R ELSE N/A
C_RF37	IF A.7/17 AND A.11/1 THEN R ELSE N/A
C_RF38	IF A.1/1 AND A.7/14 AND (A.8/15 OR A.8/16 OR A.8/17 OR A.8/18) THEN R ELSE N/A
C_RF39	IF A.7/14 AND A.7/18 THEN R ELSE N/A
C_RF40	IF A.1/1 AND A.7/14 AND (A.8/1 OR A.8/2 OR A.8/3 OR A.8/4 OR A.8/5 OR A.8/6 OR A.8/7 OR A.8/8 OR A.8/11 OR A.8/12) THEN R ELSE N/A
C_RF41	IF A.1/1 AND A.7/14 AND (A.8/13 OR A.8/14) THEN R ELSE N/A
C_RF42	IF A.1/1 AND A.7/14 AND (A.8/13 OR A.8/14) AND A.11/3 THEN R ELSE N/A
C_RF43	IF A.7/14 AND A.7/15 AND A.9/7 THEN R ELSE N/A
C_RF44	IF A.1/1 AND A.7/14 AND (A.8/17 OR A.8/18) THEN R ELSE N/A
C_RF45	IF A.1/1 AND A.7/14 AND (A.8/19 OR A.8/20) THEN R ELSE N/A
C_RF47	IF A.7/14 AND A.11/3 AND (A.8/7 OR A.8/8 OR A.8/9 OR A.8/10 OR A.8/13 OR A.8/14) THEN R ELSE N/A
C_RF49	Void
C_RF50	IF A.7/14 AND (A.11/3 OR A.11/6) AND (A.8/9 OR A.8/10 OR A.8/13 OR A.8/14) THEN R ELSE N/A
C_RF51	Void
C_RF53	Void
C_RF54	IF A.1/1 AND A.7/19 THEN R ELSE N/A
C_RF55	IF A.1/1 AND A.7/14 AND (A.8/15 OR A.8/16 OR A.8/17 OR A.8/18 OR A.8/19 OR A.8/20) THEN R ELSE N/A
C_RF56	IF A.1/1 AND A.7/14 AND (A.8/19 OR A.8/20) THEN R ELSE N/A
C_RF57	IF A.1/1 AND A.7/14 AND A.11/6 AND (A.8/7 OR A.8/8 OR A.8/9 OR A.8/10 OR A.8/13 OR A.8/14 OR A.8/15 OR A.8/16 OR A.8/17 OR A.8/18 OR A.8/19 OR A.8/20) THEN R ELSE N/A
C_RF58	IF A.1/1 AND A.7/14 AND (A.8/13 OR A.8/14) AND A.11/6 THEN R ELSE N/A
C_RF59	IF A.7/14 AND A.11/6 AND (A.8/7 OR A.8/8 OR A.8/9 OR A.8/10 OR A.8/13 OR A.8/14) THEN R ELSE N/A
C_RF60	IF A.7/14 AND A.11/6 THEN R ELSE N/A

C_RF61	IF A.7/14 AND A.11/3 THEN R ELSE N/A
C_RF62	IF A.7/14 AND (A.8/21 OR A.8/22 OR A.8/23 OR A.8/24) AND NOT A.7/23 THEN R ELSE N/A
C_RF63	IF A.7/14 AND (A.11/3 OR A.11/6) AND (A.8/21 OR A.8/22 OR A.8/23 OR A.8/24) AND NOT A.7/23 THEN R ELSE N/A
C_RF64	IF A.7/14 AND (A.8/23 OR A.8/24) AND NOT (A.11/3 OR A.11/6) AND NOT A.7/23 THEN R ELSE N/A
C_RF65	IF A.7/14 AND (A.11/3 OR A.11/6) AND (A.8/23 OR A.8/24) AND NOT A.7/23 THEN R ELSE N/A
C_RF66	IF A.7/14 AND (A.8/21 OR A.8/22 OR A.8/23 OR A.8/24) THEN R ELSE N/A
C_RF67	IF A.7/14 AND (A.8/23 OR A.8/24) THEN R ELSE N/A
C_RF68	IF A.7/14 AND A.7/20 THEN R ELSE N/A
C_RF69	IF A.7/14 AND A.11/6 AND (A.8/21 OR A.8/22 OR A.8/23 OR A.8/24) THEN R ELSE N/A
C_RF70	IF A.7/21 THEN R ELSE N/A
C_RF71	IF A.1/1 AND A.7/22 THEN R ELSE N/A
C_RF72	IF A.1/1 AND A.7/14 AND (A.8/13 OR A.8/14 OR A.8/17 OR A.8/18 OR A.8/19 OR A.8/20) THEN R ELSE N/A
C_RF73	IF A.1/1 AND A.1/6 THEN R ELSE N/A
C_RF74	IF A.1/1 AND A.1/7 THEN R ELSE N/A
C_RF75	IF NOT A.11/7 THEN R ELSE N/A
C_RF76	IF A.11/7 THEN R ELSE N/A
C_RF77	IF A.1/1 AND A.7/14 AND A.11/2 AND (A.8/9 OR A.8/10) AND NOT (A.11/3 OR A.11/6) THEN R ELSE N/A
C_RF78	IF A.7/14 AND (A.8/27 OR A.8/28) THEN R ELSE N/A
C_RF78a	IF A.7/14 AND (A.8/27 OR A.8/28) ) AND NOT A.7/23 THEN R ELSE N/A
C_RF78b	IF A.7/14 AND (A.8/27 OR A.8/28) AND A.7/23 THEN R ELSE N/A
C_RF79	IF A.7/14 AND A.11/6 AND (A.8/25 OR A.8/26 OR A.8/27 OR A.8/28) THEN R ELSE N/A
C_RF80	IF A.7/14 AND (A.8/25 OR A.8/26 OR A.8/27 OR A.8/28) THEN R ELSE N/A
C_RF80a	IF A.7/14 AND (A.8/25 OR A.8/26 OR A.8/27 OR A.8/28) AND NOT A.7/23 THEN R ELSE N/A
C_RF80b	IF A.7/14 AND (A.8/25 OR A.8/26 OR A.8/27 OR A.8/28) AND A.7/23 THEN R ELSE N/A
C_RF81	IF A.7/14 AND (A.11/3 OR A.11/6) AND (A.8/25 OR A.8/26 OR A.8/27 OR A.8/28) AND NOT A.7/23 THEN R ELSE N/A
C_RF82	IF A.1/1 AND A.7/14 AND (A.8/1 OR A.8/2 OR A.8/3 OR A.8/4 OR A.8/5 OR A.8/6 OR A.8/7 OR A.8/8 OR A.8/9 OR A.8/10 OR A.8/11 OR A.8/12) THEN R ELSE N/A
C_RF83	IF A.1/1 AND A.7/14 AND (A.8/13 OR A.8/14 OR A.8/15 OR A.8/16 OR A.8/17 OR A.8/18 OR A.8/19 OR A.8/20) THEN R ELSE N/A
C_RF84	IF A.1/1 AND A.7/23 THEN R ELSE N/A
C_RF85	IF A.1/1 AND A.7/23 AND (A.8/23 OR A.8/24) THEN R ELSE N/A
C_RF86	IF A.1/1 AND A.7/14 AND A.7/27 AND (A.9/8 OR A.9/9) THEN R ELSE N/A
C_RF87	IF A.1/1 AND (A.7/24 AND A.7/25) THEN R ELSE N/A
C_RF88	IF A.1/1 AND (A.7/24 AND A.7/26) THEN R ELSE N/A
C_RF89	IF A.1/1 AND A.7/14 AND (A.8/13 OR A.8/14 OR A.8/15 OR A.8/16 OR A.8/17 OR A.8/18) THEN R ELSE N/A
C_RF90	IF A.7/14 AND (A.11/3 OR A.11/6) AND (A.8/21 OR A.8/22 OR A.8/23 OR A.8/24 OR A.8/25 OR A.8/26 OR A.8/27 OR A.8/28) AND A.7/23 THEN R ELSE N/A
C_RF91	IF A.7/14 AND (A.11/3 OR A.11/6) AND (A.8/23 OR A.8/24 OR A.8/27 OR A.8/28) AND A.7/23 THEN R ELSE N/A
C_RF92	IF A.7/14 AND (A.8/21 OR A.8/22 OR A.8/23 OR A.8/24) AND A.7/23 THEN R ELSE N/A
C_RF93	IF A.7/14 AND (A.8/23 OR A.8/24) AND NOT (A.11/3 OR A.11/6) AND A.7/23 THEN R ELSE N/A
C_RF94	IF A.7/14 AND (A.8/21 OR A.8/22 OR A.8/23 OR A.8/24 OR A.8/25 OR A.8/26 OR A.8/27 OR A.8/28) AND A.7/23 THEN R ELSE N/A
C_RF95	IF A.7/14 AND A.8/29 THEN R ELSE N/A
C_RF96	IF A.7/14 AND A.8/31 THEN R ELSE N/A
C_RF97	IF A.1/1 AND A.7/14 AND A.7/28 THEN R ELSE N/A
C_RF98	IF A.1/1 AND A.7/14 AND A.7/28 AND A.11/1 THEN R ELSE N/A
C_RF99	IF A.1/1 AND A.7/14 AND A.7/29 AND (A.8/15 OR A.8/16 OR A.8/17 OR A.8/18 OR A.8/19 OR A.8/20) THEN R ELSE N/A
C_RF100	IF A.1/1 AND A.7/14 AND A.7/28 AND A.7/29 THEN R ELSE N/A
C_RF101	IF A.1/1 AND A.7/14 AND A.7/28 AND A.11/1 AND A.7/29 THEN R ELSE N/A
C_RF102	IF A.7/14 AND A.11/6 AND (A.8/21 OR A.8/22 OR A.8/23 OR A.8/24 OR A.8/25 OR A.8/26 OR A.8/27 OR A.8/28) AND A.7/23 THEN R ELSE N/A
C_RF103	IF A.7/14 AND A.11/6 AND (A.8/29 OR A.8/30) THEN R ELSE N/A
C_RF104	IF A.7/14 AND A.11/6 AND (A.8/31 OR A.8/32) THEN R ELSE N/A
C_RF105	IF A.7/14 AND (A.11/3 OR A.11/6) AND (A.8/29 OR A.8/30) THEN R ELSE N/A
C_RF106	IF A.7/14 AND (A.11/3 OR A.11/6) AND (A.8/31 OR A.8/32) THEN R ELSE N/A
C_RF107	IF A.1/1 AND A.1/6 AND A.12/2 AND A.13/2 THEN R ELSE N/A
C_RF108	IF A.1/1 AND A.1/7 AND A.12/3 AND A.13/2 THEN R ELSE N/A
C_RF109	IF A.1/1 AND A.1/6 AND A.13/2 THEN R ELSE N/A
C_RF110	IF A.1/1 AND A.1/7 AND A.13/2 THEN R ELSE N/A
C_RF111	IF A.1/1 AND A.7/14 AND A.7/27 AND A.9/9 THEN R ELSE N/A
C_RF112	IF A.7/14 AND (A.11/2 OR A.11/3 OR A.11/6) AND (A.8/7 OR A.8/8 OR A.8/9 OR A.8/10) THEN R ELSE N/A
C_RF113	IF A.1/1 AND A.7/14 AND (A.8/13 OR A.8/14) AND NOT (A.11/3 OR A.11/6) THEN R ELSE N/A

C_RF114	IF A.7/14 AND A.8/29 AND NOT (A.11/3 OR A.11/6) THEN R ELSE N/A
C_RF115	IF A.7/14 AND A.8/31 AND NOT (A.11/3 OR A.11/6) THEN R ELSE N/A
C_RF116	IF A.7/14 AND (A.8/21 OR A.8/22 OR A.8/23 OR A.8/24) AND NOT (A.11/3 OR A.11/6) AND NOT A.7/23 THEN R ELSE N/A
C_RF117	IF A.7/14 AND (A.8/21 OR A.8/22 OR A.8/23 OR A.8/24) AND NOT (A.11/3 OR A.11/6) AND A.7/23 THEN R ELSE N/A
C_RF118	IF A.7/14 AND (A.8/29 OR A.8/30 OR A.8/31 OR A.8/32) THEN R ELSE N/A
C_RF119	IF A.7/14 AND (A.8/29 OR A.8/30) THEN R ELSE N/A
C_RF120	IF A.7/14 AND (A.8/31 OR A.8/32) THEN R ELSE N/A
C_RF121	IF A.7/30 THEN R ELSE N/A
C_RF122	IF A.7/31 THEN R ELSE N/A
C_RF123	IF A.7/31 AND A.7/14 AND (NOT A.7/15) THEN R ELSE N/A
C_RF124	IF A.7/31 AND A.7/14 AND A.7/15 THEN R ELSE N/A
C_RF125	IF A.7/31 AND A.7/14 THEN R ELSE N/A
C_RF126	IF A.7/31 AND A.7/14 AND A.7/15 AND A.9/7 THEN R ELSE N/A
C_RF127	IF A.7/30 AND A.7/14 AND A.7/15 AND A.9/7 THEN R ELSE N/A
C_RF128	IF A.7/30 AND A.7/14 THEN R ELSE N/A
C_RF129	IF A.7/30 AND A.7/14 AND (NOT A.7/15) THEN R ELSE N/A
C_RF130	IF A.7/30 AND A.7/15 THEN R ELSE N/A
C_RF131	IF A.1/1 AND A.7/32 THEN R ELSE N/A
C_RF132	IF A.1/1 AND A.7/33 THEN R ELSE N/A
C_RF133	IF A.1/1 AND A.1/6 AND A.7/32 THEN R ELSE N/A
C_RF134	IF A.1/1 AND A.1/6 AND A.7/33 THEN R ELSE N/A
C_RF135	IF A.1/1 AND A.1/7 AND A.7/32 THEN R ELSE N/A
C_RF136	IF A.1/1 AND A.1/7 AND A.7/33 THEN R ELSE N/A
C_RF137	IF A.7/34 AND (A.8/21 OR A.8/22 OR A.8/23 OR A.8/24 OR A.8/25 OR A.8/26 OR A.8/27 OR A.8/28 OR A.8/29 OR A.8/30 OR A.8/31 OR A.8/32 OR A.8/33 OR A.8/34 OR A.8/35 OR A.8/36 OR A.8/37 OR A.8/38) THEN R ELSE N/A
C_RF138	IF A.7/34 AND (A.8/29 OR A.8/30 OR A.8/31 OR A.8/32 OR A.8/35 OR A.8/36 OR A.8/38) THEN R ELSE N/A
C_RF139	IF A.7/14 AND (A.11a/3 OR A.11a/4) AND (A.8/21 OR A.8/22 OR A.8/23 OR A.8/24 OR A.8/25 OR A.8/26 OR A.8/27 OR A.8/28) AND A.7/23 THEN R ELSE N/A
C_RF140	IF A.7/14 AND (A.11a/3 OR A.11a/4) AND (A.8/23 OR A.8/24 OR A.8/27 OR A.8/28) AND A.7/23 THEN R ELSE N/A
C_RF141	IF A.7/14 AND (A.8/23 OR A.8/24) AND NOT (A.11a/3 OR A.11a/4) AND A.7/23 THEN R ELSE N/A
C_RF142	IF A.7/14 AND A.11a/4 AND (A.8/21 OR A.8/22 OR A.8/23 OR A.8/24 OR A.8/25 OR A.8/26 OR A.8/27 OR A.8/28) AND A.7/23 THEN R ELSE N/A
C_RF143	IF A.7/14 AND (A.8/21 OR A.8/22 OR A.8/23 OR A.8/24) AND NOT (A.11a/3 OR A.11a/4) AND A.7/23 THEN R ELSE N/A
C_RF144	IF A.1/1 AND A.7/23 AND A.6/38 THEN R ELSE N/A
C_RF145	IF A.1/1 AND A.7/35 THEN R ELSE N/A

Tab 1c: Release Applicability

RF_RO_01	IF A.0/1 THEN R ELSE N/A
RF_RO_02	IF A.0/1 OR A.0/2 THEN R ELSE N/A
RF_RO_03	IF A.0/1 OR A.0/2 OR A.0/3 THEN R ELSE N/A
RF_RO_04	IF A.0/3 THEN R ELSE N/A
RF_RO_05	IF A.0/5 THEN R ELSE N/A
RA99	This test case is recommended for Rel 99 and onward
RA4	This test case is recommended for Rel 4 and onward
RA5	This test case is recommended for Rel 5 and onward
RA6	This test case is recommended for Rel 6 and onward
RA7	This test case is recommended for Rel 7 and onward
RA8	This test case is recommended for Rel 8 and onward
RA9	This test case is recommended for Rel 9 and onward
RA10	This test case is recommended for Rel 10 and onward
RA11	This test case is recommended for Rel 11 and onward



**Table 2: Identification of redundant tests**

Clause	Title	Condition	Comments
9.2.1F	Demodulation of HS-DSCH (Fixed Reference Channel) – Single Link Performance -Enhanced Performance Requirements Type 2 - QPSK/16QAM, Fixed Reference Channel (FRC) H-Set 6/3	C_RF_NA_01	UEs for which test case 9.2.1FA or 9.2.1FC or 9.2.1FD is executed, not need to be tested against test case 9.2.1F (considered implicitly covered).
9.2.1FA	Demodulation of HS-DSCH (Fixed Reference Channel) – Single Link Performance -Enhanced Performance Requirements Type 2 - QPSK/16QAM, Fixed Reference Channel (FRC) H-Set 6A/3A	C_RF_NA_01a	UEs for which test case 9.2.1FC or 9.2.1FD is executed, not need to be tested against test case 9.2.1FA (considered implicitly covered).
9.2.1FC	Demodulation of HS-DSCH (Fixed Reference Channel) – Single Link Performance -Enhanced Performance Requirements Type 2 - QPSK/16QAM, Fixed Reference Channel (FRC) H-Set 6B/3B	C_RF_NA_01b	UEs for which test case 9.2.1FD is executed, not need to be tested against test case 9.2.1FC (considered implicitly covered).
9.2.1G	Demodulation of HS-DSCH (Fixed Reference Channel) – Single Link Performance - Enhanced Performance Requirements Type 3 - QPSK/16QAM, Fixed Reference Channel (FRC) H-Set 6/3	C_RF_NA_02	UEs for which test case 9.2.1GA or 9.2.1GC or 9.2.1GD is executed, not need to be tested against test case 9.2.1G (9.2.1G considered implicitly covered by 9.2.1GA).
9.2.1GA	Demodulation of HS-DSCH (Fixed Reference Channel) – Single Link Performance - Enhanced Performance Requirements Type 3 - QPSK/16QAM, Fixed Reference Channel (FRC) H-Set 6A/3A	C_RF_NA_02a	UEs for which test case 9.2.1GC or 9.2.1GD is executed, not need to be tested against test case 9.2.1GA (9.2.1GA considered implicitly covered by 9.2.1GC).
9.2.1GC	Demodulation of HS-DSCH (Fixed Reference Channel) – Single Link Performance - Enhanced Performance Requirements Type 3 - QPSK/16QAM, Fixed Reference Channel (FRC) H-Set 6C/3C	C_RF_NA_02b	UEs for which test case 9.2.1GD is executed, not need to be tested against test case 9.2.1GC (9.2.1GC considered implicitly covered by 9.2.1GD).
9.2.1H	Demodulation of HS-DSCH (Fixed Reference Channel) – Single Link Performance - Enhanced Performance Requirements Type 2 - 64QAM, Fixed Reference Channel (FRC) H-Set 8	C_RF_NA_03	For UEs for which test case 9.2.1HA is executed not need to be tested against test case 9.2.1H (9.2.1H considered implicitly covered by 9.2.1HA).
9.2.1I	Demodulation of HS-DSCH (Fixed Reference Channel) –Single Link Performance - Enhanced Performance Requirements Type 3 - 64QAM, Fixed Reference Channel (FRC) H-Set 8	C_RF_NA_04	UEs for which test case 9.2.1IA or 9.2.1IC or 9.2.1ID is executed, not need to be tested against test case 9.2.1I (considered implicitly covered).
9.2.1IA	Demodulation of HS-DSCH (Fixed Reference Channel) –Single Link Performance - Enhanced Performance Requirements Type 3 - 64QAM, Fixed Reference Channel (FRC) H-Set 8A	C_RF_NA_04a	UEs for which test case 9.2.1IC or 9.2.1ID is executed, not need to be tested against test case 9.2.1IA (considered implicitly covered).
9.2.1IC	Demodulation of HS-DSCH (Fixed Reference Channel) –Single Link Performance - Enhanced Performance Requirements Type 3 - 64QAM, Fixed Reference Channel (FRC) H-Set 8B	C_RF_NA_04b	UEs for which test case 9.2.1ID is executed, not need to be tested against test case 9.2.1IC (considered implicitly covered).
9.2.1J	Demodulation of HS-DSCH (Fixed Reference Channel) - Single Link Performance - Enhanced Performance Requirements Type 2 - QPSK/16QAM, Fixed Reference Channel (FRC) H-Set 10	C_RF_NA_05	UEs for which test case 9.2.1JA or 9.2.1JC or 9.2.1JD is executed, not need to be tested against test case 9.2.1J (9.2.1J considered implicitly covered).

Clause	Title	Condition	Comments
9.2.1JA	Demodulation of HS-DSCH (Fixed Reference Channel) –S ingle Link Performance - Enhanced Performance Requirements Type 2 - QPSK/16QAM, Fixed Reference Channel (FRC) H-Set 10A	C_RF_NA_05a	UEs for which test case 9.2.1JC or 9.2.1JD is executed, not need to be tested against test case 9.2.1JA (considered implicitly covered).
9.2.1JC	Demodulation of HS-DSCH (Fixed Reference Channel) –S ingle Link Performance - Enhanced Performance Requirements Type 2 - QPSK/16QAM, Fixed Reference Channel (FRC) H-Set 10B	C_RF_NA_05b	UEs for which test case 9.2.1JD is executed, not need to be tested against test case 9.2.1JC (considered implicitly covered).
9.2.1K	Single Link Performance - Enhanced Performance Requirements Type 3 - QPSK/16QAM, Fixed Reference Channel (FRC) H-Set 10	C_RF_NA_06	UEs for which test case 9.2.1KA or 9.2.1KC or 9.2.1KD is executed, not need to be tested against test case 9.2.1K (9.2.1K considered implicitly covered).
9.2.1KA	Demodulation of HS-DSCH (Fixed Reference Channel) –S ingle Link Performance - Enhanced Performance Requirements Type 3 - QPSK/16QAM, Fixed Reference Channel (FRC) H-Set 10A	C_RF_NA_06a	UEs for which test case 9.2.1KC or 9.2.1KD is executed, not need to be tested against test case 9.2.1KA (considered implicitly covered).
9.2.1KC	Demodulation of HS-DSCH (Fixed Reference Channel) –S ingle Link Performance - Enhanced Performance Requirements Type 3 - QPSK/16QAM, Fixed Reference Channel (FRC) H-Set 10B	C_RF_NA_06b	UEs for which test case 9.2.1KD is executed, not need to be tested against test case 9.2.1KC (considered implicitly covered).
9.2.1L	Single Link Performance - Enhanced Performance Requirements Type 3i - QPSK, Fixed Reference Channel (FRC) H-Set 6	C_RF_NA_07	UEs for which test case 9.2.1LA is executed, not need to be tested against test case 9.2.1L (considered implicitly covered).
9.2.4A	MIMO Performance – Fixed Reference Channel (FRC) H-Set 9	C_RF_NA_08	UEs for which test case 9.2.4C is executed, not need to be tested against test case 9.2.4A (considered implicitly covered).
9.2.4B	MIMO Performance – Fixed Reference Channel (FRC) H-Set 11	C_RF_NA_09	UEs for which test case 9.2.4D is executed, not need to be tested against test case 9.2.4B (considered implicitly covered).
9.2.4E	MIMO Performance – Fixed Reference Channel (FRC) H-Set 9 Asymmetric CPICHS	C_RF_NA_10	UEs for which test case 9.2.4G is executed, not need to be tested against test case 9.2.1E (considered implicitly covered).
9.2.4F	MIMO Performance – Fixed Reference Channel (FRC) H-Set 11 Asymmetric CPICHS	C_RF_NA_11	UEs for which test case 9.2.4H is executed, not need to be tested against test case 9.2.1F (considered implicitly covered).
C_RF_NA_01	IF (table 1/9.2.1FA Applicability = R AND test case 9.2.1FA available) OR (table 1/9.2.1FC Applicability = R AND test case 9.2.1FC available) OR (table 1/9.2.1FD Applicability = R AND test case 9.2.1FD available) THEN N/A ELSE R		
C_RF_NA_01a	IF (table 1/9.2.1FC Applicability = R AND test case 9.2.1FC available) OR (table 1/9.2.1FD Applicability = R AND test case 9.2.1FD available) THEN N/A ELSE R		
C_RF_NA_01b	IF (table 1/9.2.1FD Applicability = R AND test case 9.2.1FD available) THEN N/A ELSE R		
C_RF_NA_02	IF (table 1/9.2.1GA Applicability = R and test case 9.2.1GA available) OR (table 1/9.2.1GC Applicability = R and test case 9.2.1GC available) OR (table 1/9.2.1GD Applicability = R and test case 9.2.1GD available) THEN N/A ELSE R		
C_RF_NA_02a	IF (table 1/9.2.1GC Applicability = R and test case 9.2.1GC available) OR (table 1/9.2.1GD Applicability = R and test case 9.2.1GD available) THEN N/A ELSE R		
C_RF_NA_02b	IF table 1/9.2.1GD Applicability = R and test case 9.2.1GD available THEN N/A ELSE R		
C_RF_NA_03	IF table 1/9.2.1HA Applicability = R and test case 9.2.1HA available THEN N/A ELSE R		
C_RF_NA_04	IF (table 1/9.2.1IA Applicability = R and test case 9.2.1IA available) OR (table 1/9.2.1IC Applicability = R AND test case 9.2.1IC available) OR (table 1/9.2.1ID Applicability = R AND test case 9.2.1ID available) THEN N/A ELSE R		
C_RF_NA_04a	IF (table 1/9.2.1IC Applicability = R AND test case 9.2.1IC available) OR (table 1/9.2.1ID Applicability = R AND test case 9.2.1ID available) THEN N/A ELSE R		
C_RF_NA_04b	IF (table 1/9.2.1ID Applicability = R AND test case 9.2.1ID available) THEN N/A ELSE R		

Clause	Title	Condition	Comments
C_RF_NA_05		IF (table 1/9.2.1JA Applicability = R and test case 9.2.1JA available THEN) OR(table 1/9.2.1JC Applicability = R AND test case 9.2.1JC available) OR(table 1/9.2.1JD Applicability = R AND test case 9.2.1JD available) N/A ELSE R	
C_RF_NA_05a		IF (table 1/9.2.1JC Applicability = R AND test case 9.2.1JC available) OR(table 1/9.2.1JD Applicability = R AND test case 9.2.1JD available) THEN N/A ELSE R	
C_RF_NA_05b		IF (table 1/9.2.1JD Applicability = R AND test case 9.2.1JD available) THEN N/A ELSE R	
C_RF_NA_06		IF (table 1/9.2.1KA Applicability = R and test case 9.2.1KA available) OR(table 1/9.2.1KC Applicability = R AND test case 9.2.1KC available) OR(table 1/9.2.1KD Applicability = R AND test case 9.2.1KD available) THEN N/A ELSE R	
C_RF_NA_06a		IF (table 1/9.2.1KC Applicability = R AND test case 9.2.1KC available) OR(table 1/9.2.1KD Applicability = R AND test case 9.2.1KD available) THEN N/A ELSE R	
C_RF_NA_06b		IF (table 1/9.2.1KD Applicability = R AND test case 9.2.1KD available) THEN N/A ELSE R	
C_RF_NA_07		IF table 1/9.2.1LA Applicability = R and test case 9.2.1LA available THEN N/A ELSE R	
C_RF_NA_08		IF table 1/9.2.4C Applicability = R and test case 9.2.4C available THEN N/A ELSE R	
C_RF_NA_09		IF table 1/9.2.4D Applicability = R and test case 9.2.4D available THEN N/A ELSE R	
C_RF_NA_10		IF table 1/9.2.4G Applicability = R and test case 9.2.4G available THEN N/A ELSE R	
C_RF_NA_11		IF table 1/9.2.4H Applicability = R and test case 9.2.4H available THEN N/A ELSE R	

NOTE: The expression “test case x available” means that test case x in the test system is validated and could therefore be run.

---

# Annex A (normative): ICS proforma for 3<sup>rd</sup> Generation User Equipment

Notwithstanding the provisions of the copyright 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.
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## 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.

#### 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.

#### 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.

EXAMPLE 1: A.7/14 is the reference to the answer of item 14 in table A.7.

### 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.

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## 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.

### A.2.1 Date of the statement

.....

### A.2.2 User Equipment Under Test (UEUT) identification

UEUT name:

.....  
.....

Hardware configuration:

.....  
.....  
.....

Software configuration:

.....  
.....  
.....

### 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 information:

.....

.....

.....

## A.2.5 ICS contact person

Name:

.....

Telephone number:

.....

Facsimile number:

.....

E-mail address:

.....

Additional 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.

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## A.4 ICS proforma tables

Note: Capability Tables A.1-A.9 are based on TS 34.123-2 [23].

### A.4.1 UE Implementation Types

**Table A.0: UE Release information**

Item	UTRA UE Release information	Comments
1	R99	
2	Rel-4	
3	Rel-5	
4	Rel-6	
5	Rel-7	
6	Rel-8	
7	Rel-9	
8	Rel-10	
9	Rel-11	
10	Rel-12	



**Table A.1: UE Radio Technologies**

Item	UE Radio Technologies	Ref.	Release	Comments
1	FDD (DS)	25.101	R99	
2	TDD 3.84 Mcps	25.102	R99	
3	TDD 1.28 Mcps (LCR)	25.102	Rel-4	
4	GSM	21.904, 5	R99	
5	GPRS	23.060	R99	
6	E-UTRAN FDD	36.101	Rel-8	
7	E-UTRAN TDD	36.101	Rel-8	

## A.4.2 UE Service Capabilities

**Table A.2: Definition of Bearer Services**

Item	Definition of Bearer Services	Ref.	Release	Comments
1	Circuit Switched	22.105, 5.1 22.002	R99	
2	Packet Switched	22.105, 5.1 22.060	R99	
3	UE supports UE operation mode A: PS and CS simultaneously		R99	

Note: Needed for CS only terminals which would not support Cell\_PCH/URA\_PCH test cases.

**Table A.2a: Teleservices**

Item	Teleservices	Ref.	Release	Comments
1	Narrow band speech (AMR)	22.105, 6.4.1	R99	Telephony
2	Emergency call	22.105, 6.4.2	R99	

**Table A.3: Void**

## A.4.3 Baseline Implementation Capabilities

**Table A.4: Supported protocols**

Item	Supported protocols	Ref.	Release	Comments
1	Call Control	24.008, 5	R99	
2	Mobility Management	24.008, 4	R99	
3	Session Management	24.008, 6.1	R99	
4	GPRS Mobility Management	24.008, 4	R99	
5	Radio Resource Control	25.331	R99	
6	Packet Data Convergence Protocol	25.323	R99	
7	Broadcast/Multicast Control	25.324	R99	
8	Radio Link Control	25.322	R99	
9	Medium Access Control	25.321	R99	
10	Physical Layer	25.201	R99	

**Table A.5: Special Conformance Testing Functions**

Item	Special Conformance Testing Functions	Ref.	Release	Comments
1	UE test loop	34.109, 5.3	R99	
2	Support of UE test loop mode 1 with UL RLC SDU size bigger than 12160 bits (1520 octets)	34.109, 6.2 24.108, 10.5.6.5	R99	

Note: TL1 and TL2 support should be added.

Table A.6: FDD (DS) RF Baseline Implementation Capabilities

Item	FDD (DS) RF Baseline Implementation Capabilities	Ref.	Release	Comments
1	Chip rate 3,84 Mcps	25.101, 5.1	R99	
2	Frequency band: 1 920-1 980, 2 110-2 170 MHz	25.101, 5.2	R99	Band I
3	Frequency band: 1 850-1 910, 1 930-1 990 MHz	25.101, 5.2	R99	Band II
4	Frequency band: Other spectrum	25.101, 5.2	R99	
5	TX-RX Freq. Sep: 190 MHz	25.101, 5.3	R99	
6	TX-RX Freq. Sep: 80 MHz	25.101, 5.3	R99	
7	TX-RX Freq. Sep: Variable	25.101, 5.3	R99	
8	Carrier raster: 200 kHz	25.101, 5.4	R99	
9	UE Power Class 1 for Operation Band I (+33 dBm)	25.101, 6.2.1	R99	
10	UE Power Class 2 for Operation Band I (+27 dBm)	25.101, 6.2.1	R99	
11	UE Power Class 3 for Operation Band I (+24 dBm)	25.101, 6.2.1	R99	
12	UE Power Class 4 for Operation Band I (+21 dBm)	25.101, 6.2.1	R99	
13	Output RF spectrum emissions	25.101, 6.6	R99	Not needed!
14	Frequency band: 1710-1785, 1805-1880 MHz	25.101, 5.2	R99	Band III
15	Frequency band: 1710-1755, 2110-2155 MHz	25.101, 5.2	R99	Band IV
16	Frequency band: 824 – 849, 869-894 MHz	25.101, 5.2	R99	Band V
17	Frequency band: 830-840, 875-885 MHz	25.101, 5.2	R99	Band VI
18	Frequency band: 2500-2570, 2620-2690 MHz	25.101, 5.2	R99	Band VII
19	Frequency band: 880-915, 925-960 MHz	25.101, 5.2	R99	Band VIII
20	Frequency band: 1749.9-1784.9, 1844.9-1879.9 MHz	25.101, 5.2	R99	Band IX
21	Frequency band: 1710 - 1770, 2110 - 2170 MHz	25.101, 5.2	R99	Band X
22	Frequency band: 1427.9 -1447.9, 1475.9 -1495.9 MHz	25.101, 5.2	R99	Band XI
23	Frequency band: 699 – 716, 729 – 746 MHz	25.101, 5.2	R99	Band XII
24	Frequency band: 777 – 787, 746 – 756 MHz	25.101, 5.2	R99	Band XIII
25	Frequency band: 788 – 798, 758 – 768 MHz	25.101, 5.2	R99	Band XIV
26	Frequency band: 830 – 845, 875 – 890 MHz	25.101, 5.2	R99	Band XIX
27	Frequency band: 832 – 862, 791 – 821 MHz	25.101, 5.2	R99	Band XX
28	Frequency band: 1447.9 – 1462.9, 1495.9 – 1510.9 MHz	25.101, 5.2	R99	Band XXI
29	DB-DC-HSDPA Configuration 1	25.101, 5.2	Rel-9	Band I and VIII
30	DB-DC-HSDPA Configuration 2	25.101, 5.2	Rel-9	Band II and IV
31	DB-DC-HSDPA Configuration 3	25.101, 5.2	Rel-9	Band I and V
32	Frequency band: 3410 – 3490, 3510 – 3590 MHz	25.101, 5.2	Rel-10	Band XXII
33	Frequency band: 1850 – 1915, 1930 – 1995 MHz	25.101, 5.2	Rel-10	Band XXV
34	Frequency band: 814 – 849, 859-894 MHz	25.101, 5.2	R99	Band XXVI
35	Frequency band: N/A, 1452 – 1496 MHz	25.101,5.2	Rel-12	Band XXXII
36	DB-DC-HSDPA Configuration 4	25.101,5.2	Rel-10	Band I and XI
37	DB-DC-HSDPA Configuration 5	25.101,5.2	Rel-10	Band II and V
38	DB-DC-HSDPA Configuration 6	25.101,5.2	Rel-12	Band I and XXXII

**Table A.6a: FDD (DS) UE Power Classes**

Item	FDD (DS) RF Baseline Implementation Capabilities	Ref.	Release	Comments
1	UE Power Class 3 for Operation Band II (+24 dBm)	25.307, 5; 25.101, 6.2.1	R99	
2	UE Power Class 3bis for Operation Band II (+23 dBm)	25.307, 5; 25.101, 6.2.1	R99	
3	UE Power Class 4 for Operation Band II (+21 dBm)	25.307, 5; 25.101, 6.2.1	R99	
4	UE Power Class 3 for Operation Band III (+24 dBm)	25.307, 4; 25.101, 6.2.1	R99	
5	UE Power Class 3bis for Operation Band III (+23 dBm)	25.307, 4; 25.101, 6.2.1	R99	
6	UE Power Class 4 for Operation Band III (+21 dBm)	25.307, 4; 25.101, 6.2.1	R99	
7	UE Power Class 3 for Operation Band IV (+24 dBm)	25.307, 7; 25.101, 6.2.1	R99	
8	UE Power Class 3bis for Operation Band IV (+23 dBm)	25.307, 7; 25.101, 6.2.1	R99	
9	UE Power Class 4 for Operation Band IV (+21 dBm)	25.307, 7; 25.101, 6.2.1	R99	
10	UE Power Class 3 for Operation Band V (+24 dBm)	25.307, 8; 25.101, 6.2.1	R99	
11	UE Power Class 3bis for Operation Band V (+23 dBm)	25.307, 8; 25.101, 6.2.1	R99	
12	UE Power Class 4 for Operation Band V (+21 dBm)	25.307, 8; 25.101, 6.2.1	R99	
13	UE Power Class 3 for Operation Band VI (+24 dBm)	25.307, 6; 25.101, 6.2.1	R99	
14	UE Power Class 3bis for Operation Band VI (+23 dBm)	25.307, 6; 25.101, 6.2.1	R99	
15	UE Power Class 4 for Operation Band VI (+21 dBm)	25.307, 6; 25.101, 6.2.1	R99	
16	UE Power Class 3 for Operation Band VII (+24 dBm)	25.307, 9; 25.101, 6.2.1	R99	
17	UE Power Class 3bis for Operation Band VII (+23 dBm)	25.307, 9; 25.101, 6.2.1	R99	
18	UE Power Class 4 for Operation Band VII (+21 dBm)	25.307, 9; 25.101, 6.2.1	R99	
19	UE Power Class 3 for Operation Band VIII (+24 dBm)	25.307, 10; 25.101, 6.2.1	R99	
20	UE Power Class 3bis for Operation Band VIII (+23 dBm)	25.307, 10; 25.101, 6.2.1	R99	
21	UE Power Class 4 for Operation Band VIII (+21 dBm)	25.307, 10; 25.101, 6.2.1	R99	
22	UE Power Class 3 for Operation Band IX (+24 dBm)	25.307, 11; 25.101, 6.2.1	R99	
23	UE Power Class 3bis for Operation Band IX (+23 dBm)	25.307, 11; 25.101, 6.2.1	R99	
24	UE Power Class 4 for Operation Band IX (+21 dBm)	25.307, 11; 25.101, 6.2.1	R99	
25	UE Power Class 3 for Operation Band X (+24 dBm)	25.307, 12; 25.101, 6.2.1	R99	
26	UE Power Class 3bis for Operation Band X (+23 dBm)	25.307, 12; 25.101, 6.2.1	R99	
27	UE Power Class 4 for Operation Band X (+21 dBm)	25.307, 12; 25.101, 6.2.1	R99	
28	UE Power Class 3 for Operation Band XI (+24 dBm)	25.307, 13; 25.101, 6.2.1	R99	
29	UE Power Class 3bis for Operation Band XI (+23 dBm)	25.307, 13; 25.101, 6.2.1	R99	
30	UE Power Class 4 for Operation Band XI (+21 dBm)	25.307, 13; 25.101, 6.2.1	R99	
31	UE Power Class 3 for Operation Band XII (+24 dBm)	25.307, 14; 25.101, 6.2.1	R99	
32	UE Power Class 3bis for Operation Band XII (+23 dBm)	25.307, 14; 25.101, 6.2.1	R99	

33	UE Power Class 4 for Operation Band XII (+21 dBm)	25.307, 14; 25.101, 6.2.1	R99	
34	UE Power Class 3 for Operation Band XIII (+24 dBm)	25.307, 15; 25.101, 6.2.1	R99	
35	UE Power Class 3bis for Operation Band XIII (+23 dBm)	25.307, 15; 25.101, 6.2.1	R99	
36	UE Power Class 4 for Operation Band XIII (+21 dBm)	25.307, 15; 25.101, 6.2.1	R99	
37	UE Power Class 3 for Operation Band XIV (+24 dBm)	25.307, 16; 25.101, 6.2.1	R99	
38	UE Power Class 3bis for Operation Band XIV (+23 dBm)	25.307, 16; 25.101, 6.2.1	R99	
39	UE Power Class 4 for Operation Band XIV (+21 dBm)	25.307, 16; 25.101, 6.2.1	R99	
40	UE Power Class 3 for Operation Band XIX (+24 dBm)	25.307, 20; 25.101, 6.2.1	R99	
41	UE Power Class 3bis for Operation Band XIX (+23 dBm)	25.307, 20; 25.101, 6.2.1	R99	
42	UE Power Class 4 for Operation Band XIX (+21 dBm)	25.307, 20; 25.101, 6.2.1	R99	
43	UE Power Class 3 for Operation Band XXI (+24 dBm)	25.307, 21; 25.101, 6.2.1	R99	
44	UE Power Class 3bis for Operation Band XXI (+23 dBm)	25.307, 21; 25.101, 6.2.1	R99	
45	UE Power Class 4 for Operation Band XXI (+21 dBm)	25.307, 21; 25.101, 6.2.1	R99	
46	UE Power Class 3 for Operation Band XX (+24 dBm)	25.307, 22; 25.101, 6.2.1	R99	
47	UE Power Class 3bis for Operation Band XX (+23 dBm)	25.307, 22; 25.101, 6.2.1	R99	
48	UE Power Class 4 for Operation Band XX (+21 dBm)	25.307, 22; 25.101, 6.2.1	R99	
49	UE Power Class 3 for Operation Band XXII (+24 dBm)	25.307, 24; 25.101, 6.2.1	R99	
50	UE Power Class 3bis for Operation Band XXII (+23 dBm)	25.307, 24; 25.101, 6.2.1	R99	
51	UE Power Class 4 for Operation Band XXII (+21 dBm)	25.307, 24; 25.101, 6.2.1	R99	
52	UE Power Class 3 for Operation Band XXV (+24 dBm)	25.307, 24; 25.101, 6.2.1	R99	
53	UE Power Class 3bis for Operation Band XXV (+23 dBm)	25.307, 24; 25.101, 6.2.1	R99	
54	UE Power Class 4 for Operation Band XXV (+21 dBm)	25.307, 24; 25.101, 6.2.1	R99	
55	UE Power Class 3 for Operation Band XXVI (+24 dBm)	25.307, 24; 25.101, 6.2.1	R99	
56	UE Power Class 3bis for Operation Band XXVI (+23 dBm)	25.307, 24; 25.101, 6.2.1	R99	
57	UE Power Class 4 for Operation Band XXVI (+21 dBm)	25.307, 24; 25.101, 6.2.1	R99	

Table A.7: FDD Layer 1 UE Radio Access Capabilities

Item	FDD Layer 1 UE Radio Access Capabilities	Ref.	Release	Comments
1	Support of turbo decoding	25.306, 4.5.1	R99	
2	Support of turbo encoding	25.306, 4.5.2	R99	
3	Support for SF 512 (downlink)	25.306, 4.5.3	R99	
4	Support of PDSCH	25.306, 4.5.3	R99 and Rel-4 only	
5	Simultaneous reception of SCCPCH and DPCH	25.306, 4.5.3	R99	
6	Simultaneous reception of SCCPCH, DPCH and PDSCH	25.306, 4.5.3	R99 and Rel-4 only	
7	Support of PCPCH	25.306, 4.5.4	R99 and Rel-4 only	
8	Support of uplink compressed mode only	25.306, 4.9	R99	
9	Support of downlink compressed mode only	25.306, 4.9	R99	
10	Support of uplink and downlink compressed mode	25.306, 4.9	R99	
11	void			
12	void			
13	void			
14	Support of HS-PDSCH	25.306, 4.5.3	Rel-5	
15	Support of E-DPDCH	25.306, 4.5.4	Rel-6	
16	Support of MBMS	25.306, 4.13	Rel-6	
17	Support of HS-SCCHless HS-DSCH	25.306, 4.5.3	Rel-7	
18	Full support of F-DPCH	25.331, 10.2.3 9, 10.3.3.42, 10.3.3.42oa, 11.2, 11.3	Rel-6	
19	Support of DPCCH Discontinuous Transmission	25.306, 4.5.4	Rel-7	
20	Support of Target Cell Pre-Configuration	25.306 4.5.3	Rel-8	
21	Support of HS-PDSCH in CELL_FACH	25.306, 4.5.3	Rel-7	
22	Support of Common E-DCH	25.306, 4.5.4	Rel-8	
23	Support of dual band operation	25.306 4.5.3	Rel-9	
24	Support of CSG	25.331 10.2.16c, 10.3.3.42	Rel-8	
25	Support of intra-frequency SI acquisition for HO	25.306 4.14.2	Rel-9	
26	Support of inter-frequency SI acquisition for HO	25.306 4.14.2	Rel-9	
27	Support of dual cell E-DCH operation	25.306 4.5.4	Rel-9	
28	Support of MIMO only with single-stream restriction	25.306 4.5.3	Rel-9	
29	Support of TX Diversity on DL Control Channels by MIMO Capable UE when MIMO operation is active	25.331 10.3.3.42	Rel-7	
30	Support of uplink closed loop transmit diversity	25.306 4.5.4	Rel-11	
31	Support of uplink open loop transmit diversity	25.306 4.5.4	Rel-11	
32	Support of HS-DSCH DRX operation	25.306 4.5.3	Rel-11	
33	Support of HS-DSCH DRX operation with second DRX cycle	25.306 4.5.3	Rel-11	
34	Support for Multiflow operation	25.306 4.5.3	Rel- 11	
35	Support of DCH Enhancements	25.331, 8.5.84	Rel-12	

**Table A.8: FDD HS-DSCH physical layer categories**

Item	FDD HS-DSCH physical layer categories	Ref.	Release	Comments
1	Category 1	25.306, 5.1	Rel-5	
2	Category 2	25.306, 5.1	Rel-5	
3	Category 3	25.306, 5.1	Rel-5	
4	Category 4	25.306, 5.1	Rel-5	
5	Category 5	25.306, 5.1	Rel-5	
6	Category 6	25.306, 5.1	Rel-5	
7	Category 7	25.306, 5.1	Rel-5	
8	Category 8	25.306, 5.1	Rel-5	
9	Category 9	25.306, 5.1	Rel-5	
10	Category 10	25.306, 5.1	Rel-5	
11	Category 11	25.306, 5.1	Rel-5	
12	Category 12	25.306, 5.1	Rel-5	
13	Category 13	25.306, 5.1	Rel-7	
14	Category 14	25.306, 5.1	Rel-7	
15	Category 15	25.306, 5.1	Rel-7	
16	Category 16	25.306, 5.1	Rel-7	
17	Category 17	25.306, 5.1	Rel-7	
18	Category 18	25.306, 5.1	Rel-7	
19	Category 19	25.306, 5.1	Rel-8	
20	Category 20	25.306, 5.1	Rel-8	
21	Category 21	25.306, 5.1	Rel-8	
22	Category 22	25.306, 5.1	Rel-8	
23	Category 23	25.306, 5.1	Rel-8	
24	Category 24	25.306, 5.1	Rel-8	
25	Category 25	25.306, 5.1	Rel-9	
26	Category 26	25.306, 5.1	Rel-9	
27	Category 27	25.306, 5.1	Rel-9	
28	Category 28	25.306, 5.1	Rel-9	
29	Category 29	25.306, 5.1	Rel-10	
30	Category 30	25.306, 5.1	Rel-10	
31	Category 31	25.306, 5.1	Rel-10	
32	Category 32	25.306, 5.1	Rel-10	
33	Category 33	25.306, 5.1	Rel-11	
34	Category 34	25.306, 5.1	Rel-11	
35	Category 35	25.306, 5.1	Rel-11	
36	Category 36	25.306, 5.1	Rel-11	
37	Category 37	25.306, 5.1	Rel-11	
38	Category 38	25.306, 5.1	Rel-11	

**Table A.9: FDD E-DCH physical layer categories**

Item	FDD E-DCH physical layer categories	Ref.	Release	Comments
1	Category 1	25.306, 5.1	Rel-6	
2	Category 2	25.306, 5.1	Rel-6	
3	Category 3	25.306, 5.1	Rel-6	
4	Category 4	25.306, 5.1	Rel-6	
5	Category 5	25.306, 5.1	Rel-6	
6	Category 6	25.306, 5.1	Rel-6	
7	Category 7	25.306, 5.1	Rel-7	
8	Category 8	25.306, 5.1	Rel-9	
9	Category 9	25.306, 5.1	Rel-9	

## A.4.4 Additional information

**Table A.10: Reference Measurement Channels**

Item	Reference Measurement Channels	Ref.	Release	Comments
1	Up-link reference measurement channel 12.2 kbps (FDD)	25.101, A.2.1	R99	Mandatory for all terminals
2	Down-link reference measurement channel 12.2 kbps (FDD)	25.101, A.3.1	R99	Mandatory for all terminals
3	Up-link reference measurement channel 64 kbps (FDD)	25.101, A.2.2	R99	
4	Down-link reference measurement channel 64 kbps (FDD)	25.101, A.3.2	R99	
5	Up-link reference measurement channel 144 kbps (FDD)	25.101, A.2.3	R99	
6	Down-link reference measurement channel 144 kbps (FDD)	25.101, A.3.3	R99	
7	Up-link reference measurement channel 384 kbps (FDD)	25.101, A.2.4	R99	
8	Down-link reference measurement channel 384 kbps (FDD)	25.101, A.3.4	R99	
9	Up-link reference measurement channel 768 kbps (FDD)	25.101, A.2.5	R99	
10	Down-link reference measurement channel 2 64 kbps (FDD)	25.101, A.3.5	Rel-6	

**Table A.11: Additional capabilities**

Item	Capability	Ref.	Release	Allowed	Band	Supported	Comments
1	Enhanced performance requirements type 1 for HSDPA	25.101, 9	Rel-6	34.121-1, 4	Band I		
					Band II		
					Band III		
					Band IV		
					Band V		
					Band VI		
					Band VII		
					Band VIII		
					Band IX		
					Band X		
					Band XI		
					Band XII		
					Band XIII		
					Band XIV		
					Band XIX		
					Band XX		
Band XXI							
Band XXII							
Band XXV							
Band XXVI							
2		25.101, 9	Rel-6	34.121-1, 4	Band I		
					Band II		



	Enhanced performance requirements type 2				Band III	
					Band IV	
					Band V	
					Band VI	
					Band VII	
					Band VIII	
					Band IX	
					Band X	
					Band XI	
					Band XII	
					Band XIII	
					Band XIV	
					Band XIX	
					Band XX	
					Band XXI	
					Band XXII	
					Band XXV	
					Band XXVI	
3	Enhanced performance requirements type 3	25.101, 9	Rel-7	34.121-1, 4	Band I	
					Band II	
					Band III	
					Band IV	
					Band V	
					Band VI	
					Band VII	
					Band VIII	
					Band IX	
					Band X	
					Band XI	
					Band XII	
					Band XIII	
					Band XIV	
					Band XIX	
					Band XX	
					Band XXI	
					Band XXII	
					Band XXV	
					Band XXVI	
4	Enhanced performance requirements type 1 for E-DCH	25.101, 9	Rel-7	34.121-1, 4	Band I	
					Band II	
					Band III	
					Band IV	
					Band V	
					Band VI	
					Band VII	
					Band VIII	
					Band IX	
					Band X	
					Band XI	
					Band XII	

					Band XIII	
					Band XIV	
					Band XIX	
					Band XX	
					Band XXI	
					Band XXII	
					Band XXV	
					Band XXVI	
5	Enhanced performance requirements type 1 for MBMS	25.101, 9	Rel-7	34.121-1, 4	Band I	
					Band II	
					Band III	
					Band IV	
					Band V	
					Band VI	
					Band VII	
					Band VIII	
					Band IX	
					Band X	
					Band XI	
					Band XII	
					Band XIII	
					Band XIV	
					Band XIX	
Band XX						
Band XXI						
Band XXII						
Band XXV						
Band XXVI						
6	Enhanced performance requirements Type 3i	25.101, 9	Rel-8	34.121-1, 4	Band I	
					Band II	
					Band III	
					Band IV	
					Band V	
					Band VI	
					Band VII	
					Band VIII	
					Band IX	
					Band X	
					Band XI	
					Band XII	
					Band XIII	
					Band XIV	
					Band XIX	
Band XX						
Band XXI						
Band XXII						
Band XXV						
Band XXVI						
7		25.101, 9	Rel-8	34.121-1, 4	Band I	
					Band II	

Enhanced performance requirements Type1 for DCH	Band III	
	Band IV	
	Band V	
	Band VI	
	Band VII	
	Band VIII	
	Band IX	
	Band X	
	Band XI	
	Band XII	
	Band XIII	
	Band XIV	
	Band XIX	
	Band XX	
	Band XXI	
	Band XXII	
Band XXV		
Band XXVI		

**Table A.11a: Additional capabilities for DB-DC-HSDPA**

Item	Capability	Ref.	Release	Allowed	Band	Supported	Comments
1	Enhanced performance requirements type 1 for HSDPA	25.101, 9	Rel-6	34.121-1, 4	I and VIII		
					II and IV		
					I and V		
					I and XI		
					II and V		
2	Enhanced performance requirements type 2	25.101, 9	Rel-6	34.121-1, 4	I and VIII		
					II and IV		
					I and V		
					I and XI		
					II and V		
3	Enhanced performance requirements type 3	25.101, 9	Rel-7	34.121-1, 4	I and VIII		
					II and IV		
					I and V		
					I and XI		
					II and V		
4	Enhanced performance requirements Type 3i	25.101, 9	Rel-8	34.121-1, 4	I and VIII		
					II and IV		
					I and V		
					I and XI		
					II and V		

**Table A.12: Additional information**

Item	Additional Information	Ref.	Release	Comments
1	UE without vibration sensitive components	25.101, D.2.3	R99	
2	Support of inter-RAT PS handover to E-UTRA (FDD) from UTRA	25.306, 4.7	Rel-8	
3	Support of inter-RAT PS handover to E-UTRA (TDD) from UTRA	25.306, 4.7	Rel-8	

## A.4.5 Feature group indicators

**Table A.13: EUTRA Feature group indicators**

Item	Additional information	Notes	Ref.	Release	Comments
1	Support of "UTRA CELL_PCH to EUTRA RRC_IDLE cell reselection" and "UTRA URA_PCH to EUTRA RRC_IDLE cell reselection"		25.331, Annex E	Rel-8	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
2	Support of "EUTRAN measurements and reporting in connected mode"		25.331, Annex E	Rel-8	Corresponding to the Index of Indicator, the leftmost binary bit 2 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

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## Annex B (informative): Labelling of Inter-RAT RRM test cases

This Annex provides a labelling guideline for the FDD/GSM inter-RAT RRM test cases. The purpose of this Annex is to aid clear and traceable test case identification, both for the purposes of validation reporting in the certification organisations as well as for test houses to unambiguously identify the tested frequency bands. Note that actual band combinations to be tested shall be specified by the certification organisations.

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### B.1 FDD/GSM band combinations for inter-RAT RRM tests

It is recommended the following labelling convention should be used for the inter-RAT RRM derivative test cases covering different FDD/GSM band combinations:

"Test Case number"("FDD band"-"GSM Frequency band")

FDD bands are listed using Roman numerals.

For example: 8.2.3.1(I-900) for inter-RAT RRM test covering FDD band I and GSM 900.

The above mentioned labelling convention shall apply to the following inter-RAT RRM tests defined in TS 34.121-1:

Test Type	Test Case Number
RRM	8.2.3.1, 8.2.3.2, 8.2.3.3, 8.3.4, 8.3.5.3, 8.3.6.3, 8.6.4.1, 8.6.5.1, 8.7.3A

## Annex C (informative): Change history

Meeting -1st-Level	Doc-1st-Level	CR	Rev	Subject	Cat	Version - Current	Version -New	Doc-2nd-Level
-	-	-	-	Draft version 0.0.1 based on iWD-004_v005 and TS 34.123-2 v6.1.0.	-	N/A	0.0.1	
RP-31	RP-060055	-	-	For approval as Rel-7 version at RAN plenary	-	2.0.0	7.0.0	R5-060444
RP-32	RP-060329	0001	-	Addition of new test cases from RAN5#30 and correction to applicability	F	7.0.0	7.1.0	R5-061425
RP-32	RP-060332	0002	-	Addition of new Rel-6 test cases introduced in RAN5#31	F	7.0.0	7.1.0	R5-061446
RP-33	RP-060549	0003	-	Correction of applicability for RF test case 6.5 (narrow band blocking requirement)	F	7.1.0	7.2.0	R5-062127
RP-33	RP-060549	0004	-	Addition of applicability for new test cases	F	7.1.0	7.2.0	R5-062453
RP-33	RP-060567	0005	-	New Rel-6 RRM test case: 8.3.8 Serving HS-DSCH cell change	F	7.1.0	7.2.0	R5-062232
RP-33	RP-060549	0006	-	Correction of applicability for RF test case 6.7	F	7.1.0	7.2.0	R5-062416
RP-34	RP-060735	0007	-	Addition of new condition for TC 6.3A in section 4	F	7.2.0	7.3.0	R5-063459
RP-34	RP-060732	0008	-	Addition of PICS parameter 'speech' and new condition for TC 8.3.4 in section 4 and Annex A.4.2	F	7.2.0	7.3.0	R5-063460
RP-34	RP-060735	0009	-	Addition of new test case 5.13.1AA	F	7.2.0	7.3.0	R5-063424
RP-34	RP-060743	0010	-	Applicability of new UE Transmission Power Headroom test case	F	7.2.0	7.3.0	R5-063442
RP-35	RP-070097	0011	-	Correction to 34.121-2: Introduction of applicability for 2ms TTI E-DCH E-TFC restriction test case	F	7.3.0	7.4.0	R5-070571
RP-35	RP-070090	0012	-	Applicability of new MBMS RF and RRM test cases	F	7.3.0	7.4.0	R5-070554
RP-35	RP-070094	0013	-	Correction to 34.121-2: Introduction of FDD Band X (Extended UMTS 1.7/2.1 GHz) for transmitter and receiver characteristics test cases	F	7.3.0	7.4.0	R5-070167
RP-36	RP-070344	0014		Addition of vibration condition to 34.121-2	F	7.4.0	7.5.0	R5-071158
RP-36	RP-070363	0015		Correction to title for MBMS RRM TC 8.3.6.3	F	7.4.0	7.5.0	R5-071248
RP-36	RP-070363	0016		Applicability of MBMS New test case: Cell Reselection during an MBMS session, one frequency present in neighbour list	F	7.4.0	7.5.0	R5-071301
RP-36	RP-070350	0017		CR to 34.121-2: Introduction of test cases for multi-path fading intra-frequency cell identification	F	7.4.0	7.5.0	R5-071348
RP-36	RP-070350	0018		CR to 34.121-2: Introduction of test case UE Transmitted Power (Rel-5 and later)	F	7.4.0	7.5.0	R5-071368
RP-36	RP-070344	0019		Addition of informative Annex for FDD/GSM band combinations for Inter-RAT RRM test cases	F	7.4.0	7.5.0	R5-071495
RP-37	RP-070596	0020	-	Correction to TC 9.4.2A applicability	F	7.5.0	7.6.0	R5-072178
RP-37	RP-070593	0021	-	Corrections to the applicability for some HSDPA tests	F	7.5.0	7.6.0	R5-072225
RP-37	RP-070600	0022	-	UE performance requirements for high speed train	F	7.5.0	7.6.0	R5-072282
RP-37	RP-070597	0023	-	CR to 34.121-2: Addition of test cases for Inter Frequency Cell identification	F	7.5.0	7.6.0	R5-072407
RP-37	RP-070593	0024	-	CR to 34.121-2: Correction of test cases for UE Transmitted Power	F	7.5.0	7.6.0	R5-072367
RP-37	RP-070617	0025	-	Applicability of new test case for demodulation of MTCH and enhanced performance requirement 1	F	7.5.0	7.6.0	R5-072411
RP-37	RP-070593	0027	-	CR to 34.121-2: Addition of test cases missing from applicability	F	7.5.0	7.6.0	R5-072412
RP-37	RP-070600	0028	-	Production of 34.121-2 Rel-7 pointer version to point to Rel-8 of the spec	F	7.5.0	7.6.0	R5-072592
RP-37	RP-070599	0026	-	Introduction of FDD Mode Test frequencies for Operating Band XI (UMTS1500)	F	7.5.0	8.0.0	R5-072398
RP-38	RP-070876	0029		Correction of applicability of HSDPA tests testing UE supporting enhanced performance type 3.	F	8.0.0	8.1.0	R5-073121
RP-38	RP-070876	0030		Applicability of new test cases: EDCH tests with enhanced performance requirements type 1	F	8.0.0	8.1.0	R5-073330
RP-38	RP-070872	0031		CR to 34.121-2: Introduction of new Downlink Compressed Mode Layer 1 (Release 6 and later) Applicability	F	8.0.0	8.1.0	R5-073358
RP-38	RP-070872	0032		CR to 34.121-2: Introduction of new UE Rx-Tx Time Difference type 1 (Release 6 and later) Applicability	F	8.0.0	8.1.0	R5-073359
RP-38	RP-070872	0033		CR to 34.121-2: Introduction of new Constant BLER Target Requirements using DL Reference Measurement Channel 2 (64 kbps) Applicability	F	8.0.0	8.1.0	R5-073075
RP-38	RP-070872	0034		CR to 34.121-2: Introduction of new Power Control in the Downlink, Wind Up Effects (Release 6 and later) Requirements Applicability	F	8.0.0	8.1.0	R5-073371

Meeting -1st-Level	Doc-1st-Level	CR	Rev	Subject	Cat	Version - Current	Version -New	Doc-2nd-Level
RP-38	RP-070884	0035		Applicability of new 64QAM Test Case: Maximum Input Level for HS-PDSCH Reception (64QAM)	F	8.0.0	8.1.0	R5-073350
RP-38	RP-070885	0036		Addition of HS-SCCH-less demodulation of HS-DSCH test case	F	8.0.0	8.1.0	R5-073153
RP-38	RP-070881	0037		Applicability of new MIMO Test Case: Demodulation of HS-DSCH (Fixed Reference Channel): MIMO Performance	F	8.0.0	8.1.0	R5-073376
RP-39	RP-080095	0038		CR to 34.121-2: Introduction of power control in the downlink for F-DPCH Applicability	F	8.1.0	8.2.0	R5-080388
RP-39	RP-080095	0039		Correction to 34.121-2 HSDPA tests' applicabilities for Enhanced Performance type 1 and type 3 terminals.	F	8.1.0	8.2.0	R5-080246
RP-39	RP-080093	0040		Corrections to applicability of CQI test cases 9.3.1 to 9.3.6	F	8.1.0	8.2.0	R5-080251
RP-39	RP-080107	0041		Addition of new test cases for 64QAM Single Link Performance	F	8.1.0	8.2.0	R5-080264
RP-39	RP-080108	0042		CR to 34.121-2: Introduction of UE Transmitter 16-QAM Applicability	F	8.1.0	8.2.0	R5-080396
RP-39	RP-080105	0043		Applicability of new MIMO Test case: HS-SCCH Detection Performance: HS-SCCH Type M Performance	F	8.1.0	8.2.0	R5-080171
				Completion of history table		8.2.0	8.2.1	
RP-40	RP-080370	0044	-	CR to 34.121-2: Introduction of Bands XII XIII and XIV (UMTS700 MHz) Applicability	F	8.2.1	8.3.0	R5-081434
RP-40	RP-080427	0045	-	CR to 34.121-2: Correction to test case 8.7.3C: UE Transmitted Power Applicability	F	8.2.1	8.3.0	R5-81438
RP-40	RP-080364	0046	-	Correction to 34.121-2 HSDPA tests' applicabilities for Enhanced Performance type 1 type 2 and type 3 terminals.	F	8.2.1	8.3.0	<a href="#">R5-081222</a>
RP-40	RP-080365	0047	-	Correction to applicability of MBMS RF performance test case 11.2A	F	8.2.1	8.3.0	<a href="#">R5-081448</a>
RP-40	RP-080363	0048	-	Deletion of PICS 'Support of UE assisted Network Assisted GPS' from 34.121-2	F	8.2.1	8.3.0	R5-081439
RP-41	RP-080740	0049	-	ICS for TC5.13.1AAA (EVM and IQ offset)	F	8.3.1	8.4.0	R5-083386
RP-41	RP-080554	0050	-	Multi_RAT Capability condition removal	F	8.3.1	8.4.0	R5-083396
RP-41	RP-080554	0051	-	Multi_RAT Capability condition removal	F	8.3.1	8.4.0	R5-083831
RP-42	RP-080955	0052	-	Clarification of titles for MIMO test cases 9.3.7A and 9.3.7B	F	8.4.0	8.5.0	R5-085172
RP-42	RP-080956	0053	-	Applicability changes for Demodulation of HS-DSCH in 34.121-2.	F	8.4.0	8.5.0	R5-085734
RP-43	RP-090204	0054	-	Correction to titles of test cases 3 and 4 in TC 7.9.1	F	8.5.0	8.6.0	R5-090092
RP-43	RP-090203	0058	-	Introduction of requirements for UE UL power control operation with discontinuous UL DPCCCH transmission operation	F	8.5.0	8.6.0	R5-090098
RP-43	RP-090204	0055	-	Applicability changes to CQI test cases	F	8.5.0	8.6.0	R5-091072
RP-43	RP-090218	0056	-	Add applicability for the new test cases in Section 9.3.7	F	8.5.0	8.6.0	R5-091096
RP-43	RP-090218	0057	-	Applicability changes in 34.121-2 for HSDPA demodulation tests	F	8.5.0	8.6.0	R5-091107
RP-44	RP-090433	0059	-	Adding test 9.2.3E applicability	F	8.6.0	8.7.0	R5-092173
RP-44	RP-090444	0060	-	New HSDPA demodulation test for MIMO + 64QAM into 34.121-2	F	8.6.0	8.7.0	R5-092632
RP-44	RP-090442	0061	-	Applicability of New TC9.2.1L -- Single Link Performance - Enhanced Performance Requirements Type 3i - QPSK, Fixed Reference Channel (FRC) H-Set 6	F	8.6.0	8.7.0	R5-092655
RP-45	RP-090791	0062	-	Correction of ICS proforma tables for test loop mode 1 (UL RLC SDU block size)	F	8.7.0	8.8.0	R5-094820
RP-45	RP-090807	0063	-	Update to 34.121-2	F	8.7.0	8.8.0	R5-094975
RP-45	RP-090791	0064	-	Correction to the condition of C_RF55 of 34.121-2	F	8.7.0	8.8.0	R5-094312
RP-45	RP-090791	0065	-	Removing Table A.3 in TS 34.121-2	F	8.7.0	8.8.0	R5-094590
RP-45	RP-090791	0066	-	Correction of applicability of test case 7.8.1	F	8.7.0	8.8.0	R5-094825
RP-45	RP-090791	0067	-	Change C_RF51 to void of 34.121-2	F	8.7.0	8.8.0	R5-094963
RP-45	RP-090793	1170	-	Changes to applicabilities of CQI test cases in TS 34.121-2	F	8.7.0	8.8.0	R5-094242
RP-46	RP-091124	0068	-	Updates to Applicability table corresponding to DC-HSDPA tests	F	8.8.0	8.9.0	R5-096285
RP-46	RP-091124	0069	1	Addition of DC-HSDPA receiver tests into TS 34.121-2	F	8.8.0	8.9.0	R5-095930
RP-47	RP-100159	0070	-	Introduction of enhanced serving HS-DSCH cell change test case into TS 34.121-2	F	8.9.0	8.10.0	R5-100142
RP-47	RP-100139	0071	-	Title change for test case in TC 8.3.5.4 in TS 34.121-2	F	8.9.0	8.10.0	R5-100150
RP-47	RP-100149	0072	-	Updates to test applicability section of 34.121-2 related to DC-HSDPA type3i requirement	F	8.9.0	8.10.0	R5-100212
RP-47	RP-100154	0073	-	CR to 34.121-2: Update baseline implementation capabilities with extended UMTS1500 operating bands	F	8.9.0	8.10.0	R5-100558
RP-47	RP-100140	0074	-	Applicability corrections and additions for HSDPA test cases	F	8.9.0	8.10.0	R5-100904

Meeting -1st- Level	Doc-1st-Level	CR	Rev	Subject	Cat	Version - Current	Version -New	Doc-2nd- Level
RP-47	-	-	-	Updated to v9.0.0 with no change	-	8.10.0	9.0.0	-
RP-48	RP-100519	0075	-	Introduction of E-AI detection performance test case into TS 34.121-2	F	9.0.0	9.1.0	R5-103504
RP-48	RP-100507	0076	-	Including test cases 5.2C and 5.2D into TS 34.121-2	F	9.0.0	9.1.0	R5-103508
RP-48	RP-100521	0078	-	Support for UMTS/LTE 800 MHz for Europe in 34.121-2	F	9.0.0	9.1.0	R5-103768
RP-49	RP-100808	0079	-	Correction 34.121-2 Table 1 TC 7.8.1A add test 1	F	9.1.0	9.2.0	R5-104189
RP-49	RP-100810	0080	-	Addition of TC 5.13.2A and TC 5.13.2B into TS 34.121-2	F	9.1.0	9.2.0	R5-104374
RP-49	RP-100811	0081	-	Addition of CQI fading test case for 64QAM UEs into TS 34.121-2	F	9.1.0	9.2.0	R5-104381
RP-49	RP-100811	0082	-	Modification of MIMO CQI fading test case names	F	9.1.0	9.2.0	R5-104385
RP-49	RP-100812	0083	-	34121-2 General update to add-E-UTRA TCs applicability and editorials	F	9.1.0	9.2.0	R5-104838
RP-49	RP-100808	0084	-	Correction 34.121-2 TC7.8.1 add test 2	F	9.1.0	9.2.0	R5-104841
RP-49	RP-100811	0085	-	Applicability for TC 5.4.4A (out of synch handling / RX diversity)	F	9.1.0	9.2.0	R5-104842
RP-49	RP-100808	0086	-	34.121-2 Correction to the applicability of test case 9.2.1F, 9.2.1J,9.2.2D, and 9.2.3D	F	9.1.0	9.2.0	R5-104858
RP-50	RP-101146	0087	-	Applicability change to TC 9.3.7A and 9.3.7B in TS 34.121-2	F	9.2.0	9.3.0	R5-106415
RP-50	RP-101160	0088	-	Update of applicability of legacy HSDPA performance test cases for UE HS-DSCH Physical Layer category 25 to 28	F	9.2.0	9.3.0	R5-106838
RP-51	RP-110155	0089	-	Correction to the conditions on C_RF28 and C_RF33 to include category 7 of HSUPA	F	9.3.0	9.4.0	R5-110135
RP-51	RP-110155	0090	-	Clarification of CQI reporting requirement applicability	F	9.3.0	9.4.0	R5-110465
RP-51	RP-110177	0091	-	Update to 34.121-2	F	9.3.0	9.4.0	R5-110659
RP-51	RP-110155	0093	-	Change the reference document of item A.7/18 for "Support of F-DPCH".	F	9.3.0	9.4.0	R5-110857
RP-51	RP-110155	0092	-	Applicability for features not supported in all supporter bands	F	9.3.0	9.4.0	R5-110922
RP-52	RP-110652	0094	-	Correction to Band XII frequency range in 34.121-2	F	9.4.0	9.5.0	R5-112134
RP-52	RP-110643	0095	-	Applicability changes to TC 8.7.10 - 8.7.13	F	9.4.0	9.5.0	R5-112201
RP-52	RP-110667	0096	-	Addition of DB-DC-HSDPA into 34.121-2	F	9.4.0	9.5.0	R5-112848
RP-52	RP-110638	0097	-	Reduction of duplicated tests for DC-HSDPA capable UE's in 34.121-2	F	9.4.0	9.5.0	R5-112869
RP-53	RP-111134	0098	-	Modification of the table A.11 in 34.121	F	9.5.0	9.6.0	R5-113149
RP-53	RP-111149	0099	-	Correction to the DB-DC test cases applicability of 34.121-2	F	9.5.0	9.6.0	R5-114030
RP-53	RP-111150	0100	-	Adding recommended test case applicability for DC-HSUPA test cases into 34.121-2	F	9.5.0	9.6.0	R5-114083
RP-53	RP-111154	0101	-	Introduction of applicability of HS-SCCH Type 3 Performance Single Stream restriction test	F	9.5.0	9.6.0	R5-114090
RP-53	RP-111146	0102	-	Addition of applicability for new test case of system information acquisition for CSG cell	F	9.5.0	9.6.0	R5-114107
RP-53	RP-111154	0103	-	Update to 34.121-2	F	9.6.0	10.0.0	R5-114108
RP-53	RP-111132	0104	-	Correction to test case applicability for 6.3A and 6.3B	F	9.6.0	10.0.0	R5-114114
RP-54	RP-111595	0106	-	Introduction of new ACLR test case for DC-HSUPA	F	10.0.0	10.1.0	R5-115153
RP-54	RP-111594	0107	-	Introduction of new DB-DC-HSDPA test cases 9.2.1GB, 9.2.1IB and 9.2.1KB	F	10.0.0	10.1.0	R5-115156
RP-54	RP-111598	0108	-	Update to 34.121-2	F	10.0.0	10.1.0	R5-115410
RP-54	RP-111594	0109	-	Update to 34.121-2	F	10.0.0	10.1.0	R5-115412
RP-54	RP-111597	0110	-	Adding band XXII (3500MHz) to 34.121-2	F	10.0.0	10.1.0	R5-115811
RP-54	RP-111598	0111	-	Introduction of applicability of HS-SCCH Type 3 performance single stream restriction-STTD disabled-asymmetric CPICHs test	F	10.0.0	10.1.0	R5-115861
RP-54	RP-111598	0112	-	Introduction of applicability of HS-SCCH Type 3 performance single stream restriction-STTD enabled-asymmetric CPICHs test	F	10.0.0	10.1.0	R5-115862
RP-54	RP-111594	0113	-	Modification for the deficiency explanation of the duplicated tests for DC-HSDPA capable UE's in 34.121-2	F	10.0.0	10.1.0	R5-115864
RP-54	RP-111595	0114	-	Transmit Intermodulation for DC-HSUPA (applicability)	F	10.0.0	10.1.0	R5-115872
RP-54	RP-111571	0115	-	Modification of Applicability tests conditions according to comments column of applicability table in TS 34.121-2	F	10.0.0	10.1.0	R5-115873
RP-55	RP-120193	0116	-	CR Update TCs 9.3.1BA & 9.3.2AA for DB-DC-HSDPA CQI reporting	F	10.1.0	10.2.0	R5-120298
RP-55	RP-120174	0117	-	Correction to TC 9.2.1J title and the name and release for 9.2.1JA in TS 34.121-2	F	10.1.0	10.2.0	R5-120309
RP-55	RP-120194	0118	-	Introduction of new spurious emissions test case for DC-HSUPA	F	10.1.0	10.2.0	R5-120350
RP-55	RP-120194	0119	-	Addition of DC-HSUPA test cases in 34.121-2	F	10.1.0	10.2.0	R5-120862
RP-55	RP-120201	0120	-	Applicability changes for TC 9.2.1FC and 9.2.1FD	F	10.1.0	10.2.0	R5-120864



Meeting -1st- Level	Doc-1st-Level	CR	Rev	Subject	Cat	Version - Current	Version -New	Doc-2nd- Level
RP-55	RP-120198	0121	-	Corrections to the applicability of HS-SCCH Type 3 Performance for MIMO only with single-stream restriction	F	10.1.0	10.2.0	R5-120889
RP-55	RP-120193	0122	-	Addition of test case 9.2.1LB (HSDPA, type 3i, Dual Band Dual Cell) to 34.121-2	F	10.1.0	10.2.0	R5-120898
RP-56	RP-120635	0123	-	Change the content of C_RF53 to 'Void'	F	10.2.0	10.3.0	R5-121153
RP-56	RP-120660	0124	-	Adding band XXV into ICS proforma tables	F	10.2.0	10.3.0	R5-121643
RP-56	RP-120664	0125	-	Applicability changes for TC 9.2.1HC and 9.2.1HD	F	10.2.0	10.3.0	R5-121915
RP-56	RP-120649	0126	-	Update to 34.121-2 for TCs 9.3.1BA & 9.3.2AA for DB-DC-HSDPA CQI reporting	F	10.2.0	10.3.0	R5-121917
RP-57	RP-121120	0127	-	Adding band XXVI into ICS proforma tables	F	10.3.0	10.4.0	R5-123578
RP-57	RP-121115	0128	-	Applicability changes for test case 9.2.1LC and 9.2.1LD	F	10.3.0	10.4.0	R5-123968
RP-57	RP-121089	0129	-	Specifying redundant test cases in 34.121-2	F	10.3.0	10.4.0	R5-123976
RP-58	RP-121680	0130	-	Adding applicability for many 4C-HSDPA tests into TS 34.121-2	F	10.4.0	10.5.0	R5-125259
RP-58	RP-121655	0131	-	Correction to applicability of inter-RAT measurement related TCs(TS34.121-2)	F	10.4.0	10.5.0	R5-125863
RP-58	RP-121673	0133	-	Adding missing DC-HSUPA test cases to 34.121-2	F	10.4.0	10.5.0	R5-125913
RP-58	RP-121665	0134	-	Addition of Test Case applicability for new RRM Test Case 8.4.3.1A	F	10.4.0	10.5.0	R5-125915
RP-58	RP-121680	0135	-	Applicability changes for test case 9.2.1GC and 9.2.1GD	F	10.4.0	10.5.0	R5-125919
RP-58	RP-121654	0136	-	Removing redundant testing for Type3/Type3i UEs (34.121-2)	F	10.4.0	10.5.0	R5-125928
RP-59	RP-130155	0137	-	Applicability update to Chapter 6 and 9 test cases for 4C-HSDPA	F	10.5.0	10.6.0	R5-130976
RP-60	RP-130621	0138	-	Applicability update to Chapter 6 test cases for 4C-HSDPA	F	10.6.0	10.7.0	R5-132109
RP-61	RP-131124	0139	-	Addition of applicabilities for RSRQ based reselection TC	F	10.7.0	10.8.0	R5-133216
RP-61	RP-131097	0140	-	34.121-2 specification clean up	F	10.7.0	10.8.0	R5-133719
RP-61	RP-131121	0141	-	Updating applicability for Chapter 5 UL CLTD test cases.	F	10.8.0	11.0.0	R5-133881
RP-62	RP-131881	0143	-	Addition of new UL OLTD test cases	F	11.0.0	11.1.0	R5-134335
RP-62	RP-131885	0144	-	Update of titles in applicability table for legacy RRM test cases due to introduction of Further Enhancement to CELL_FACH RRM test cases	F	11.0.0	11.1.0	R5-134974
RP-63	RP-140324	0145	-	Adding test cases 5.4.3C and 5.4.3D into TS 34.121-2	F	11.1.0	11.2.0	R5-140387
RP-63	RP-140324	0146	-	Addition of applicability for new UL OLTD test cases	F	11.1.0	11.2.0	R5-140860
RP-63	R5-140328	0147	-	Introduction of enh CELL_FACH test cases to TS34.121-2	F	11.1.0	11.2.0	R5-140862
RP-63	RP-140324	0148	-	Correction to applicability of UL CLTD test cases	F	11.1.0	11.2.0	R5-141002
RP-64	RP-140817	0149	-	Update of applicability for 4C-HSDPA in the Table 1.	F	11.2.0	11.3.0	R5-142163
RP-64	RP-140831	0150	-	Introduction of new EVM test cases for uplink CLTD in TS 34.121-2	F	11.2.0	11.3.0	R5-142221
RP-64	RP-140835	0151	-	Adding Applicability statements to several enh CELL_FACH test cases	F	11.2.0	11.3.0	R5-142453
RP-64	RP-140837	0152	-	Reinsertion of accidentally deleted applicabilities 5.9C and 5.9D	F	11.2.0	11.3.0	R5-142585
RP-64	RP-140831	0153	-	Introduction of new test cases for uplink OLTD in TS 34.121-2	F	11.2.0	11.3.0	R5-143125
RP-64	RP-140831	0154	-	Applicability update to newly added chapter-5 test cases with UL-CLTD	F	11.2.0	11.3.0	R5-143126
RP-64	RP-140831	0155	-	Update for 34.121-2 UL-OLTD and CLTD	F	11.2.0	11.3.0	R5-143127
RP-65	RP-141593	0156	-	Addition of test case applicability for Occupeid Bandwith for OLTD / CLTD	F	11.3.0	11.4.0	R5-144516
RP-65	RP-141592	0158	-	Applicability update for Multiflow HSDPA test cases	F	11.3.0	11.4.0	R5-144863
RP-66	RP-142051	0159	-	Update of ICS table for Enhanced Receiver type declaration	F	11.4.0	11.5.0	R5-145538
RP-66	RP-142056	0160	-	Add a new table for DB-DC-HSDPA enhance performance test cases	F	11.4.0	11.5.0	R5-145914
RP-67	RP-150905	0161	1	Addition of frequency UTRA band 32	F	11.5.0	12.0.0	R5-151890
RP-69	RP-151426	0162	-	Applicability for Receiver Spurious emissions test case for DB-DC-HSDPA in DL-only bands	F	12.0.0	12.1.0	R5-153616

Meeting -1st- Level	Doc-1st-Level	CR	Rev	Subject	Cat	Version - Current	Version -New	Doc-2nd- Level
RP-69	-	-	-	update of the "non-specific references" in section 2 according to the approved R5-153582 and an action point on ETSI MCC	-	12.0.0	12.1.0	-
RP-71	RP-160100	0165	1	Applicability update for Enhanced UTRA DCH test cases	F	12.1.0	12.2.0	R5-160897
RP-72	RP-160832	0168	1	Applicability update for Enhanced UTRA DCH test cases	F	12.2.0	12.3.0	R5-162876
RP-73	RP-161439	0169	1	Correction of ICS table for EUTRA Feature group indicators declaration	F	12.3.0	12.4.0	R5-166020
RP-73	RP-161439	0170	1	Editorial changes for PICS XML conversion	F	12.3.0	12.4.0	R5-166293
RP-74	RP-162101	0171	1	Correction to the test case numbering for sub-test of the blocking testing	F	12.4.0	12.5.0	R5-169085
RP-74	RP-162101	0172	1	Add New column to handle test case release related information when converting to XML format	F	12.4.0	12.5.0	R5-169086
RP-75	-	-	-	Administrative release upgrade to match the release of TS 36.508 and TS 36.523-2 which were upgraded at RAN#74 to Rel-14 due to Rel-14 relevant CR(s)	-	12.5.0	13.0.0	-

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# History

<b>Document history</b>		
V13.0.0	April 2017	Publication