3GPP TS 38.522 V15.3.0 (2019-06)

Technical Specification

3rd Generation Partnership Project;
Technical Specification Group Radio Access Network;
NR;
User Equipment (UE) conformance specification;
Applicability of radio transmission, radio reception and radio resource management test cases
(Release 15)

Release 15

Keywords
NR, radio

3GPP

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Contents

Foreword

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

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

Version x.y.z

where:

x the first digit:

1 presented to TSG for information;

2 presented to TSG for approval;

3 or greater indicates TSG approved document under change control.

y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.

z the third digit is incremented when editorial only changes have been incorporated in the document.

The present document is one part of a multi-part Technical Specification (TS) covering the New Radio (NR) User Equipment (UE) conformance specification, which is divided in the following parts:

3GPP TS 38.521-1 [1]: NR; User Equipment (UE) conformance specification; Radio transmission and reception; Part 1: Range 1 Standalone;

3GPP TS 38.521-2 [2]: NR; User Equipment (UE) conformance specification; Radio transmission and reception; Part 2: Range 2 Standalone;

3GPP TS 38.521-3 [3]: NR; User Equipment (UE) conformance specification; Radio transmission and reception; Part 3: Range 1 and Range 2 Interworking operation with other radios;

3GPP TS 38.521-4 [4]: NR; User Equipment conformance specification; Radio transmission and reception; Part 4: Performance;

3GPP TS 38.522: NR; User Equipment (UE) conformance specification; Applicability of RF and RRM test cases;

3GPP TS 38.533 [5]: NR; User Equipment (UE) conformance specification; Radio resource management;

1 Scope

The present document provides the Implementation Conformance Statement (ICS) proforma for 5G New Radio (NR) User Equipment (UE), in compliance with the relevant requirements.

The present document specifies the recommended applicability statement for the test cases included in 3GPP TS 38.521-1 [1], TS 38.521-2 [2], TS 38.521-3 [3], TS 38.521-4 [4] and TS 38.533 [5]. These applicability statements are based on the features implemented in the UE.

Special conformance testing functions can be found in 3GPP TS 38.509 [6] and the common test environments are included in 3GPP TS 38.508-1 [7]. Common implementation conformance statement (ICS) proforma can be found in 3GPP TS 38.508-2 [8].

The present document is valid for UE implemented according to 3GPP releases starting from Release 15 up to the Release indicated on the cover page of the present document.

2 References

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

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

[1] 3GPP TS 38.521-1: NR; User Equipment (UE) conformance specification; Radio transmission and reception; Part 1: Range 1 Standalone

[2] 3GPP TS 38.521-2: NR; User Equipment (UE) conformance specification; Radio transmission and reception; Part 2: Range 2 Standalone

[3] 3GPP TS 38.521-3: NR; User Equipment (UE) conformance specification; Radio transmission and reception; Part 3: Range 1 and Range 2 Interworking operation with other radios

[4] 3GPP TS 38.521-4: NR; User Equipment conformance specification; Radio transmission and reception; Part 4: Performance

[5] 3GPP TS 38.533: NR; User Equipment (UE) conformance specification; Radio resource management

[6] 3GPP TS 38.509: 5GS; Special conformance testing functions for User Equipment (UE)

[7] 3GPP TS 38.508-1: 5GS; User Equipment (UE) conformance specification; Part 1: Common test environment

[8] 3GPP TS 38.508-2: 5GS; User Equipment (UE) conformance specification; Part 2: Common Implementation Conformance Statement (ICS) proforma

[9] 3GPP TR 21.905: Vocabulary for 3GPP Specifications

[10] 3GPP TS 36.521-2: Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 2: Implementation Conformance Statement (ICS)

[11] 3GPP TS 38.331: "NR; Radio Resource Control (RRC) protocol specification".

Editor's note: More specifications need to be added.

3 Definitions, symbols and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in TR 21.905 [9] and the following apply. A term defined in the present document takes precedence over the definition of the same term, if any, in TR 21.905 [9].

EIRP(Link=Link angle, Meas=Link angle): measurement of the UE such that the link angle is aligned with the measurement angle. EIRP (indicator to be measured) can be replaced by EIS, Frequency, EVM, carrier Leakage, In-band eission and OBW. Beam peak search grids, TX beam peak direction, and RX beam peak direction can be selected to describe Link.

EIRP(Link=Link angle, Meas=beam peak direction): measurement of the EIRP of the UE such that the measurement angle is aligned with the beam peak direction within an acceptable measurement error uncertainty.

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

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

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

Inter-band carrier aggregation: Carrier aggregation of component carriers in different operating bands.

NOTE: Carriers aggregated in each band can be contiguous or non-contiguous.

Intra-band contiguous carrier aggregation: Contiguous carriers aggregated in the same operating band.

Intra-band non-contiguous carrier aggregation: Non-contiguous carriers aggregated in the same operating band.

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

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

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

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

TRP(Link=Link angle): measurement of the TRP of the UE such that the measurement angle is aligned with the beam peak direction within an acceptable measurement uncertainty. TX beam peak direction and RX beam peak direction can be selected to describe Link.

NOTE: For requirements based on EIRP/EIS, the radiated interface boundary is associated to the far-field region

3.2 Symbols

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

<symbol> <Explanation>

3.3 Abbreviations

For the purposes of the present document, the abbreviations given in TR 21.905 [9] and the following apply. An abbreviation defined in the present document takes precedence over the definition of the same abbreviation, if any, in TR 21.905 [9].

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

CA	Carrier Aggregation
EN-DC	E-UTRA NR-Dual Connection
FR1	Frequency Range 1 (410 MHz - 7125 MHz)
FR2	Frequency Range 2 (24250 MHz - 52600 MHz)
ICS	Implementation Conformance Statement
IXIT	Implementation eXtra Information for Testing
NR	New Radio
PIXIT	Protocol Implementation eXtra Information for Testing
SCS	System Conformance Statement
SUL	Supplementary UpLink
TC	Test Case
TRP	Total Radiated Power
UEUT	User Equipment Under Test

4 Recommended test case applicability

The applicability of each individual test is identified in the tables 4.1.1-1 / 4.1.2-1 / 4.1.3-1 / 4.1.4-1 / 4.2-1. This is just a recommendation based on the purpose for which the test case was written.

The applicability of every test is formally expressed by the use of Boolean expressions that are based on parameters (ICS). The parameters (ICS) included in TS 38.508-2 [8] are used in the test case applicability condition without reference. Parameters (ICS) specified in 3GPP TS 36.521-2 [10] shall be referred with proper reference.

Selection criteria of tested bands and tested CA configurations for each applicable test is formally expressed using group theory based on parameters (ICS) included in annex A of TS 38.508-2 [8] without reference.

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

The columns in tables 4.1.1-1 / 4.1.2-1 / 4.1.3-1 / 4.1.4-1 / 4.2-1 have the following meaning:

Clause

The clause column indicates the clause number in TS 38.521-1 [1], TS 38.521-2 [2], TS 38.521-3 [3], TS 38.521-4 [4] and TS 38.533 [5] that contains the test body.

Title

The title column describes the name of the test and contains the clause title of the clause in TS 38.521-1 [1], TS 38.521-2 [2], TS 38.521-3 [3], TS 38.521-4 [4] and TS 38.533 [5] that contains the test body.

Release

The release column indicates the earliest release from which each test case is applicable. It may also indicate a range of releases or a single release to which a test case is applicable.

Applicability - Condition

The following notations are used for the applicability column:

R	recommended - the test case is recommended to all terminals supporting NR
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 a 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.

Applicability - Comments

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

Tested Bands / CA-Configurations Selection

This column defines a set of bands / CA Configurations the test is to be run for, if the test is applicable. If the set is empty, the test is considered as not applicable.

The following notations are used in the tested bands selection column:

Di Derive the set based on Band Selection Criteria Di defined in tables 4.1.1-1b, 4.1.2-1b, 4.1.3-1b, 4.1.4-1b.

Ei Derive the set based on CA Configurations Selection Criteria Ei defined in tables 4.1.1-1c, 4.1.2-1c, 4.1.3-1c.

TBD Band selection not defined at this time, in the meantime test all Bands / CA Configurations

Text For more complex selection criteria, or if the criteria are already specified somewhere else in the spec, text reference to the section is given.

Additional Information

This column contains indication if the test case may perform differently depending on the UE capabilities and the measurement execution.

NOTE 1: To meet the validation requirements from certification bodies then there is a need to uniquely reference the FDD and TDD branch (i.e. different behaviour within one and the same TC) of common FDD and TDD RF test cases in table 4.1-1. The FDD and TDD branches of common FDD and TDD test cases can be referenced by amending a "FDD" or "TDD" suffix to the test case clause number.

Editor's note: The above description will be updated when necessary, for example 1Tx and 2Tx differentiation.

4.1 RF conformance test cases

NOTE: To determine applicability of a test case, FGI support in combined or fdd-Add-UE-NR-Capabilities or tdd-Add-UE- NR-Capabilities, as well as supported CBW and SCS in the *RF-Parameters* IE (see TS 38.331 [11]) which conveys RF related capabilities for NR operation, is taken into account.

4.1.1 FR1 standalone conformance test cases

Table 4.1.1-1: Applicability of RF SA FR1 conformance test cases, ref. TS 38.521-1 [1]

TC Title	Release	Applicability		Tested Bands/CA-Configurations Selection	Ad Inf
		Condition	Comment		
Transmitter Characteristics					
UE maximum output power	Rel-15	FR1_C01	UEs supporting 5GS NR FR1 PC3	FR1_D01	PC3 requ applied
			UEs supporting 5GS NR FR1 PC2	FR1_D02	PC2 requ applied
Maximum Power Reduction (MPR)	Rel-15	FR1_C01	UEs supporting 5GS FR1 PC3	FR1_D01	PC3 requ applied Test exe necessar 38.521-1 executed
			UEs supporting 5GS FR1 PC2	FR1_D02	PC2 requ applied Test exe necessar 38.521-1 executed
UE additional maximum output power reduction	Rel-15	FR1_C01	UEs supporting 5GS FR1 PC3	FR1_D01	PC3 requ applied Test exe necessar 38.521-1 6.5.3.3 a
			UEs supporting 5GS FR1 PC2	FR1_D02	PC2 requ applied Test exe necessar 38.521-1 6.5.3.3 a
Configured transmitted power	Rel-15	FR1_C01	UEs supporting 5GS FR1	FR1_D01	

Table 4.1.1-1a: Applicability of RF SA FR1 conformance test cases Conditions

FR1_C01 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-3/1 THEN R ELSE N/A
FR1_C02 IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.1-2/3 OR A.4.1-2/5) AND A.4.1-3/1 THEN R ELSE N/A
FR1_C03 IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.3.2-1/14 OR A.4.3.2-1/15) AND A.4.1-3/1 THEN R ELSE N/A
Note 1: The ICS proforma are defined in TS 38.508-2 [8] unless otherwise state.

Table 4.1.1-1b: Tested Bands Selection Criteria for RF SA FR1 conformance test cases

Code	Selection	Comment
FR1_D01	A.4.3.1-1 OR A.4.3.1-2	All supported FR1 Bands
FR1_D02	A.4.3.1-4	All supported FR1 PC2 Bands
FR1_D03	A.4.3.1-5	All supported FR1 SUL Bands
Note 1: Band Selection is based on set theory. For each feature, item number shall correspond to the Band number. The result is the set of bands for which the test shall be conducted. The following operators are used: AND: Set intersection (∩). {1,2} AND {2,3} = {2} OR: Set union (∪). {1,2} OR {2,3} = {1,2,3} NOT: Set complement (\), full set being all bands. NOT{1} = {2 ...256} Also note that this is set without repetitions so {1} AND {1} = {1} The following basic sets are used: {1,2}: Explicitly given band set 10MHz: All bands supporting 10 MHz The following sets derived from pro-forma tables are also used: TBD		

Table 4.1.1-1c: Tested CA Configurations Selection Criteria for RF SA FR1 conformance test cases

Code	Selection	Comment
FR1_E01	A.4.3.2A.2.1-3 AND CARRIER_NO(2) AND NOT UL(A.4.3.2A.2.1-3)	All supported intra-band contiguous CA Configurations with 2 carriers in DL but no CA in UL

4.1.2 FR2 standalone conformance test cases

Table 4.1.2-1: Applicability of RF SA FR2 conformance test cases, ref. TS 38.521-2 [2]

TC Title	Release	Applicability		Tested Bands/CA-Configurations Selection	Ad Info (N
		Condition	Comment		
UE maximum output power - EIRP and TRP	Rel-15	FR2_C01	UEs supporting 5GS FR2	FR2_D01	NOTE 4
UE maximum output power - Spherical coverage	Rel-15	FR2_C01	UEs supporting 5GS FR2	FR2_D01	NOTE 1 NOTE 4
UE maximum output power reduction	FFS	FFS	FFS		NOTE 1
UE maximum output power with additional requirements	Rel-15	FR2_C01	UEs supporting 5GS FR2	FR2_D01	NOTE 1
Configured transmitted power	FFS	FFS	FFS	FFS	Test exe necessar 38.521-2 38.521-2 executed
UE maximum output power - EIRP and TRP for CA (2UL CA)	FFS	FFS	FFS	FFS	NOTE 1
UE maximum output power - EIRP and TRP for CA (3UL CA)	FFS	FFS	FFS	FFS	NOTE 1
UE maximum output power - EIRP and TRP for CA (4UL CA)	FFS	FFS	FFS	FFS	NOTE 1
UE maximum output power - EIRP and TRP for CA (5UL CA)	FFS	FFS	FFS	FFS	NOTE 1
UE maximum output power - EIRP and TRP for CA (6UL CA)	FFS	FFS	FFS	FFS	NOTE 1
UE maximum output power - EIRP and TRP for CA (7UL CA)	FFS	FFS	FFS	FFS	NOTE 1
UE maximum output power - EIRP and TRP for CA (8UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Spherical coverage for CA (2UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Spherical coverage for CA (3UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Spherical coverage for CA (4UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Spherical coverage for CA (5UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Spherical coverage for CA (6UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Spherical coverage for CA (7UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Spherical coverage for CA (8UL CA)	FFS	FFS	FFS	FFS	NOTE 1
UE maximum output power reduction for CA (2UL CA)	FFS	FFS	FFS	FFS	NOTE 1
UE maximum output power reduction for CA (3UL CA)	FFS	FFS	FFS	FFS	NOTE 1
UE maximum output power reduction for CA (4UL CA)	FFS	FFS	FFS	FFS	NOTE 1
UE maximum output power reduction for CA (5UL CA)	FFS	FFS	FFS	FFS	NOTE 1
UE maximum output power reduction for CA (6UL CA)	FFS	FFS	FFS	FFS	NOTE 1
UE maximum output power reduction for CA (7UL CA)	FFS	FFS	FFS	FFS	NOTE 1
UE maximum output power reduction for CA (8UL CA)	FFS	FFS	FFS	FFS	NOTE 1
UE maximum output power with additional requirements for CA (2UL CA)	FFS	FFS	FFS	FFS	NOTE 1
UE maximum output power with additional requirements for CA (3UL CA)	FFS	FFS	FFS	FFS	NOTE 1
UE maximum output power with additional requirements for CA (4UL CA)	FFS	FFS	FFS	FFS	NOTE 1
UE maximum output power with additional requirements for CA (5UL CA)	FFS	FFS	FFS	FFS	NOTE 1
UE maximum output power with additional requirements for CA (6UL CA)	FFS	FFS	FFS	FFS	NOTE 1
UE maximum output power with additional requirements for CA (7UL CA)	FFS	FFS	FFS	FFS	NOTE 1
UE maximum output power with additional	FFS	FFS	FFS	FFS	NOTE 1

TC Title	Release	Applicability		Tested Bands/CA-Configurations Selection	Ad Info (N
		Condition	Comment		
requirements for CA (8UL CA)					
Configured transmitted power for CA (2UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Configured transmitted power for CA (3UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Configured transmitted power for CA (4UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Configured transmitted power for CA (5UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Configured transmitted power for CA (6UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Configured transmitted power for CA (7UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Configured transmitted power for CA (8UL CA)	FFS	FFS	FFS	FFS	NOTE 1
UE maximum output power - EIRP and TRP for UL-MIMO	FFS	FFS	FFS	FFS	NOTE 1
Spherical coverage for UL-MIMO	FFS	FFS	FFS	FFS	NOTE 1
UE maximum output power reduction for UL-MIMO	FFS	FFS	FFS	FFS	NOTE 1
UE maximum output power with additional requirements for UL-MIMO	FFS	FFS	FFS	FFS	NOTE 1
Configured transmitted power for UL-MIMO	FFS	FFS	FFS	FFS	NOTE 1
Minimum output power	Rel-15	FR2_C01	UEs supporting 5GS FR2	FR2_D01	NOTE 1
General ON/OFF time mask	Rel-15	FR2_C01	UEs supporting 5GS FR2	FR2_D01	NOTE 1
PRACH time mask	Rel-15	FR2_C01	UEs supporting 5GS FR2	FR2_D01	NOTE 1
SRS time mask		FFS	FFS	FFS	NOTE 1
Absolute power tolerance	FFS	FFS	FFS	FFS	NOTE 1
Relative power tolerance	Rel-15	FR2_C01	UEs supporting 5GS FR2	FR2_D01	NOTE 1
Aggregate power tolerance	FFS	FFS	FFS	FFS	NOTE 1
Minimum output power for CA (2UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Minimum output power for CA (3UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Minimum output power for CA (4UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Minimum output power for CA (5UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Minimum output power for CA (6UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Minimum output power for CA (7UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Minimum output power for CA (8UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Transmit OFF power for CA (2UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Transmit OFF power for CA (3UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Transmit OFF power for CA (4UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Transmit OFF power for CA (5UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Transmit OFF power for CA (6UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Transmit OFF power for CA (7UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Transmit OFF power for CA (8UL CA)	FFS	FFS	FFS	FFS	NOTE 1
General ON/OFF time mask for CA (2UL CA)	FFS	FFS	FFS	FFS	NOTE 1
General ON/OFF time mask for CA (3UL CA)	FFS	FFS	FFS	FFS	NOTE 1
General ON/OFF time mask for CA (4UL CA)	FFS	FFS	FFS	FFS	NOTE 1
General ON/OFF time mask for CA (5UL CA)	FFS	FFS	FFS	FFS	NOTE 1
General ON/OFF time mask for CA (6UL CA)	FFS	FFS	FFS	FFS	NOTE 1
General ON/OFF time mask for CA (7UL CA)	FFS	FFS	FFS	FFS	NOTE 1
General ON/OFF time mask for CA (8UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Absolute power tolerance for CA (2UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Absolute power tolerance for CA (3UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Absolute power tolerance for CA (4UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Absolute power tolerance for CA (5UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Absolute power tolerance for CA (6UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Absolute power tolerance for CA (7UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Absolute power tolerance for CA (8UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Relative power tolerance for CA (2UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Relative power tolerance for CA (3UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Relative power tolerance for CA (4UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Relative power tolerance for CA (5UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Relative power tolerance for CA (6UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Relative power tolerance for CA (7UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Relative power tolerance for CA (8UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Aggregate power tolerance for CA (2UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Aggregate power tolerance for CA (3UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Aggregate power tolerance for CA (4UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Aggregate power tolerance for CA (5UL CA)	FFS	FFS	FFS	FFS	NOTE 1

TC Title	Release	Applicability		Tested Bands/CA-Configurations Selection	Ad Info (N
		Condition	Comment		
Aggregate power tolerance for CA (6UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Aggregate power tolerance for CA (7UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Aggregate power tolerance for CA (8UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Minimum output power for UL-MIMO	FFS	FFS	FFS	FFS	NOTE 1
Transmit OFF power for UL-MIMO	FFS	FFS	FFS	FFS	NOTE 1
General ON/OFF time mask for UL-MIMO	FFS	FFS	FFS	FFS	NOTE 1
PRACH time mask for UL-MIMO	FFS	FFS	FFS	FFS	NOTE 1
SRS time mask for UL-MIMO	FFS	FFS	FFS	FFS	NOTE 1
Frequency error	Rel-15	FR2_C01	UEs supporting 5GS FR2	FR2_D01	
Error vector magnitude	Rel-15	FR2_C01	UEs supporting 5GS FR2	FR2_D01	NOTE 1
Carrier leakage	Rel-15	FR2_C01	UEs supporting 5GS FR2	FR2_D01	NOTE 1
In-band emissions	Rel-15	FR2_C01	UEs supporting 5GS FR2	FR2_D01	NOTE 1
EVM equalizer spectrum flatness	Rel-15	FR2_C01	UEs supporting 5GS FR2	FR2_D01	NOTE 1
EVM spectral flatness for pi/2 BPSK modulation	Rel-15	FR2_C01	UEs supporting 5GS FR2	FR2_D01	NOTE 1
Frequency error for CA (2UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Frequency error for CA (3UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Frequency error for CA (4UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Frequency error for CA (5UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Frequency error for CA (6UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Frequency error for CA (7UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Frequency error for CA (8UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Error vector magnitude for CA (2UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Error vector magnitude for CA (3UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Error vector magnitude for CA (4UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Error vector magnitude for CA (5UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Error vector magnitude for CA (6UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Error vector magnitude for CA (7UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Error vector magnitude for CA (8UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Carrier leakage for CA (2UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Carrier leakage for CA (3UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Carrier leakage for CA (4UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Carrier leakage for CA (5UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Carrier leakage for CA (6UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Carrier leakage for CA (7UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Carrier leakage for CA (8UL CA)	FFS	FFS	FFS	FFS	NOTE 1
In-band emissions for CA (2UL CA)	FFS	FFS	FFS	FFS	NOTE 1
In-band emissions for CA (3UL CA)	FFS	FFS	FFS	FFS	NOTE 1
In-band emissions for CA (4UL CA)	FFS	FFS	FFS	FFS	NOTE 1
In-band emissions for CA (5UL CA)	FFS	FFS	FFS	FFS	NOTE 1
In-band emissions for CA (6UL CA)	FFS	FFS	FFS	FFS	NOTE 1
In-band emissions for CA (7UL CA)	FFS	FFS	FFS	FFS	NOTE 1
In-band emissions for CA (8UL CA)	FFS	FFS	FFS	FFS	NOTE 1
EVM equalizer spectrum flatness for CA (2UL CA)	FFS	FFS	FFS	FFS	NOTE 1
EVM equalizer spectrum flatness for CA (3UL CA)	FFS	FFS	FFS	FFS	NOTE 1
EVM equalizer spectrum flatness for CA (4UL CA)	FFS	FFS	FFS	FFS	NOTE 1
EVM equalizer spectrum flatness for CA (5UL CA)	FFS	FFS	FFS	FFS	NOTE 1
EVM equalizer spectrum flatness for CA (6UL CA)	FFS	FFS	FFS	FFS	NOTE 1
EVM equalizer spectrum flatness for CA (7UL CA)	FFS	FFS	FFS	FFS	NOTE 1
EVM equalizer spectrum flatness for CA (8UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Frequency error for UL-MIMO	FFS	FFS	FFS	FFS	NOTE 1
Error vector magnitude for UL-MIMO	FFS	FFS	FFS	FFS	NOTE 1
Carrier leakage for UL-MIMO	FFS	FFS	FFS	FFS	NOTE 1
In-band emissions for UL-MIMO	FFS	FFS	FFS	FFS	NOTE 1
EVM equalizer spectrum flatness for UL-MIMO	FFS	FFS	FFS	FFS	NOTE 1
Time alignment error for UL-MIMO	FFS	FFS	FFS	FFS	NOTE 1
Requirements for coherent UL MIMO	FFS	FFS	FFS	FFS	NOTE 1
Occupied bandwidth	Rel-15	FR2_C01	UEs supporting 5GS FR2	FR2_D01	NOTE 1
Spectrum Emission Mask	Rel-15	FR2_C01	UEs supporting 5GS FR2	FR2_D01	
Adjacent channel leakage ratio	Rel-15	FR2_C01	UEs supporting 5GS FR2	FR2_D01	NOTE 1
Transmitter Spurious emissions	Rel-15	FR2_C01	UEs supporting 5GS FR2	FR2_D01	NOTE 1

TC Title	Release	Applicability		Tested Bands/CA-Configurations Selection	Ad Info (N
		Condition	Comment		
Spurious emission band UE co-existence	FFS	FFS	FFS	FFS	NOTE 1
Additional spurious emissions	FFS	FFS	FFS	FFS	NOTE 1
Occupied bandwidth for CA (2UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Occupied bandwidth for CA (3UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Occupied bandwidth for CA (4UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Occupied bandwidth for CA (5UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Occupied bandwidth for CA (6UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Occupied bandwidth for CA (7UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Occupied bandwidth for CA (8UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Spectrum Emission Mask for CA (2UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Spectrum Emission Mask for CA (3UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Spectrum Emission Mask for CA (4UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Spectrum Emission Mask for CA (5UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Spectrum Emission Mask for CA (6UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Spectrum Emission Mask for CA (7UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Spectrum Emission Mask for CA (8UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Adjacent channel leakage ratio for CA (2UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Adjacent channel leakage ratio for CA (3UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Adjacent channel leakage ratio for CA (4UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Adjacent channel leakage ratio for CA (5UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Adjacent channel leakage ratio for CA (6UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Adjacent channel leakage ratio for CA (7UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Adjacent channel leakage ratio for CA (8UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Transmitter Spurious emissions for CA (2UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Transmitter Spurious emissions for CA (3UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Transmitter Spurious emissions for CA (4UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Transmitter Spurious emissions for CA (5UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Transmitter Spurious emissions for CA (6UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Transmitter Spurious emissions for CA (7UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Transmitter Spurious emissions for CA (8UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Spurious emission band UE co-existence for CA (2UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Spurious emission band UE co-existence for CA (3UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Spurious emission band UE co-existence for CA (4UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Spurious emission band UE co-existence for CA (5UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Spurious emission band UE co-existence for CA (6UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Spurious emission band UE co-existence for CA (7UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Spurious emission band UE co-existence for CA (8UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Additional spurious emissions for CA (2UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Additional spurious emissions for CA (3UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Additional spurious emissions for CA (4UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Additional spurious emissions for CA (5UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Additional spurious emissions for CA (6UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Additional spurious emissions for CA (7UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Additional spurious emissions for CA (8UL CA)	FFS	FFS	FFS	FFS	NOTE 1
Occupied bandwidth for UL-MIMO	FFS	FFS	FFS	FFS	NOTE 1
Spectrum Emission Mask for UL-MIMO	FFS	FFS	FFS	FFS	NOTE 1
Adjacent channel leakage ratio for UL-MIMO	FFS	FFS	FFS	FFS	NOTE 1
Transmitter Spurious emissions for UL-MIMO	FFS	FFS	FFS	FFS	NOTE 1
Spurious emission band UE co-existence for UL-MIMO	FFS	FFS	FFS	FFS	NOTE 1
Additional spurious emissions for UL-MIMO	FFS	FFS	FFS	FFS	NOTE 1
Beam correspondence	FFS	FFS	FFS	FFS	NOTE 1
Receiver Characteristics					
Reference sensitivity power level	Rel-15	FR2_C01	UEs supporting 5GS FR2	FR2_D01	

TC Title	Release	Applicability		Tested Bands/CA-Configurations Selection	Ad Info (N
		Condition	Comment		
EIS spherical coverage	FFS	FFS	FFS	FFS	NOTE 1
Reference sensitivity power level for CA (2DL CA)	FFS	FFS	FFS	FFS	NOTE 1
Reference sensitivity power level for CA (3DL CA)	FFS	FFS	FFS	FFS	NOTE 1
Reference sensitivity power level for CA (4DL CA)	FFS	FFS	FFS	FFS	NOTE 1
Reference sensitivity power level for CA (5DL CA)	FFS	FFS	FFS	FFS	NOTE 1
Reference sensitivity power level for CA (6DL CA)	FFS	FFS	FFS	FFS	NOTE 1
Reference sensitivity power level for CA (7DL CA)	FFS	FFS	FFS	FFS	NOTE 1
Reference sensitivity power level for CA (8DL CA)	FFS	FFS	FFS	FFS	NOTE 1
Reference sensitivity for UL-MIMO	FFS	FFS	FFS	FFS	NOTE 1
EIS spherical coverage for UL-MIMO	FFS	FFS	FFS	FFS	NOTE 1
Maximum input level	Rel-15	N/A	not recommended due to testability issues (NOTE 2)	N/A	NOTE 1
Maximum input level for CA (2DL CA)	FFS	FFS	FFS	FFS	NOTE 1
Maximum input level for CA (3DL CA)	FFS	FFS	FFS	FFS	NOTE 1
Maximum input level for CA (4DL CA)	FFS	FFS	FFS	FFS	NOTE 1
Maximum input level for CA (5DL CA)	FFS	FFS	FFS	FFS	NOTE 1
Maximum input level for CA (6DL CA)	FFS	FFS	FFS	FFS	NOTE 1
Maximum input level for CA (7DL CA)	FFS	FFS	FFS	FFS	NOTE 1
Maximum input level for CA (8DL CA)	FFS	FFS	FFS	FFS	NOTE 1
Maximum input level for UL-MIMO	FFS	FFS	FFS	FFS	NOTE 1
Adjacent channel selectivity	Rel-15	FR2_C01	UEs supporting 5GS FR2	FR2_D01	NOTE 1
Adjacent channel selectivity for CA (2DL CA)	FFS	FFS	FFS	FFS	NOTE 1
Adjacent channel selectivity for CA (3DL CA)	FFS	FFS	FFS	FFS	NOTE 1
Adjacent channel selectivity for CA (4DL CA)	FFS	FFS	FFS	FFS	NOTE 1
Adjacent channel selectivity for CA (5DL CA)	FFS	FFS	FFS	FFS	NOTE 1
Adjacent channel selectivity for CA (6DL CA)	FFS	FFS	FFS	FFS	NOTE 1
Adjacent channel selectivity for CA (7DL CA)	FFS	FFS	FFS	FFS	NOTE 1
Adjacent channel selectivity for CA (8DL CA)	FFS	FFS	FFS	FFS	NOTE 1
Adjacent channel selectivity for UL-MIMO	FFS	FFS	FFS	FFS	NOTE 1
In-band Blocking	Rel-15	FR2_C01	UEs supporting 5GS FR2	FR2_D01	NOTE 1
In-band blocking for CA (2DL CA)	FFS	FFS	FFS	FFS	NOTE 1
In-band blocking for CA (3DL CA)	FFS	FFS	FFS	FFS	NOTE 1
In-band blocking for CA (4DL CA)	FFS	FFS	FFS	FFS	NOTE 1
In-band blocking for CA (5DL CA)	FFS	FFS	FFS	FFS	NOTE 1
In-band blocking for CA (6DL CA)	FFS	FFS	FFS	FFS	NOTE 1
In-band blocking for CA (7DL CA)	FFS	FFS	FFS	FFS	NOTE 1
In-band blocking for CA (8DL CA)	FFS	FFS	FFS	FFS	NOTE 1
In-band blocking for UL-MIMO	FFS	FFS	FFS	FFS	NOTE 1
Spurious emissions	FFS	FFS	FFS	FFS	NOTE 1

test case is incomplete.
test case applicability is set to N/A until the related testability issues are resolved.
conformance testing involving FR2 test cases, the UE under test shall disable UL Tx diversity schemes.
lower Class 3 UE supported bands needs to be tested to ensure the multiband relaxation declaration is compliant.

Table 4.1.2-1a: Applicability of RF SA FR2 conformance test cases Conditions

FR2_C01 IF A.4.1-1/2 AND A.4.1-3/1 THEN R ELSE N/A
Note 1: : The ICS proforma are defined in TS 38.508-2 [8] unless otherwise state.

Table 4.1.2-1b: Tested Bands Selection Criteria

Code	Selection	Comment
FR2_D01	A.4.3.1-3	All supported FR2 Bands
Note 1: Band Selection is based on set theory. For each feature, item number shall correspond to the Band number. The result is the set of bands for which the test shall be conducted. The following operators are used: AND: Set intersection (∩). {1,2} AND {2,3} = {2} OR: Set union (∪). {1,2} OR {2,3} = {1,2,3} NOT: Set complement (\), full set being all bands. NOT{1} = {2 ...256} Also note that this is set without repetitions so {1} AND {1} = {1} The following basic sets are used: {1,2}: Explicitly given band set 10MHz: All bands supporting 10 MHz The following sets derived from pro-forma tables are also used: TBD		

Table 4.1.2-1c: Tested CA Configurations Selection Criteria

Code	Selection	Comment
FR2_Exy		

4.1.3 NR interworking between NR FR1 and NR FR2 and between NR and LTE conformance test cases

Table 4.1.3-1: Applicability of RF EN-DC FR1 and FR2 conformance test cases, ref. TS 38.521-3 [3]

	TC Title	Release	Applicability		Tested Bands/CA-Configurations Selection	Ad Inf
			Condition	Comment		
	Transmitter Characteristics					
	UE Maximum Output Power for Intra-Band Contiguous EN-DC	Rel-15	C01	UEs supporting Intra-Band Contiguous EN-DC	D01	NOTE 1
	UE Maximum Output Power for Intra-Band Non-Contiguous EN-DC	FFS	FFS	FFS	FFS	NOTE 1
	UE Maximum Output Power for Inter-Band EN-DC within FR1	Rel-15	C03	UEs supporting Inter-Band EN-DC within FR1	D01	Execute TC 6.2.1 6.2B.1.3 supports is tested using TS NOTE 1
	UE maximum output power - EIRP and TRP	Rel-15	C04	UEs supporting Inter-Band EN-DC including FR2	D02	NOTE 3
	UE maximum output power - Spherical coverage	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	UE Maximum Output Power reduction for Intra-Band Contiguous EN-DC	Rel-15	C01	UEs supporting Intra-Band Contiguous EN-DC	D01	
	UE Maximum Output Power reduction for Intra-Band Non-Contiguous EN-DC	Rel-15	C07	UEs supporting Intra-Band non-contiguous EN-DC within FR1	D01	NOTE 1
	UE Maximum Output Power reduction for Inter-Band EN-DC within FR1	Rel-15	C03	UEs supporting Inter-Band EN-DC within FR1	D01	Execute TC 6.2.2 6.2B.2.3 supports is tested using TS
	UE Maximum Output Power reduction for Inter-Band EN-DC including FR2	Rel-15	C04	UEs supporting Inter-Band EN-DC including FR2	D02	NOTE 1 NOTE 3
	UE Additional Maximum Output Power reduction for Intra-band contiguous EN-DC	FFS	FFS	FFS	FFS	NOTE 1
	UE Additional Maximum Output Power reduction for Intra-Band Non-Contiguous EN-DC	FFS	FFS	FFS	FFS	NOTE 1
	UE additional Maximum Output power reduction for inter-band EN-DC within FR1	FFS	FFS	FFS	FFS	NOTE 1
	UE Additional Maximum Output Power reduction for Inter-Band EN-DC including FR2	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	Configured Output Power Level for Intra-Band Contiguous EN-DC	Rel-15	C01	UEs supporting Intra-Band Contiguous EN-DC	D01	NOTE 1
	Configured Output Power for Intra-Band Non-Contiguous EN-DC	Rel-15	C02	UEs supporting Intra-Band Non-Contiguous EN-DC	D01	NOTE 1
	Configured Output Power for Inter-Band EN-DC within FR1	Rel-15	C03	UEs supporting Inter-Band EN-DC within FR1	D01	Execute 6.2.4 an 6.2B.4.1 supports is tested using TS NOTE 1
	Configured Output Power for Inter-Band EN-DC including FR2	Rel-15	C04	UEs supporting Inter-Band EN-DC including FR2	D02	Execute 6.2.1.1 a 6.2B.4.1 supports is tested using TS NOTE 1 NOTE 3
	Minimum Output power for intra-band contiguous	Rel-15	C01	UEs supporting intra-band	D01	NOTE 1

	TC Title	Release	Applicability		Tested Bands/CA-Configurations Selection	Ad Inf
			Condition	Comment		
	EN-DC			contiguous EN-DC		
	Minimum output power for intra-band non-contiguous EN-DC	Rel-15	C02	UEs supporting intra-band non-contiguous EN-DC	D01	NOTE 1
	Minimum output power for inter-band EN-DC within FR1	Rel-15	C03	UEs supporting inter-band EN-DC within FR1	D01	Execute 6.3.1 an 6.3B.1.3 supports is tested using TS
	Minimum Output Power for EN-DC Interband including FR2	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	Transmit OFF Power for intra-band contiguous EN-DC	FFS	FFS	FFS	FFS	NOTE 1
	Transmit OFF Power for intra-band non-contiguous EN-DC	FFS	FFS	FFS	FFS	NOTE 1
	Transmit OFF Power for inter-band EN-DC within FR1	FFS	FFS	FFS	FFS	NOTE 1
	Transmit OFF Power for inter-band EN-DC including FR2	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	Tx ON/OFF time mask for intra-band contiguous EN-DC	Rel-15	C01	UEs supporting intra-band contiguous EN-DC	D01	
	Tx ON/OFF time mask for intra-band non-contiguous EN-DC	Rel-15	C02	UEs supporting intra-band non-contiguous EN-DC	D01	
	Tx ON/OFF time mask for inter-band EN-DC within FR1	Rel-15	C03	UEs supporting inter-band EN-DC within FR1	D01	Execute TC 6.3.3 TC 6.3B supports is tested using TS
	Tx ON/OFF time mask for inter-band EN-DC including FR2	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	PRACH time mask for intra-band contiguous EN-DC	Rel-15	C01	UEs supporting intra-band contiguous EN-DC	D01	Execute TC 6.3.3 TC 6.3B supports is tested using TS
	PRACH Time Mask for intra-band non-contiguous EN-DC	Rel-15	C02	UEs supporting intra-band non-contiguous EN-DC	D01	Execute TC 6.3.3 TC 6.3B supports is tested using TS
	PRACH Time Mask for inter-band EN-DC within FR1	Rel-15	C03	UEs supporting inter-band EN-DC within FR1	D01	Execute TC 6.3.3 TC 6.3B supports is tested using TS
	PRACH Time Mask for inter-band EN-DC including FR2	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	E-UTRA and NR switching time mask for TDM based UL sharing from UE perspective and intra-band contiguous scenario	FFS	FFS	FFS	FFS	NOTE 1
	E-UTRA to NR and NR to E-UTRA Switching time mask for intra-band non-contiguous scenario	FFS	FFS	FFS	FFS	NOTE 1
	Frequency Error for intra-band contiguous EN-DC	FFS	FFS	FFS	FFS	NOTE 1
	Frequency Error for intra-band non-contiguous EN-DC	FFS	FFS	FFS	FFS	NOTE 1
	Frequency error for Inter-band EN-DC within FR1	FFS	FFS	FFS	FFS	NOTE 1
	Frequency Error for EN-DC within FR1 (> 1 NR CC)		FFS	FFS		NOTE 1
	Frequency Error for inter-band EN-DC including FR2	Rel-15	C04	UEs supporting Inter-Band EN-DC	D02	NOTE 1

	TC Title	Release	Applicability		Tested Bands/CA-Configurations Selection	Ad Inf
			Condition	Comment		
				including FR2		NOTE 3
	Error Vector Magnitude for intra-band contiguous EN-DC	Rel-15	C01	UEs supporting intra-band contiguous EN-DC	D01	
	Carrier Leakage for intra-band contiguous EN-DC	Rel-15	C01	UEs supporting intra-band contiguous EN-DC	D01	
	In-band Emissions for intra-band contiguous EN-DC	Rel-15	C01	UEs supporting intra-band contiguous EN-DC	D01	NOTE 1
	EVM Equalizer Flatness for intra-band contiguous EN-DC	FFS	FFS	FFS	FFS	NOTE 1
	Error Vector Magnitude for intra-band non-contiguous EN-DC	Rel-15	C02	UEs supporting intra-band non-contiguous EN-DC	D01	NOTE 1
	Carrier Leakage for intra-band non-contiguous EN-DC	Rel-15	C02	UEs supporting intra-band non-contiguous EN-DC	D01	
	In-band Emissions for intra-band non-contiguous EN-DC	Rel-15	C02	UEs supporting intra-band non-contiguous EN-DC	D01	NOTE 1
	EVM Equalizer Flatness for intra-band non contiguous EN-DC	Rel-15	C02	UEs supporting intra-band non-contiguous EN-DC	D01	NOTE 1
	Error Vector Magnitude for inter-band EN-DC within FR1	Rel-15	C03	UEs supporting inter-band EN-DC within FR1	D01	Execute TC 6.4.2 TC 6.4B supports is tested using TS
	Carrier Leakage for inter-band EN-DC within FR1	Rel-15	C03	UEs supporting inter-band EN-DC within FR1	D01	Execute TC 6.4.2 TC 6.4B supports is tested using TS
	In-band Emissions for inter-band EN-DC within FR1	Rel-15	C03	UEs supporting inter-band EN-DC within FR1	D01	Execute TC 6.4.2 TC 6.4B supports is tested using TS
	EVM Equalizer Flatnessfor inter-band EN-DC within FR1	Rel-15	C03	UEs supporting inter-band EN-DC within FR1	D01	Execute TC 6.4.2 TC 6.4B supports is tested using TS
	Error Vector Magnitude for inter-band EN-DC including FR2	Rel-15	C04	UEs supporting Inter-band including FR2	D02	Execute 6.4.2.1 a 6.4B.2.4 supports is tested using TS NOTE 1 NOTE 3
	Carrier Leakage for inter-band EN-DC including FR2	Rel-15	C04	UEs supporting Inter-band including FR2	D02	Execute 6.4.2.2 a 6.4B.2.4 supports is tested using TS NOTE 1 NOTE 3
	In-band Emissions for inter-band EN-DC including FR2	Rel-15	C04	UEs supporting Inter-band including FR2	D02	Execute 6.4.2.3 a 6.4B.2.4 supports is tested using TS

	TC Title	Release	Applicability		Tested Bands/CA-Configurations Selection	Ad Inf
			Condition	Comment		
						NOTE 1 NOTE 3
	EVM Equalizer Flatness for inter-band EN-DC including FR2	Rel-15	C04	UEs supporting Inter-band including FR2	D02	Execute 6.4.2.4 a 6.4B.2.4 supports is tested using TS NOTE 1 NOTE 3
	Occupied Bandwidth for CA without EN-DC	FFS	N/A	FFS	FFS	NOTE 1
	Spectrum emissions mask for CA without EN-DC	FFS	FFS	FFS	FFS	NOTE 1
	Additional Spectrum emissions mask for CA without EN-DC	FFS	N/A	FFS	FFS	
	Adjacent channel leakage ratio for CA without EN-DC	FFS	FFS	FFS	FFS	NOTE 1
	General Spurious Emissions for CA without EN-DC	FFS	N/A	FFS	FFS	NOTE 1
	Spurious Emission band UE co-existence for CA without EN-DC	FFS	N/A	FFS	FFS	NOTE 1
	Occupied bandwidth for Intra-Band Contiguous EN-DC	Rel-15	C01	UEs supporting intra-band contiguous EN-DC	D01	NOTE 1
	Occupied bandwidth for Intra-Band Non-Contiguous EN-DC	Rel-15	C02	UEs supporting intra-band non-contiguous EN-DC	D01	NOTE 1
	Occupied bandwidth for Inter-Band EN-DC within FR1	Rel-15	C03	UEs supporting inter-band EN-DC within FR1	D01	Execute 6.5.1 an 6.5B.1.3 supports is tested using TS
	Occupied bandwidth for Inter-Band EN-DC including FR2	Rel-15	C04	UEs supporting Inter-band including FR2	D02	Execute 6.5.1 an 6.5B.1.4 supports is tested using TS NOTE 1 NOTE 3
	Spectrum emissions mask for intra-band contiguous EN-DC	Rel-15	C01	UEs supporting intra-band contiguous EN-DC	D01	
	Additional spectrum emissions mask for intra-band contiguous EN-DC	Rel-15	C01	UEs supporting intra-band contiguous EN-DC	D01	
	Adjacent channel leakage ratio for intra-band contiguous EN-DC	Rel-15	C01	UEs supporting intra-band contiguous EN-DC	D01	
	Spectrum emissions mask for intra-band non-contiguous EN-DC	Rel-15	C02	UEs supporting intra-band non-contiguous EN-DC	D01	NOTE 1
	Additional Spectrum emissions mask for intra-band non-contiguous EN-DC	FFS	FFS	FFS	FFS	NOTE 1
	Adjacent channel leakage ratio for intra-band non-contiguous EN-DC	Rel-15	C02	UEs supporting intra-band non-contiguous EN-DC	D01	NOTE 1
	Spectrum emissions mask for Inter-band EN-DC within FR1	Rel-15	C03	UEs supporting Inter-band EN-DC within FR1	D01	Execute 6.5.2.2 a 6.5B.2.3 supports is tested using TS
	Additional Spectrum emissions mask for Inter-band EN-DC within FR1	FFS	FFS	FFS	FFS	NOTE 1
	Adjacent channel leakage ratio for inter-band EN-DC within FR1	Rel-15	C03	UEs supporting Inter-band EN-DC within FR1	D01	Execute 6.5.2.4.1 6.5B.2.3 supports is tested

	TC Title	Release	Applicability		Tested Bands/CA-Configurations Selection	Ad Inf
			Condition	Comment		
						using TS
	Spectrum emissions mask for Inter-band EN-DC including FR2	Rel-15	C04	UEs supporting Inter-band including FR2	D02	Execute 6.5.2.1 a 6.5B.1.4 supports is tested using TS NOTE 1 NOTE 3
	Additional Spectrum emissions mask for Inter-band EN-DC including FR2	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	Adjacent channel leakage ratio for Inter-band EN-DC including FR2	Rel-15	C04	UEs supporting Inter-band including FR2	D02	Execute 6.5.2.3 a 6.5B.1.4 supports is tested using TS NOTE 1 NOTE 3
	General spurious emissions for intra-band contiguous EN-DC	Rel-15	C01	UEs supporting intra-band contiguous EN-DC	D01	
	Spurious emission band UE co-existence for intra-band contiguous EN-DC	Rel-15	C01	UEs supporting intra-band contiguous EN-DC	D01	
	General spurious emissions for intra-band non-contiguous EN-DC	Rel-15	C02	UEs supporting intra-band non-contiguous EN-DC	D01	
	Spurious emission band UE co-existence for intra-band non-contiguous EN-DC	FFS	FFS	FFS	FFS	NOTE 1
	General spurious emissions for Inter-band EN-DC within FR1	Rel-15	C03	UEs supporting Inter-band EN-DC within FR1	D01	Execute 6.5.3.1 a 6.5B.3.3 supports is tested using TS
	Spurious emission band UE co-existence for Inter-band within FR1	Rel-15	C03	UEs supporting Inter-band EN-DC within FR1	D01	Execute TC 6.5.3 TC 6.5B supports is tested using TS
	General Spurious Emissions for Inter-band including FR2	Rel-15	C04	UEs supporting Inter-band including FR2	D02	Execute 6.5.3.1 a 6.5B.3.4 supports is tested using TS NOTE 1 NOTE 3
	Spurious emission band UE co-existence for Inter-band including FR2	Rel-15	C04	UEs supporting Inter-band including FR2	D02	NOTE 1 NOTE 3
	Additional Spurious Emissions for Intra-band contiguous EN-DC	Rel-15	C01	UEs supporting intra-band contiguous EN-DC	D01	
	Additional Spurious Emissions for Intra-band non-contiguous EN-DC	Rel-15	C02	UEs supporting intra-band non-contiguous EN-DC	D01	NOTE 1
	Additional Spurious Emissions for Inter-band EN-DC	Rel-15	C03	UEs supporting inter-band EN-DC within FR1	D01	
	Transmit Intermodulation for inter-band EN-DC within FR2	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	Receiver Characteristics					
	Reference sensitivity power level for CA without EN-DC	FFS	FFS	FFS	FFS	NOTE 1
	Reference sensitivity exceptions due to UL harmonic interference for CA	FFS	FFS	FFS	FFS	NOTE 1

	TC Title	Release	Applicability		Tested Bands/CA-Configurations Selection	Ad Inf
			Condition	Comment		
	Reference sensitivity for intra-band contiguous EN-DC (2 CCs)	Rel-15	C01	UEs supporting intra-band contiguous EN-DC	D01	
	Reference sensitivity for Intra-band non-contiguous EN-DC (2 CCs)	Rel-15	C02	UEs supporting intra-band non-contiguous EN-DC	D01	
	Reference sensitivity for Inter-band EN-DC within FR1	Rel-15	C03	UEs supporting inter-band EN-DC within FR1	D01	Execute 7.3.2 an 7.3B.2.3 supports is tested using TS
	Reference sensitivity for Inter-band EN-DC including FR2 (2 CCs)	Rel-15	C03	UEs supporting inter-band EN-DC within FR1	D01	Execute 7.3.2 an 7.3B.2.4 supports is tested using TS NOTE 3
	Reference sensitivity for Inter-band EN-DC including FR2 (3 CCs)	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	Reference sensitivity for Inter-band EN-DC including FR2 (4 CCs)	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	Reference sensitivity for Inter-band EN-DC including FR2 (5 CCs)	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	Reference sensitivity for Inter-band EN-DC including FR2 (6 CCs)	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	Reference sensitivity for EN-DC within FR1 (3 CCs)	Rel-15	C03	UEs supporting Inter-band EN-DC within FR1	D01	Execute 7.3A.2 a 7.3B.2.6 supports is tested using TS
	Reference sensitivity for EN-DC within FR1 (4 CCs)	FFS	FFS	FFS	FFS	NOTE 1
	Reference sensitivity for EN-DC within FR1 (5 CCs)	FFS	FFS	FFS	FFS	NOTE 1
	Reference sensitivity for EN-DC within FR1 (6 CCs)	FFS	FFS	FFS	FFS	NOTE 1
	Maximum Input Level for Intra-Band Contiguous EN-DC (2 CCs)	Rel-15	C01	UEs supporting Intra-Band Contiguous EN-DC	D01	
	Maximum Input Level for Intra-Band Non-Contiguous EN-DC (2 CCs)	Rel-15	C02	UEs supporting Intra-Band Non-Contiguous EN-DC	D01	
	Maximum Input Level for Inter-band EN-DC within FR1	Rel-15	C03	UEs supporting Inter-band EN-DC within FR1	D01	Execute 7.4 and UE supp UTRA is standalo 36.521-1
	Maximum Input Level for inter-band EN-DC including FR2 (2 CCs)	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	Maximum Input Level for inter-band EN-DC including FR2 (3 CCs)	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	Maximum Input Level for inter-band EN-DC including FR2 (4 CCs)	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	Maximum Input Level for inter-band EN-DC including FR2 (5 CCs)	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	Maximum Input Level for inter-band EN-DC including FR2 (6 CCs)	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	Maximum Input Level for EN-DC within FR1 (3 CCs)	FFS	FFS	FFS	FFS	NOTE 1
	Maximum Input Level for EN-DC within FR1 (4 CCs)	FFS	FFS	FFS	FFS	NOTE 1
	Maximum Input Level for EN-DC witihn FR1 (5 CCs)	FFS	FFS	FFS	FFS	NOTE 1
	Maximum Input Level for EN-DC within FR1 (6 CCs)	FFS	FFS	FFS	FFS	NOTE 1
	Adjacent Channel Selectivity for intra-band contiguous EN-DC (2 CCs)	Rel-15	C01	UEs supporting intra-band contiguous EN-DC	D01	NOTE 1
	Adjacent Channel Selectivity for intra-band non-contiguous EN-DC (2 CCs)	Rel-15	C02	UEs supporting intra-band non-contiguous EN-DC	D01	NOTE 1

	TC Title	Release	Applicability		Tested Bands/CA-Configurations Selection	Ad Inf
			Condition	Comment		
	Adjacent Channel Selectivity for inter-band EN-DC within FR1 (2 CCs)	Rel-15	C03	UEs supporting inter-band EN-DC within FR1	D01	Execute 7.5 and UE supp UTRA is standalo 36.521-1
	Adjacent Channel Selectivity for inter-band EN-DC including FR2 (2 CCs)	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	Adjacent Channel Selectivity for inter-band EN-DC including FR2 (3 CCs)	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	Adjacent Channel Selectivity for inter-band EN-DC including FR2 (4 CCs)	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	Adjacent Channel Selectivity for inter-band EN-DC including FR2 (5 CCs)	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	Adjacent Channel Selectivity for inter-band EN-DC including FR2 (6 CCs)	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	Adjacent Channel Selectivity for EN-DC within FR1 (3 CCs)	FFS	FFS	FFS	FFS	NOTE 1
	Adjacent Channel Selectivity for EN-DC within FR1 (4 CCs)	FFS	FFS	FFS	FFS	NOTE 1
	Adjacent Channel Selectivity for EN-DC within FR1 (5 CCs)	FFS	FFS	FFS	FFS	NOTE 1
	Adjacent Channel Selectivity for EN-DC within FR1 (6 CCs)	FFS	FFS	FFS	FFS	NOTE 1
	Inband blocking for intra-band contiguous EN-DC (2 CCs)	FFS	FFS	FFS	FFS	NOTE 1
	Inband blocking for intra-band non-contiguous EN-DC (2 CCs)	FFS	FFS	FFS	FFS	NOTE 1
	Inband blocking for inter-band EN-DC within FR1 (2 CCs)	Rel-15	C03	UEs supporting Inter-band EN-DC within FR1	D01	Execute 7.6. 2 an 7.6B.2.3 supports is tested using TS
	Inband blocking for inter-band EN-DC including FR2 (2 CCs)	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	Inband blocking for inter-band EN-DC including FR2 (3 CCs)	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	Inband blocking for inter-band EN-DC including FR2 (4 CCs)	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	Inband blocking for inter-band EN-DC including FR2 (5 CCs)	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	Inband blocking for inter-band EN-DC including FR2 (6 CCs)	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	Inband blocking for EN-DC within FR1 (3 CCs)	FFS	FFS	FFS	FFS	NOTE 1
	Inband blocking for EN-DC within FR1 (4 CCs)	FFS	FFS	FFS	FFS	NOTE 1
	Inband blocking for EN-DC within FR1 (5 CCs)	FFS	FFS	FFS	FFS	NOTE 1
	Inband blocking for EN-DC within FR1 (6 CCs)	FFS	FFS	FFS	FFS	NOTE 1
	Out-of-band blocking for intra-band contiguous EN-DC (2 CCs)	FFS	FFS	FFS	FFS	NOTE 1
	Out-of-band blocking for intra-band non-contiguous EN-DC (2 CCs)	FFS	FFS	FFS	FFS	NOTE 1
	Out-of-band blocking for inter-band EN-DC within FR1 (2 CCs)	Rel-15	C03	UEs supporting Inter-band EN-DC within FR1	D01	Execute 7.6.3 an 7.6B.3.3 supports is tested using TS
	Out-of-band blocking for inter-band EN-DC including FR2 (2 CCs)	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	Out-of-band blocking for inter-band EN-DC including FR2 (3 CCs)	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3

	TC Title	Release	Applicability		Tested Bands/CA-Configurations Selection	Ad Inf
			Condition	Comment		
	Out-of-band blocking for inter-band EN-DC including FR2 (4 CCs)	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	Out-of-band blocking for inter-band EN-DC including FR2 (5 CCs)	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	Out-of-band blocking for inter-band EN-DC including FR2 (6 CCs)	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	Out-of-band blocking for EN-DC within FR1 (3 CCs)	FFS	FFS	FFS	FFS	NOTE 1
	Out-of-band blocking for EN-DC within FR1 (4 CCs)	FFS	FFS	FFS	FFS	NOTE 1
	Out-of-band blocking for EN-DC within FR1 (5 CCs)	FFS	FFS	FFS	FFS	NOTE 1
	Out-of-band blocking for EN-DC within FR1 (6 CCs)	FFS	FFS	FFS	FFS	NOTE 1
	Narrow band blocking for intra-band contiguous EN-DC (2 CCs)	FFS	FFS	FFS	FFS	NOTE 1
	Narrow band blocking for intra-band non-contiguous EN-DC (2 CCs)	FFS	FFS	FFS	FFS	NOTE 1
	Narrow band blocking for inter-band EN-DC within FR1 (2 CCs)	Rel-15	C03	UEs supporting Inter-band EN-DC within FR1	D01	Execute 7.6. 4 ar 7.6B.4.3 supports is tested using TS
	Narrow band blocking for inter-band EN-DC including FR2 (2 CCs)	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	Narrow band blocking for inter-band EN-DC including FR2 (3 CCs)	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	Narrow band blocking for inter-band EN-DC including FR2 (4 CCs)	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	Narrow band blocking for inter-band EN-DC including FR2 (5 CCs)	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	Narrow band blocking for inter-band EN-DC including FR2 (6 CCs)	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	Narrow band blocking for EN-DC within FR1 (3 CCs)	FFS	FFS	FFS	FFS	NOTE 1
	Narrow band blocking for EN-DC within FR1 (4 CCs)	FFS	FFS	FFS	FFS	NOTE 1
	Narrow band blocking for EN-DC within FR1 (5 CCs)	FFS	FFS	FFS	FFS	NOTE 1
	Narrow band blocking for EN-DC within FR1 (6 CCs)	FFS	FFS	FFS	FFS	NOTE 1
	Spurious Response for intra-band contiguous EN-DC (2 CCs)	FFS	FFS	FFS	FFS	NOTE 1
	Spurious Response for intra-band non-contiguous EN-DC (2 CCs)	FFS	FFS	FFS	FFS	NOTE 1
	Spurious Response for inter-band EN-DC within FR1 (2 CCs)	Rel-15	C03	UEs supporting Inter-band EN-DC within FR1	D01	Execute 7.7 and UE supp UTRA is standalo 36.521-1
	Spurious Response for inter-band EN-DC including FR2 (2 CCs)	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	Spurious Response for inter-band EN-DC including FR2 (3 CCs)	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	Spurious Response for inter-band EN-DC including FR2 (4 CCs)	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	Spurious Response for inter-band EN-DC including FR2 (5 CCs)	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	Spurious Response for inter-band EN-DC including FR2 (6 CCs)	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	Spurious Response for EN-DC within FR1 (3 CCs)	FFS	FFS	FFS	FFS	NOTE 1
	Spurious Response for EN-DC within FR1 (4 CCs)	FFS	FFS	FFS	FFS	NOTE 1
	Spurious Response for EN-DC within FR1 (5 CCs)	FFS	FFS	FFS	FFS	NOTE 1
	Spurious Response for EN-DC witihn FR1 (6 CCs)	FFS	FFS	FFS	FFS	NOTE 1
	Wideband Intermodulation for intra-band contiguous EN-DC in FR1	Rel-15	C01	UEs supporting Intra-Band Contiguous EN-DC	D01	NOTE 1
	Wideband Intermodulation for intra-band non-	Rel-15	C02	UEs supporting Intra-Band non-	D01	Execute

	TC Title	Release	Applicability		Tested Bands/CA-Configurations Selection	Ad Inf
			Condition	Comment		
	contiguous EN-DC in FR1			contiguous EN-DC		7.8. 2 ar 7.8B.2.2 supports is tested using TS
	Wideband Intermodulation for inter-band EN-DC in FR1 (2 CCs)	Rel-15	C03	UEs supporting inter-band EN-DC within FR1	D01	Execute TC 7.8.2 7.8B.2.3 supports is tested using TS
	Wideband Intermodulation for EN-DC including FR2 (2 CCs)	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	Wideband Intermodulation for EN-DC including FR2 (3 CCs)	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	Wideband Intermodulation for EN-DC including FR2 (4 CCs)	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	Wideband Intermodulation for EN-DC including FR2 (5 CCs)	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	Wideband Intermodulation for EN-DC including FR2 (6 CCs)	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	Wideband Intermodulation for EN-DC within FR1 (3 CCs)	FFS	FFS	FFS	FFS	NOTE 1
	Wideband Intermodulation for EN-DC within FR1 (4 CCs)	FFS	FFS	FFS	FFS	NOTE 1
	Wideband Intermodulation for EN-DC within FR1 (5 CCs)	FFS	FFS	FFS	FFS	NOTE 1
	Wideband Intermodulation for EN-DC within FR1 (6 CCs)	FFS	FFS	FFS	FFS	NOTE 1
	Spurious Emissions for intra-band contiguous EN-DC in FR1(2 CCs)	Rel-15	C01	UEs supporting Intra-Band Contiguous EN-DC	D01	Execute TC 7.9 a 7.9B.1 if SA. E-U standalo 36.521-1
	Spurious Emissions for intra-band non-contiguous EN-DC in FR1(2 CCs)	Rel-15	C02	UEs supporting Intra-Band non-contiguous EN-DC	D01	Execute TC 7.9 a 7.9B.2 if SA. E-U standalo 36.521-1
	Spurious Emissions for inter-band EN-DC within FR1 (2 CCs)	Rel-15	C03	UEs supporting inter-band EN-DC within FR1	D01	Execute TC 7.9 a 7.9B.3 if SA. E-U standalo 36.521-1
	Spurious Emissions for inter-band EN-DC including FR2 (2 CCs)	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	Spurious Emissions for inter-band EN-DC including FR2 (3 CCs)	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	Spurious Emissions for inter-band EN-DC including FR2 (4 CCs)	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	Spurious Emissions for inter-band EN-DC including FR2 (5 CCs)	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	Spurious Emissions for inter-band EN-DC including FR2 (6 CCs)	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
	Spurious Emissions for EN-DC within FR1 (3 CCs)	FFS	FFS	FFS	FFS	NOTE 1
	Spurious Emissions for EN-DC within FR1 (4 CCs)	FFS	FFS	FFS	FFS	NOTE 1
	Spurious Emissions for EN-DC within FR1 (5 CCs)	FFS	FFS	FFS	FFS	NOTE 1
	Spurious Emissions for EN-DC (6 CCs)	FFS	FFS	FFS	FFS	NOTE 1

test case is incomplete.

	TC Title	Release	Applicability		Tested Bands/CA-Configurations Selection	Ad Inf
			Condition	Comment		
test case applicability is set to N/A until the related testability issues are resolved.						
conformance testing involving FR2 test cases, the UE under test shall disable UL Tx diversity schemes.						
ower Class 3 UE supported bands needs to be tested to ensure the multiband relaxation declaration is compliant						

Table 4.1.3-1a: Applicability of RF EN-DC conformance test cases Conditions

C01	IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-3/2 AND A.4.1-4/1 THEN R ELSE N/A
C02	IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-3/2 AND A.4.1-4/2 THEN R ELSE N/A
C03	IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-3/2 AND A.4.1-4/3 THEN R ELSE N/A
C04	IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-3/2 AND A.4.1-4/4 THEN R ELSE N/A
C05	IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-3/2 AND (A.4.1-4/3 OR A.4.1-4/4) THEN R ELSE N/A
C06	IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-3/2 AND (A.4.1-4/1 OR A.4.1-4/2 OR A.4.1-4/3 OR A.4.1-4/4) THEN R ELSE N/A
C07	IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-3/2 AND A.4.1-4/2 AND A.4.3.2-1/17 THEN R ELSE N/A
Note 1: The ICS proforma are defined in TS 38.508-2 [8] unless otherwise state.	

Table 4.1.3-1b: Tested Bands Selection Criteria for RF EN-DC conformance test cases

Code	Selection	Comment
D01	A.4.3.1-1 OR A.4.3.1-2	All supported FR1 Bands
D02	A.4.3.1-3	All supported FR2 Bands
D03	A.4.3.1-1 OR A.4.3.1-2 OR A.4.3.1-3	All supported NR Bands

Note 1: Band Selection is based on set theory. For each feature, item number shall correspond to the Band number. The result is the set of bands for which the test shall be conducted. The following operators are used:

AND: Set intersection ($\cap$). {1,2} AND {2,3} = {2}

OR: Set union ($\cup$). {1,2} OR {2,3} = {1,2,3}

NOT: Set complement (\), full set being all bands. NOT{1} = {2 ...256}

Also note that this is set without repetitions so {1} AND {1} = {1}

The following basic sets are used:

{1,2}: Explicitly given band set

10MHz: All bands supporting 10 MHz

The following sets derived from pro-forma tables are also used:

TBD

Table 4.1.3-1c: Tested CA Configurations Selection Criteria for RF EN-DC conformance test cases

Code	Selection	Comment
Exy		

4.1.4 Performance conformance test cases

Table 4.1.4-1: Applicability of performance test cases, ref. TS 38.521-4 [4]

TC Title	Release	Applicability		Tested Bands Selection	Ad Info
		Condition	Comment		
Demodulation performance requirements (Conducted requirements)					
2Rx FDD FR1 PDSCH mapping Type A performance - 2x2 MIMO with baseline receiver for both SA and NSA	Rel-15	Perf_C01	UEs supporting 5GS FDD FR1	Perf_D01, Perf_D03	
2Rx FDD FR1 PDSCH mapping Type A performance - 2x2 MIMO with enhanced receiver type X for both SA and NSA	Rel-15	Perf_C01a	UEs supporting 5GS FDD FR1 and Enhanced Receiver Type X	Perf_D01	
2Rx FDD FR1 PDSCH mapping Type A and CSI-RS overlapped with PDSCH performance - 2x2 MIMO with baseline receiver for both SA and NSA	Rel-15	Perf_C01	UEs supporting 5GS FDD FR1	Perf_D01	
2Rx TDD FR1 PDSCH mapping Type A performance - 2x2 MIMO with baseline receiver for both SA and NSA	Rel-15	Perf_C02	UEs supporting 5GS TDD FR1	Perf_D02, Perf_D03	
2Rx TDD FR1 PDSCH mapping Type A performance - 2x2 MIMO with enhanced receiver type X for both SA and NSA	Rel-15	Perf_C02a	UEs supporting 5GS TDD FR1 and Enhanced Receiver Typer X	Perf_D03	
2Rx TDD FR1 PDSCH mapping Type A and CSI-RS overlapped with PDSCH performance - 2x2 MIMO with baseline receiver for both SA and NSA	Rel-15	Perf_C02	UEs supporting 5GS TDD FR1	Perf_D03	
4Rx FDD FR1 PDSCH mapping Type A performance - 2x4 MIMO baseline receiver for both SA and NSA	Rel-15	Perf_C03	UEs supporting 5GS FDD FR1 and 4Rx antenna ports	Perf_D01, Perf_D02	
4Rx FDD FR1 PDSCH mapping Type A performance - 4x4 MIMO baseline receiver for both SA and NSA	Rel-15	Perf_C03	UEs supporting 5GS FDD FR1 and 4Rx antenna ports	Perf_D01, Perf_D02	
4Rx FDD FR1 PDSCH mapping Type A performance - 4x4 MIMO with enhanced receiver type X for both SA and NSA	Rel-15	Perf_C03a	UEs supporting 5GS FDD FR1 and 4Rx antenna ports and Enhanced Receiver Type X	Perf_D01	
4Rx FDD FR1 PDSCH Mapping Type A and LTE-NR coexistence performance - 4x4 MIMO with baseline receiver for both SA and NSA	Rel-15	Perf_C03c	UEs supporting 5GS FDD FR1 and 4Rx antenna ports and LTE-NR coexistence	Perf_D01	
4Rx TDD FR1 PDSCH mapping Type A performance - 2x4 MIMO with baseline receiver for both SA and NSA	FFS	FFS	FFS	FFS	NOTE 1
4Rx TDD FR1 PDSCH mapping Type A performance - 4x4 MIMO with baseline receiver for both SA and NSA	FFS	FFS	FFS	FFS	NOTE 1
4Rx TDD FR1 PDSCH mapping Type A performance - 4x4 MIMO with enhanced receiver type X for both SA and NSA	FFS	FFS	FFS	FFS	NOTE 1
2Rx FDD FR1 PDCCH 1 Tx antenna performance for both SA and NSA	Rel-15	Perf_C01	UEs supporting 5GS FDD FR1	Perf_D01	
2Rx FDD FR1 PDCCH 2 Tx antenna performance for both SA and NSA	Rel-15	Perf_C01	UEs supporting 5GS FDD FR1	Perf_D01	
2Rx TDD FR1 PDCCH 1 Tx antenna performance for both SA and NSA	FFS	FFS	FFS	FFS	NOTE 1
2Rx TDD FR1 PDCCH 2 Tx antenna performance for both SA and NSA	FFS	FFS	FFS	FFS	NOTE 1
4Rx FDD FR1 PDCCH 1 Tx antenna performance for both SA and NSA	FFS	FFS	FFS	FFS	NOTE 1
4Rx FDD FR1 PDCCH 2 Tx antenna performance for both SA and NSA	FFS	FFS	FFS	FFS	NOTE 1
4Rx TDD FR1 PDCCH 1 Tx antenna performance for both SA and NSA	FFS	FFS	FFS	FFS	NOTE 1
4Rx TDD FR1 PDCCH 2 Tx antenna performance for both SA and NSA	FFS	FFS	FFS	FFS	NOTE 1
CSI reporting requirements					
2Rx FDD FR1 periodic CQI reporting under AWGN conditions for both SA and NSA	Rel-15	Perf_C01	UEs supporting 5GS FDD FR1	Perf_D01	
2Rx FDD FR1 periodic wideband CQI reporting under fading conditions for both SA and NSA	Rel-15	Perf_C01	UEs supporting 5GS FDD FR1	Perf_D01	NOTE 1
2Rx TDD FR1 periodic CQI reporting under AWGN conditions for both SA and NSA	Rel-15	Perf_C02	UEs supporting 5GS TDD FR1	Perf_D03	
2Rx FDD FR1 Single PMI with 4Tx TypeI –	FFS	FFS	FFS	FFS	NOTE 1

TC Title	Release	Applicability		Tested Bands Selection	Ad Info
		Condition	Comment		
SinglePanel codebook for both SA and NSA					
2Rx FDD FR1 Single PMI with 8Tx TypeI – SinglePanel codebook for both SA and NSA	FFS	FFS	FFS	FFS	NOTE 1
2Rx TDD FR1 Single PMI with 4Tx Type1 - SinglePanel codebook for both SA and NSA	FFS	FFS	FFS	FFS	NOTE 1
2Rx TDD FR1 RI reporting for both SA and NSA	FFS	FFS	FFS	FFS	NOTE 1
Demodulation performance requirements (Radiated requirements)					
2Rx TDD FR2 PDSCH mapping Type A performance - 2x2 MIMO with baseline receiver for SA and NSA	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
2Rx TDD FR2 PDSCH mapping Type A performance - 2x2 MIMO with enhanced type X receiver for SA and NSA	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
2Rx TDD FR2 PDCCH 1 Tx antenna performance for both SA and NSA	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3
2Rx TDD FR2 PDCCH 2 Tx antenna performance for both SA and NSA	FFS	FFS	FFS	FFS	NOTE 1 NOTE 3

test case is incomplete.

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conformance testing involving FR2 test cases, the UE under test shall disable UL Tx diversity schemes.

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Table 4.1.4-1a: Applicability of RF performance conformance test cases Conditions

Perf_C01 IF A.4.1-1/1 AND (A.4.1-3/1 OR A.4.1-3/2 OR A.4.1-3/3 OR A.4.1-3/5) THEN R ELSE N/A
Perf_C01a IF A.4.1-1/1 AND (A.4.1-3/1 OR A.4.1-3/2 OR A.4.1-3/3 OR A.4.1-3/5) AND A.4.3.9-1/1 THEN R ELSE N/A
Perf_C02 IF A.4.1-1/2 AND (A.4.1-3/1 OR A.4.1-3/2 OR A.4.1-3/3 OR A.4.1-3/5) THEN R ELSE N/A
Perf_C02a IF A.4.1-1/2 AND (A.4.1-3/1 OR A.4.1-3/2 OR A.4.1-3/3 OR A.4.1-3/5) AND A.4.3.9-1/1 THEN R ELSE N/A
Perf_C03 IF A.4.1-1/1 AND (A.4.1-3/1 OR A.4.1-3/2 OR A.4.1-3/3 OR A.4.1-3/5) THEN R ELSE N/A
Perf_C03a IF A.4.1-1/1 AND (A.4.1-3/1 OR A.4.1-3/2 OR A.4.1-3/3 OR A.4.1-3/5) AND A.4.3.9-1/1 THEN R ELSE N/A
Perf_C03cIF A.4.1-1/1 AND (A.4.1-3/1 OR A.4.1-3/2 OR A.4.1-3/3 OR A.4.1-3/5) AND A.4.3.2-1/20 THEN R ELSE N/A
Perf_C04 IF A.4.1-1/2 AND (A.4.1-3/1 OR A.4.1-3/2 OR A.4.1-3/3 OR A.4.1-3/5) THEN R ELSE N/A
Perf_C04a IF A.4.1-1/2 AND (A.4.1-3/1 OR A.4.1-3/2 OR A.4.1-3/3 OR A.4.1-3/5) AND A.4.3.9-1/1 THEN R ELSE N/A
NOTE 1: The ICS proforma are defined in TS 38.508-2 [8] unless otherwise state.

Table 4.1.4-1b: Tested Bands Selection Criteria for RF performance conformance test cases

Code	Selection	Comment
Perf_D01	ANY((A.4.3.1-1 OR A.4.3.1-2) AND 10MHz)	Any band within the set supporting 10 MHz UE Channel BW
Perf_D02	ANY((A.4.3.1-1 OR A.4.3.1-2) AND 20MHz)	Any band within the set supporting 20 MHz UE Channel BW
Perf_D03	ANY((A.4.3.1-1 OR A.4.3.1-2) AND 40MHz)	Any band within the set supporting 40 MHz UE Channel BW

Note 1: Band Selection is based on set theory. For each feature, item number shall correspond to the Band number. The result is the set of bands for which the test shall be conducted. The following operators are used:

AND: Set intersection ($\cap$). {1,2} AND {2,3} = {2}

OR: Set union ($\cup$). {1,2} OR {2,3} = {1,2,3}

NOT: Set complement (\), full set being all bands. NOT{1} = {2 ...256}

Also note that this is set without repetitions so {1} AND {1} = {1}

The following basic sets are used:

{1,2}: Explicitly given band set

10MHz: All bands supporting 10 MHz

The following derived sets are also used:

ANY(): Arbitrarily select a band within set

4.2 RRM conformance test cases

NOTE: To determine applicability of a test case, FGI support in combined or fdd-Add-UE-NR-Capabilities or tdd-Add-UE- NR-Capabilities is taken into account.

Table 4.2-1: Applicability of RRM EN-DC FR1 conformance test cases, ref. TS 38.533 [5]

TC Title	Release	Applicability		Additional Information
		Condition	Comment	
RRC_CONNECTED state mobility				
RRC connection mobility control				
Random access				
Contention based random access test in FR1 for PSCell in EN-DC	FFS	FFS	FFS	NOTE 1
Non-contention based random access test in FR1 for PSCell in EN-DC	FFS	FFS	FFS	NOTE 1
Timing				
UE Transmit Timing				
EN-DC FR1 UE transmit timing accuracy	Rel-15	RE1_C001	UE supporting EN-DC FR1	
UE timer accuracy				
Timing Advance				
EN-DC FR1 timing advance adjustment accuracy	Rel-15	RE1_C001	UE supporting EN-DC FR1	
Signalling characteristics				
Radio link monitoring				
EN-DC FR1 radio link monitoring out-of-sync test for PSCell configured with SSB-based RLM RS in non-DRX mode	Rel-15	RE1_C001	UE supporting EN-DC FR1	NOTE 1
EN-DC FR1 radio link monitoring in-sync test for PSCell configured with SSB-based RLM RS in non-DRX mode	Rel-15	RE1_C001	UE supporting EN-DC FR1	NOTE 1
EN-DC FR1 radio link monitoring out-of-sync test for PSCell configured with SSB-based RLM RS in DRX mode	FFS	FFS	FFS	NOTE 1
EN-DC FR1 radio link monitoring in-sync test for PSCell configured with SSB-based RLM RS in DRX mode	FFS	FFS	FFS	NOTE 1
EN-DC FR1 radio link monitoring out-of-sync test for PSCell configured with CSI-RS-based RLM RS in non-DRX mode	Rel-15	RE1_C001	UE supporting EN-DC FR1	NOTE 1
EN-DC FR1 radio link monitoring in-sync test for PSCell configured with CSI-RS-based RLM RS in non-DRX mode	Rel-15	RE1_C001	UE supporting EN-DC FR1	NOTE 1
EN-DC FR1 radio link monitoring out-of-sync test for PSCell configured with CSI-RS-based RLM RS in DRX mode	Rel-15	RE1_C001	UE supporting EN-DC FR1	NOTE 1
EN-DC FR1 radio link monitoring in-sync test for PSCell configured with CSI-RS-based RLM RS in DRX mode	Rel-15	RE1_C001	UE supporting EN-DC FR1	NOTE 1
Interruption				
EN-DC FR1 interruptions at transitions between active and non-active during DRX in synchronous EN-DC	FFS	FFS	FFS	NOTE 1
EN-DC FR1 interruptions at transitions between active and non-active during DRX in asynchronous EN-DC	FFS	FFS	FFS	NOTE 1
EN-DC FR1 interruptions during measurements on deactivated NR SCC in synchronous EN-DC	FFS	FFS	FFS	NOTE 1
EN-DC FR1 interruptions during measurements on deactivated NR SCC in asynchronous EN-DC	FFS	FFS	FFS	NOTE 1
EN-DC FR1 interruptions during measurements on deactivated E-UTRAN SCC in synchronous EN-DC	FFS	FFS	FFS	NOTE 1
EN-DC FR1 interruptions during measurements on deactivated E-UTRAN SCC in asynchronous EN-DC	FFS	FFS	FFS	NOTE 1
EN-DC FR1 interruptions at UL carrier RRC reconfiguration for NR Scell		FFS	FFS	NOTE 1
SCell activation and deactivation delay				
EN-DC FR1 SCell activation and deactivation of known SCell in non-DRX for 160ms SCell measurement cycle	FFS	FFS	FFS	NOTE 1
EN-DC FR1 SCell activation and deactivation of known SCell in non-DRX for 320ms SCell measurement cycle	FFS	FFS	FFS	NOTE 1
EN-DC FR1 SCell activation and deactivation of unknown SCell in non-DRX	FFS	FFS	FFS	NOTE 1
UE UL carrier RRC reconfiguration delay				

TC Title	Release	Applicability		Additional Information
		Condition	Comment	
EN-DC FR1 UE UL carrier RRC reconfiguration delay	FFS	FFS	FFS	NOTE 1
Beam failure detection and link recovery procedures				
EN-DC FR1 SSB-based beam failure detection and link recovery in non-DRX	FFS	FFS	FFS	NOTE 1
EN-DC FR1 SSB-based beam failure detection and link recovery in DRX	FFS	FFS	FFS	NOTE 1
EN-DC FR1 CSI-RS-based beam failure detection and link recovery in non-DRX	FFS	FFS	FFS	NOTE 1
EN-DC FR1 CSI-RS-based beam failure detection and link recovery in DRX	FFS	FFS	FFS	NOTE 1
Active BWP switch delay				
DCI-based and timer-based active BWP switch				
EN-DC FR1 DCI-based DL active BWP switch in non-DRX in synchronous EN-DC	FFS	FFS	FFS	NOTE 1
EN-DC FR1 DCI-based DL active BWP switch with SCell in non-DRX in synchronous EN-DC	FFS	FFS	FFS	NOTE 1
RRC-based active BWP switch				
EN-DC FR1 RRC-based DL active BWP switch in non-DRX in synchronous EN-DC	FFS	FFS	FFS	NOTE 1
Measurement procedures				
Intra-frequency measurements				
EN-DC FR1 event-triggered reporting without gap in non-DRX	Rel-15	RE1_C001	UE supporting EN-DC FR1	
EN-DC FR1 event-triggered reporting without gap in DRX	Rel-15	RE1_C001	UE supporting EN-DC FR1	
EN-DC FR1 event-triggered reporting with gap in non-DRX	FFS	FFS	FFS	NOTE 1
EN-DC FR1 event-triggered reporting with gap in DRX	FFS	FFS	FFS	NOTE 1
EN-DC FR1 event-triggered reporting without gap in non-DRX with SSB time index detection	FFS	FFS	FFS	NOTE 1
EN-DC FR1 event-triggered reporting with gap in non-DRX with SSB time index detection	FFS	FFS	FFS	NOTE 1
Inter-frequency measurements				
EN-DC FR1-FR1 event-triggered reporting in non-DRX	Rel-15	RE1_C001	UE supporting EN-DC FR1	
EN-DC FR1-FR1 event-triggered reporting in DRX	Rel-15	RE1_C001	UE supporting EN-DC FR1	
EN-DC FR1-FR1 event-triggered reporting in non-DRX with SSB time index detection	Rel-15	RE1_C001	UE supporting EN-DC FR1	
EN-DC FR1-FR1 event-triggered reporting in DRX with SSB time index detection	Rel-15	RE1_C001	UE supporting EN-DC FR1	
Measurement performance requirements				
SS-RSRP				
Intra-frequency measurements				
EN-DC FR1 SS-RSRP absolute measurement accuracy	Rel-15	RE1_C001	UE supporting EN-DC FR1	NOTE 1
EN-DC FR1 SS-RSRP relative measurement accuracy	Rel-15	RE1_C001	UE supporting EN-DC FR1	NOTE 1
Inter-frequency measurements				
EN-DC FR1-FR1 SS-RSRP absolute measurement accuracy	Rel-15	RE1_C001	UE supporting EN-DC FR1	NOTE 1
EN-DC FR1-FR1 SS-RSRP relative measurement accuracy	Rel-15	RE1_C001	UE supporting EN-DC FR1	NOTE 1
SS-RSRQ				
EN-DC FR1 SS-RSRQ measurement accuracy	FFS	FFS	FFS	NOTE 1
EN-DC FR1-FR1 SS-RSRQ measurement accuracy	FFS	FFS	FFS	NOTE 1
SS-SINR				
EN-DC FR1 SS-SINR measurement accuracy	FFS	FFS	FFS	NOTE 1
EN-DC FR1-FR1 SS-SINR measurement accuracy	FFS	FFS	FFS	NOTE 1
L1-RSRP				
EN-DC FR1 SSB-based L1-RSRP measurement accuracy	FFS	FFS	FFS	NOTE 1
EN-DC FR1 CSI-RS-based L1-RSRP measurement accuracy	FFS	FFS	FFS	NOTE 1
SFTD				
EN-DC FR1 SFTD measurement accuracy	FFS	FFS	FFS	NOTE 1

TC Title	Release	Applicability		Additional Information
		Condition	Comment	
EN-DC FR1-FR1 SFTD measurement accuracy	FFS	FFS	FFS	NOTE 1
PSCell addition and release delay	FFS	FFS	FFS	NOTE 1
EN-DC FR1 addition and release delay of known PSCell	FFS	FFS	FFS	NOTE 1

test case is incomplete.
d.
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d.

Table 4.2-1a: Applicability of RRM EN-DC FR1 conformance test cases Conditions

RE1_C001 IF (A.4.1-4/1 OR A.4.1-4/2 OR A.4.1-4/3 OR A.4.1-4/5) AND A.4.1-3/2 THEN R ELSE N/A
Note 1: The ICS proforma are defined in TS 38.508-2 [8].

Table 4.2-2: Applicability of RRM EN-DC FR2 conformance test cases, ref. TS 38.533 [5]

TC Title	Release	Applicability		Additional Information (NOTE 3)
		Condition	Comment	
RRC_CONNECTED state mobility				
RRC connection mobility control				
Random access				
EN-DC FR2 contention based random access	FFS	FFS	FFS	NOTE 1
EN-DC FR2 non-contention based random access	FFS	FFS	FFS	NOTE 1
Timing				
UE transmit timing				
EN-DC FR2 UE transmit timing accuracy	FFS	FFS	FFS	NOTE 1
UE timer accuracy				
Timing advance				
EN-DC FR2 timing advance adjustment accuracy	FFS	FFS	FFS	NOTE 1
Signaling characteristics				
Radio link monitoring				
EN-DC FR2 radio link monitoring out-of-sync test for PSCell configured with SSB-based RLM RS in non-DRX mode	FFS	FFS	FFS	NOTE 1
EN-DC FR2 radio link monitoring in-sync test for PSCell configured with SSB-based RLM RS in non-DRX mode	FFS	FFS	FFS	NOTE 1
EN-DC FR2 radio link monitoring out-of-sync test for PSCell configured with SSB-based RLM RS in DRX mode	FFS	FFS	FFS	NOTE 1
EN-DC FR2 radio link monitoring in-sync test for PSCell configured with SSB-based RLM RS in DRX mode	FFS	FFS	FFS	NOTE 1
EN-DC FR2 radio link monitoring out-of-sync test for PSCell configured with CSI-RS-based RLM RS in non-DRX mode	FFS	FFS	FFS	NOTE 1
EN-DC FR2 radio link monitoring in-sync test for PSCell configured with CSI-RS-based RLM RS in non-DRX mode	FFS	FFS	FFS	NOTE 1
EN-DC FR2 radio link monitoring out-of-sync test for PSCell configured with CSI-RS-based RLM RS in DRX mode	FFS	FFS	FFS	NOTE 1
EN-DC FR2 radio link monitoring in-sync test for PSCell configured with CSI-RS-based RLM RS in DRX mode	FFS	FFS	FFS	NOTE 1
Interruption				
EN-DC FR2 interruptions at transitions between active and non-active during DRX in synchronous EN-DC	FFS	FFS	FFS	NOTE 1
EN-DC FR2 interruptions at transitions between active and non-active during DRX in asynchronous EN-DC	FFS	FFS	FFS	NOTE 1
EN-DC FR2 interruptions during measurements on deactivated NR SCC in synchronous EN-DC	FFS	FFS	FFS	NOTE 1
EN-DC FR2 interruptions during measurements on deactivated NR SCC in asynchronous EN-DC	FFS	FFS	FFS	NOTE 1
EN-DC FR2 interruptions during measurements on deactivated E-UTRAN SCC in synchronous EN-DC	FFS	FFS	FFS	NOTE 1
EN-DC FR2 interruptions during measurements on deactivated E-UTRAN SCC in asynchronous EN-DC	FFS	FFS	FFS	NOTE 1
SCell activation and deactivation delay				
EN-DC FR2 SCell activation and deactivation intra-band in non-DRX	FFS	FFS	FFS	NOTE 1
EN-DC FR2 SCell activation and deactivation of known SCell in non-DRX for 160ms SCell measurement cycle	FFS	FFS	FFS	NOTE 1
EN-DC FR2 SCell activation and deactivation of known Scell in non-DRX for 320ms SCell measurement cycle	FFS	FFS	FFS	NOTE 1
EN-DC FR2-FR1 SCell activation and deactivation of unknown SCell in non-DRX	FFS	FFS	FFS	NOTE 1
EN-DC FR1-FR2 SCell activation and deactivation in non-DRX	FFS	FFS	FFS	NOTE 1
UE UL carrier RRC reconfiguration delay				

Beam failure detection and link recovery procedures					
EN-DC FR2 SSB-based beam failure detection and link recovery in non-DRX	FFS	FFS	FFS	NOTE 1	
EN-DC FR2 SSB-based beam failure detection and link recovery in DRX	FFS	FFS	FFS	NOTE 1	
EN-DC FR2 CSI-RS-based beam failure detection and link recovery in non-DRX	FFS	FFS	FFS	NOTE 1	
EN-DC FR2 CSI-RS-based beam failure detection and link recovery in DRX	FFS	FFS	FFS	NOTE 1	
Active BWP switch delay					
DCI-based and timer-based active BWP switch					
EN-DC FR2 DCI-based DL active BWP switch in non-DRX in synchronous EN-DC	FFS	FFS	FFS	NOTE 1	
EN-DC FR2 DCI-based DL active BWP switch with SCell in non-DRX in synchronous EN-DC	FFS	FFS	FFS	NOTE 1	
RRC-based active BWP switch					
EN-DC FR2 RRC-based DL active BWP switch in non-DRX in synchronous EN-DC	FFS	FFS	FFS	NOTE 1	
Measurement procedures					
Intra-frequency measurements					
EN-DC FR2 event-triggered reporting without gap in non-DRX	FFS	FFS	FFS	NOTE 1	
EN-DC FR2 event-triggered reporting without gap in DRX	FFS	FFS	FFS	NOTE 1	
EN-DC FR2 event-triggered reporting with gap in non-DRX	FFS	FFS	FFS	NOTE 1	
EN-DC FR2 event-triggered reporting with gap in DRX	FFS	FFS	FFS	NOTE 1	
Inter-frequency measurements					
EN-DC FR2-FR2 event-triggered reporting in non-DRX	Rel-15	RE2_C001	UE supporting EN-DC FR2	NOTE 1	
EN-DC FR2-FR2 event-triggered reporting in DRX	Rel-15	RE2_C001	UE supporting EN-DC FR2	NOTE 1	
EN-DC FR2-FR2 event-triggered reporting in non-DRX with SSB time index detection	Rel-15	RE2_C001	UE supporting EN-DC FR2	NOTE 1	
EN-DC FR2-FR2 event-triggered reporting in DRX with SSB time index detection	Rel-15	RE2_C001	UE supporting EN-DC FR2	NOTE 1	
EN-DC FR1-FR2 event-triggered reporting in non-DRX with SSB time index detection	Rel-15	RE2_C002	UE supporting EN-DC FR1 and FR2	NOTE 1	
EN-DC FR1-FR2 event-triggered reporting in DRX with SSB time index detection	Rel-15	RE2_C002	UE supporting EN-DC FR1 and FR2	NOTE 1	
Measurement performance requirements					
SS-RSRP					
EN-DC FR2 addition and release delay of known PSCell	FFS	FFS	FFS	NOTE 1	
EN-DC FR2 SS-RSRP measurement accuracy	FFS	FFS	FFS	NOTE 1	
EN-DC FR2-FR2 SS-RSRP measurement accuracy	FFS	FFS	FFS	NOTE 1	
Inter-frequency measurements between FR1 and FR2					
EN-DC FR1-FR2 SS-RSRP absolute measurement accuracy	FFS	FFS	FFS	NOTE 1	
EN-DC FR1-FR2 SS-RSRP relative measurement accuracy	FFS	FFS	FFS	NOTE 1	
SS-RSRQ					
EN-DC FR2 SS-RSRQ measurement accuracy	FFS	FFS	FFS	NOTE 1	
EN-DC FR2-FR2 SS-RSRQ measurement accuracy	FFS	FFS	FFS	NOTE 1	
SS-SINR					
EN-DC FR2 SS-SINR measurement accuracy	FFS	FFS	FFS	NOTE 1	
EN-DC FR2-FR2 SS-SINR measurement accuracy	FFS	FFS	FFS	NOTE 1	
L1-RSRP for beam reporting					
EN-DC FR2 SSB-based L1-RSRP measurement accuracy	FFS	FFS	FFS	NOTE 1	
EN-DC FR2 CSI-RS-based L1-RSRP measurement accuracy	FFS	FFS	FFS	NOTE 1	

test case is incomplete.
d.
conformance testing involving FR2 test cases, the UE under test shall disable UL Tx diversity schemes.
d.

Table 4.2-2a: Applicability of RRM EN-DC FR2 conformance test cases Conditions

RE2_C001 IF (A.4.1-4/4 AND OR A.4.1-4/5) A.4.1-3/2 THEN R ELSE N/A
RE2_C002 IF A.4.1-4/5 AND A.4.1-3/2 THEN R ELSE N/A
Note 1: The ICS proforma are defined in TS 38.508-2 [8].

Table 4.2-3: Applicability of RRM NR SA FR1 conformance test cases, ref. TS 38.533 [5]

TC Title	Release	Applicability		Additional Information
		Condition	Comment	
RRC_IDLE state mobility				
NR cell re-selection				
NR SA FR1 cell re-selection	Rel-15	RS1_C001	UE supporting 5GS NR SA FR1	
NR SA FR1-FR1 cell re-selection	Rel-15	RS1_C001	UE supporting 5GS NR SA FR1	NOTE 1
NR – E-UTRA cell re-selection				
NR SA FR1 – E-UTRA cell re-selection to higher priority E-UTRA	Rel-15	RS1_C003	UE supporting 5GS NR SA FR1 and E-UTRA	NOTE 1
NR SA FR1 – E-UTRA cell re-selection to lower priority E-UTRA	Rel-15	RS1_C003	UE supporting 5GS NR SA FR1 and E-UTRA	NOTE 1
RRC_INACTIVE state mobility				
RRC_CONNECTED state mobility				
Handover				
NR SA FR1 handover with known target cell	FFS	FFS	FFS	NOTE 1
NR SA FR1 handover with unknown target cell	FFS	FFS	FFS	NOTE 1
NR SA FR1-FR1 handover with unknown target cell	FFS	FFS	FFS	NOTE 1
NR SA FR1 – E-UTRA handover with known target cell	Rel-15	RS1_C003	UE supporting 5GS NR SA FR1 and E-UTRA	NOTE 1
NR SA FR1 – E-UTRA handover with unknown target cell	Rel-15	RS1_C003	UE supporting 5GS NR SA FR1 and E-UTRA	NOTE 1
RRC connection mobility control				
RRC re-establishment				
NR SA FR1 RRC re-establishment	FFS	FFS	FFS	NOTE 1
NR SA FR1 - FR1 RRC re-establishment	FFS	FFS	FFS	NOTE 1
NR SA FR1 - FR1 RRC re-establishment without serving cell timing	FFS	FFS	FFS	NOTE 1
Random access				
Contention based random access test in FR1 for NR standalone	Rel-15	RS1_C001	UE supporting 5GS NR SA FR1	
Non-Contention based random access test in FR1 for NR standalone	Rel-15	RS1_C001	UE supporting 5GS NR SA FR1	
RRC connection release with redirection				
NR SA FR1 RRC connection release with redirection	FFS	FFS	FFS	NOTE 1
NR SA FR1 – E-UTRA RRC connection release with redirection	FFS	FFS	FFS	NOTE 1
Timing				
UE transmit timing				
NR SA FR1 transmit timing accuracy	FFS	FFS	FFS	NOTE 1
UE timer accuracy				
Timing advance				
NR SA FR1 timing advance adjustment accuracy	FFS	FFS	FFS	NOTE 1
Signalling characteristics				
Radio Link Monitoring				
NR SA FR1 radio link monitoring out-of-sync test for PCell configured with SSB-based RLM RS in non-DRX mode	FFS	FFS	FFS	NOTE 1
NR SA FR1 radio link monitoring in-sync test for PCell configured with SSB-based RLM RS in non-DRX mode	FFS	FFS	FFS	NOTE 1
NR SA FR1 radio link monitoring out-of-sync test for PCell configured with SSB-based RLM RS in DRX mode	FFS	FFS	FFS	NOTE 1
NR SA FR1 radio link monitoring in-sync test for PCell configured with SSB-based RLM RS in DRX mode	FFS	FFS	FFS	NOTE 1
NR SA FR1 radio link monitoring out-of-sync test for PSCell configured with CSI-RS-based RLM RS in non-DRX mode	FFS	FFS	FFS	NOTE 1
NR SA FR1 radio link monitoring in-sync test for PSCell configured with CSI-RS-based RLM RS in non-DRX mode	FFS	FFS	FFS	NOTE 1
NR SA FR1 radio link monitoring out-of-sync test for PSCell configured with CSI-RS-based RLM RS in DRX mode	FFS	FFS	FFS	NOTE 1
NR SA FR1 radio link monitoring in-sync test for	FFS	FFS	FFS	NOTE 1

TC Title	Release	Applicability		Additional Information
		Condition	Comment	
PSCell configured with CSI-RS-based RLM RS in DRX mode				
Interruption				
NR SA FR1 interruptions during measurements on deactivated NR SCC	FFS	FFS	FFS	NOTE 1
Scell activation and deactivation delay				
NR SA FR1 SCell activation and deactivation of known SCell in non-DRX for 160ms SCell measurement cycle	FFS	FFS	FFS	NOTE 1
NR SA FR1 SCell activation and deactivation of known SCell in non-DRX for 320ms SCell measurement cycle	FFS	FFS	FFS	NOTE 1
NR SA FR1 SCell activation and deactivation of unknown SCell in non-DRX	FFS	FFS	FFS	NOTE 1
UE UL carrier RRC reconfiguration delay				
NR SA FR1 UE UL carrier RRC reconfiguration delay	FFS	FFS	FFS	NOTE 1
Link recovery procedures				
NR SA FR1 SSB-based beam failure detection and link recovery in non-DRX	FFS	FFS	FFS	NOTE 1
NR SA FR1 SSB-based beam failure detection and link recovery in DRX	FFS	FFS	FFS	NOTE 1
NR SA FR1 CSI-RS-based beam failure detection and link recovery in non-DRX	Rel-15	RS1_C001	UE supporting 5GS NR SA FR1	NOTE 1
NR SA FR1 CSI-RS-based beam failure detection and link recovery in DRX	Rel-15	RS1_C001	UE supporting 5GS NR SA FR1	NOTE 1
Active BWP switch delay				
DCI-based and timer-based active BWP switch				
NR SA FR1 DCI-based DL active BWP switch in non-DRX	FFS	FFS	FFS	NOTE 1
SA FR1 DCI-based DL active BWP switch in non-DRX	FFS	FFS	FFS	NOTE 1
RRC-based active BWP switch				
NR SA FR1 RRC-based DL active BWP switch in non-DRX	FFS	FFS	FFS	NOTE 1
Measurement procedures				
Intra-frequency measurements				
NR SA FR1 event-triggered reporting without gap in non-DRX	Rel-15	RS1_C001	UE supporting 5GS NR SA FR1	
NR SA FR1 event-triggered reporting without gap in DRX	Rel-15	RS1_C001	UE supporting 5GS NR SA FR1	
NR SA FR1 event-triggered reporting with gap in non-DRX	Rel-15	RS1_C001	UE supporting 5GS NR SA FR1	
NR SA FR1 event-triggered reporting with gap in DRX	Rel-15	RS1_C001	UE supporting 5GS NR SA FR1	
NR SA FR1 event-triggered reporting without gap in non-DRX with SSB index reading	Rel-15	RS1_C002	UE supporting 5GS NR FDD SA FR1	
NR SA FR1 event-triggered reporting with gap in non-DRX with SSB index reading	Rel-15	RS1_C002	UE supporting 5GS NR FDD SA FR1	
Inter-frequency measurements				
NR SA FR1-FR1 event-triggered reporting in non-DRX	Rel-15	RS1_C001	UE supporting 5GS NR SA FR1	
NR SA FR1-FR1 event-triggered reporting in DRX	Rel-15	RS1_C001	UE supporting 5GS NR SA FR1	
NR SA FR1-FR1 event-triggered reporting in non-DRX with SSB time index detection	Rel-15	RS1_C001	UE supporting 5GS NR SA FR1	
NR SA FR1-FR1 event-triggered reporting in DRX with SSB time index detection	Rel-15	RS1_C001	UE supporting 5GS NR SA FR1	
Inter-RAT measurements				
NR SA FR1 – E-UTRAN event-triggered reporting in non-DR	Rel-15	RS1_C003	UE supporting 5GS NR SA FR1 and E-UTRAN	NOTE 1
NR SA FR1 – E-UTRAN event-triggered reporting in DRX	Rel-15	RS1_C003	UE supporting 5GS NR SA FR1 and E-UTRAN	NOTE 1
Measurement performance requirements				
SS-RSRP				
Intra-frequency measurements				
NR SA FR1 SS-RSRP absolute measurement accuracy	Rel-15	RS1_C001	UE supporting 5GS NR SA FR1	NOTE 1
NR SA FR1 SS-RSRP relative measurement accuracy	Rel-15	RS1_C001	UE supporting 5GS NR SA FR1	NOTE 1
Inter-frequency measurements				
NR SA FR1-FR1 SS-RSRP absolute measurement	Rel-15	RS1_C001	UE supporting 5GS NR SA FR1	NOTE 1

TC Title	Release	Applicability		Additional Information
		Condition	Comment	
accuracy				
NR SA FR1-FR1 SS-RSRP relative measurement accuracy	Rel-15	RS1_C001	UE supporting 5GS NR SA FR1	NOTE 1
SS-RSRQ				
NR SA FR1 SS-RSRQ measurement accuracy	FFS	FFS	FFS	NOTE 1
NR SA FR1-FR1 SS-RSRQ measurement accuracy	FFS	FFS	FFS	NOTE 1
SS-SINR				
NR SA FR1 SS-SINR measurement accuracy	FFS	FFS	FFS	NOTE 1
NR SA FR1-FR1 SS-SINR measurement accuracy	FFS	FFS	FFS	NOTE 1
L1-RSRP for beam reporting				
NR SA FR1 SSB-based L1-RSRP measurement accuracy	FFS	FFS	FFS	NOTE 1
NR SA FR1 CSI-RS-based L1-RSRP measurement accuracy	FFS	FFS	FFS	NOTE 1
NR SA FR1 – E-UTRAN RSRP absolute measurement accuracy	FFS	FFS	FFS	NOTE 1
NR SA FR1– E-UTRAN RSRP relative measurement accuracy	FFS	FFS	FFS	NOTE 1
NR SA FR1 – E-UTRAN RSRQ absolute measurement accuracy	FFS	FFS	FFS	NOTE 1
NR SA FR1– E-UTRAN RSRQ relative measurement accuracy	FFS	FFS	FFS	NOTE 1
NR SA FR1 – E-UTRAN RS-SINR measurement accuracy	FFS	FFS	FFS	NOTE 1
test case is incomplete.				
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Table 4.2-3a: Applicability of RRM NR SA FR1 conformance test cases Conditions

RS1_C001 IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-3/1 THEN R ELSE N/A
RS1_C002 IF A.4.1-1/1 AND A.4.1-3/1 THEN R ELSE N/A
RS1_C003 IF ((A.4.1-1/1 AND [10]A.4.1-1/2) OR (A.4.1-1/2 AND [10]A.4.1-1/2) OR (A.4.1-1/1 AND [10]A.4.1-1/2) OR (A.4.1-1/2 AND [10]A.4.1-1/2)) AND A.4.1-3/1 THEN R ELSE N/A
Note 1: The ICS proforma are defined in TS 38.508-2 [8].

Table 4.2-4: Applicability of RRM NR SA FR2 conformance test cases, ref. TS 38.533 [5]

TC Title	Release	Applicability		Additional Information (NOTE 3)
		Condition	Comment	
RRC_IDLE state mobility				
NR cell re-selection				
NR SA FR2 cell re-selection	FFS	FFS	FFS	NOTE 1
NR SA FR2-FR2 cell re-selection	FFS	FFS	FFS	NOTE 1
RRC_INACTIVE state mobility				
RRC_CONNECTED state mobility				
Handover				
NR SA FR1-FR2 handover with unknown target cell	FFS	FFS	FFS	NOTE 1
NR SA FR2 handover with unknown target cell	FFS	FFS	FFS	NOTE 1
NR SA FR2-FR2 handover with unknown target cell	FFS	FFS	FFS	NOTE 1
RRC connection mobility control				
RRC re-establishment				
Intra-frequency RRC Re-establishment in FR2	Rel-15	RS2_C001	UE supporting 5GS NR SA FR2	NOTE 1
Inter-frequency RRC Re-establishment in FR2	Rel-15	RS2_C001	UE supporting 5GS NR SA FR2	NOTE 1
NR SA FR2 - FR2 RRC re-establishment without serving cell timing	FFS	FFS	FFS	NOTE 1
Random access				
NR SA FR2 contention based random access	FFS	FFS	FFS	NOTE 1
NR SA FR2 non-contention based random access	FFS	FFS	FFS	NOTE 1
RRC connection release with redirection				
NR SA FR2 RRC connection release with redirection	FFS	FFS	FFS	NOTE 1
Timing				
UE transmit timing				
NR SA FR2 transmit timing accuracy	FFS	FFS	FFS	NOTE 1
UE timer accuracy				
Timing advance				
NR SA FR2 timing advanced adjustment accuracy	FFS	FFS	FFS	NOTE 1
Signalling characteristics				
Radio Link Monitoring				
NR SA FR2 radio link monitoring out-of-sync test for PCell configured with SSB-based RLM RS in non-DRX mode	FFS	FFS	FFS	NOTE 1
NR SA FR2 radio link monitoring in-sync test for PCell configured with SSB-based RLM RS in non-DRX mode	FFS	FFS	FFS	NOTE 1
NR SA FR2 radio link monitoring out-of-sync test for PCell configured with SSB-based RLM RS in DRX mode	FFS	FFS	FFS	NOTE 1
NR SA FR2 radio link monitoring in-sync test for PCell configured with SSB-based RLM RS in DRX mode	FFS	FFS	FFS	NOTE 1
NR SA FR2 radio link monitoring out-of-sync test for PCell configured with CSI-RS-based RLM RS in non-DRX mode	FFS	FFS	FFS	NOTE 1
NR SA FR2 radio link monitoring in-sync test for PCell configured with CSI-RS-based RLM RS in non-DRX mode	FFS	FFS	FFS	NOTE 1
NR SA FR2 radio link monitoring out-of-sync test for PCell configured with CSI-RS-based RLM RS in DRX mode	FFS	FFS	FFS	NOTE 1
NR SA FR2 radio link monitoring in-sync test for PCell configured with CSI-RS-based RLM RS in DRX mode	FFS	FFS	FFS	NOTE 1
Interruption				
NR SA FR2 interruptions during measurements on deactivated NR SCC	FFS	FFS	FFS	NOTE 1
Scell activation and deactivation delay				
NR SA FR2-FR2 intra-band SCell activation and deactivation delay	FFS	FFS	FFS	NOTE 1
NR SA FR2-FR2 inter-band SCell activation and deactivation delay	FFS	FFS	FFS	NOTE 1

TC Title	Release	Applicability		Additional Information (NOTE 3)
		Condition	Comment	
UE UL carrier RRC reconfiguration delay				
Beam failure detection and link recovery procedures				
NR SA FR2 SSB-based beam failure detection and link recovery in non-DRX	Rel-15	RS2_C001	UE supporting 5GS NR SA FR2	NOTE 1
NR SA FR2 SSB-based beam failure detection and link recovery in DRX	Rel-15	RS2_C001	UE supporting 5GS NR SA FR2	NOTE 1
NR SA FR2 CSI-RS-based beam failure detection and link recovery in non-DRX	Rel-15	RS2_C001	UE supporting 5GS NR SA FR2	NOTE 1
NR SA FR2 CSI-RS-based beam failure detection and link recovery in DRX	Rel-15	RS2_C001	UE supporting 5GS NR SA FR2	NOTE 1
Active BWP switch delay				
Intra-frequency measurements				
NR SA FR2 DCI-based DL active BWP switch in non-DRX	FFS	FFS	FFS	NOTE 1
NR SA FR1-FR2 DCI-based DL active BWP switch in non-DRX	FFS	FFS	FFS	NOTE 1
FFS	FFS	FFS	FFS	NOTE 1
RRC-based active BWP switch				
NR SA FR2 RRC-based DL active BWP switch in non-DRX	FFS	FFS	FFS	NOTE 1
Measurement procedures				
Intra-frequency measurements				
NR SA FR2 event-triggered reporting without gap in non-DRX	Rel-15	RS2_C001	UE supporting 5GS NR SA FR2	NOTE 1
NR SA FR2 event-triggered reporting without gap in DRX	Rel-15	RS2_C001	UE supporting 5GS NR SA FR2	NOTE 1
NR SA FR2 event-triggered reporting with gap in non-DRX	Rel-15	RS2_C001	UE supporting 5GS NR SA FR2	NOTE 1
NR SA FR2 event-triggered reporting with gap in DRX	Rel-15	RS2_C001	UE supporting 5GS NR SA FR2	NOTE 1
Inter-frequency measurements				
NR SA FR2-FR2 event-triggered reporting in non-DRX	Rel-15	RS2_C001	UE supporting 5GS NR SA FR2	NOTE 1
NR SA FR2-FR2 event-triggered reporting in DRX	Rel-15	RS2_C001	UE supporting 5GS NR SA FR2 TDD	NOTE 1
NR SA FR2-FR2 event-triggered reporting in non-DRX with SSB time index detection	Rel-15	RS2_C001	UE supporting 5GS NR SA FR2 TDD	NOTE 1
NR SA FR2-FR2 event-triggered reporting in DRX with SSB time index detection	Rel-15	RS2_C001	UE supporting 5GS NR SA FR2 TDD	NOTE 1
NR SA FR1-FR2 event-triggered reporting in non-DRX	Rel-15	RS2_C002	UE supporting 5GS NR SA FR2	NOTE 1
NR SA FR1-FR2 event-triggered reporting in DRX	Rel-15	RS2_C002	UE supporting 5GS NR SA FR2	NOTE 1
NR SA FR1-FR2 event-triggered reporting in non-DRX with SSB time index detection	Rel-15	RS2_C002	UE supporting 5GS NR SA FR2	NOTE 1
NR SA FR1-FR2 event-triggered reporting in DRX with SSB time index detection	Rel-15	RS2_C002	UE supporting 5GS NR SA FR2	NOTE 1
Measurement performance requirements				
SS-RSRP				
NR SA FR2 SS-RSRP measurement accuracy	FFS	FFS	FFS	NOTE 1
NR SA FR2-FR2 SS-RSRP measurement accuracy	FFS	FFS	FFS	NOTE 1
Inter-frequency measurements between FR1 and FR2				
NR SA FR1-FR2 SS-RSRP absolute measurement accuracy	FFS	FFS	FFS	NOTE 1
NR SA FR1-FR2 SS-RSRP relative measurement accuracy	FFS	FFS	FFS	NOTE 1
SS-RSRQ				
NR SA FR2 SS-RSRQ measurement accuracy	FFS	FFS	FFS	NOTE 1
NR SA FR2-FR2 SS-RSRQ measurement accuracy	FFS	FFS	FFS	NOTE 1
SS-SINR				
NR SA FR2 SS-SINR measurement accuracy	FFS	FFS	FFS	NOTE 1
NR SA FR2-FR2 SS-SINR measurement accuracy	FFS	FFS	FFS	NOTE 1
L1-RSRP for beam reporting				

TC Title	Release	Applicability		Additional Information (NOTE 3)
		Condition	Comment	
NR SA FR2 SSB-based L1-RSRP measurement accuracy	FFS	FFS	FFS	NOTE 1
NR SA FR2 CSI-RS-based L1-RSRP measurement accuracy		FFS	FFS	NOTE 1

test case is incomplete.
d.
conformance testing involving FR2 test cases, the UE under test shall disable UL Tx diversity schemes.
d.

Table 4.2-4a: Applicability of RRM NR SA FR2 conformance test cases Conditions

RS2_C001 IF A.4.1-1/2 AND A.4.1-3/1 THEN R ELSE N/A
RS2_C002 IF A.4.1-3/1 AND A.4.1-1/2 THEN R ELSE N/A
NOTE 1: The ICS proforma are defined in TS 38.508-2 [8] unless otherwise state.

Table 4.2-5: Applicability of E-UTRA – NR Inter-RAT conformance test cases, ref. TS 38.533 [5]

Clause	TC Title	Release	Applicability	
			Condition	Comment
8.2	RRC_IDLE state mobility			
8.2.1	Inter-RAT NR cell re-selection			
8.2.1.1	E-UTRA – NR FR1 cell re-selection to higher priority NR target cell	FFS	FFS	FFS
8.3	RRC_CONNECTED state mobility			
8.4	Measurement procedures			
8.4.1	SFTD measurement delay			
8.4.1.1	E-UTRA – NR FR1 SFTD measurement delay in non-DRX	FFS	FFS	FFS
8.4.1.2	E-UTRA – NR FR1 SFTD measurement delay in DRX	FFS	FFS	FFS
8.4.2	Inter-RAT measurements			
8.4.2.1	E-UTRA – NR FR1 event-triggered reporting without SSB time index detection in non-DRX	FFS	FFS	FFS
8.4.2.2	E-UTRA – NR FR1 event-triggered reporting without SSB time index detection in DRX	FFS	FFS	FFS
8.4.2.3	E-UTRA – NR FR1 event-triggered reporting with SSB time index detection in non-DRX	FFS	FFS	FFS
8.4.2.4	E-UTRA – NR FR1 event-triggered reporting with SSB time index detection in DRX	FFS	FFS	FFS
8.5	Measurement performance			

NOTE 1: The test case is incomplete.
NOTE 2: Void.
NOTE 3: Void.
NOTE 4: Void.

Annex A (informative): FFS

Annex B (informative): Change history

Change history							
Date	**Meeting**	**TDoc**	**CR**	**Rev**	**Cat**	**Subject/Comment**	**New version**
2017-08	RAN5#76	R5-173911	-	-	-	Draft skeleton	0.0.1
2018-01	RAN5#1-5G-NR Adhoc	R5-180107	-	-	-	Updated after RAN5#1-5G-NR Adhoc: - Foreword, scope, references, definitions, symbols and abbreviations, recommended test case applicability updated - Sub-clause 4.1.1, 4.1.2, 4.1.3 and 4.1.4 added - Change history added	0.1.0
2018-03	RAN5 #78	R5-181687	-	-	-	TP for Clause 4.1.1 Range 1 standalone conformance test cases	0.2.0
2018-03	RAN5 #78	R5-181688	-	-	-	TP for Clause 4.1.2 Range 2 standalone conformance test cases	0.2.0
2018-03	RAN5 #78	R5-181689	-	-	-	TP for Clause 4.1.3 NR interworking between NR range1 and NR range2 and between NR and LTE conformance test cases	0.2.0
2018-04	RAN5#2-5G-NR Adhoc	R5-182013	-	-	-	TP for Clause 3 Definitions, symbols and abbreviations	0.3.0
2018-04	RAN5#2-5G-NR Adhoc	R5-182047	-	-	-	TP for Clause 4 Recommended test case applicability	0.3.0
2018-08	RAN5#80	R5-185209	-	-	-	TP for Clause 4.1.1 of TS 38.522	1.0.1
2018-08	RAN5#80	R5-185210	-	-	-	TP for Clause 4.1.2 of TS 38.522	1.0.1
2018-08	RAN5#80	R5-185211	-	-	-	TP for Clause 4.1.3 of TS 38.522	1.0.1
2018-09	RAN#81	-	-	-	-	raised to v15.0.0 with editorial changes only	15.0.0
2018-12	RAN#82	R5-186501	0013	-	F	Applicability rules implementation in 38.522	15.1.0
2018-12	RAN#82	R5-188223	0015	-	F	Applicability for RRM NR tests	15.1.0
2018-12	RAN#82	R5-187566	0016	-	F	Update note in section 4.1 to include CBW and SCS in RF test applicability	15.1.0
2018-12	RAN#82	R5-187849	0014	1	F	Adding applicability for new 38.521-1 CA TCs	15.1.0
2018-12	RAN#82	R5-187881	0008	1	F	Update Clause 1 Scope of TS 38.522	15.1.0
2018-12	RAN#82	R5-187884	0011	1	F	TP for Clause 4.1.2 of TS 38.522	15.1.0
2018-12	RAN#82	R5-187922	0017	-	F	Removing FR2 test case 7.4 from TS 38.522 due to testability issue	15.1.0
2019-01	RAN#82	R5-187882	0009	1	F	Update Clause 3 of TS 38.522	15.1.1
2019-01	RAN#82	R5-187883	0010	1	F	TP for Clause 4.1.1 of TS 38.522	15.1.1
2019-01	RAN#82	R5-187885	0012	1	F	TP for Clause 4.1.3 of TS 38.522	15.1.1
2019-03	RAN#83	R5-191722	0021	-	F	addition of applicability for BFD and measurement	15.2.0
2019-03	RAN#83	R5-192507	0020	1	F	TP for TS 38.522	15.2.0
2019-03	RAN#83	R5-192508	0022	1	F	Addition of RRM Test Cases Applicability	15.2.0
2019-06	RAN#84	R5-195444	0027	1	F	TP for TS 38.522	15.3.0