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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:

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x the first digit:

1 presented to TSG for information;

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

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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".

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 emission 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

No specific symbols have been identified so far.

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 / 4.2-2 / 4.2-3 / 4.2-4. 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 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 / 4.2-2 / 4.2-3 / 4.2-4 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 as defined in table 4.0-1:

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/DC Configurations Selection

This column defines a set of bands / CA/DC 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 table 4.0-2.
Ei	Derive the set based on CA/DC Configurations Selection Criteria Ei defined in table 4.0-3.
TBD	Band selection not defined at this time, in the meantime test all Bands / CA/DC Configurations
Text	For more complex selection criteria, or if the criteria are already specified somewhere else in the spec, text reference to the clause is given.

Branch

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

NOTE 1: To meet the validation requirements from certification bodies then there is a need to uniquely reference the PCx branch (i.e. different behaviour within one and the same TC, x=1,2,3,4) of common PCx RF test cases in table 4.1.1-1, table 4.1.2-1 and table 4.1.3-1. The PCx branches of common PCx test cases can be referenced by amending a "PCx" suffix to the test case clause number. For example for test case 6.2.1 the PC3 and PC2 branches can be identified by "6.2.1_PC3" and "6.2.1_PC2".

NOTE 2: To meet the validation requirements from certification bodies then there is a need to uniquely reference the 2Rx (UE supports 2 Rx antenna ports in the tested band) and 4Rx (UE supports 4 Rx antenna ports in the tested band) branch of common 2Rx and 4Rx RF/RRM test cases in table 4.1.1-1, table 4.1.2-1 and table 4.1.3-1. The 2Rx and 4Rx branches of common 2Rx and 4Rx test cases can be referenced by amending a "2Rx" or "4Rx" suffix to the test case clause number. For example for test case 7.3.2 the 2Rx and 4Rx branches can be identified by "7.3.2_2Rx" and "7.3.2_4Rx". When the branch is “2RX, 4RX” or “xxx_2RX, xxx_4RX”, requirements of 2RX are tested for 2RX capability UE and requirements of 4RX are tested for 4RX capability UE.

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.

4.0 Test case conditions and selection criteria

For the purposes of the present document, the applicability of conformance test cases conditions given in Table 4.0-1 apply. The ICS proformas used in Table 4.0-1 are defined in TS 38.508-2 [8] unless otherwise stated.

Table 4.0-1: Applicability of conformance test cases conditions

C001	IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-2/7 AND A.4.1-3/1 THEN R ELSE N/A
C002	IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-2/7 AND A.4.1-3/1 AND (A.4.1-2/3 OR A.4.1-2/5) THEN R ELSE N/A
C003	IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-2/7 AND A.4.1-3/1 AND (A.4.3.2-1/14 OR A.4.3.2-1/15) THEN R ELSE N/A
C004	IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-2/7 AND A.4.1-3/1 AND (A.4.1-4A/1 OR A.4.1-4A/2 OR A.4.1-4A/5) AND A.4.3.2A.1-2/1 THEN R ELSE N/A
C005	IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-2/7 AND A.4.1-3/1 AND A.4.1-4A/5 AND A.4.1-2/4 AND A.4.3.2A.1-1/1 AND A.4.1-3/1 THEN R ELSE N/A
C006	IF A.4.1-1/2 AND A.4.1-2/8 AND (A.4.1-3/1 OR A.4.1-3/4) THEN R ELSE N/A
C007	IF A.4.1-1/2 AND A.4.1-2/8 AND (A.4.1-3/1 OR A.4.1-3/4) AND A.4.3.2-1/22 THEN R ELSE N/A
C008	IF A.4.1-1/2 AND A.4.1-2/8 AND (A.4.1-3/1 OR A.4.1-3/4) AND NOT(A.4.3.2-1/22) THEN R ELSE N/A
C009	IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.1-3/2 OR A.4.1-3/3 OR A.4.1-3/5) AND A.4.1-4/1 THEN R ELSE N/A
C009m	IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.1-3/2 OR A.4.1-3/3 OR A.4.1-3/5) AND A.4.1-4/1 AND A.4.3.2-1/25 THEN R ELSE N/A
C010	IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.1-3/2 OR A.4.1-3/3 OR A.4.1-3/5) AND A.4.1-4/2 THEN R ELSE N/A
C010m	IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.1-3/2 OR A.4.1-3/3 OR A.4.1-3/5) AND A.4.1-4/2 AND A.4.3.2-1/25 THEN R ELSE N/A
C011	IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.1-3/2 OR A.4.1-3/3 OR A.4.1-3/5) AND A.4.1-4/3 THEN R ELSE N/A
C011m	IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.1-3/2 OR A.4.1-3/3 OR A.4.1-3/5) AND A.4.1-4/3 AND A.4.3.2-1/25 THEN R ELSE N/A
C012	IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.1-3/2 OR A.4.1-3/3 OR A.4.1-3/5) AND A.4.1-4/4 THEN R ELSE N/A
C012m	IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.1-3/2 OR A.4.1-3/3 OR A.4.1-3/5) AND A.4.1-4/4 AND A.4.3.2-1/25 THEN R ELSE N/A
C013	IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.1-3/2 OR A.4.1-3/3 OR A.4.1-3/5) AND (A.4.1-4/3 OR A.4.1-4/4) THEN R ELSE N/A
C014	IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.1-3/2 OR A.4.1-3/3 OR A.4.1-3/5) 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
C015	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.4.1-3/4 OR A.4.1-3/5) THEN R ELSE N/A
C015a	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.4.1-3/4 OR A.4.1-3/5) AND A.4.3.9-1/1 THEN R ELSE N/A
C015c	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.4.1-3/4 OR A.4.1-3/5) AND A.4.3.2-1/20 THEN R ELSE N/A
C016	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.4.1-3/4 OR A.4.1-3/5) THEN R ELSE N/A
C016a	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.4.1-3/4 OR A.4.1-3/5) AND A.4.3.9-1/1 THEN R ELSE N/A
C017	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.4.1-3/4 OR A.4.1-3/5) AND (NOT A.4.3.9-1/2 AND A.4.3.9-4/7 OR (A.4.3.9-4/1 OR A.4.3.9-4/2 OR A.4.3.9-4/3 OR A.4.3.9-4/66)) THEN R ELSE N/A
C017a	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.4.1-3/4 OR A.4.1-3/5) AND (NOT A.4.3.9-1/2 AND A.4.3.9-4/7 OR (A.4.3.9-4/1 OR A.4.3.9-4/2 OR A.4.3.9-4/3 OR A.4.3.9-4/66)) AND A.4.3.9-1/1 THEN R ELSE N/A
C017c	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.4.1-3/4 OR A.4.1-3/5) AND (NOT A.4.3.9-1/2 AND A.4.3.9-4/7 OR (A.4.3.9-4/1 OR A.4.3.9-4/2 OR A.4.3.9-4/3 OR A.4.3.9-4/66)) AND A.4.3.2-1/20 THEN R ELSE N/A
C018	IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-2/7 AND A.4.1-3/1 AND 4.3.2-1/9 THEN R ELSE N/A
C019	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.4.1-3/4 OR A.4.1-3/5) AND (NOT A.4.3.9-1/2 AND (A.4.3.9-4/38 OR A.4.3.9-4/41 OR A.4.3.9-4/77 OR A.4.3.9-4/78 OR A.4.3.9-4/79) OR (A.4.3.9-4/34, A.4.3.9-4/39 OR A.4.3.9-4/40 OR A.4.3.9-4/48 OR A.4.3.9-4/70)) THEN R ELSE N/A
C019a	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.4.1-3/4 OR A.4.1-3/5) AND (NOT A.4.3.9-1/2 AND (A.4.3.9-4/38 OR A.4.3.9-4/41 OR A.4.3.9-4/77 OR A.4.3.9-4/78 OR A.4.3.9-4/79) OR (A.4.3.9-4/34, A.4.3.9-4/39 OR A.4.3.9-4/40 OR A.4.3.9-4/48 OR A.4.3.9-4/70)) AND A.4.3.9-1/1 THEN R ELSE N/A
C020	IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.1-3/2 OR A.4.1-3/3 OR A.4.1-3/5) THEN R ELSE N/A
C021	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
C022	IF (A.4.1-4/4 AND OR A.4.1-4/5) A.4.1-3/2 THEN R ELSE N/A
C023	IF A.4.1-4/5 AND A.4.1-3/2 THEN R ELSE N/A
C024	IF A.4.1-1/1 AND A.4.1-2/7 AND A.4.1-3/1 THEN R ELSE N/A
C025	IF ((A.4.1-1/1 AND [10]A.4.1-1/1) OR (A.4.1-1/1 AND [10]A.4.1-1/2) OR (A.4.1-1/2 AND [10]A.4.1-1/1) OR (A.4.1-1/2 AND [10]A.4.1-1/2)) AND A.4.1-3/1 THEN R ELSE N/A
C026	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 AND 4.3.6-1/11 THEN R ELSE N/A
C027	IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-3/1 THEN R ELSE N/A
C028	IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-3/1 AND 4.3.6-1/11 THEN R ELSE N/A

C029	IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-3/1 AND 4.3.2-1/9 THEN R ELSE N/A
C030	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 AND 4.3.2-1/9 THEN R ELSE N/A
C031	IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-2/7 AND A.4.1-3/1 AND (A.4.1-4A/1 OR A.4.1-4A/2 OR A.4.1-4A/5) AND A.4.3.2A.1-1/1 THEN R ELSE N/A
C032	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 AND (A.4.1-2/3 OR A.4.1-2/5) THEN R ELSE N/A
C033	IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-2/7 AND A.4.1-3/1 AND (A.4.1-4A/1 OR A.4.1-4A/2 OR A.4.1-4A/5) AND A.4.3.2A.1-1/2 THEN R ELSE N/A
C034	IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-2/7 AND A.4.1-3/1 AND A.4.3.6-1/6 THEN R ELSE N/A
C035	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 AND A.4.3.6-1/6 THEN R ELSE N/A
C036	IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.1-2/7 AND A.4.1-3/1 AND (A.4.1-4A/1 OR A.4.1-4A/2 OR A.4.1-4A/5) AND A.4.3.2A.1-1/3 THEN R ELSE N/A
NOTE 1: Cxxxa applicability is defined for enhanced type X receiver for NR related tests. NOTE 2: Cxxxc applicability is defined for alternative additional DMRS position for co-existence with LTE CRS related tests. NOTE 3: Cxxxm applicability is defined for modified MPR behaviour related test.	

For the purposes of the present document, the tested bands selection criteria given in Table 4.0-2 apply. The ICS proformas used in Table 4.0-2 are defined in TS 38.508-2 [8] unless otherwise stated.

Table 4.0-2: Tested Bands Selection Criteria

Code	Tested Bands Selection Criteria	Comment
D001	(A.4.3.1-1 OR A.4.3.1-2) AND NOT (A.4.3.1-5 OR A.4.3.1-6)	All supported FR1 Bands without SUL/SDL bands
D002	A.4.3.1-4	All supported FR1 PC2 Bands
D003	A.4.3.1-5	All supported FR1 SUL Bands
D004	{1,2,3,5,7,8,12,20,25,28,34,38,39,40,41,50,51,65,66,70,71,74,75,76}	UE supported bands among n1,n2,n3,n5,n7,n8,n12,n20,n25,n28,n34,n38,n39,n40,n41,n50,n51,n65,n66,n70,n71,n74,n75,n76
D005	A.4.3.1-3	All supported FR2 Bands
D006	A.4.3.1-1 OR A.4.3.1-2	All supported FR1 Bands
D007	A.4.3.1-1 OR A.4.3.1-2 OR A.4.3.1-3	All supported NR Bands
D008	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
D009	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
D010	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
D011	A.4.3.9-4	All supported 4 Rx antenna ports 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

For the purposes of the present document, the tested CA/DC configuration selection criteria given in Table 4.0-3 apply. The ICS proformas used in Table 4.0-3 are defined in TS 38.508-2 [8] unless otherwise stated.