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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 16)



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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 specifies the recommended applicability statement and completion status 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] to [11] (void)

[12] 3GPP TS 38.522 Release 17: "NR; User Equipment (UE) conformance specification; Applicability of radio transmission, radio reception and radio resource management test cases "

# 3 Definitions, symbols and abbreviations

Void

# 4 Recommended test case applicability

The requirements of the present document are provided in 3GPP TS 38.522 Release 17 [12].

Annex A (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](http://portal.3gpp.org/webapp/meetingCalendar/MeetingDetails.asp?m_id=33216):  - Foreword, scope, references, definitions, symbols and abbreviations, recommended test case applicability updated  - 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 |
| 2019-06 | RAN#84 | - | - | - | - | Administrative release upgrade to match the release of 3GPP TS 38.508-1 and TS 38.521-1 which were upgraded at RAN#84 to Rel-16 due to Rel-16 relevant CR(s) | 16.0.0 |
| 2019-06 | RAN#84 | - | - | - | - | Addition of missing Table part of R5-195444 and part of a note. | 16.0.1 |
| 2019-06 | RAN#84 | - | - | - | - | Formatted big tables to landscape | 16.0.2 |
| 2019-09 | RAN#85 | R5-197650 | 0030 | 1 | - | TP for TS 38.522 | 16.1.0 |
| 2019-09 | RAN#85 | R5-197650 | 0030 | 1 | - | Added missing changes of R5-197650 | 16.1.1 |
| 2019-12 | RAN#86 | R5-199089 | 0032 | 2 | - | TP for TS 38.522 | 16.2.0 |
| 2020-03 | RAN#87 | R5-201036 | 0033 | 1 | F | TP and format updated for TS 38.522 | 16.3.0 |
| 2020-06 | RAN#88 | R5-202958 | 0040 | 1 | F | R16 TDD ENDC PC2 TP for TS 38.522 | 16.4.0 |
| 2020-06 | RAN#88 | R5-203114 | 0037 | 2 | F | TP updated to applicability table | 16.4.0 |
| 2020-09 | RAN#89 | R5-204098 | 0046 | - | F | Correct applicability EN-DC event-triggered inter-frequency tests | 16.5.0 |
| 2020-09 | RAN#89 | R5-204099 | 0047 | - | F | Correct applicability NR SA event-triggered inter-frequency tests | 16.5.0 |
| 2020-09 | RAN#89 | R5-204939 | 0043 | 1 | F | TP for TS 38.522 | 16.5.0 |
| 2020-09 | RAN#89 | R5-204940 | 0044 | 1 | F | Correction of 38.522 | 16.5.0 |
| 2020-12 | RAN#90 | R5-206905 | 0051 | 1 | F | Update to applicability spec for 5G test cases | 16.6.0 |
| 2021-03 | RAN#91 | R5-210506 | 0055 | - | F | Correction of applicability definitions for long DRX cycle related test cases | 16.7.0 |
| 2021-03 | RAN#91 | R5-210792 | 0058 | - | F | Adding the test applicability of RF test cases for eMIMO | 16.7.0 |
| 2021-03 | RAN#91 | R5-211158 | 0060 | - | F | Addition of applicability new test case 6.3.2.1.3 in TS 38.521-4 | 16.7.0 |
| 2021-03 | RAN#91 | R5-211159 | 0061 | - | F | Addition of applicability new test case 6.3.3.1.3 in TS 38.521-4 | 16.7.0 |
| 2021-03 | RAN#91 | R5-211610 | 0067 | - | F | Applicability of Error Vector Magnitude for V2X for non-concurrent operation | 16.7.0 |
| 2021-03 | RAN#91 | R5-211720 | 0054 | 1 | F | Correction of applicability definitions for PUSCH HalfPi BPSK related test cases | 16.7.0 |
| 2021-03 | RAN#91 | R5-211853 | 0059 | 1 | F | Update to applicability spec for 5G test cases | 16.7.0 |
| 2021-03 | RAN#91 | R5-211913 | 0057 | 1 | F | Adding test applicability for switching test case | 16.7.0 |
| 2021-03 | RAN#91 | R5-211917 | 0066 | 1 | F | Addition of new RRM test cases to the applicability table in 4.2 | 16.7.0 |
| 2021-03 | RAN#91 | R5-211918 | 0068 | 1 | F | Applicability for RRM NR HST test case 6.1.1.7 and 6.6.1.7 | 16.7.0 |
| 2021-06 | RAN#92 | R5-212172 | 0070 | - | F | Removal of technical content in 38.522 v16.7.0 and substitution with pointer to the next Release | 16.8.0 |