ETSI TR 138 903 V15.4.0 (2021-08)

TECHNICAL REPORT

**5G;
NR;
Derivation of test tolerances and measurement uncertainty for
User Equipment (UE) conformance test cases
(3GPP TR 38.903 version 15.4.0 Release 15)**

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Contents

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

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

Introduction

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1 Scope

The present document specifies a general method used to derive Measurement Uncertainties and Test Tolerances for UE conformance tests. The acceptable uncertainties for each test case are documented and establish a system for relating the Test Tolerances to the measurement uncertainties of the Test System.

For UE radio transmitting and reception tests, only FR2 is considered in this document. For UE RRM and Demodulation tests, both FR1 and FR2 are considered in this document.

The test cases which have been analysed to determine Test Tolerances are included as .zip files.

The present document is applicable from Release 15 up to the release indicated on the front page of the present Terminal conformance specifications.

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.

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[1] to [15] (void)

[16] 3GPP TR 38.903 Release 16: "NR; Derivation of test tolerances and measurement uncertainty for User Equipment (UE) conformance test cases "

3 Definitions, symbols and abbreviations

Void

4 General Principles

The requirements of the present document are provided in 3GPP TR 38.903 Release 16 [16].

5 to 8 Void

Annex A to E: Void

Annex F: Change history

Change history							
Date	**Meeting**	**TDoc**	**CR**	**R ev**	**Cat**	**Subject/Comment**	**New version**
2017-09	RAN5 #76	R5-174706				Initial skeleton	0.0.1
2018-04	RAN5 #2-5G-NR-Adhoc	R5-182093				Implementation of pCRs to TS 38.903 V0.0.1	0.1.0
2018-05	RAN5#79	R5-182670				Editorial update of TR 38.903.	0.2.0
2018-09	RAN5#80	R5-185213				Making Measurement Uncertainty Terms Common between methods in TR 38.90	1.0.0
2018-09	RAN5#80	R5-185214				TP on Measurement Uncertainty Contributions in FR2	1.0.0
2018-09	RAN5#80	R5-185212				Adding MU values for EIRPTRP measurements with Near Field test range (NFTF) at mmWave	1.0.0
2018-09	RAN#81	-	-	-	-	raised to v15.0.0 with editorial changes only	15.0.0
2018-12	RAN#82	R5-187023	0010	-	F	Editorial update of Annex B	15.1.0
2018-12	RAN#82	R5-187024	0011	-	F	Addition of MU contribution for demodulation test cases	15.1.0
2018-12	RAN#82	R5-187025	0012	-	F	Addition of MU contribution for RRM test cases	15.1.0
2018-12	RAN#82	R5-187148	0013	-	F	General clauses updated for TR38.903	15.1.0
2018-12	RAN#82	R5-187848	0008	1	F	FR2 Spurious Emission measurement grids and offset values	15.1.0
2018-12	RAN#82	R5-188060	0019	1	F	Update of MU budget and contributor description to TR 38.903	15.1.0
2018-12	RAN#82	R5-188224	0009	1	F	Update MU budget in TR 38.903	15.1.0
2018-12	RAN#82	R5-188225	0016	1	F	Update of MU budget tables in TR 38.903	15.1.0
2018-12	RAN#82	R5-188226	0017	2	F	Addition of descriptions on new MU contributions	15.1.0
2019-03	RAN#83	R5-192476	0030	1	F	Addition of Test Tolerance analysis for FR1 PRACH Test cases	15.2.0
2019-03	RAN#83	R5-192504	0038	1	F	Addition of TT analysis for Transmit timing accuracy Tests	15.2.0
2019-03	RAN#83	R5-192505	0031	1	F	Addition common text for RRM	15.2.0
2019-03	RAN#83	R5-192534	0039	-	F	Addition of TT Analysis for Timing Advance Adjustment Accuracy 4.4.3.1	15.2.0
2019-03	RAN#83	R5-192671	0033	1	F	Addition of TT analysis for event triggered test cases	15.2.0
2019-03	RAN#83	R5-192679	0036	1	F	Addition of TT analysis for handover with known cell	15.2.0
2019-03	RAN#83	R5-192845	0029	1	F	CR to update TR 38.903	15.2.0
2019-06	RAN#84	R5-193799	0048	-	F	FR1 Test tolerance analysis for intra re-selection 6.1.1.1	15.3.0
2019-06	RAN#84	R5-193800	0049	-	F	FR1 Test tolerance analysis for inter re-selection 6.1.1.2	15.3.0
2019-06	RAN#84	R5-193801	0050	-	F	FR1 Test tolerance analysis for interRAT higher priority re-selection 6.1.2.1	15.3.0
2019-06	RAN#84	R5-193802	0051	-	F	FR1 Test tolerance analysis for interRAT lower priority re-selection 6.1.2.2	15.3.0
2019-06	RAN#84	R5-193803	0052	-	F	FR1 Test tolerance analysis for interRAT known handover 6.3.1.4	15.3.0
2019-06	RAN#84	R5-194027	0057	-	F	CR on spurious emission MU in FR2	15.3.0
2019-06	RAN#84	R5-194123	0058	-	F	Definition of MU terminologies in TR 38.903	15.3.0
2019-06	RAN#84	R5-195014	0054	1	F	FR1 Test tolerance analysis for EN-DC SCell activation 4.5.3.1-4.5.3.3	15.3.0
2019-06	RAN#84	R5-195015	0060	1	F	Test Tolerance analysis for Inter-Freq measurement Test Cases	15.3.0
2019-06	RAN#84	R5-195159	0059	1	F	CR to update TR 38.903 after RAN5#5-5GNR Adhoc	15.3.0
2019-06	RAN#84	R5-195181	0055	1	F	FR1 Test tolerance analysis for EN-DC measurement reporting 4.6.1.1-4.6.1.4	15.3.0
2021-06	RAN#92	R5-212177	0229	-	F	Removal of technical content in 38.903 v15.3.0 and substitution with pointer to the next Release	15.4.0

History

Document history		
V15.0.0	October 2018	Publication
V15.1.0	April 2019	Publication
V15.2.0	April 2019	Publication
V15.3.0	July 2019	Publication
V15.4.0	August 2021	Publication