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5G;
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Derivation of test points for radio transmission and reception User Equipment (UE) conformance test cases
(3GPP TR 38.905 version 16.8.0 Release 16)

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

The present document specifies and contains the derivation of Test Points for NR RF test cases, thereby 3GPP TSG RAN WG5 will have a way of storing the input contributions provided. The test cases are described in TS38.521-1[2], TS38.521-2[3] and TS38.521-3[4],

The test cases which have been analysed to determine Test Points 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.
- 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*.

[1] to [9] (void)

[10] 3GPP TR 38.905 Release 17: "NR; Derivation of test points for radio transmission and reception User Equipment (UE) conformance test cases"

3 Definitions, symbols and abbreviations

Void

4 Test coverage analysis

The requirements of the present document are provided in 3GPP TR 38.905 Release 17 [10].

Annex A to D: Void

Annex B: Change history

Change history							
Date	**Meeting**	**TDoc**	**CR**	**Rev**	**Cat**	**Subject/Comment**	**New version**
2017-09	RAN5#76	R5-174704	-	-	-	Draft skeleton TR 38.905	0.0.1
2018-04	RAN5#2-5G-NR Adhoc	R5-181954	-	-	-	Agreed Text Proposal in RAN5#2-5G-NR Adhoc: **R5-181889**, " TP to update TR 38.905 with information on test point analysis " Agreed Test Point Analysis in RAN5#78: **R5-180885**, "Discussion on test point selection for NR Occupied Bandwidth in FR1" **R5-180886**, "Discussion on test point selection for NR SEM in FR1" **R5-180887**, "Discussion on test point selection for NR ACLR in FR1" **R5-181524**, "Discussion on test point selection for Absolute Power Tolerance in FR1" **R5-181525**, "Discussion on test point selection for Aggregate Power Tolerance in FR1" Agreed Test Point Analysis in RAN5#2-5G-NR Adhoc: **R5-182019**, "Discussion of NR FR1 Test Point for TX Spurious Emission test cases " **R5-182024**, "Discussion on test point selection for NR Frequency Error in FR1" **R5-181830**, "Discussion on test point selection for Maximum Output Power in FR1" **R5-181831**, "Discussion on test point selection for Minimum Output Power in FR1**R5-181832**, "Discussion on test point selection for General ON/OFF Time Mask in FR1" **R5-181879**, "Discussion on test point selection for NR In-Band in FR1" **R5-181880**, "Discussion on test point selection for NR ACS in FR1" **R5-182025**, "Discussion on test point selection for NR Frequency Error in FR1" **R5-181905**, "Discussion on test point selection for NR Occupied Bandwidth in FR2" **R5-182030**, "Discussion on test point selection for NR ACLR in FR2" **R5-182042**, "Discussion on test point selection for NR In-Band blocking in FR2" **R5-182044**, "Discussion on test point selection for NR ACS in FR2"	0.1.0
2018-05	RAN5#79	R5-183078	-	-	-	Document title corrected. Agreed Text Proposal in RAN WG5#79: **R5-183963**, "Test Point analysis for FR1 RefSens test case"	0.2.0
2018-08	RAN5#80	R5-185134	-	-	-	**R5-184923**, "Test Point analysis for FR2 RefSense test case" **R5-184961**, "TP for updating TR 38.905 with FR2 Frequency Error test point analysis" **R5-185307**, "TP for updating TR38.905 with FR1 AMPR test point analyses with NS_35" **R5-185309**, "Test Point analysis for FR1 Configured Output Power for SUL" **R5-185311**, "TP for updating TR 38.905 with FR1 Carrier Leakage test point analysis" **R5-185314**, "TP for updating TR 38.905 with FR1 EVM equalizer spectrum flatness test point analysis" **R5-185316**, "TP for updating TR 38.905 with FR1 Frequency Error test point analysis" **R5-185412**, "TP for updating TR 38.905 with EVM test point analysis" **R5-185491**, "Test Point analysis for FR2 TxSpurious test case" **R5-185215**, "TP for updating TR 38.905 with FR2 SEM test point analysis" **R5-185334**, "Discussion of LTE Test point selection for EN-DC with FR1 Tx Spurious emission Test" **R5-185301**, "Discussion on test point selection for NR Out-of-band in FR1" **R5-185423**, "Discussion on Uplink configuration for NR Transmit Intermodulation in FR1" **R5-185216**, "TP for updating TR38.905 with UE AMPR for NS_04 Intra-band contiguous EN-DC" **R5-185319**, "TP for updating TR 38.905 with FR1 In-band Emissions test point analysis"	1.0.0
2018-09	RAN#81	-	-	-	-	raised to v15.0.0 with editorial changes only	15.0.0
2018-12	RAN#82	R5-186454	0016	-	F	TP analysis for test case 6.5.2.4.2	15.1.0
2018-12	RAN#82	R5-186455	0017	-	F	TP analysis for EN-DC test case 6.2B.2.3	15.1.0

2018-12	RAN#82	R5-186609	0018	-	F	TP_analysis for TX spurious emission UE co-existence for intra-band contiguous EN-DC with FR1	15.1.0
2018-12	RAN#82	R5-186610	0019	-	F	TP analysis for Reference sensitivity for Intra-band Contiguous EN-DC with FR1	15.1.0
2018-12	RAN#82	R5-186611	0020	-	F	TP analysis for Reference sensitivity for Inter-band EN-DC with FR1	15.1.0
2018-12	RAN#82	R5-186674	0021	-	F	Test point analysis for AMPR Intra-band contiguous EN-DC in FR1 for NS_35	15.1.0
2018-12	RAN#82	R5-186710	0022	-	F	TP analysis for test case 6.2B.2.4, UE Maximum Output Power reduction for Inter-Band EN-DC including FR2	15.1.0
2018-12	RAN#82	R5-186791	0028	-	F	TP analysis OBW intraband contiguous EN-DC	15.1.0
2018-12	RAN#82	R5-186792	0029	-	F	TP analysis SEM intraband contiguous EN-DC	15.1.0
2018-12	RAN#82	R5-187035	0031	-	F	Update test points analysis for multiple FR1 test cases	15.1.0
2018-12	RAN#82	R5-187396	0037	-	F	Update of TR 38.905 with SA FR1 A-MPR test point analyses, NS_04	15.1.0
2018-12	RAN#82	R5-188240	0039	1	F	Update of TR 38.905 with EN-DC A-MPR test point analyses, NS_04	15.1.0
2018-12	RAN#82	R5-188227	0041	1	F	Test Point analysis for FR2 Maximum Output Power	15.1.0
2018-12	RAN#82	R5-187489	0042	-	F	TP analysis for FR1 test case 6.3.4.3, relative power tolerance	15.1.0
2018-12	RAN#82	R5-187582	0043	-	F	Discussion on test point selection for EVM in FR2	15.1.0
2018-12	RAN#82	R5-187583	0044	-	F	Discussion on test point selection for Carrier Leakage in FR2	15.1.0
2018-12	RAN#82	R5-187584	0045	-	F	Update of test point selection for EVM equalizer spectrum flatness in FR1	15.1.0
2018-12	RAN#82	R5-187587	0046	-	F	Discussion on test point selection for In-band Emissions in FR2	15.1.0
2018-12	RAN#82	R5-187589	0047	-	F	Discussion on test point selection for EVM equalizer spectrum flatness in FR2	15.1.0
2018-12	RAN#82	R5-187593	0048	-	F	Discussion on test point selection for EVM equalizer spectrum flatness for Pi/2 BPSK in FR1	15.1.0
2018-12	RAN#82	R5-187806	0023	1	F	Test Point analysis for FR1 7.4 Maximum input level	15.1.0
2018-12	RAN#82	R5-187808	0035	1	F	TP analysis for receiver spurious emission tests for FR1 SA	15.1.0
2018-12	RAN#82	R5-187809	0036	1	F	TP analysis for wideband intermodulation tests for FR1 SA	15.1.0
2018-12	RAN#82	R5-187817	0033	1	F	TP analysis for receiver spurious emission tests for FR1 inter-band EN-DC	15.1.0
2018-12	RAN#82	R5-187818	0034	1	F	TP analysis for wideband intermodulation tests for FR1 inter-band EN-DC	15.1.0
2018-12	RAN#82	R5-187836	0025	1	F	Test Point analysis for FR2 7.4 Maximum input level	15.1.0
2018-12	RAN#82	R5-187907	0024	1	F	Test Point analysis for FR1 MPR test case	15.1.0
2019-03	RAN#83	R5-191257	0077	-	F	Test Point analysis for TC 6.3.3.4 PRACH time mask in FR1	15.2.0
2019-03	RAN#83	R5-191260	0078	-	F	Test Point analysis for NR Narrow band in FR1	15.2.0
2019-03	RAN#83	R5-191261	0079	-	F	Test Point analysis for NR spurious response in FR1	15.2.0
2019-03	RAN#83	R5-191337	0081	-	F	Adding test case 6.2B.2.1 to 38.905	15.2.0
2019-03	RAN#83	R5-191678	0086	-	F	Addition of TP analysis of FR2 6.3.1 Minimum output power	15.2.0
2019-03	RAN#83	R5-191811	0087	-	F	Test Point analysis update for FR2 TxSpurious test case	15.2.0
2019-03	RAN#83	R5-191855	0091	-	F	TP_analysis_38.905_6.5.3.1_TX_SpurEmission	15.2.0
2019-03	RAN#83	R5-192002	0104	-	F	Adding test case 7.4B.1 to 38.905	15.2.0
2019-03	RAN#83	R5-192003	0105	-	F	Adding test case 7.4B.2 to 38.905	15.2.0
2019-03	RAN#83	R5-192007	0106	-	F	Adding test case 6.2B.1.1 to 38.905	15.2.0
2019-03	RAN#83	R5-192008	0107	-	F	Adding test case 6.2B.1.2 to 38.905	15.2.0
2019-03	RAN#83	R5-192009	0108	-	F	Adding test case 6.2B.1.3 to 38.905	15.2.0
2019-03	RAN#83	R5-192239	0116	-	F	TP analysis of FR1 time alignment error for UL MIMO	15.2.0
2019-03	RAN#83	R5-192401	0085	1	F	Addition of TP analysis of FR1 6.2.4 Configured transmitted power	15.2.0
2019-03	RAN#83	R5-192404	0099	1	F	TP analysis for FR1 6.5A.2.4.1.1 NR ACLR for CA (2UL CA)	15.2.0
2019-03	RAN#83	R5-192405	0100	1	F	TP analysis for FR1 6.5A.2.4.2.1 UTRA ACLR for CA (2UL CA)	15.2.0
2019-03	RAN#83	R5-192406	0103	1	F	TP analysis for FR1 6.5A.4.1 Transmit intermodulation for CA (2UL CA)	15.2.0
2019-03	RAN#83	R5-192410	0110	1	F	Update of TP analysis of FR1 6.3.1 Minimum Output Power	15.2.0
2019-03	RAN#83	R5-192444	0113	1	F	Addition of TP analysis for EN-DC 6.2B.4.1.3 Configured transmitted power inter-band within FR1	15.2.0
2019-03	RAN#83	R5-192449	0080	1	F	Adding FR2 test case 6.3.4.3 to 38.905	15.2.0
2019-03	RAN#83	R5-192546	0082	1	F	Test Point analysis for FR1 6.3.3.6 SRS time mask	15.2.0
2019-03	RAN#83	R5-192568	0095	1	F	TP analysis for FR1 6.4A.2.1.1 Error Vector Magnitude for CA (2UL CA)	15.2.0
2019-03	RAN#83	R5-192569	0094	1	F	TP analysis for FR1 6.4A.1.1 Frequency error for CA (2UL CA)	15.2.0
2019-03	RAN#83	R5-192571	0096	1	F	TP analysis for FR1 6.4A.2.2.1 Carrier leakage for CA (2UL CA)	15.2.0
2019-03	RAN#83	R5-192572	0097	1	F	TP analysis for FR1 6.4A.2.3.1 In-band emissions for CA (2UL CA)	15.2.0
2019-03	RAN#83	R5-192573	0098	1	F	TP analysis for FR1 6.5A.2.2.1 Spectrum emission mask for CA (2UL CA)	15.2.0
2019-03	RAN#83	R5-192574	0101	1	F	TP analysis for FR1 6.5A.3.1.1 General spurious emissions for CA (2UL CA)	15.2.0
2019-03	RAN#83	R5-192575	0102	1	F	TP analysis for FR1 6.5A.3.2.1 Spurious emissions for UE co-existence for CA (2UL CA)	15.2.0
2019-03	RAN#83	R5-192582	0109	1	F	Add Tp analysis statements for MIMO tests	15.2.0
2019-03	RAN#83	R5-192599	0084	1	F	Update of TP analysis of FR1 6.2.1 MOP	15.2.0
2019-03	RAN#83	R5-192624	0115	1	F	TP_analysis_38.905_6.5B.3_TX_SpurEmission	15.2.0

2019-03	RAN#83	R5-192647	0092	1	F	Addition of Test Point analysis of FR2 6.3.4.4 Aggregate power tolerance	15.2.0
2019-03	RAN#83	R5-192684	0073	1	F	TP analysis for FR1 Rx 7.9A.1 Spurious Emission for 2DL CA	15.2.0
2019-03	RAN#83	R5-192691	0111	1	F	Addition of TP analysis for EN-DC 6.2B.4.1.1 Configured transmitted power Intra-band contiguous	15.2.0
2019-03	RAN#83	R5-192692	0112	1	F	Addition of TP analysis for EN-DC 6.2B.4.1.2 Configured transmitted power Intra-band non-contiguous	15.2.0
2019-03	RAN#83	R5-192846	0114	2	F	Introduction of new section for Tp analysis of Tx spurious	15.2.0
2019-06	RAN#84	R5-193543	0137	-	F	Additional TT analysis for 38.521-3 MPR intra-band contiguous	15.3.0
2019-06	RAN#84	R5-193808	0147	-	F	Addition of TP analysis for power control for UL-MIMO	15.3.0
2019-06	RAN#84	R5-193916	0148	-	F	Update of TP analysis of 6.2D.3 A-MPR for UL-MIMO	15.3.0
2019-06	RAN#84	R5-193919	0149	-	F	Add SA FR1 RF 6.5D.2.4.2 to 38.905	15.3.0
2019-06	RAN#84	R5-194010	0151	-	F	Test Point analysis update for FR2 TxSpurious UE coexistence test case	15.3.0
2019-06	RAN#84	R5-194168	0152	-	F	Updating Annex A; Derivation documents	15.3.0
2019-06	RAN#84	R5-194169	0153	-	F	Update of test points analysis for NS_35 A-MPR FR1 test case	15.3.0
2019-06	RAN#84	R5-194170	0154	-	F	Test point analysis for A-MPR Intra-band contiguous EN-DC; NS_04	15.3.0
2019-06	RAN#84	R5-194257	0155	-	F	TP analysis for Asymmetric CH BWs in Reference Sensitivity Requirements in FR1	15.3.0
2019-06	RAN#84	R5-194402	0158	-	F	Test Point analysis for EN-DC In-band emissions for intra-band contiguous	15.3.0
2019-06	RAN#84	R5-194459	0160	-	F	Update to TP analysis for FR2 Maximum Output Power	15.3.0
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2019-06	RAN#84	R5-194913	0165	-	F	Addition of TP analysis for ACS for 2DL CA in FR1	15.3.0
2019-06	RAN#84	R5-194914	0166	-	F	Addition of TP analysis for FR1 MOP for CA	15.3.0
2019-06	RAN#84	R5-194927	0162	1	F	Addition of test frequency selection of spurious co-existence inter-band for DC 3-n79	15.3.0
2019-06	RAN#84	R5-194931	0141	1	F	Addition of TP analysis for 38.521-1 7.6D.2	15.3.0
2019-06	RAN#84	R5-194932	0143	1	F	Addition of TP analysis for 38.521-1 7.6D.4	15.3.0
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2019-06	RAN#84	R5-194959	0167	-	F	Addition of TP analysis for UL-MIMO cases of 6.3D.1 and 6.3D.3	15.3.0
2019-06	RAN#84	R5-194961	0157	1	F	TP analysis for FR2 Tx 6.3A.1.1 Minimum output power for CA 2UL CA	15.3.0
2019-06	RAN#84	R5-194963	0161	1	F	Update SCS test points for FR2 ACS and Inband blocking test cases	15.3.0
2019-06	RAN#84	R5-195146	0138	1	F	Addition of TP analysis for SA FR2 6.2.2	15.3.0
2019-06	RAN#84	R5-195148	0139	1	F	Addition of TP analysis for SA FR2 6.3.2	15.3.0
2019-06	RAN#84	R5-195190	0145	1	F	TPanalysis of 7.7D Spurious response for UL-MIMO	15.3.0
2019-06	RAN#84	R5-193730	0146	-	F	Addition of test frequency selection of 6.5A.3.2 for Rel-16 CA_n41A-n79A	16.0.0
2019-06	RAN#84	R5-195055	0150	1	F	Addition of test frequency selection of 6.5B.3.3.2 spurious co-existence inter-band for Rel-16 DC configurations	16.0.0
2019-09	RAN#85	R5-196435	0184	-	F	Update of TP analysis of FR2 minimum output power to add UL MIMO	16.1.0
2019-09	RAN#85	R5-196445	0185	-	F	Correction of 4.5 to add DC_3A-n41	16.1.0
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2019-09	RAN#85	R5-197317	0176	1	F	Addition of TP analysis for FR1 ConfigTP for CA	16.1.0
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2019-09	RAN#85	R5-197322	0180	1	F	Addition of TP analysis of FR1 6.4D.2.2 Carrier leakage for UL MIMO	16.1.0
2019-09	RAN#85	R5-197323	0181	1	F	Addition of TP analysis of FR1 6.4D.2.3 Inband emission for UL MIMO	16.1.0
2019-09	RAN#85	R5-197325	0182	1	F	Addition of TP analysis of FR1 6.4D.2.4 EVM equalizer spectrum flatness for UL MIMO	16.1.0
2019-09	RAN#85	R5-197326	0186	1	F	Test Point analysis for Occupied bandwidth for 2UL CA in FR1	16.1.0
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2019-09	RAN#85	R5-197589	0168	1	F	New addition of TP analysis for MOP & MOP Spherical Coverage for UL CA in SA FR2	16.1.0
2019-09	RAN#85	R5-197590	0169	1	F	New addition of TP analysis for Carrier leakage for UL CA in SA FR2	16.1.0
2019-09	RAN#85	R5-197591	0170	1	F	Adding test case 6.5B.2.1.3 to 38.905	16.1.0
2019-09	RAN#85	R5-197592	0173	1	F	Addition of TP analysis of FR2 6.6 Beam Correspondence	16.1.0
2019-09	RAN#85	R5-197593	0174	1	F	Test Point analysis update for FR2 Tx Spurious test case	16.1.0
2019-09	RAN#85	R5-197594	0177	1	F	Addition of TP analysis of FR1 Maximum input level for CA	16.1.0
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2019-09	RAN#85	R5-197628	0192	2	F	Updates of TP analysis for EN-DC MPR test case 6.2.B.2.1	16.1.0
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2019-12	RAN#86	R5-199327	0211	1	F	Test points analysis for NS_100 A_MPR FR1 test case	16.2.0
2019-12	RAN#86	R5-199328	0200	1	F	Addition of test point analysis for SA FR1 TC 7.6A.3 Out-of-band blocking for CA	16.2.0
2019-12	RAN#86	R5-199372	0197	1	F	Update of test point analysis for SA FR2 TC 6.2.2	16.2.0
2019-12	RAN#86	R5-199410	0199	1	F	Update of test point analysis for SA FR1 TC 6.2.2 to add almost contiguous allocation test points	16.2.0
2019-12	RAN#86	R5-199487	0202	1	F	Addition of test point analysis for SA FR1 TC 7.8A Wide band Intermodulation for CA	16.2.0
2019-12	RAN#86	R5-199488	0201	1	F	Addition of test point analysis for SA FR1 TC 7.6A.4 Narrow band blocking for CA	16.2.0
2019-12	RAN#86	R5-199489	0207	1	F	Addition of TP analysis for ACS for 3DL CA in FR1	16.2.0
2019-12	RAN#86	R5-199501	0198	1	F	Update of test point analysis for SA FR1 TC 6.5.2.4.2	16.2.0
2019-12	RAN#86	R5-199507	0196	1	F	TP analysis for test case 6.2B.2.2, UE Maximum Output Power reduction for Intra-Band Non-Contiguous EN-DC	16.2.0
2019-12	RAN#86	R5-199509	0194	1	F	TP analysis for MOP for EN-DC	16.2.0
2019-12	RAN#86	R5-199549	0204	1	F	Addition to TP analysis of FR2 TC 6.3A.4.2.1 Absolute Power Control for CA	16.2.0
2020-03	RAN#87	R5-200402	0215	-	F	Updating TP of MOP for inter-band EN-DC	16.3.0
2020-03	RAN#87	R5-200412	0221	-	F	Editorial change of replacing zip file of FR2 6.3.1 by v2	16.3.0
2020-03	RAN#87	R5-200419	0222	-	F	Update of test point analysis for 7.6A.3 Out-of-band blocking for CA	16.3.0
2020-03	RAN#87	R5-200459	0223	-	F	Update of test point analysis for 7.6A.4 Narrow band blocking for CA	16.3.0
2020-03	RAN#87	R5-200460	0224	-	F	Update of test point analysis for 7.8A Wide band Intermodulation for CA	16.3.0
2020-03	RAN#87	R5-200574	0226	-	F	Addition of Test point selection for FR1 in SUL test cases	16.3.0
2020-03	RAN#87	R5-200603	0227	-	F	Test Point analysis for FR2 ref sens for CA	16.3.0
2020-03	RAN#87	R5-200758	0229	-	F	Correction of NS_05 test points analysis	16.3.0
2020-03	RAN#87	R5-200762	0231	-	F	Test points analysis for NS_38 A-MPR FR1 test case	16.3.0
2020-03	RAN#87	R5-200764	0232	-	F	Test points analysis for NS_39 A-MPR FR1 test case	16.3.0
2020-03	RAN#87	R5-200766	0233	-	F	Test points analysis for NS_43 A-MPR FR1 test case	16.3.0
2020-03	RAN#87	R5-200768	0234	-	F	Test points analysis for NS_43U A-MPR FR1 test case	16.3.0
2020-03	RAN#87	R5-200799	0236	-	F	Updated test point analysis for FR2 A-MPR test case	16.3.0
2020-03	RAN#87	R5-200815	0237	-	F	Update of Test Point Analysis for UE Coexistence for DC_3A-n41A and DC_8A-n41A	16.3.0
2020-03	RAN#87	R5-200990	0238	1	F	Addition of TP analysis for FR1 In-band blocking for CA	16.3.0
2020-03	RAN#87	R5-201182	0216	1	F	Updating TP of configured output power for inter-band EN-DC	16.3.0
2020-03	RAN#87	R5-201184	0218	1	F	Updating TP of configured output power for intra-band contiguous EN-DC	16.3.0
2020-03	RAN#87	R5-201186	0220	1	F	Updating TP of configured output power for intra-band non-contiguous EN-DC	16.3.0
2020-03	RAN#87	R5-201237	0230	1	F	Test points analysis for NS_37 A-MPR FR1 test case	16.3.0
2020-03	RAN#87	R5-201239	0235	1	F	Test points analysis for NS_18 A-MPR FR1 test case	16.3.0
2020-06	RAN#88	R5-201746	0242	-	F	Addition of Number of test points for FR1 in SUL test cases	16.4.0
2020-06	RAN#88	R5-201747	0243	-	F	Addition of TP analysis for FR1 A-MPR for CA	16.4.0
2020-06	RAN#88	R5-201765	0246	-	F	Test points analysis for NS_27 A_MPR FR1 test case	16.4.0
2020-06	RAN#88	R5-201767	0247	-	F	Test points analysis for NS_40 A_MPR FR1 test case	16.4.0
2020-06	RAN#88	R5-201773	0250	-	F	Test points analysis for NS_47 A_MPR FR1 test case	16.4.0
2020-06	RAN#88	R5-201871	0253	-	F	Update of test points analysis in UE co-existence for inter-band EN-DC	16.4.0
2020-06	RAN#88	R5-201872	0254	-	F	Update of Test Point Analysis for UE Co-existence for DC_5A-n66A	16.4.0
2020-06	RAN#88	R5-201873	0255	-	F	Update of Test Point Analysis for UE Co-existence for DC_5A-n78A	16.4.0
2020-06	RAN#88	R5-201874	0256	-	F	Update of Test Point Analysis for UE Co-existence for DC_66A-n5A	16.4.0
2020-06	RAN#88	R5-201875	0257	-	F	Update of Test Point Analysis for UE Co-existence for DC_66A-n78A	16.4.0
2020-06	RAN#88	R5-201929	0258	-	F	Cleanup in 38.905	16.4.0
2020-06	RAN#88	R5-201931	0260	-	F	Combined TP analysis for MPR, ACLR and SEM intra-band contiguous EN-DC test cases	16.4.0
2020-06	RAN#88	R5-202029	0261	-	F	Introduction of test point analysis for 2CCs EN-DC TCs in FR1 in 7.6B Blocking characteristics for DC and 7.7B Spurious response for DC	16.4.0
2020-06	RAN#88	R5-202111	0262	-	F	NS_24 TP analysis to TR 38.905	16.4.0
2020-06	RAN#88	R5-202524	0267	-	F	TP_analysis_6.5.3.3_TX_Additional_SpurEmission_NS_43	16.4.0
2020-06	RAN#88	R5-202755	0248	1	F	Test points analysis for NS_41 A_MPR FR1 test case	16.4.0
2020-06	RAN#88	R5-202756	0249	1	F	Test points analysis for NS_42 A_MPR FR1 test case	16.4.0
2020-06	RAN#88	R5-202757	0264	1	F	TP_analysis_6.5.3.3_TX_Additional_SpurEmission_NS_05	16.4.0
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2020-06	RAN#88	R5-202926	0266	1	F	Addition of TPanalysis 6.5A.3.2.1_SECoex for CA_n1A-n78A	16.4.0
2020-06	RAN#88	R5-202932	0244	1	F	Addition of TP analysis for FR1 Maximum input level for 3DL CA	16.4.0
2020-06	RAN#88	R5-202933	0245	1	F	Addition of TP analysis for FR1 In-band blocking for 3DL CA	16.4.0
2020-06	RAN#88	R5-202952	0251	1	F	Updating TP of MOP for intra-band contiguous EN-DC	16.4.0

2020-06	RAN#88	R5-202953	0252	1	F	Updating TP of MOP for intra-band non-contiguous EN-DC	16.4.0
2020-06	RAN#88	R5-202954	0259	1	F	Combined TP analysis for MPR, NR ACLR and SEM FR1 test cases	16.4.0
2020-06	RAN#88	R5-202955	0263	1	F	Updated TP analysis for 7.3A Reference sensitivity for CA	16.4.0
2020-09	RAN#89	R5-203642	0269	-	F	Introduction of spurious emission TP analysis for Rel-16 EN-DC configuration DC_40A_n1A	16.5.0
2020-09	RAN#89	R5-203643	0270	-	F	Introduction of spurious emission TP analysis for Rel-16 EN-DC configuration DC_40A_n78A	16.5.0
2020-09	RAN#89	R5-203751	0275	-	F	Editorial correction to references to EN-DC configurations	16.5.0
2020-09	RAN#89	R5-204720	0299	1	F	Add_TP_analysis_table for TX_spurious_emission	16.5.0
2020-09	RAN#89	R5-204726	0278	1	F	Addition of test point analysis in Tx spurious emissions	16.5.0
2020-09	RAN#89	R5-204727	0273	1	F	Updating TP analysis for 6.2A.2-MPR for CA	16.5.0
2020-09	RAN#89	R5-204728	0279	1	F	Update of test point analysis of MOP for intra-band contiguous EN-DC	16.5.0
2020-09	RAN#89	R5-204789	0271	1	F	Update of TP analysis for NS_43 and NS_01 in FR1 A-MPR for CA	16.5.0
2020-09	RAN#89	R5-204790	0272	1	F	Update of TP analysis for NS_43U and NS_01 in FR1 A-MPR for CA	16.5.0
2020-09	RAN#89	R5-204791	0280	1	F	Updating test point analysis for DC_1A-n78A for spurious emissions UE co-existence	16.5.0
2020-09	RAN#89	R5-204792	0281	1	F	Updating test point analysis for DC_2A-n66A for spurious emissions UE co-existence	16.5.0
2020-09	RAN#89	R5-204793	0282	1	F	Updating test point analysis for DC_2A-n78A for spurious emissions UE co-existence	16.5.0
2020-09	RAN#89	R5-204794	0283	1	F	Updating test point analysis for DC_3A-n7A for spurious emissions UE co-existence	16.5.0
2020-09	RAN#89	R5-204795	0284	1	F	Updating test point analysis for DC_3A-n78A for spurious emissions UE co-existence	16.5.0
2020-09	RAN#89	R5-204796	0285	1	F	Updating test point analysis for DC_7A-n78A for spurious emissions UE co-existence	16.5.0
2020-09	RAN#89	R5-204797	0292	1	F	Correction to test point analysis for spurious emissions UE co-existence for a few inter-band EN-DC configurations	16.5.0
2020-09	RAN#89	R5-204817	0286	1	F	Updating test point analysis for DC_3A-n1A for spurious emissions UE co-existence	16.5.0
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2020-09	RAN#89	R5-204819	0288	1	F	Updating test point analysis for DC_7A-n66A for spurious emissions UE co-existence	16.5.0
2020-09	RAN#89	R5-204820	0289	1	F	Updating test point analysis for DC_8A-n1A for spurious emissions UE co-existence	16.5.0
2020-09	RAN#89	R5-204821	0290	1	F	Updating test point analysis for DC_12A-n78A for spurious emissions UE co-existence	16.5.0
2020-09	RAN#89	R5-204822	0291	1	F	Updating test point analysis for DC_28A-n3A for spurious emissions UE co-existence	16.5.0
2020-09	RAN#89	R5-204829	0293	1	F	Addition of test point analysis for AMPR NS_48	16.5.0
2020-09	RAN#89	R5-204838	0274	1	F	Updating TP analysis for 6.2A.4-Configured output power for CA	16.5.0
2020-09	RAN#89	R5-204948	0295	1	F	Addition of Test Point analysis for FR2 Transmit OFF Power for CA	16.5.0
2020-09	RAN#89	R5-204949	0298	1	F	TP analysis 6.5B.3 TX SpurEmission EN-DC V2	16.5.0
2020-09	RAN#89	R5-204950	0300	1	F	Updated TP analysis for 7.3B Reference sensitivity for EN-DC in FR1	16.5.0
2020-09	RAN#89	R5-204959	0301	1	F	Update of TPanalysis 6.5A.3.2.1_SECoex for CA_n1A-n78A	16.5.0
2020-09	RAN#89	R5-204963	0276	1	F	Update test point analysis for A-MPR NS_18 with CBW being 30MHz	16.5.0
2020-09	RAN#89	R5-204964	0294	1	F	Addition of test point analysis for additional spurious emission with NS_17	16.5.0
2020-09	RAN#89	R5-204982	0268	2	F	Updated TP analysis for 7.3A	16.5.0
2020-12	RAN#90	R5-205264	0303	-	F	Addition of Test Point analysis for 6.3A.4.1	16.6.0
2020-12	RAN#90	R5-205265	0304	-	F	Addition of Test Point analysis for 6.3A.4.2	16.6.0
2020-12	RAN#90	R5-205267	0305	-	F	Addition of Test Point analysis for 6.3A.4.3	16.6.0
2020-12	RAN#90	R5-205558	0309	-	F	Adding test point analysis for A-MPR test of band n30 with NS_21	16.6.0
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2020-12	RAN#90	R5-205780	0318	-	F	Addition of test point analysis for DC_2A_n5A in Tx spurious emissions cases	16.6.0
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2020-12	RAN#90	R5-205782	0320	-	F	Addition of test point analysis for DC_12A_n66A in Tx spurious emissions cases	16.6.0
2020-12	RAN#90	R5-205783	0321	-	F	Addition of test point analysis for DC_30A_n5A in Tx spurious emissions cases	16.6.0
2020-12	RAN#90	R5-205785	0322	-	F	Addition of test point analysis for DC_13A_n66A in Tx spurious emissions cases	16.6.0
2020-12	RAN#90	R5-205885	0329	-	F	Addition of test point analysis for A-MPR NS_46	16.6.0

2020-12	RAN#90	R5-206037	0333	-	F	Introduction of spurious emission TP analysis for Rel-16 EN-DC configuration DC_20A_n3A	16.6.0
2020-12	RAN#90	R5-206729	0332	1	F	Introduction of spurious emission TP analysis for Rel-16 EN-DC configuration DC_1A_n3A	16.6.0
2020-12	RAN#90	R5-206752	0302	1	F	Addition of test point analysis for A-MPR NS_45	16.6.0
2020-12	RAN#90	R5-206769	0325	1	F	Update of test point analysis for Tx spurious emissions in NR FR1	16.6.0
2020-12	RAN#90	R5-206853	0328	1	F	Update to test point analysis for A-MPR NS_18 with 30MHz	16.6.0
2020-12	RAN#90	R5-206854	0314	1	F	Updating TP analysis for OBW for CA	16.6.0
2020-12	RAN#90	R5-206855	0316	1	F	Updating TP analysis for Maximum input level for 3DL CA	16.6.0
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2020-12	RAN#90	R5-206857	0323	1	F	Update of test point analysis for MPR, SEM and ACLR in NR FR1	16.6.0
2020-12	RAN#90	R5-206858	0324	1	F	Update of test point analysis for MOP in FR1	16.6.0
2020-12	RAN#90	R5-206873	0310	1	F	Restructuring of TR 38.905.	16.6.0
2020-12	RAN#90	R5-206874	0311	1	F	Combined TP analysis for FR2 test cases MPR, ACLR and SEM	16.6.0
2020-12	RAN#90	R5-206875	0331	1	F	Update of TPA for in-band emission and carrier leakage TCs	16.6.0
2020-12	RAN#90	R5-206876	0336	1	F	Update of test point analysis for occupied bandwidth in FR2	16.6.0
2020-12	RAN#90	R5-206893	0315	1	F	Updating TP analysis for REFSENS for CA	16.6.0
2020-12	RAN#90	R5-206917	0330	1	F	Updated TP analysis for 7.3B Reference sensitivity for EN-DC in FR1	16.6.0
2021-03	RAN#91	R5-210383	0343	-	F	Correct a typo of 6.3A.4.2	16.7.0
2021-03	RAN#91	R5-210512	0344	-	F	Introduction of test point analysis for SA FR2 7.4A Maximum input level for CA	16.7.0
2021-03	RAN#91	R5-210740	0347	-	F	Updating TP analysis of FR1 A-MPR for NS_48	16.7.0
2021-03	RAN#91	R5-210742	0348	-	F	Adding TP analysis of FR1 A-MPR for NS_49	16.7.0
2021-03	RAN#91	R5-210743	0349	-	F	Resubmitting TP analysis of FR1 A-MPR for NS_44	16.7.0
2021-03	RAN#91	R5-210791	0353	-	F	Adding TP selection for 6.4C.2 Transmit modulation quality for SUL	16.7.0
2021-03	RAN#91	R5-210900	0354	-	F	Updating TP analysis for Spurious Emissions for CA in FR1	16.7.0
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2021-03	RAN#91	R5-210963	0362	-	F	Spur emission TP analysis R16 DC_5A_n2A	16.7.0
2021-03	RAN#91	R5-211018	0368	-	F	TP analysis for test case 6.5D.2_1.4.2, UTRA ACLR for UL MIMO (Rel-16 onward)	16.7.0
2021-03	RAN#91	R5-211134	0380	-	F	TP analysis for ULFPTx in MPR test case	16.7.0
2021-03	RAN#91	R5-211230	0389	-	F	NS_12, NS_13, NS_14, NS_15 TP analysis to 38.905	16.7.0
2021-03	RAN#91	R5-211733	0340	1	F	Updated TP analysis for 7.3B Reference sensitivity for EN-DC in FR1	16.7.0
2021-03	RAN#91	R5-211734	0341	1	F	TP analysis for 38.521-3 test case 6.5B.2.2.1 SEM Intra-band non-contiguous	16.7.0
2021-03	RAN#91	R5-211735	0342	1	F	TP analysis for 38.521-3 test case 6.5B.2.2.3 ACLR Intra-band non-contiguous	16.7.0
2021-03	RAN#91	R5-211736	0345	1	F	Update of test point analysis for FR2 UL CA frequency error test cases	16.7.0
2021-03	RAN#91	R5-211737	0369	1	F	Introduction of spurious emission TP analysis for Rel-15 EN-DC configuration DC_8A_n77A	16.7.0
2021-03	RAN#91	R5-211738	0370	1	F	Introduction of spurious emission TP analysis for Rel-15 EN-DC configuration DC_11A_n77A	16.7.0
2021-03	RAN#91	R5-211739	0371	1	F	Introduction of spurious emission TP analysis for Rel-15 EN-DC configuration DC_11A_n78A	16.7.0
2021-03	RAN#91	R5-211740	0372	1	F	Introduction of spurious emission TP analysis for Rel-15 EN-DC configuration DC_11A_n79A	16.7.0
2021-03	RAN#91	R5-211741	0373	1	F	Introduction of spurious emission TP analysis for Rel-15 EN-DC configuration DC_25A_n41A	16.7.0
2021-03	RAN#91	R5-211742	0374	1	F	Introduction of spurious emission TP analysis for Rel-15 EN-DC configuration DC_26A_n41A	16.7.0
2021-03	RAN#91	R5-211743	0375	1	F	Introduction of spurious emission TP analysis for Rel-15 EN-DC configuration DC_26A_n77A	16.7.0
2021-03	RAN#91	R5-211744	0376	1	F	Introduction of spurious emission TP analysis for Rel-15 EN-DC configuration DC_26A_n78A	16.7.0
2021-03	RAN#91	R5-211745	0377	1	F	Introduction of spurious emission TP analysis for Rel-15 EN-DC configuration DC_26A_n79A	16.7.0
2021-03	RAN#91	R5-211746	0378	1	F	Introduction of spurious emission TP analysis for Rel-15 EN-DC configuration DC_41A_n77A	16.7.0
2021-03	RAN#91	R5-211747	0379	1	F	Introduction of spurious emission TP analysis for Rel-15 EN-DC configuration DC_41A_n78A	16.7.0
2021-03	RAN#91	R5-211748	0388	1	F	Test Point analysis update for FR2 Tx additional spurious emission test case	16.7.0
2021-03	RAN#91	R5-211774	0337	1	F	Introduction of spurious emission TP analysis for Rel-16 EN-DC configuration DC_7A_n3A	16.7.0
2021-03	RAN#91	R5-211775	0338	1	F	Introduction of spurious emission TP analysis for Rel-16 EN-DC configuration DC_8A_n3A	16.7.0
2021-03	RAN#91	R5-211776	0339	1	F	Introduction of spurious emission TP analysis for Rel-16 EN-DC configuration DC_20A_n1A	16.7.0
2021-03	RAN#91	R5-211777	0361	1	F	Spur emission TP analysis R16 DC_2A_n41A	16.7.0
2021-03	RAN#91	R5-211778	0363	1	F	Spur emission TP analysis R16 DC_13A_n2A	16.7.0

2021-03	RAN#91	R5-211779	0364	1	F	Spur emission TP analysis R16 DC_48A_n5A	16.7.0
2021-03	RAN#91	R5-211780	0365	1	F	Spur emission TP analysis R16 DC_48A_n66A	16.7.0
2021-03	RAN#91	R5-211781	0366	1	F	Spur emission TP analysis R16 DC_66A_n41A	16.7.0
2021-03	RAN#91	R5-211809	0350	1	F	Adding TP analysis for Rel-16 DMRS in A-MPR test case	16.7.0
2021-03	RAN#91	R5-211810	0351	1	F	Update of TP analysis for EVM equalizer spectrum flatness for half Pi BPSK	16.7.0
2021-03	RAN#91	R5-211811	0352	1	F	Update of TP analysis for FR1 SUL test cases	16.7.0
2021-03	RAN#91	R5-211893	0346	1	F	Update of test point analysis for FR2 MPR, SEM and ACLR test cases	16.7.0
2021-03	RAN#91	R5-211894	0359	1	F	Addition of reference sensitivity test point analyses for FR1 NR CA and EN-DC	16.7.0
2021-03	RAN#91	R5-211895	0360	1	F	Moving of principles for reference sensitivity test point selection from attachments to annexes	16.7.0
2021-03	RAN#91	R5-211897	0382	1	F	TP analysis for DC_8A_n77A	16.7.0
2021-03	RAN#91	R5-211898	0383	1	F	TP analysis for DC_11A_n79A	16.7.0
2021-03	RAN#91	R5-211899	0384	1	F	TP analysis for DC_26A_n41A	16.7.0
2021-03	RAN#91	R5-211900	0385	1	F	TP analysis for DC_26A_n77A and DC_26A_n78A	16.7.0
2021-03	RAN#91	R5-211901	0386	1	F	TP analysis for DC_26A_n79A	16.7.0
2021-03	RAN#91	R5-211902	0387	1	F	TP analysis for DC_41A_n77A and DC_41A_n78A	16.7.0
2021-03	RAN#91	R5-211906	0390	1	F	Reference sensitivity TP analysis for DC_1A-28A_n3A	16.7.0
2021-03	RAN#91	R5-211907	0391	1	F	Reference sensitivity analysis for DC_3A-7A_n1A	16.7.0
2021-03	RAN#91	R5-211908	0392	1	F	Reference sensitivity TP analysis for DC_7A-20A_n1A	16.7.0
2021-03	RAN#91	R5-211909	0393	1	F	Reference sensitivity TP analysis for DC_7A-28A_n3A	16.7.0
2021-03	RAN#91	R5-211914	0358	1	F	Adding TP analysis for NR test case-Time mask for UL carrier switching	16.7.0
2021-06	RAN#92	R5-212178	0394	-	F	Removal of technical content in 38.905 v16.7.0 and substitution with pointer to the next Release	16.8.0

History

Document history		
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