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Derivation of test points for radio transmission and reception
User Equipment (UE) conformance 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:

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- x the first digit:
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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.

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] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".
 [2] 3GPP TS 38.521-1: "NR; UE conformance specification; Radio transmission and reception; Part 1: NR range 1".
 [3] 3GPP TS 38.521-2: "NR; UE conformance specification; Radio transmission and reception; Part 2: NR range 2".
 [4] 3GPP TS 38.521-3: "NR; UE conformance specification; Radio transmission and reception; Part 3: NR; UE conformance specification; Radio transmission and reception; Part 3: NR; UE conformance specification; Radio transmission and reception; Part 3: NR; UE conformance specification; Radio transmission and reception; Part 3: NR; UE conformance specification; Radio transmission and reception; Part 3: NR; UE conformance specification; Radio transmission and reception; Part 3: NR; UE conformance specification; Radio transmission and reception; Part 3: NR; UE conformance specification; Radio transmission and reception; Part 3: NR; UE conformance specification; Radio transmission and reception; Part 3: NR; UE conformance specification; Radio transmission and reception; Part 3: NR; UE conformance specification; Radio transmission and reception; Part 3: NR; UE conformance specification; Radio transmission and reception; Part 3: NR; UE conformance specification; Radio transmission and reception; Part 3: NR; UE conformance specification; Radio transmission and reception; Part 3: NR; UE conformance specification; Radio transmission and reception; Part 3: NR; UE conformance specification; Radio transmission and reception; Part 3: NR; UE conformance specification; Radio transmission and reception; Part 3: NR; UE conformance specification; Radio transmission and reception; Part 3: NR; UE conformance specification; Radio transmission and reception; Part 3: NR; UE conformance specification; Radio transmission and reception; Part 3: NR; UE conformance specification; Radio transmission and reception; Part 3: NR; UE conformance specification; Radio transmission and reception; Part 3: NR; UE conformanc
- NR interworking between NR range1 + NR range2 and between NR and LTE".
- [5] 3GPP TS 38.101-1: "NR; User Equipment (UE) radio transmission and reception; Part 1: Range 1 Standalone".
- [6] 3GPP TS 38.101-2: "NR; User Equipment (UE) radio transmission and reception; Part 2: Range 2 Standalone".
- [7] 3GPP TS 38.101-3: "NR; User Equipment (UE) radio transmission and reception; Part 3: Range 1 and Range 2 Interworking operation with other radios".
- [8] 3GPP TS 36.101: Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception".

3 Definitions, symbols and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in 3GPP TR 21.905 [1] and the following apply. A term defined in the present document takes precedence over the definition of the same term, if any, in 3GPP TR 21.905 [1].

Other definitions used in the present document are listed in 3GPP TS 38.521-1 [2], 3GPP TS 38.521-2 [3] or 3GPP TS 38.521-3 [4].

Editor's note: intended to capture definitions

3.2 Symbols

Symbols used in the present document are listed in 3GPP TR 21.905 [1], 3GPP TS 38.521-1 [2], 3GPP TS 38.521-2 [3] or 3GPP TS 38.521-3 [4].

Editor's note: intended to capture definitions

3.3 Abbreviations

For the purposes of the present document, the abbreviations given in TR 21.905 [1] apply. An abbreviation defined in the present document takes precedence over the definition of the same abbreviation, if any, in TR 21.905 [1].

Other abbreviations used in the present document are listed in 3GPP TS 38.521-1 [2], or 3GPP, 3GPP TS 38.521-1 [2], 3GPP TS 38.521-2 [3] or 3GPP TS 38.521-3 [4].

A-SE Additional spurious emissions A-SEM Spectrum Emission Mask

4 Test coverage analysis

This clause contains information on test point analysis and test point selection for RX and TX test configuration tables in [2], [3] and [4]. The test point analysis should include selection of:

- Test environment
- Test frequencies
- Test channel bandwidth
- Test Subcarrier Spacing (SCS)
- Downlink configuration including modulation and RB allocation
- Uplink configuration including modulation and RB allocation
- Number of test points

4.1 Test point analysis for FR1 test cases in TS 38.521-1

4.1.1 Test point analysis per test case

4.1.1.1 FR1 single carrier, NR CA and UL MIMO test cases

This clause contains information on test point analysis and test point selection for single carrier, NR CA and UL MIMO test cases in [2] clause 6 and 7 with information about transmitting test point selection for FR1 listed in table 4.1.1.1-1 and receiver test point selection in table 4.1.1.1-2.

Table 4.1.1.1-1: NR UE transmitter test point selection for FR1

Subclause	Number of test points	Justification in attachment	Comments
6.2.1 UE maximum output power	540	"38.521-1_TPanalysis_6.2.1_MaxOP_v3.zip"	RAN5#89-e
6.2.2 Maximum Power Reduction (MPR)	contiguous allocation: 920 (1040¹,1000².³) almost contiguous allocation: 120	"38.521- 1_TPanalysis_6.2.2_MPR_6.5.2.2_SEM_6.5.2.4.1_N R_ACLR_v1.zip"	RAN5#89-e
6.2.3 UE A-MPR	See clause 4.1.2.1	See clause 4.1.2.1	See clause 4.1.2.1
6.2.4 Configured Transmitted Power	30	"38.521-1_TPanalysis_6.2.4_ConfigTP.zip"	RAN5#82
6.2A.1.1 UE maximum output power for CA (2UL CA)	240	"38.521-1_TP analysis_6.2A.1_MOP"	RAN5#83
6.2A.2 Maximum power reduction (MPR) for CA	For inter-band CA:1440 For intra-band contiguous CA: 720 (contiguous RB allocation)	"38.521-1_TPanalysis_6.2A.2_MPR_v1.zip"	RAN5#88-e
6.2A.4 Configured transmitted power for CA	Inter-band CA:20 Intra-band contiguous CA (contiguous RB allocation): 20	"38.521-1_TPanalysis_6.2A.4_ConfigTP_v1.zip"	RAN5#88-e
6.2C.1 Configured UE transmitted Output Power	270	"38.521-1_TPanalysis_6.2C.1_ConfigOPSUL.zip"	RAN5#80
6.2D.1 UE maximum output power for UL-MIMO	UL MIMO with ULFPTx: 540 UL MIMO with 2-layer: 0	"38.521-1_TPanalysis_6.2.1_MaxOP_v3.zip"	RAN5#89-e
6.2D.2 Maximum Power Reduction (MPR)	power class 3: 400 power class 2: 400	"38.521-1_TPanalysis_6.2.2_MPR_v3.zip"	RAN5#85
6.2D.3 UE additional maximum output power reduction for UL-MIMO	Table 4.1.2.1-1	Table 4.1.2.1-1	See Table 4.1.2.1-1
6.2D.4 Configured Transmitted Power for UL-MIMO	15	"38.521-1_TPanalysis_6.2D.4_ConfigTP.zip"	RAN5#82
6.3.1 Minimum output power	45	"38.521-1_TPanalysis_6.3.1_MinOP_v3.zip"	RAN5#5-5G-NR Adhoc
6.3.3.2General ON/OFF time mask	TBD	"38.521-1_TPanalysis_6.3.3.2_OnOff_M_v2.zip"	RAN5#5-5G-NR Adhoc
6.3.3.6SRS time mask	30	"38.521-1_TPanalysis_6.3.3.3_SRS.zip"	RAN5#82
6.3.4.2Absolute power tolerance	6	"38.521-1_TPanalysis_6.3.4.2_AbsPtol_v2.zip"	RAN5#83
6.3.4.3Relative power tolerance	TBD	"38.521-1_TPanalysis_6.3.4.3_RelPtol_v2.zip"	RAN5#83
6.3.4.4Aggregate power tolerance	PUCCH: 6 PUSCH: 6	"38.521-1_TPanalysis_6.3.4.4_AggPtol_v2.zip"	RAN5#83
6.3A.1.1 Minimum output power for CA (2UL CA)	20	38.521-1_TPanalysis_6.3A.1.1_MinOP_CA.zip	RAN5#83
6.3A.3.1 Transmit ON/OFF time mask for CA (2UL CA)	40	"38.521-1_TPanalysis_6.3A.3.1_ OnOff_M_CA.zip"	RAN5#83
6.3A.4.1 Absolute	4	"38.521-1_TPanalysis_6.3A.4.1_Abs_PTol_CA.zip"	RAN5#89

	l	T	
power tolerance for CA (2UL CA)			
6.3A.4.2 Aggregate [Editor's note: shall say Relative] power tolerance for CA (2UL CA)	TBD	"38.521-1_TPanalysis_6.3A.4.2_Rel_PTol_CA.zip"	RAN5#89
6.3A.4.3 Aggregate power tolerance for CA (2UL CA)	PUCCH:4 PUSCH:4	"38.521-1_TPanalysis_6.3A.4.3_Agg_PTol_CA.zip"	RAN5#89
6.3D.1 Minimum output power for UL-MIMO	45	"38.521-1_TPanalysis_6.3.1_MinOP_v3.zip"	RAN5#5-5G-NR Adhoc
6.3D.3 Transmit ON/OFF time mask for UL-MIMO	TBD	"38.521-1_TPanalysis_6.3.3.2_OnOff_M_v2.zip"	RAN5#5-5G-NR Adhoc
6.3D.4.1 Absolute Power tolerance for UL- MIMO	6	"38.521-1_TPanalysis_6.3.4.2_AbsPtol_v2.zip"	RAN5#83
6.3D.4.2 Relative Power Tolerance for UL-MIMO	TBD	"38.521-1_TPanalysis_6.3.4.3_RelPtol_v2.zip"	RAN5#83
6.3D.4.3 Aggregate Power tolerance for UL- MIMO	PUCCH: 6 PUSCH: 6	"38.521-1_TPanalysis_6.3.4.4_AggPtol_v2.zip"	RAN5#83
6.4.1 Frequency error	5	"38.521-1_TPanalysis_6.4.1_FreqErr_v3.zip"	RAN5#84
6.4.2.1Error Vector Magnitude	PUSCH: 252 PUCCH: 36 PRACH: 36	"38.521-1_TPanalysis_6.4.2.1_EVM_v2.zip"	RAN5#84
6.4.2.2Carrier leakage	3	"38.521-1_TPanalysis_6.4.2.2_CarrLeak_v2.zip"	RAN5#84
6.4.2.3In-band emissions	36	"38.521-1_TPanalysis_6.4.2.3_IE_2.zip"	RAN5#84
6.4.2.4EVM equalizer spectrum flatness	90	"38.521-1 TPanalysis_6.4.2.4_EVMequalizerSpectrumFlatness_ v3.zip"	RAN5#84
6.4.2.5EVM equalizer spectrum flatness for Pi/2 BPSK	45	"38.521-1 TPanalysis_6.4.2.5_EVMequalizerSpectrumFlatness_ BPSK.zip"	RAN5#81
6.4A.1.1 Frequency error for CA (2UL CA)	5	"38.521-1_TPanalysis on 6.4A.1.1_FreqErr.zip"	RAN5#82
6.4A.2.1.1 Error Vector Magnitude for CA (2UL CA)	168	"38.521-1_TPanalysis on 6.4A.2.1.1_EVM.zip"	RAN5#82
6.4A.2.2.1 Carrier leakage for CA (2UL CA)	2	"38.521-1_TPanalysis on 6.4A.2.2.1_CarrLeak.zip"	RAN5#82
6.4A.2.3.1 In-band emissions for CA (2UL CA)		"38.521-1_TPanalysis on 6.4A.2.2.1_IBE.zip"	RAN5#82
6.4D.1 Frequency error	5	"38.521-1_TPanalysis_6.4.1_FreqErr_v3.zip"	RAN5#84
6.4D.2.1 Error Vector Magnitude for UL MIMO	PUSCH: 108	"38.521-1_TPanalysis on 6.4.2.1_EVM_v2.zip"	RAN5#84
6.4D.2.2 Carrier leakage for UL MIMO	3	"38.521-1_TPanalysis on 6.4.2.2_CarrLeak_v2.zip"	RAN5#84
6.4D.2.3 In-band emissions for UL MIMO	18	"38.521-1_TPanalysis_6.4.2.3_IE_2.zip"	RAN5#84
6.4D.2.4 EVM equalizer spectrum flatness for UL MIMO	45	"38.521- 1_TPanalysis_6.4.2.4_EVMequalizerSpectrumFlatnes s_v3.zip"	RAN5#84
6.4D.3 Time alignment error for UL-MIMO	6	"38.521-1_TPanalysis_6.4D.3_TAE_MIMO.zip"	RAN5#82
6.5.1 Occupied bandwidth	10	"38.521-1_TPanalysis_6.5.1_OccBW_v2.zip	RAN5#82
6.5.2.2Spectrum Emission Mask	contiguous allocation: 144 (168 ¹ , 160 ^{2,3}) almost contiguous	"38.521- 1_TPanalysis_6.2.2_MPR_6.5.2.2_SEM_6.5.2.4.1_N R_ACLR_v1.zip"	RAN5#89-e

	allocation: 24		
6.5D.2.3 Additional spectrum emission mask for UL-MIMO	Table 4.1.2.1-1	Table 4.1.2.1-1	See Table 4.1.2.1-1
6.5.2.4.1 NR Adjacent channel leakage ratio	contiguous allocation: 920 (1040¹, 1000².³) almost contiguous allocation: 120	"38.521- 1_TPanalysis_6.2.2_MPR_6.5.2.2_SEM_6.5.2.4.1_N R_ACLR_v1.zip"	RAN5#89-e
6.5.2.4.2 UTRA ACLR	Same as NS_3U, NS_5U ,NS_43 U, and NS_100 in Table 4.1.1.1-1	"38.521-1_TPanalysis_6.5.2.4.2_UTRA ACLR_v2.zip"	RAN5#85
6.5.3.1 General spurious emissions	27	"38.521-1_TP analysis_6.5.3.1_TX_Spurious_Emission_v1.zip"	RAN5#89-e
6.5.3.2 Spurious emissions for UE co-existence	27	"38.521-1_TP analysis_6.5.3.1_TX_Spurious_Emission_v1.zip"	RAN5#89-e
6.5.3.3Additional spurious emissions	See Table 4.1. 2.1-1	See Table 4.1.2.1-1	See Table 4.1.2.1-1
6.5.4 Transmit intermodulation	8	"38.521-1_TPanalysis_6.5.4_Txlm.zip"	RAN5#80
6.5A.1.1 Occupied bandwidth for CA (2UL CA)	Inter-band: 2 Intra-band contiguous: 1	"38.521-1_TPanalysis_6.5A.1.1_OccBW_v1.zip"	RAN5#89-e
6.5A.2.2.1 Spectrum emission mask for CA (2UL CA)	112	"38.521-1_TPanalysis on 6.5A.2.2.1_SEM.zip"	RAN5#82
6.5A.2.4.1.1 NR ACLR for CA (2UL CA)	840	"38.521-1_TPanalysis on 6.5A.2.4.1.1_NR ACLR.zip"	RAN5#82
6.5A.2.4.2.1 UTRA ACLR for CA (2UL CA)	840	"38.521-1_TPanalysis on 6.5A.2.4.2.1 UTRA ACLR .zip"	RAN5#82
6.5A.3.1.1 General spurious emissions for CA (2UL CA)	24	"38.521-1_TPanalysis on 6.5A.3.1.1_Spurious.zip"	RAN5#82
6.5A.3.2.1 Spurious emissions for UE co- existence for CA (2UL CA)	3 for CA_n3A- n78A 4 for CA_n8A- n78A	"38.521-1_TPanalysis on 6.5A.3.2.1_SECoex.zip"	RAN5#82
6.5A.4.1 Transmit intermodulation for CA (2UL CA)	840	"38.521-1_TPanalysis on 6.5A.4.1_TxIM.zip"	RAN5#82
6.5D.1 Occupied bandwidth for UL-MIMO		38.521-1_TPanalysis_6.5.1_OBW_v2.zip	RAN5#82
6.5D.2.4.1NR ACLR for UL-MIMO		"38.521-1_TPanalysis_6.5.2.4_ACLR_v3.zip"	RAN5#82
6.5D.2.4.2UTRA ACLR for UL-MIMO	96 for NS_3U	"38.521-1_TPanalysis_6.5D.2.4.2_UTRA ALCR_NS_3U.zip"	RAN5#5-5G-NR Adhoc
6.5D.3.1 General spurious emissions	27	"38.521-1_TP analysis_6.5.3.1_TX_Spurious_Emission_v1.zip"	RAN5#89-e
6.5D.3.2 Spurious emissions for UE co-existence for UL-MIMO	27	"38.521-1_TP analysis_6.5.3.1_TX_Spurious_Emission_v1.zip"	RAN5#89-e
6.5D.3.3 Additional spurious emissions for UL-MIMO	Table 4.1.2.1-1	Table 4.1.2.1-1	RAN5#5-5G-NR Adhoc
6.5D.3_1.1 General spurious emissions (Rel-16 onward)	27	"38.521-1_TP analysis_6.5.3.1_TX_Spurious_Emission_v1.zip"	RAN5#89-e
6.5D.3_1.2 Spurious emissions for UE co-existence for UL-MIMO (Rel-16 onward)	27	"38.521-1_TP analysis_6.5.3.1_TX_Spurious_Emission_v1.zip"	RAN5#89-e
6.5D.3_1.3 Additional	Table 4.1.1.1-1	Table 4.1.1.1-1	RAN5#89-e

spurious emissions for UL-MIMO (Rel-16 onward)		
6.5D.4 Transmit intermodulation for UL-MIMO	"38.521-1_TPanalysis_6.5.4_Txlm_v2.zip"	RAN5#82

NOTE 1: For power class 3 UE operating in bands n40, n41, n77, n78 and n79.

NOTE 2: UE operating in FDD mode, or in TDD mode in bands other than n40, n41, n77, n78 and n79, or in TDD mode the IE powerBoostPi2BPSK is set to 0 for bands n40, n41, n77, n78 and n79.

NOTE 3: UEs supporting pi/2 BPSK DMRS and the corresponding IE [DMRSPi2BPSK] is set to 1.

NOTE 4: The maximum number of test point is 24 if only default points are applied.

Table 4.1.1.1-2: NR UE receiver test point selection for FR1

Subclause	Number of test points	Justification in attachment	Comments
7.3 Reference sensitivity power level	45	"38.521-1_TPanalysis_7.3_RefSense_v3.zip"	RAN5#5-5G-NR Adhoc
7.3A Reference sensitivity for CA	See clause 4.1.3	See clause 4.1.3	See clause 4.1.3
7.3D.2 Reference sensitivity power level for UL-MIMO		"38.521-1_TPanalysis_7.3_RefSense_v2.zip"	RAN5#82
7.4 Maximum input level	6	"38.521-1_TPanalysis_7.4_Maximun input level_v2.zip"	RAN5#82
7.4A Maximum input level for CA	2CC:2 3CC:2	"38.521-1_TP analysis 7.4A maxIL for CA_v1.zip"	RAN5#89-e
7.4D Maximum input level for UL-MIMO		"38.521-1_TPanalysis_7.4_Maximun input level_v2.zip"	RAN5#82
7.5 Adjacent Channel Selectivity	3	"38.521-1_TPanalysis_7.5_ACS_v2.zip"	RAN5#82
7.5A Adjacent channel selectivity for DL CA	intra-band contiguous CA: 2 inter-band CA: 1	"38.521-1_TPanalysis_7.5A.1_ACS_2CA.zip"	RAN5#83
7.5D Adjacent Channel Selectivity for UL-MIMO		"38.521-1_TPanalysis_7.5_ACS_v2.zip"	RAN5#82
7.6.2 In Band Blocking	3	"38.521-1_TPanalysis_7.6.2_InB_Block_v2.zip"	RAN5#5-5G-NR Adhoc
7.6.3 Out-of-band blocking	3	"38.521-1_TPanalysis_7.6.3_OobBlocking_v2.zip"	RAN5#5-5G-NR Adhoc
7.6.4 Narrow band blocking	3	"38.521-1_TPanalysis_7.6.4_NarrowbBlocking_v2.zip"	RAN5#5-5G-NR Adhoc
7.6A.2 Inband blocking for CA 2CC: 3CC:1	1	"38.521-1_TP analysis 7.6A.2 IBB for CA_v1.zip"	RAN5#89-e
7.6A.3 Out-of-band blocking for CA	1	"38.521-1_TPanalysis_7.6A.3 Out-of-band blocking for CA_v1.zip"	RAN5#86-e
7.6A.4 Narrow band blocking for CA	1	"38.521-1_TPanalysis_7.6A.4 Narrow band blocking for CA_v1.zip"	RAN5#86-e
7.6D.2 Inband blocking for UL-MIMO	3	"38.521-1_TPanalysis_7.6.2_InB_Block_v2.zip"	RAN5#5-5G-NR Adhoc
7.6D.3 Out-of-band blocking for UL-MIMO	3	"38.521-1_TPanalysis_7.6.3_OobBlocking_v2.zip"	RAN5#5-5G-NR Adhoc
7.6D.4 Narrow band blocking for UL-MIMO	3	"38.521-1_TPanalysis_7.6.4_NarrowbBlocking_v2.zip"	RAN5#5-5G-NR Adhoc
7.7 Spurious response	3	"38.521-1_TPanalysis_7.7_Spurious response.zip"	RAN5#4-5G-NR Adhoc
7.7D Spurious response for UL-MIMO	3	"38.521-1_TPanalysis_7.6.3_OobBlocking_v2.zip"	RAN5#83
7.8.2 Wide band Intermodulation	3	"38.521- 1_TPanalysis_7.8.2_WidebandIntermod_v2.zip"	RAN5#5-5G-NR Adhoc
7.8A Wide band Intermodulation for CA	1	"38.521-1_TPanalysis_7.8A Wide band Intermodulation for CA_v1.zip"	RAN5#86-e
7.8D.2 Wide band Intermodulation for UL- MIMO	3	"38.521- 1_TPanalysis_7.8.2_WidebandIntermod_v2.zip"	RAN5#5-5G-NR Adhoc
7.9 Spurious emissions	3	"38.521-1_TPanalysis_7.9_RxSpurious.zip"	RAN5#81

4.1.1.2 FR1 SUL test cases

This section contains information on test point selection for SUL test cases 6.2C, 6.4C, 6.5C in [2]. The basic principle is following the same rules for test point selection in single carrier test cases. In these SUL test cases, there are default test points to be used unless SUL configuration specific test points are over-ruling.

For Test environment: Adopt the same selection of test environment in corresponding single carrier test cases.

For Test frequency: Considering that Non-SUL carrier should have no impact on SUL carrier testing results, for any SUL configurations, Mid range is chosen as default for Non-SUL carrier. Select the same test frequency in corresponding single carrier test cases for SUL carrier.

For Test SCS: Considering only 15 kHz SCS is supported for SUL bands, it's reasonable to select 15 kHz SCS for SUL carrier and Non-SUL carrier regardless of SUL configurations.

For Test channel bandwidths: Under the limit of 15 kHz SCS, only the lowest channel bandwidth is supported for current Non-SUL bands in SUL configurations, which are band n78 and n79. Select the lowest channel bandwidth that support 15kHz SCS for Non-SUL carrier. Select the same test channel bandwidths as in corresponding single carrier test cases for SUL carrier.

For waveform, modulation and RB allocations: Adopt the same selection of test configurations as in corresponding single carrier test cases for SUL carrier.

Number of test points for SUL test cases in FR1 are listed in table 4.1.1.2-1 and table 4.1.1.2-2.

Table 4.1.1.2-1: Number of test points for SUL test cases in FR1 (NR UE Transmitter test)

Subclause	Number of test points	Comments
6.2C.1 Configured transmitted power	30	RAN5#86e
for SUL		
6.2C.3 UE maximum output power for	270	RAN5#86e
SUL		
6.2C.4 UE maximum output power	640	RAN5#86e
reduction for SUL		
6.2C.5 UE additional maximum output	Table 4.1.1.1-1	RAN5#87e
power reduction for SUL		DANIE WOT
6.3C.1 Minimum output power for SUL	45	RAN5#87e
6.3C.3 Transmit ON/OFF time mask	45	RAN5#87e
for SUL	-	DANIE (107)
6.3C.4.1 Absolute power tolerance	3	RAN5#87e
for SUL 6.3C.4.2 Power Control Relative	TBD	DANE (107-
	IRD	RAN5#87e
power tolerance for SUL	PUCCH: 3	RAN5#87e
6.3C.4.3 Aggregate power tolerance for SUL	PUSCH: 3	RAINO#67e
6.4C.1 Frequency error for SUL	5	RAN5#86e
6.4C.2.1 Error Vector Magnitude for	PUSCH: 84	RAN5#86e
SUL	PUCCH: 24	KAN5#60e
301	PRACH: 12	
6.5C.1 Occupied bandwidth for SUL	18	RAN5#86e
6.5C.2.2 Spectrum Emission Mask	108 for PC3	RAN5#86e
for SUL	108 for PC2	TO WHOMOGO
6.5C.2.3 Additional spectrum	27	RAN5#86e
emission mask for SUL	- -	1 4 4 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
6.5C.2.4.1NR ACLR for SUL	640 for PC3	RAN5#86e
	640 for PC2	
6.5C.2.4.2UTRA ACLR for SUL	Table 4.1.1.1-1	RAN5#86e
6.5C.3.1 General spurious	27	RAN5#86e
emissions for SUL		
6.5C.3.2 Spurious emission for UE	27	RAN5#86e
co-existence for SUL		
6.5C.3.3 Additional spurious	115 for NS_05	RAN5#87e
emissions for SUL	28 for NS_43	
6.5C.4 Transmit intermodulation for	4	RAN5#86e
SUL		

Table 4.1.1.2-2: Number of test points for SUL test cases in FR1 (NR UE Receiver test)

Subclause	Number of test points	Comments
7.3C.2 Reference sensitivity power level for SUL	15	RAN5#84
7.6C.2 Inband Blocking for SUL	3	RAN5#87e
7.6C.3 Out-of-band blocking for SUL	3	RAN5#87e

4.1.2 Test point analysis per NS value

4.1.2.1 A-MPR, A-SEM and A-SE FR1 test cases for single carrier and UL MIMO

This section contains information on test point selection for single carrier test cases 6.2.3, Additional Maximum Power Reduction (A-MPR), 6.5.2.3 Additional spectrum emission mask (A-SEM) and 6.5.3.3 Additional spurious emissions (A-SE); and for correspondent UL-MIMO test cases in 6.2D.3 and 6.5D.3.3 in [2].

Selection of test points should include some possible worst combinations based on the A-MPR characteristics specified for each NS value and these shall be selected so that they match with corresponding spectrum emission requirements test points. The number of test points should be realistic.

Table 4.1.2.1-1 lists number of test points for A-MPR, A-SEM and A-SE single carrier test cases and for different NS values.

Table 4.1.2.1-1: NS value specific test points for A-MPR single carrier

NS label	Number of test points for A-MPR	Number of test points A- SEM	Number of test points A-SE	Justification	Comments
	6.2.3: 80				
NS_03	40 for SUL testing			"38.521-1_TPanalysis_6.2.3_AMPR_NS_03.zip"	RAN5#85
NS_04	6.2.3: 220 6.2D.3: 112 6.5D.3.3:112			"38.521- 1_TPanalysis_6.2.3_AMPR_NS_04_v2.zip"	RAN5#5- 5G-NR Adhoc
NS_05	6.5.3.3: 432			"38.521-1_TP analysis_6.5.3.3_TX_Additional_Spurious_Emissio n_NS_05.zip"	RAN5#87-e
NS_05, NS_05U	6.2.3: 288			"38.521- 1_TPanalysis_6.2.3_AMPR_NS_05_v2.zip"	RAN5#86
NS_17	6.5.3.3: 4			"38.521- 1_TPanalysis_6.5.3.3_TX_Additional_Spurious_E mission_NS_17.zip"	RAN5#88-e
NS_18	88 6.2.3: 108 6.5.3.3: 54			"38.521- 1_TPanalysis_6.2.3_AMPR_6.5.3.3_ASE_NS_18_ v3.zip"	RAN5#89-e
NS_21	180			"38.521-1_TPanalysis_6.2.3_AMPR_NS_21.zip"	RAN5#89-e
NS_24	6.2.3: 300			"38.521-1_TPanalysis_6.2.3_AMPR_NS_24.zip"	RAN5#87
NS_27	6.2.3: 252			"38.521-1_TPanalysis_6.2.3_AMPR_NS_27.zip"	RAN5#87
NS_35	6.2.3: 144 6.2.3: 72			"38.521- 1_TPanalysis_6.2.3_AMPR_NS_35_v2.zip"	RAN5#5- 5G-NR- Adhoc
NS_37	6.2.3: 48			"38.521-1_TPanalysis_6.2.3_AMPR_NS_37.zip"	RAN5#86
NS_38	6.2.3: 96			"38.521-1_TPanalysis_6.2.3_AMPR_NS_38.zip"	RAN5#86
NS_39	6.2.3: 54			"38.521-1_TPanalysis_6.2.3_AMPR_NS_39.zip"	RAN5#86
NS_40	6.2.3: 24			"38.521-1_TPanalysis_6.2.3_AMPR_NS_40.zip"	RAN5#87
NS_41	6.2.3: 72			"38.521-1_TPanalysis_6.2.3_AMPR_NS_41.zip"	RAN5#87
NS_42	6.2.3: 108			"38.521-1_TPanalysis_6.2.3_AMPR_NS_42.zip"	RAN5#87
110 10	6.2.3: 28			"38.521- 1_TPanalysis_6.2.3_AMPR_NS_43_v2.zip"	RAN5#86
NS_43	6.5.3.3: 81			"38.521-1_TP analysis_6.5.3.3_TX_Additional_Spurious_Emissio n_NS_43.zip"	RAN5#87-e
NS_43U	6.2.3: 72			"38.521-1_TPanalysis_6.2.3_AMPR_NS_43U.zip"	RAN5#85
NS_44	360			"38.521- 1_TPanalysis_6.2.3_AMPR_6.5.3.3_ASE_NS_44. zip"	RAN5#89-e
NS_45	24			"38.521-1_TPanalysis_6.2.3_AMPR_NS_45.zip"	RAN5#89-e
NS_46	176			"38.521-1_TPanalysis_6.2.3_AMPR_NS_46.zip"	RAN5#89-e
NS_47	70			"38.521-1_TPanalysis_6.2.3_AMPR_NS_47.zip"	RAN5#87
NS_48	192			"38.521-1_TPanalysis_6.2.3_AMPR_NS_48.zip"	RAN5#88-e
NS_100	72			"38.521-1_TPanalysis_6.2.3_AMPR_NS_100.zip"	RAN5#85

4.1.2.2 A-MPR test cases for FR1 UL CA

This section contains information on test point selection for test case 6.2A.3.1 in [2], UE additional maximum output power reduction for CA.

TS 38.101 [3] specifies band dependent NS-values, which in the inter-band UL CA test cases become a combination of two NS-values. Testing all possible combinations would lead to too excessive testing and the combinations that are realistic should therefore be prioritized. This selection is documented in table 4.1.1.1-1.

CA config Justification NS values in same order Number Applicab Comment with UL CA as Uplink CA of test le test support (Note Configuration column points case 1) CA n3-n78 NS_100 NS_01 24 N/A "38.521-1_TP analysis 6.2A.3 RAN5#87-e CA n8-n78 NS 100+NS 01.zip" CA n8-n78 NS 43 NS 01 12 N/A "38.521-1 TP analysis 6.2A.3 RAN5#88-e NS_43+NS_01.zip" NS_43U NS_01 12 N/A "38.521-1_TP analysis 6.2A.3 RAN5#88-e CA_n8-n78 NS_43U+NS_01.zip" Note 1: As per TS 38.101.

Table 4.1.2.2-1: A-MPR test coverage per CA configuration for inter-band CA with 2 CC

The analyses are performed per NS-value and are stored as zip-files as defined in annex A. The general principle for selection of test points is:

- Test the minimum Total power backoff value
- Test the maximum Total power backoff value
- Test the maximum unbalanced Total power backoff among CCs (max P_{CMAX.c} difference).

Where the Total power backoff value means: MAX[MPR, A-MPR]

4.1.3 Test point analysis per NR CA configuration

4.1.3.1 Reference Sensitivity test cases for FR1 NR CA

4.1.3.2 Spurious emissions test cases for FR1 UL CA

In this case, it is sufficient to verify the minimum requirements in frequency ranges affected by 2nd and 3rd order intermodulation products. The frequency ranges and UL RB allocations used in the test are calculated here.

The analyses are performed per CA configuration and are stored as zip-files as defined in annex A.

Table 4.1.3.2-1: Frequency range analysis availability per CA configuration

CA config	Justification	Comments
CA_n1A-n78A	38.521-1_TpAnalysisSpur(CA_n1A-n78A)v2.zip	Added at RAN5#88e
CA_n3A-n78A	TpAnalysisSpur(n3A-n78A).zip	Added at RAN5#82
CA_n8A-n78A	TpAnalysisSpur(n8A-n78A).zip	Added at RAN5#82
CA n41A-n79A	TpAnalysisSpur(n41A-n79A), zip	Added at RAN5#83

4.2 Test point analysis for FR2 test cases in TS 38.521-2

4.2.1 Test point analysis per test case

4.2.1.1 FR2 single carrier, NR CA and UL MIMO test cases

This clause contains information on test point analysis and test point selection for single carrier, NR CA and UL MIMO test cases in [3] clause 6 and 7 with information about transmitting test point selection for FR2 listed in table 4.2.1.1-1 and receiver test point selection in table 4.2.1.1-2.

Table 4.2.1.1-1: NR UE transmitter test point selection for FR2

Subclause	Number of test points	Justification in attachment	Comments
6.2.1 UE maximum output power	х	"38.521-2_TPanalysis_6.2.1_MOP_v2.zip"	RAN5#5-5G-NR Adhoc
6.2.2 UE maximum output power reduction	power class 1: 90 power class 2&3&4: 84	"38.521- 2_TPanalysis_6.2.2_MPR_6.5.2.1_SEM_6.5.2.3_NR_ ACLR.zip"	RAN5#89-e
6.2A.1.1 UE maximum output power - EIRP and TRP for CA	TRP: 4 EIRP: 20	"38.521-2_TPanalysis_6.2A.1.x_MOP_Spherical Coverage_CA_v1"	RAN5#84
6.2A.1.2 UE maximum output power - Spherical coverage for CA	20	"38.521-2_TPanalysis_6.2A.1.x_MOP_Spherical Coverage_CA_v1"	RAN5#84
6.2A.2 UE maximum output power reduction for CA	FFS	"38.521-2_TPanalysis_6.2A.2_MPR for CA"	RAN5#84
6.3.1 Minimum output power	9	"38.521-2_TP analysis_6.3.1_MinOP_v2.zip"	RAN5#84
6.3.2 Transmit OFF power	3	"38.521-2_TPanalysis_6.3.2_Tx_OFF_power"	RAN5#83
6.3.4.3 Relative power tolerance	FFS	"38.521-2_TPanalysis_6.3.4.3_RelPtol.zip"	RAN5#82
6.3.4.4 Aggregate power tolerance	PUCCH: 6 PUSCH: 6	"38.521-2_TPanalysis_6.3.4.4_AggPtol.zip"	RAN5#82
6.3A.1.1 Minimum output power for CA (2UL CA)	4	"38.521-2_TP analysis_6.3A.1.1_MinOP.zip"	RAN5#83
6.3A.2.1 Transmit OFF power for CA (2UL CA)	3	"38.521- 2_TPanalysis_6.3A.2.1_Tx_OFF_Power_CA.zip"	RAN5#88-e

6.3.A.4.2.1 Absolute power tolerance for CA (2UL CA) 6.3.A.4.2.2 Absolute power tolerance for CA (3UL CA) 6.3.A.4.2.3 Absolute power tolerance for CA (4UL CA) 6.3.A.4.2.3 Absolute power tolerance for CA (4UL CA) 6.3.A.4.2.4 Absolute power tolerance for CA (5UL CA) 6.3.A.4.2.4 Absolute power tolerance for CA (5UL CA) 6.3.A.4.2.5 Absolute power tolerance for CA (5UL CA) 6.3.A.4.2.5 Absolute power tolerance for CA (6UL CA) 6.3.A.4.2.6 Absolute power tolerance for CA (6UL CA) 6.3.A.4.2.6 Absolute power tolerance for CA (6UL CA) 6.3.A.4.2.7 Absolute power tolerance for CA (6UL CA) 6.3.A.4.2.7 Absolute power tolerance for CA (8UL CA) 6.3.A.4.2.7 Absolute power for UL MIMO 6.3
Dower tolerance for CA 38.521-2_TP analysis_6.3A.4.2.1_AbsPCTol_CA.zip RAN5#85
6.3A.4.2.3 Absolute power tolerance for CA (4UL CA) 6 38.521-2_TP analysis_6.3A.4.2.1_AbsPCTol_CA.zip RAN5#85 6.3A.4.2.4 Absolute power tolerance for CA (5UL CA) 6 38.521-2_TP analysis_6.3A.4.2.1_AbsPCTol_CA.zip RAN5#85 6.3A.4.2.5 Absolute power tolerance for CA (6UL CA) 6 38.521-2_TP analysis_6.3A.4.2.1_AbsPCTol_CA.zip RAN5#85 6.3A.4.2.6 Absolute power tolerance for CA (7UL CA) 6 38.521-2_TP analysis_6.3A.4.2.1_AbsPCTol_CA.zip RAN5#85 6.3A.4.2.7 Absolute power tolerance for CA (8UL CA) 6 38.521-2_TP analysis_6.3A.4.2.1_AbsPCTol_CA.zip RAN5#85 6.3D.1 Minimum output power for UL MIMO 9 "38.521-2_TP analysis_6.3.1_MinOP_v2.zip" RAN5#84 6.3D.3.4 SRS time mask for UL-MIMO 18 "38.521-2_TP analysis_6.3.3.2_SRS_M_UL-MSH80 RAN5#85 6.4.1 Frequency error 1 "38.521-2_TPanalysis_6.4.1_FreqErr.zip" RAN5#80 6.4.2.1 Error Vector Magnitude PUSCH: 168 PUCCH: 24 PRACH: 24 "38.521-2_TPanalysis_6.4.2.1_EVM.zip" RAN5#89-e 6.4.2.2 Carrier leakage 3 "38.521-2_TPanalysis_6.4.2.2_CarrLeak_v2.zip" RAN5#89-e 6.4.2.4 EVM equalizer spectrul flatness 18 "38.521-1_TPanalysis_6.4.2.4_6.4.2.5_EVMequalizerSpectrul mFlatness.zip"
6.3A.4.2.4 Absolute power tolerance for CA (SUL CA) 6 38.521-2_TP analysis_6.3A.4.2.1_AbsPCTol_CA.zip RAN5#85 6.3A.4.2.5 Absolute power tolerance for CA (GUL CA) 6 38.521-2_TP analysis_6.3A.4.2.1_AbsPCTol_CA.zip RAN5#85 6.3A.4.2.6 Absolute power tolerance for CA (FUL CA) 6 38.521-2_TP analysis_6.3A.4.2.1_AbsPCTol_CA.zip RAN5#85 6.3A.4.2.7 Absolute power tolerance for CA (BUL CA) 6 38.521-2_TP analysis_6.3A.4.2.1_AbsPCTol_CA.zip RAN5#85 6.3D.1 Minimum output power for UL MIMO 9 "38.521-2_TP analysis_6.3A.4.2.1_AbsPCTol_CA.zip RAN5#85 6.3D.3.4 SRS time mask for UL-MIMO 18 "38.521-2_TP analysis_6.3.1_MinOP_v2.zip" RAN5#85 6.4.1 Frequency error 1 "38.521-2_TP analysis_6.3.3.2_SRS_M_UL-MASSES RAN5#85 6.4.2.1 Error Vector Magnitude PUSCH: 168 PUCCH: 24 PRACH: 24 "38.521-2_TPanalysis_6.4.2.1_EVM.zip" RAN5#3-5G-NR Adhoc 6.4.2.2 Carrier leakage 3 "38.521-2_TPanalysis_6.4.2.2_CarrLeak_v2.zip" RAN5#89-e 6.4.2.4 EVM equalizer spectrul flatness 18 "38.521-1_TPanalysis_6.4.2.5_EVMequalizerSpectru mFlatness RAN5#3-5G-NR Adhoc
Dower tolerance for CA (6UL CA) 38.521-2_TP analysis_6.3A.4.2.1_AbsPCTol_CA.zip (BUL CA) 6.3A.4.2.6 Absolute power tolerance for CA (7UL CA) 6 38.521-2_TP analysis_6.3A.4.2.1_AbsPCTol_CA.zip (RAN5#85 (7UL CA) 6.3A.4.2.7 Absolute power tolerance for CA (8UL CA) 6.3D.1 Minimum output power for UL MIMO 9 "38.521-2_TP analysis_6.3A.4.2.1_AbsPCTol_CA.zip (RAN5#85 (8UL CA) 6.3D.1 Minimum output power for UL MIMO 9 "38.521-2_TP analysis_6.3.1_MinOP_v2.zip" RAN5#84 6.3D.3.4 SRS time mask for UL-MIMO 18 "38.521-2_TP analysis_6.3.3.2_SRS_M_UL- MIMO.zip" RAN5#85 6.4.2.1 Error Vector Magnitude PUSCH: 168 PUCCH: 24 PRACH: 24 PRACH: 24 6.4.2.2 Carrier leakage 3 "38.521-2_TPanalysis_6.4.2.1_EVM.zip" RAN5#89-e 6.4.2.3 In-band emissions PUSCH: 18 "38.521-1_TPanalysis_6.4.2.3_IE_v2.zip" RAN5#89-e 6.4.2.4 EVM equalizer spectrum flatness 18 "38.521-1_TPanalysis_6.4.2.5_EVMequalizerSpectru mFlatness.zip" RAN5#3-5G-NR Adhoc RAN5#3-5G-NR Adhoc RAN5#3-5G-NR Adhoc RAN5#3-5G-NR Adhoc RAN5#3-5G-NR RAN5#3-5G-NR Adhoc RAN5#3-5G-NR RAN5#3-5G-NR Adhoc RAN5#3-5G-NR RAN5#3-5G-NR Adhoc RAN5#3-5G-NR RAN5#89-e RAN5#89-e RAN5#89-e RAN5#3-5G-NR RAN5#89-e RAN5#89-e RAN5#3-5G-NR RAN5#89-e
Dower tolerance for CA (7UL CA) 6 38.521-2_TP analysis_6.3A.4.2.1_AbsPCTol_CA.zip RAN5#85
power tolerance for CA (8UL CA) 6 38.521-2_TP analysis_6.3A.4.2.1_AbsPCTol_CA.zip RAN5#85 6.3D.1 Minimum output power for UL MIMO 9 "38.521-2_TP analysis_6.3.1_MinOP_v2.zip" RAN5#84 6.3D.3.4 SRS time mask for UL-MIMO 18 "38.521-2_TP analysis_6.3.3.2_SRS_M_UL-MIMO_Eip" RAN5#85 6.4.1 Frequency error 1 "38.521-2_TP analysis_6.4.1_FreqErr.zip" RAN5#80 6.4.2.1 Error Vector Magnitude PUSCH: 168 PUCCH: 24 PRACH: 24 "38.521-2_TPanalysis_6.4.2.1_EVM.zip" RAN5#3-5G-NR Adhoc 6.4.2.2 Carrier leakage 3 "38.521-2_TPanalysis_6.4.2.2_CarrLeak_v2.zip" RAN5#89-e 6.4.2.3 In-band emissions PUSCH: 36 PUCCH: 18 "38.521-1_TPanalysis_6.4.2.3_IE_v2.zip" RAN5#89-e 6.4.2.4 EVM equalizer spectrum flatness 18 "38.521-1_TPanalysis_6.4.2.4_6.4.2.5_EVMequalizerSpectrum mFlatness.zip" RAN5#3-5G-NR Adhoc
Satisfies Sati
mask for UL-MIMO 18 MIMO.zip" RAN5#85 6.4.1 Frequency error 1 "38.521-2 TPanalysis_6.4.1_FreqErr.zip" RAN5#80 6.4.2.1 Error Vector Magnitude PUSCH: 168 PUCCH: 24 PRACH: 24 "38.521-2 TPanalysis_6.4.2.1_EVM.zip" RAN5#3-5G-NR Adhoc 6.4.2.2 Carrier leakage 3 "38.521-2 TPanalysis_6.4.2.2 CarrLeak_v2.zip" RAN5#89-e 6.4.2.3 In-band emissions PUSCH: 36 PUCCH: 18 "38.521-1_TPanalysis_6.4.2.3_IE_v2.zip" RAN5#89-e 6.4.2.4 EVM equalizer spectrum flatness 18 "38.521-2_TPanalysis_6.4.2.4_6.4.2.5_EVMequalizerSpectrum flatness.zip" RAN5#3-5G-NR Adhoc
6.4.2.1 Error Vector Magnitude PUSCH: 168 PUCCH: 24 PRACH: 24 "38.521-2_TPanalysis_6.4.2.1_EVM.zip" RAN5#3-5G-NR Adhoc 6.4.2.2 Carrier leakage 3 "38.521-2_TPanalysis_6.4.2.2_CarrLeak_v2.zip" RAN5#89-e 6.4.2.3 In-band emissions PUSCH: 36 PUCCH: 18 "38.521-1_TPanalysis_6.4.2.3_IE_v2.zip" RAN5#89-e 6.4.2.4 EVM equalizer spectrum flatness 18 "38.521- 2_TPanalysis_6.4.2.4_6.4.2.5_EVMequalizerSpectru mFlatness.zip" RAN5#3-5G-NR Adhoc
6.4.2.1 Error Vector Magnitude PUSCH: 168 PUCCH: 24 PRACH: 24 "38.521-2_TPanalysis_6.4.2.1_EVM.zip" RAN5#3-5G-NR Adhoc 6.4.2.2 Carrier leakage 3 "38.521-2_TPanalysis_6.4.2.2_CarrLeak_v2.zip" RAN5#89-e 6.4.2.3 In-band emissions PUSCH: 36 PUCCH: 18 "38.521-1_TPanalysis_6.4.2.3_IE_v2.zip" RAN5#89-e 6.4.2.4 EVM equalizer spectrum flatness 18 "38.521- 2_TPanalysis_6.4.2.4_6.4.2.5_EVMequalizerSpectru mFlatness.zip" RAN5#3-5G-NR Adhoc
6.4.2.3 In-band emissions PUSCH: 36 PUCCH: 18 "38.521-1_TPanalysis_6.4.2.3_IE_v2.zip" RAN5#89-e 6.4.2.4 EVM equalizer spectrum flatness 18 "38.521- 2_TPanalysis_6.4.2.4_6.4.2.5_EVMequalizerSpectru mFlatness.zip" RAN5#3-5G-NR Adhoc
6.4.2.3 In-band emissions PUSCH: 36 PUCCH: 18 "38.521-1_TPanalysis_6.4.2.3_IE_v2.zip" RAN5#89-e RAN5#89-e 6.4.2.4 EVM equalizer spectrum flatness 18 "38.521- 2_TPanalysis_6.4.2.4_6.4.2.5_EVMequalizerSpectrum flatness.zip" RAN5#3-5G-NR Adhoc
emissions PUCCH: 18 38.521-1_TPanalysis_6.4.2.3_IE_V2.2lp 6.4.2.4 EVM equalizer spectrum flatness 18 38.521- 2_TPanalysis_6.4.2.4_6.4.2.5_EVMequalizerSpectru mFlatness.zip" RAN5#3-5G-NR Adhoc
spectrum flatness 18 2_TPanalysis_6.4.2.4_6.4.2.5_EVMequalizerSpectru mFlatness.zip" RAN5#3-5G-NR Adhoc
6.4.2.5 EVM spectral (400 F04
flatness for pi/2 BPSK modulation with spectrum shaping "38.521- 2_TPanalysis_6.4.2.4_6.4.2.5_EVMequalizerSpectru mFlatness.zip" RAN5#3-5G-NR Adhoc
6.4A.1 Frequency error for CA 1 "38.521-2_TPanalysis_6.4A.1_FreqErr_CA.zip" RAN5#87-e
6.4A.2.2 Carrier 2 "38.521- leakage for CA 2 2_TPanalysis_6.4A.2.2_CarrLeak_CA_v2.zip" RAN5#89-e
6.5.1 Occupied Bandwidth 12 "38.521-2_TPanalysis_6.5.1_OccBW_v2.zip" RAN5#89-e
6.5.2.1 Spectrum Emission Mask 90 "38.521- 2_TPanalysis_6.2.2_MPR_6.5.2.1_SEM_6.5.2.3_NR_ ACLR.zip" RAN5#2-5G-NR Adhoc RAN5#79 RAN5#80 RAN5#80- RAN5#89-e
6.5.2.3 Adjacent Channel Leakage Ratio TBD "38.521- 2_TPanalysis_6.2.2_MPR_6.5.2.1_SEM_6.5.2.3_NR_Adhoc RAN5#89-e
6.5.3.1 Spurious 2 "38.521-2_TPanalysis_6.5.3_TxSpurious_v2.zip" RAN5#84
6.5.3.2 Spurious emissions UE band co- 2 "38.521-2_TPanalysis_6.5.3_TxSpurious_v2.zip" RAN5#84 existence
6.5.3.3 Additional 2 "38.521-2_TPanalysis_6.2.3_AMPR_NS_201.zip" RAN5#84
6.5A.2.1 Spectrum Emission Mask for CA "38.521-2_TPanalysis_6.5A.2.1_SEM_CA.zip" RAN5#89-e
6.5A.2.2 Adjacent channel leakage ratio 52 "38.521-2_TPanalysis_6.5A.2.2_ACLR_CA.zip" RAN5#89-e
6.6 Beam 6 "38.521- 2_TPanalysis_6.6_Beam_Correspond_v1.zip" RAN5#85

RAN5#86-e

RAN5#81

RAN5#83

RAN5#83

Subclause

7.4 Maximum input level

7.5 Adjacent channel

7.6.2 In Band Blocking

7.3 Reference

sensitivity for CA

sensitivity
7.3A Reference

selectivity

Number of test points

9 "38.521-2_TPanalysis_7.3_RefSense.zip" RAN5#80

"38.521-2 TPanalysis 7.3A RefSenseCA.zip"

"38.521-2 TPanalysis_7.6.2 InB_Block_v1.zip"

"38.521-2_TPanalysis_7.5 ACS_v1.zip"

"38.521-2_TPanalysis_7.4_Maximun input level.zip"

Table 4.2.1.1-2: NR UE receiver test point selection for FR2

4.2.2 Test point analysis per NS value

4.2.2.1 A-MPR and A-SE FR2 test cases for single carrier

9

3

3

3

This section contains information on test point selection for test case 6.2.3 in [3] Additional Maximum Power Reduction (A-MPR) as well as the related spectrum emissions test case 6.5.3.3 in [3] Additional Spurious emission (A-SE). Selection of test points should include some possible worst combinations based on the A-MPR and spectrum emissions characteristics specified for each NS value. The number of test points should be realistic.

Since A-MPR is defined by RAN4 together with A-Spurious requirements, a combined analysis is required. In general, the following non-compliant UE behaviours need to be checked:

- a) UE apply too much A-MPR (more than RAN4 allow)
- b) UE apply to little A-MPR (causing too much spectrum emissions)

Case A can be verified in A-MPR test case

Case B can be verified in A-SE test case if it is ensured that the same test point is tested inside A-MPR test. Therefore, the test points in spectrum emissions test case must be a subset of the test points in the A-MPR test case.

Note: Even if there are identical test points in the MPR test case the A-MPR test case is still needed to verify UE output power when NS-value is signalled.

Table 4.2.2.1-1: NS value specific test points for A-MPR single carrier

NS label	Number of test points	Justification	Comments
NS_201	6.2.3: 2 6.5.3.3: 2	"38.521-2_TPanalysis_6.2.3_AMPR_NS_201_v2.zip"	RAN5#86-e

4.2.3 Test point analysis per NR CA configuration

4.2.3.1 Reference Sensitivity test cases for FR2 NR CA

FFS

4.3 Test point analysis for test cases in TS 38.521-3

4.3.1 Test point analysis per test case

4.3.1.1 EN-DC test cases

Table 4.3.1.1-1: NR UE transmitter test point selection for EN-DC

Subclause	Number of test points	Justification in attachment	Comments
6.2B.1.1 UE Maximum Output Power for Intra- Band Contiguous EN- DC	20	"38.521-3_TPanalysis_6.2B.1.1 _MOP_Intra_B_contig_v4.zip"	RAN5#88-e
6.2B.1.2 UE Maximum Output Power for Intra- Band Non-Contiguous EN-DC	40	"38.521-3_TPanalysis_6.2B.1.2_MOP_Intra_B_non-contig_v2.zip"	RAN5#87-e
6.2B.1.3 UE Maximum Output Power for Inter- Band EN-DC	600	"38.521-3_TPanalysis_6.2B.1.3 _MOP_Inter_B_Config_v2.zip"	RAN5#86-e
6.2B.2.1 UE Maximum Output Power reduction for Intra-Band Contiguous EN-DC	1880	"38.521- 3_TPanalysis_6.2B.2.1_MPR_6.5B.2.1_SEM_6.5B.2. 1.3_ACLR.zip"	RAN5#87-e
6.2B.2.2 UE Maximum Output Power reduction for Intra-Band Non- Contiguous EN-DC	Same as 6.2B.2.1	Same as 6.2B.2.1	RAN5#85
6.2B.2.3 UE Maximum Output Power reduction for Inter-Band EN-DC within FR1	Same as Table 4.1.1-1, test case 6.5.2	Same as Table 4.1.1.1-1, test case 6.5.2.	RAN5#3-5G-NR Adhoc
6.2B.2.4 UE Maximum Output Power reduction for Inter-Band EN-DC including FR2	Same as Table 4.1.1-1, test case 6.2.2	Same as Table 4.1.1.1-1, test case 6.2.2	RAN5#5-5G-NR- Adhoc
6.2B.3.1 UE Additional Maximum Output Power	340	"38.521- 3_TPanalysis_6.2B.3.1_AMPR_NS_04_v3.zip"	RAN5#81
reduction for Intra-band contiguous EN-DC	8	"38.521-3_TPanalysis_6.2B.3.1_AMPR_NS_35.zip"	RAN5#3-5G-NR Adhoc
6.2B.4.1.1 Configured Output Power Level for Intra-Band Contiguous EN-DC	-UE not supporting DPS: 90 -UE supporting DPS: 120	"38.521- 3_TPanalysis_6.2B.4.1.1_ConfiguredTP_Intra_B_Cont ig_v2.zip"	RAN5#86-e
6.2B.4.1.2 Configured Output Power for Intra- Band Non-Contiguous EN-DC	-UE not supporting DPS: 70 -UE supporting DPS: 100	"38.521- 3_TPanalysis_6.2B.4.1.2_ConfiguredTP_Intra_B_Non -contig_v2.zip"	RAN5#86-e
6.2B.4.1.3 Configured Output Power for Inter- Band EN-DC within FR1	-UE not supporting DPS: 90 -UE supporting DPS: 140	"38.521- 3_TPanalysis_6.2B.4.1.3_ConfiguredTP_Inter_B_within_FR1_v2.zip"	RAN5#86-e
6.4B.2.1.3 In-band emissions for intra-band contiguous EN-DC	36	"38.521- 3_TPanalysis_6.4B.2.1.3_IBE_Intra_B_contig.zip"	RAN5#83
6.5B.1.1 Occupied bandwidth for Intra-Band Contiguous EN-DC	X= intra-band ENDC channel BWs supported by UE	"38.521- 3_TPanalysis_6.5B.1.1_OBW_Intra_B_contig.zip"	RAN5#3-5G-NR adhoc
6.5B.2.1.1 Spectrum emissions mask for	304	"38.521- 3_TPanalysis_6.2B.2.1_MPR_6.5B.2.1_SEM_6.5B.2.	RAN5#87-e

intra-band contiguous EN-DC		1.3_ACLR.zip"	
6.5B.2.1.3 Adjacent channel leakage ratio for intra-band contiguous EN-DC	2160	38.521- 3_TPanalysis_6.2B.2.1_MPR_6.5B.2.1_SEM_6.5B.2. 1.3_ACLR.zip""	RAN5#87-e
6.5B.3.1 Spurious Emissions for intra-band contiguous EN-DC	12	38.521-3_TP_analysis_6.5B.3_TX_SpurEmission_EN-DC_V2".zip"	RAN5#88e
6.5B.3.2 Spurious emission for intra-band non-contiguous EN-DC	12	38.521-3_TP_analysis_6.5B.3_TX_SpurEmission_EN-DC_V2".zip	RAN5#88e
6.5B.3.3 Spurious Emissions for Inter- band EN-DC within FR1	24	"38.521- 3_TP_analysis_38.905_6.5B.3_TX_SpurEmission_EN -DC.zip"	RAN5#82
6.5B.3.3.2 Spurious Emissions band UE co- existence for Inter-band within FR1	Note 1	"38.521- 3_TP_analysis_38.905_6.5B.3.3.2_TX_SpurEmission _EN-DC.zip"	RAN5#87-e
Note 1: The maximum nur	nber of test point i	s 24 if only default points are applied.	

Table 4.3.1.1-2: NR UE receiver test point selection for EN-DC

Subclause	Number of test points	Justification in attachment	Comments
7.3B Reference sensitivity for EN-DC	toot points	"38.521-3_TP analysis_7.3B_RxSense_EN-DC with FR1_v2.zip"	RAN5#89-e
7.4B.1 Maximum Input Level for Intra-Band Contiguous EN-DC	6	"38.521- 3_TPanalysis_7.4B.1.1_MaxIL_Intra_B_contig.zip"	RAN5#82
7.4B.2 Maximum Input Level for Intra-Band Non-Contiguous EN-DC	6	"38.521- 3_TPanalysis_7.4B.2_MaxIL_Intra_B_noncontig.zip"	RAN5#82
7.5B.1 Adjacent Channel Selectivity for intra-band contiguous EN-DC (2 CCs)	Same as Table 7.3B.2.1.4.1-1, test case 7.3B.2.1.	Same as Table 7.3B.2.1.4.1-1, test case 7.3B.2.1.	RAN5#85
7.6B.2.1 Inband blocking for intra-band contiguous EN-DC in FR1 (2 CCs)	2	"38.521- 3_TPanalysis_7.6B.2.1_IBB_Intra_B_contig.zip"	RAN5#87-e
7.6B.2.2 Inband blocking for intra-band non-contiguous EN-DC in FR1 (2 CCs)	1	"38.521-3_TPanalysis_7.6B.2.2_IBB_Intra_B_non-contig.zip"	RAN5#87-e
7.6B.2.3 Inband blocking for inter-band EN-DC within FR1 (2 CCs)	Same as Table 4.1-2, test case 7.6.2.	Same as Table 4.1-2, test case 7.6.2.	RAN5#87-e
7.6B.3.1 Out-of-band blocking for intra-band contiguous EN-DC in FR1 (2 CCs)	1	"38.521- 3_TPanalysis_7.6B.3.1_OOBB_Intra_B_contig.zip"	RAN5#87-e
7.6B.3.2 Out-of-band blocking for intra-band non-contiguous EN-DC in FR1 (2 CCs)	1	"38.521-3_TPanalysis_7.6B.3.2_OOBB_Intra_B_non-contig.zip"	RAN5#87-e
7.6B.3.3 Out-of-band blocking for inter-band EN-DC within FR1 (2 CCs)	1	"38.521- 3_TPanalysis_7.6B.3.3_OOBB_Inter_B_within FR1.zip"	RAN5#87-e
7.6B.4.1 Narrow band blocking for intra-band contiguous EN-DC in FR1 (2 CCs)	2	"38.521- 3_TPanalysis_7.6B.4.1_NBB_Intra_B_contig.zip"	RAN5#87-e
7.6B.4.2 Narrow band blocking for intra-band non-contiguous EN-DC in FR1 (2 CCs)	1	"38.521-3_TPanalysis_7.6B.4.2_NBB_Intra_B_non-contig.zip"	RAN5#87-e
7.6B.4.3 Narrow band blocking for inter-band EN-DC within FR1 (2 CCs)	Same as Table 4.1-2, test case 7.6.4.	Same as Table 4.1-2, test case 7.6.4.	RAN5#87-e
7.7B.1 Spurious Response for intra-band contiguous EN-DC in FR1 (2 CCs)	Same as Table 4.3-2, test case 7.6B.3.1.	Same as Table 4.3-2, test case 7.6B.3.1.	RAN5#87-e
7.7B.2 Spurious Response for intra-band non-contiguous EN-DC in FR1 (2 CCs)	Same as Table 4.3-2, test case 7.6B.3.2.	Same as Table 4.3-2, test case 7.6B.3.2.	RAN5#87-e
7.7B.3 Spurious Response for inter-band EN-DC within FR1 (2 CCs)	Same as Table 4.3-2, test case 7.6B.3.3.	Same as Table 4.3-2, test case 7.6B.3.3.	RAN5#87-e
7.8B.2.3 Wideband Intermodulation for inter-band EN-DC within FR1	Same as Table 4.1-2, test case 7.8.2.	Same as Table 4.1-2, test case 7.8.2.	RAN5#81

7.9A.1 Spurious emission for 2DL CA	3	"38.521-1_TPanalysis_7.9A_Spurious Emission_DL CA.zip"	RAN5#82
7.9B.3 Spurious	Same as Table		
Emissions for inter-band	4.1-2, test case	Same as Table 4.1-2, test case 7.9.	RAN5#81
EN-DC within FR1	7.9.		

4.3.2 Test point analysis per NS value

4.3.2.1 A-MPR and A-SE test cases for EN-DC

FFS

4.3.3 Test point analysis per EN-DC configuration

4.3.3.1 Reference sensitivity test cases for EN-DC

4.3.3.2 Spurious emissions test cases for EN-DC

In this case, it is sufficient to verify the minimum requirements in frequency ranges affected by 2nd and 3rd order intermodulation products. The frequency ranges and UL RB allocations used in the test are calculated here.

The analyses are performed per EN-DC configuration and are stored as zip-files as defined in annex A.

Table 4.3.3.2-1: Frequency range analysis availability per EN-DC configuration

EN-DC config	Justification	Comments
DC_1A_n3A	38.521-3_TpAnalysisSpur(DC_1A-n3A).zip	Added at RAN5#89-e
DC_1A_n78A	38.521-3_TpAnalysisSpur(DC_1A_n78A).zip	Added at RAN5#88-e
DC_2A_n5A	38.521-3_TpAnalysisSpur(DC_2A_n5A).zip	Added at RAN5#89-e
DC_2A_n66A	38.521-3_TpAnalysisSpur(DC_2A_n66A).zip	Added at RAN5#88-e
DC_2A_n78A	38.521-3_TpAnalysisSpur(DC_2A_n78A).zip	Added at RAN5#88-e
DC_3A_n1A	38.521-3_TpAnalysisSpur(DC_3A_n1A).zip	Added at RAN5#88-e
DC_3A_n7A	38.521-3_TpAnalysisSpur(DC_3A_n7A).zip	Added at RAN5#88-e
DC_3A_n41A	38.521-3_TpAnalysisSpur(DC_3A-n41A)_v1.zip	Added at RAN5#86-e
DC_3A_n78A	38.521-3_TpAnalysisSpur(DC_3A_n78A).zip	Added at RAN5#88-e
DC_3A_n79A	38.521-3_TpAnalysisSpur(DC_3A-n79A).zip	Added at RAN5#83
DC_5A_n66A	38.521-3_TpAnalysisSpur(DC_5A_n66A)_v1.zip	Added at RAN5#88-e
DC_5A_n78A	38.521-3_TpAnalysisSpur(DC_5A_n78A)_v1.zip	Added at RAN5#88-e
DC_7A_n1A	38.521-3_TpAnalysisSpur(DC_7A_n1A).zip	Added at RAN5#88-e
DC_7A_n66A	38.521-3_TpAnalysisSpur(DC_7A_n66A).zip	Added at RAN5#88-e
DC_7A_n78A	38.521-3_TpAnalysisSpur(DC_7A_n78A).zip	Added at RAN5#88-e
DC_8A_n1A	38.521-3_TpAnalysisSpur(DC_8A_n1A).zip	Added at RAN5#88-e
DC_8A_n41A	38.521-3_TpAnalysisSpur(DC_8A-n41A)_v1.zip	Added at RAN5#86-e
DC_8A_n78A	38.521-3_TpAnalysisSpur(DC_8A_n78A).zip	Added at RAN5#89-e
DC_12A_n66A	38.521-3_TpAnalysisSpur(DC_12A_n66A).zip	Added at RAN5#89-e
DC_12A_n78A	38.521-3_TpAnalysisSpur(DC_12A_n78A).zip	Added at RAN5#88-e
DC_13A_n66A	38.521-3_TpAnalysisSpur(DC_13A_n66A).zip	Added at RAN5#89-e
DC_20A_n3A	38.521-3_TpAnalysisSpur(DC_20A-n3A).zip	Added at RAN5#89-e
DC_28A_n3A	38.521-3_TpAnalysisSpur(DC_28A_n3A).zip	Added at RAN5#88-e
DC_30A_n5A	38.521-3_TpAnalysisSpur(DC_30A_n5A).zip	Added at RAN5#89-e
DC_39A_n41A	38.521-3_TpAnalysisSpur(DC_39A-n41A).zip	Added at RAN5#83
DC_39A_n79A	38.521-3_TpAnalysisSpur(DC_39A-n79A).zip	Added at RAN5#83
DC_40A_n1A	38.521-3_TpAnalysisSpur(DC_40A_n1A).zip	Added at RAN5#88-e
DC_40A_n41A	38.521-3_TpAnalysisSpur(DC_40A-n41A).zip	Added at RAN5#83
DC_40A_n78A	38.521-3_TpAnalysisSpur(DC_40A_n78A).zip	Added at RAN5#88-e
DC_41A_n79A	38.521-3_TpAnalysisSpur(DC_41A-n79A).zip	Added at RAN5#83
DC_66A_n2A	38.521-3_TpAnalysisSpur(DC_66A_n2A).zip	Added at RAN5#88-e
DC_66A_n5A	38.521-3_TpAnalysisSpur(DC_66A-n5A).zip	Added at RAN5#87-e
DC_66A_n78A	38.521-	Added at RAN5#88-e
	3_TpAnalysisSpur(DC_66A_n78A)_v1.zip	

Annex A: Derivation documents

The documents and spreadsheets used to give the background for the selected test points for each test case are included in the present document as zip files.

The name of the zip shall:

- Include a prefix allowing easier grouping of fi"38.521-1_TPanalysis", "38.521-2_TPanalysis" or "38.521-3_TPanalysis".les in the same area, e.g. .
- Include Test Case Number(s) and an abbreviation Test Case Name, e.g. "6.2.1_MOP", "7.6.2.InB_Block" or "6.2.1_MOP+6.2.2_MPR".
- In cases where multiple analysis is needed per test cases, e.g. for different CA configurations, include the CA band combination applicable in the parentheses, e.g. add "(1A-3A)" for CA 1A-3A.

Concatenated example file name: "38.521-1_TPanalysis_6.2.1_MOP.zip".

If there is an update of test points for a test case the old corresponding zip file shall be replaced with a new zip file with a version stepping in the file name. e.g. "nnn_v2.zip". The aim is to provide a reference to completed test cases, so that test points for similar test cases can be selected on a common basis.

Annex B: Change history

						Change history	
Date	Meeting	TDoc	CR	R	Cat	Subject/Comment	New
2017-09	RAN5#76	R5-174704	-	ev	_	Draft skeleton TR 38.905	version 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 "	0.1.0
						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 FR1R5-181832, "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"	
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" R5-185403, "Discussion on test point selection for NR Out-of-band in FR1" R5-185403, "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	1.0.0
2018-09	RAN#81	-	-	-	_	test point analysis" raised to v15.0.0 with editorial changes only	15.0.0

2018-12 RANN92 R-516865 0017 F TP analysis for EN-DC test case 6.28.2.3 15.10	2018-12	RAN#82	R5-186454	0016	1_	F	TP analysis for test case 6.5.2.4.2	15.1.0
2018-12 RANNEZ R5-186619 0019 - F TP_analysis for TX spurious emission UE co-existence for intra- 15.1.0 band cortiguous EN-DC with FR1 15.1.0 band Environment of the State of the		1		_	-			
2018-12 RANN82 R5-18691 0020 F TP analysis for Reference sensitivity for Intra-band Contiguous EN. 15.1.0 2018-12 RANN82 R5-18691 0021 F TP analysis for Reference sensitivity for Intra-band Contiguous EN. 15.1.0 2018-12 RANN82 R5-186710 0022 F TP analysis for Reference sensitivity for Intra-band Contiguous EN. 2018-12 2018-12 RANN82 R5-186710 0022 F Test point analysis for AMPR Intra-band contiguous EN. 2018-15 2018-12 RANN82 R5-186791 0028 F TP analysis for International CN-DC including PROF. 15.1.0 2018-12 RANN82 R5-186791 0028 F TP analysis for International CN-DC including PROF. 15.1.0 2018-12 RANN82 R5-187035 0031 F TP analysis for International CN-DC including PROF. 15.1.0 2018-12 RANN82 R5-187035 0031 F TP analysis for International CN-DC including PROF. 15.1.0 2018-12 RANN82 R5-187035 0031 F TP analysis for International CN-DC including PROF. 15.1.0 2018-12 RANN82 R5-187036 0037 F TP analysis for International CN-DC including PROF. 15.1.0 2018-12 RANN82 R5-187036 0037 F TP Undate test points analysis for multiple R1 test cases 15.1.0 2018-12 RANN82 R5-187036 0037 F TP Undate test points analysis for multiple R1 test point analyses, NS 04 NS. 04 2018-12 RANN82 R5-187036 0042 F TP Panalysis for FR1 test case 6.3.4.3 relative power tolerance 15.1.0 2018-12 RANN82 R5-187036 0042 F TP Panalysis for FR1 test case 6.3.4.3 relative power tolerance 15.1.0 2018-12 RANN82 R5-187036 0045 F Discussion on test point selection for EVM equalizer spectrum International 2018-12 RANN82 R5-187036 0047 F Discussion on test point selection for EVM equalizer spectrum International 2018-12 RANN82 R5-187038 0047 F Discussion on test point selection for EVM equalizer spectrum International 2018-12 RANN82 R5-187038 0047 F Discussion on test point selection for EVM equalizer spectrum International 2018-12 RANN82 R5-187038 0047 F Discussion on test point selection for EVM equalizer spectrum International 2018-12 RANN82 R5-18708 0047 F Discussion on test point selection for EVM equalizer				_	-		TP_analysis for TX spurious emission UE co-existence for intra-	
2018-12 RANN82 R5-186714 0021 F Test point analysis for AMPR Intra-band contiguous EN-DC in FR1 15.10 for NS 35 10.10 10.1	2018-12	RAN#82	R5-186610	0019	-	F	TP analysis for Reference sensitivity for Intra-band Contiguous EN-	15.1.0
2018-12 RANN82 R5-186710 0022 - F Test point analysis for AMPR Intra-band contiguous EN-DC in FR1 15.10 for NS 35 12 12 12 RANN82 R5-186710 0022 - F TP analysis for test case 6.28.2.4. UE Maximum Output Power 15.1.0 reduction for Inter-Band EN-DC including FR2 2018-12 RANN82 R5-186731 0028 - F TP analysis ES With Intraband contiguous EN-DC 15.1.0 reduction for Inter-Band EN-DC including FR2 2018-12 RANN82 R5-186732 0029 - F TP analysis ES With Intraband contiguous EN-DC 15.1.0 2018-12 RANN82 R5-186732 0037 - F Update lest points analysis for multiple FR1 test cases 15.1.0 2018-12 RANN82 R5-186732 0037 - F Update lest points analysis for multiple FR1 test cases 15.1.0 2018-12 RANN82 R5-18672 0037 - F Update of TR 38.906 with EN-DC A-MPR test point analyses, NS 04 15.1.0 2018-12 RANN82 R5-18672 0041 - F TP analysis ES With EN-DC A-MPR test point analyses, NS 04 15.1.0 2018-12 RANN82 R5-18672 0041 - F TP analysis for FR1 test case 6.3.4.3 relative power toterance 15.1.0 2018-12 RANN82 R5-187638 0042 - F TP analysis for FR1 test case 6.3.4.3 relative power toterance 15.1.0 2018-12 RANN82 R5-187638 0044 - F Discussion on test point selection for EVM in FR2 15.1.0 2018-12 RANN82 R5-187638 0044 - F Discussion on test point selection for EVM equalizer spectrum flatins in FR2 15.1.0 2018-12 RANN82 R5-187639 0047 - F Discussion on test point selection for EVM equalizer spectrum flatins in FR2 15.1.0 R5-187639 0047 - F Discussion on test point selection for EVM equalizer spectrum flatins in FR2 15.1.0 R5-187639 0047 - F Discussion on test point selection for EVM equalizer spectrum flatins in FR2 15.1.0 R5-187639 0035 1 F TP analysis for receiver spurious emission tests for FR1 inter-band 15.1.0 R5-187639 0035 1 F TP analysis for wideband intermodulation tests for FR1 inter-band 15.1.0 R5-187639 0035 1 F TP analysis for wideband intermodulation tests for FR1 inter-band 15.1.0 R5-187639 0035 1 F TP analysis for Wideband intermodulation tests for FR1 inter-band 15.1.0 R5-187639 0035 1 F TP analysis for Wideband intermodulati	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 RANN82 R5-186791 0022 F F Panalysis for fost case 6.28 2.4 , UE Maximum Output Power 15.1.0	2018-12	RAN#82	R5-186674	0021	-	F	Test point analysis for AMPR Intra-band contiguous EN-DC in FR1	15.1.0
2018-12 RANB2 RS-186791 0028 F TP analysis CBW intraband contiguous EN-DC 15.1.0	2018-12	RAN#82	R5-186710	0022	-	F	TP analysis for test case 6.2B.2.4, UE Maximum Output Power	15.1.0
2018-12 RAN#22 RS-186792 0029 F TP analysis SEM intraband contiguous EN-DC 15.10 2018-12 RAN#22 RS-187396 0037 F Update of TR 38.905 with SA RR1 A-MPR test point analysis for Mulpile RR1 test cases 15.10 2018-12 RAN#82 RS-187396 0037 F Update of TR 38.905 with SA RR1 A-MPR test point analysis, NS_04 2018-12 RAN#82 RS-188240 0039 1 F Update of TR 38.905 with SA RR1 A-MPR test point analysis, NS_04 2018-12 RAN#82 RS-187397 0041 F Test Point analysis for FR2 Maximum Output power 15.10 2018-12 RAN#2 RS-187393 0042 F TP analysis for FR1 test case 6.3.43, relative power tolerance 15.10 2018-12 RAN#2 RS-187393 0044 F Discussion on test point selection for EVM of the SA RA	2018-12	RAN#82	R5-186791	0028	-	F		15.1.0
2018-12 RAN#82 R5-18396 0037 F Update of TR 38-905 with SA FR1 A-MPR test point analyses, NS_04 15.1.0 NS_04	2018-12	RAN#82	R5-186792	0029	-	F		
2018-12 RAN#82 R5-18396 0037 F Update of TR 38-905 with SA FR1 A-MPR test point analyses, NS_04 15.1.0 NS_04	2018-12	RAN#82	R5-187035	0031	-	F		15.1.0
2018-12 RANM82 R5-182240 0039 1 F Update of TR 38,905 with EN-DC A-MPR test point analyses, NS_04 15.1.0					-		Update of TR 38.905 with SA FR1 A-MPR test point analyses,	15.1.0
2018-12 RAN#82 R-5187589 0042 F TP analysis for FR1 test case 6.3.43, relative power tolerance 15.1.0	2018-12	RAN#82	R5-188240	0039	1	F		15.1.0
2018-12 RAN#82 R-5187582 0043 F Discussion on test point selection for EVM in FR2 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 R5-187583 0044 F Discussion on test point selection for EVM equalizer spectrum fishess in 15.1.0	2018-12	RAN#82	R5-187489	0042	-		TP analysis for FR1 test case 6.3.4.3, relative power tolerance	15.1.0
2018-12 RAN#82 R5-187584 0045 F Update of test point selection for EVM equalizer spectrum flatness in 15.1.0 FR1	2018-12	RAN#82	R5-187582	0043	-			15.1.0
FR1	2018-12	RAN#82	R5-187583		-			
2018-12 RAN#82 R5-187589 0.47 F Discussion on test point selection for EVM equalizer spectrum 15.1.0 flatness in FR2 2018-12 RAN#82 R5-187593 0.48 F Discussion on test point selection for EVM equalizer spectrum 15.1.0 flatness in FR2 RAN#82 R5-187806 0.023 T F Test Point analysis for FR1 7.4 Maximum input level 15.1.0 Test Point analysis for receiver spurious emission tests for FR1 SA 15.1.0 EN-DC Test Point analysis for receiver spurious emission tests for FR1 SA 15.1.0 EN-DC Test Point analysis for receiver spurious emission tests for FR1 SA 15.1.0 EN-DC Test Point analysis for receiver spurious emission tests for FR1 inter-band EN-DC EN-	2018-12	RAN#82	R5-187584	0045	-	F		15.1.0
State				0046	-			
State	2018-12	RAN#82	R5-187589	0047	-		flatness in FR2	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	R5-187593	0048	-	F		15.1.0
2018-12 RAN#82 R5-187809 0036 1 F TP analysis for wideband intermodulation tests for FR1 SA 15.10	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 R5-187817 0033 1 F TP analysis for receiver spurious emission tests for FR1 inter-band 15.1.0	2018-12	RAN#82	R5-187808	0035	1		TP analysis for receiver spurious emission tests for FR1 SA	15.1.0
EN-DC	2018-12	RAN#82	R5-187809	0036	1			15.1.0
EN-DC	2018-12	RAN#82	R5-187817	0033	1	F		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 TR 0.3.3.4 PRACH time mask in FR1 15.2.0 2019-03 RAN#83 R5-191261 0079 - 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 Narrow band in FR1 15.2.0 2019-03 RAN#83 R5-19137 0081 - F Adding test case 6.2B.2.1 to 38.905 15.2.0 2019-03 RAN#83 R5-191811 0087 - F Adding test case 6.2B.2.1 to 38.905 15.2.0 2019-03 RAN#83 R5-192002 0104 - F Test Point analysis update for FR2 TxSpurious test case 15.2.0 2019-03 RAN#83 R5-192002 0104 - F Adding test case 6.2B.1.1 to 38.905 15.2.0 2019-03 RAN#83 R5-192000 0106 -<	2018-12	RAN#82	R5-187818	0034	1	F		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	2018-12	RAN#82	R5-187836	0025	1	F	Test Point analysis for FR2 7.4 Maximum input level	15.1.0
2019-03 RAN#83 RS-191260 0078 - F Test Point analysis for NR Narrow band in FR1 15.2.0	2018-12	RAN#82	R5-187907	0024	1	F	Test Point analysis for FR1 MPR test case	15.1.0
2019-03 RAN#83 R5-191261 0079 - F Test Point analysis for NR spurious response in FR1 15.2.0	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 R5-191337 0081 - F Adding test case 6.2B.2.1 to 38.905 15.2.0	2019-03	RAN#83	R5-191260	0078	-		Test Point analysis for NR Narrow band in FR1	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 R5-191851 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 R5-192007 0106 - 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 R5-192009 0106 - F Adding test case 6.2B.1.1 to 38.905 15.2.0 2019-03 RAN#83 R5-19209 0108 - F Adding test case 6.2B.1.2 to 38.905 15.2.0 2019-03 RAN#83 R5-19239 0116 - F F Adding test case 6.2B.1.3 to 38.905 15.2.0 2019-03 RAN#83 R5-19239 0116 - F F F F F F F F F					-			
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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 coexistence 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							TP analysis for FR1 6.5A.2.2.1 Spectrum emission mask for CA	
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	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)	
	2019-03	RAN#83	R5-192582	0109	1	F		15.2.0

2019-03 RAN#83 R5-192599 0084 1 F Update of TP analysis of FR1 6.2.1 MOP	15.2	
2019-03 RAN#83 R5-192684 0073 1 F Addition of Test Point analysis of FR2 6.3.4.4 Aggregate power tolerance 1019-03 RAN#83 R5-192684 0073 1 F TP analysis for FR1 (R7.9.4.1 Spurious Emission for 2DL CA 2019-03 RAN#83 R5-192692 0112 1 F Addition of TP analysis for FR1 CO. 6.28.4.1.1 Configured transmit power Intra-band configuous 2019-06 RAN#84 R5-193543 0117 F Addition of TP analysis for FR1 CO. 6.28.4.1.2 Configured transmit power Intra-band non-configuous 2019-06 RAN#84 R5-193543 0137 F Addition of TP analysis for St. 521-3 MPR intra-band configuous 2019-06 RAN#84 R5-193543 0137 F Addition of TP analysis for St. 521-3 MPR intra-band configuous 2019-06 RAN#84 R5-193543 0137 F Addition of TP analysis for St. 521-3 MPR intra-band configuous 2019-06 RAN#84 R5-193549 0149 F Addition of TP analysis for power control for UL-MIMO 2019-06 RAN#84 R5-193919 0149 F Add SA FRI RF 6.5D.2.4.2 to 38.905 C 2D.3 AMPR for UL-MIMO C 2019-06 RAN#84 R5-194169 0153 F Updating Annex A; Derivation documents 2019-06 RAN#84 R5-194169 0153 F Updating Annex A; Derivation documents 2019-06 RAN#84 R5-19457 0155 F Updating Annex A; Derivation documents 2019-06 RAN#84 R5-194402 0153 F Updating Annex A; Derivation documents 2019-06 RAN#84 R5-194402 0158 F Test point analysis for A.MPR Intra-band contiguous EN-DC; NS R5-19457 0155 F Test point analysis for A.MPR Intra-band contiguous EN-DC; NS R5-19459 0159 R5-19459		5.2.0
tolerance		5.2.0
2019-03 RAN#83 R5-192684 0073 1 F TP analysis for FR1 Rx 7.9A.1 Spurious Emission for 2DL CA	15.2	5.2.0
2019-03 RAN#83 R5-192691 0111 1 F Addition of TP analysis for EN-DC 6.2B.4.1.1 Configured transmit power Intra-band configuous		
Dower Intra-band contiguous Power Intra-band contiguous 2019-03 RAN#83 RS-192692 0112 1 F Addition of Te panalysis for Sh.DC 6.28.4.1.2 Configured transmit power Intra-band non-contiguous 2019-06 RAN#84 RS-193843 0137 - F Addition of Te panalysis for 38.521-3 MPR intra-band contiguous 2019-06 RAN#84 RS-193906 0148 - F Update of Te panalysis for 38.521-3 MPR intra-band contiguous 2019-06 RAN#84 RS-193916 0148 - F Update of Te panalysis of power control for UL-MIMO 2019-06 RAN#84 RS-193919 0149 - F Addition of Te panalysis of power control for UL-MIMO 2019-06 RAN#84 RS-193091 0149 - F Test Point analysis update for FR2 TxSpurious UE coexistence to case 2019-06 RAN#84 RS-194168 0152 - F Updating Annex A; Derivation documents 2019-06 RAN#84 RS-194169 0153 - F Test Point analysis for AS S A-MIPR FR1 test case 2019-06 RAN#84 RS-194170 0154 - F Test point analysis for AS S A-MIPR FR1 test case 2019-06 RAN#84 RS-194402 0158 - F Test Point analysis for AS MPR Inta-band contiguous RAN#84 RS-194402 0158 - F Test Point analysis for AS MPR Inta-band contiguous RAN#84 RS-194402 0158 - F Test Point analysis for SS S A-MIPR FR1 test case 2019-06 RAN#84 RS-194907 0162 - F Update of Te analysis for SS S21-1 f. SA.3 2019-06 RAN#84 RS-194907 0162 - F Update of Te analysis for SS S21-1 f. SA.3 2019-06 RAN#84 RS-194907 0162 - F Update of Te analysis for SS S21-1 f. SA.3 2019-06 RAN#84 RS-194913 0165 - F Addition of Te analysis for SS S21-1 f. SA.3 2019-06 RAN#84 RS-194914 0166 - F Addition of Te analysis for SS S21-1 f. SA.3 2019-06 RAN#84 RS-194931 0141 - F Addition of Te analysis for SS S21-1 f. SA.3 2019-06 RAN#84 RS-194931 0141 - F Addition of Te analysis for SS S21-1 f. SD.4 2019-06 RAN#84 RS-194991 0157 F Addition of Te analysis for SS S21-1 f. SD.4 2019-06 RAN#84 RS-194931 0141		5.2.0
2019-03 RAN#83 R5-192682 0112 F Addition of TP analysis for EN-DC 6.28 4.1.2 Configured transmit prover Intra-band non-configuous	∌d 15.2	5.2.0
Dower Intra-band non-contiguous Dower Intra-band non-contiguous		
2019-03 RAN#84 R5-192846 0114 2 F Introduction of new section for Tp analysis of Tx spurious 2019-06 RAN#84 R5-193808 0147 F Addition of Tp analysis for 38.251-3 MPR intra-band contiguous 2019-06 RAN#84 R5-193808 0147 F Addition of Tp analysis for power control for UL-MIMO 2019-06 RAN#84 R5-193919 0149 F Addition of Tp analysis for power control for UL-MIMO 2019-06 RAN#84 R5-194010 0151 F Test Point analysis update for FR2 TxSpurious UE coexistence to case 2019-06 RAN#84 R5-194169 0153 F Update of test points analysis for NS .35 A-MPR FR1 test case 2019-06 RAN#84 R5-194169 0154 F Test Point analysis for A-MPR Intra-band contiguous EN-DC; NS 2019-06 RAN#84 R5-194402 0156 F Test point analysis for A-MPR Intra-band contiguous EN-DC; NS 2019-06 RAN#84 R5-194402 0158 F Test point analysis for N-DC In-band emissions for intra-band contiguous EN-DC; NS 2019-06 RAN#84 R5-194402 0158 F Test point analysis for RN-DC In-band emissions for intra-band contiguous EN-DC; NS 2019-06 RAN#84 R5-194904 0142 F Addition of TP analysis for 38.521-1 f.3A.3 2019-06 RAN#84 R5-194907 0163 F Update for TP analysis for 38.521-1 f.3A.3 2019-06 RAN#84 R5-194907 0163 F Update for TP analysis for 38.521-1 f.3A.1 FR1 2019-06 RAN#84 R5-194909 0164 F Addition of TP analysis for Sa.521-1 f.3A.1 FR1 2019-06 RAN#84 R5-194909 0164 F Addition of TP analysis for 38.521-1 f.3A.1 FR1 2019-06 RAN#84 R5-194931 0165 F Addition of TP analysis for Sa.521-1 f.3A.1 FR1 2019-06 RAN#84 R5-194931 0165 F Addition of TP analysis for RS 251-1 f.3A.2 2019-06 RAN#84 R5-194931 0165 F Addition of TP analysis for RS 251-1 f.3A.2 2019-06 RAN#84 R5-194931 0165 F Addition of TP analysis for RS 251-1 f.3A.2 2019-06 RAN#84 R5-194931 0167 F Addition of TP analysis for RS 251-1 f.3A.2 2019-06 RAN#84 R5-194931 0141 F Addition of TP analysis for RS 2	ed 15.2	5.2.0
2019-06 RAN#84 R5-193080 0147 F Addition all TT analysis for 38.521-3 MPR Intra-band contiguous 2019-06 RAN#84 R5-193916 0148 F Update of TP analysis for power control for UL-MIMO 2019-06 RAN#84 R5-193919 0149 F Add SA FR1 RF 6.5D.2.4.2 to 38.905 2019-06 RAN#84 R5-194168 0152 F Updating Annex A; Derivation documents 2019-06 RAN#84 R5-194169 0153 F Updating Annex A; Derivation documents 2019-06 RAN#84 R5-194169 0153 F Updating Annex A; Derivation documents 2019-06 RAN#84 R5-194169 0153 F Updating Annex A; Derivation documents 2019-06 RAN#84 R5-194170 0154 F Test point analysis for INS. 35 A-MPR FR1 test case 2019-06 RAN#84 R5-194257 0155 F TP analysis for A-MPR Intra-band contiguous EN-DC: NS 2019-06 RAN#84 R5-194402 0158 F Test point analysis for BN-DC In-band emissions for intra-band contiguous 2019-06 RAN#84 R5-194459 0160 F Update to TP analysis for BN-DC In-band emissions for intra-band contiguous 2019-06 RAN#84 R5-194990 0160 F Update to TP analysis for BN-DC In-band emissions for intra-band contiguous 2019-06 RAN#84 R5-194990 0164 F Addition of TP analysis for S8.521-1 f.3A.3 2019-06 RAN#84 R5-194991 0166 F Addition of TP analysis for S8.521-1 f.3A.3 2019-06 RAN#84 R5-194991 0166 F Addition of TP analysis for 38.521-1 f.3A.3 2019-06 RAN#84 R5-194913 0166 F Addition of TP analysis for 38.521-1 f.3A.3 2019-06 RAN#84 R5-194932 0164 T F Addition of TP analysis for 38.521-1 f.3A.2 2019-06 RAN#84 R5-194932 0143 T F Addition of TP analysis for 38.521-1 f.3A.2 2019-06 RAN#84 R5-194932 0143 T F Addition of TP analysis for 38.521-1 f.3D.2 2019-06 RAN#84 R5-194932 0143 T F Addition of TP analysis for 38.521-1 f.3D.2 2019-06 RAN#84 R5-194933 0144 T F Addition of TP analysis for 38.521-1 f.3D.2 2019-06 RAN#84 R5-194933 0144 T F Addition of TP an		
2019-06 RAN#84 R5-193916 0148 F Addition of TP analysis for power control for UL-MIMO	15.2	5.2.0
2019-06 RAN#84 R5-193919 0149 F Update of TP analysis of 6.2D.3 A-MPR for UL-MIMO 2019-06 RAN#84 R5-193919 0151 F Add SA FRI RF 6.5D.2.4.2 to 38.905 2019-06 RAN#84 R5-194168 0152 F Updating Annex A; Derivation documents 2019-06 RAN#84 R5-194169 0153 F Updating Annex A; Derivation documents 2019-06 RAN#84 R5-194169 0153 F Update of test points analysis for ANPR FR1 test case 2019-06 RAN#84 R5-194170 0154 F Test point analysis for ANPR Intra-band contiguous EN-DC; NS 2019-06 RAN#84 R5-194257 0155 F Test point analysis for ANPR Intra-band contiguous EN-DC; NS 2019-06 RAN#84 R5-194402 0158 F Test point analysis for EN-DC In-band emissions for intra-band contiguous 2019-06 RAN#84 R5-194409 0160 F Update to TP analysis for EN-DC In-band emissions for intra-band contiguous 2019-06 RAN#84 R5-194090 0160 F Update to TP analysis for S3.521-1 7.6D.3 2019-06 RAN#84 R5-194909 0164 T F Addition of TP analysis for S3.521-1 6.3A.3 2019-06 RAN#84 R5-194909 0164 T F Addition of TP analysis for S3.521-1 6.3A.3 2019-06 RAN#84 R5-194913 0165 F Addition of TP analysis for S1.521-1 6.3A.1 FR1 2019-06 RAN#84 R5-194913 0165 F Addition of TP analysis for S1.521-1 6.3A.1 FR1 2019-06 RAN#84 R5-194931 0165 F Addition of TP analysis for S3.521-1 7.6D.2 2019-06 RAN#84 R5-194931 0165 F Addition of TP analysis for S3.521-1 7.6D.2 2019-06 RAN#84 R5-194931 0165 F Addition of TP analysis for S3.521-1 7.6D.2 2019-06 RAN#84 R5-194931 0165 F Addition of TP analysis for S3.521-1 7.6D.2 2019-06 RAN#84 R5-194933 0144 T F Addition of TP analysis for S3.521-1 7.6D.4 2019-06 RAN#84 R5-194933 0144 T F Addition of TP analysis for S6.521-1 7.6D.4 2019-06 RAN#84 R5-194933 0144 T F Addition of TP analysis for S6.521-1 7.6D.2 2019-06 RAN#84 R5-195148 0139 T F Addition of TP analysis for	15.3	5.3.0
2019-06 RAN#84 R5-193919 0149 F Update of TP analysis of 6.2D.3 A-MPR for UL-MIMO 2019-06 RAN#84 R5-193919 0151 F Add SA FRI RF 6.5D.2.4.2 to 38.905 2019-06 RAN#84 R5-194168 0152 F Updating Annex A; Derivation documents 2019-06 RAN#84 R5-194169 0153 F Updating Annex A; Derivation documents 2019-06 RAN#84 R5-194169 0153 F Update of test points analysis for ANPR FR1 test case 2019-06 RAN#84 R5-194170 0154 F Test point analysis for ANPR Intra-band contiguous EN-DC; NS 2019-06 RAN#84 R5-194257 0155 F Test point analysis for ANPR Intra-band contiguous EN-DC; NS 2019-06 RAN#84 R5-194402 0158 F Test point analysis for EN-DC In-band emissions for intra-band contiguous 2019-06 RAN#84 R5-194409 0160 F Update to TP analysis for EN-DC In-band emissions for intra-band contiguous 2019-06 RAN#84 R5-194090 0160 F Update to TP analysis for S3.521-1 7.6D.3 2019-06 RAN#84 R5-194909 0164 T F Addition of TP analysis for S3.521-1 6.3A.3 2019-06 RAN#84 R5-194909 0164 T F Addition of TP analysis for S3.521-1 6.3A.3 2019-06 RAN#84 R5-194913 0165 F Addition of TP analysis for S1.521-1 6.3A.1 FR1 2019-06 RAN#84 R5-194913 0165 F Addition of TP analysis for S1.521-1 6.3A.1 FR1 2019-06 RAN#84 R5-194931 0165 F Addition of TP analysis for S3.521-1 7.6D.2 2019-06 RAN#84 R5-194931 0165 F Addition of TP analysis for S3.521-1 7.6D.2 2019-06 RAN#84 R5-194931 0165 F Addition of TP analysis for S3.521-1 7.6D.2 2019-06 RAN#84 R5-194931 0165 F Addition of TP analysis for S3.521-1 7.6D.2 2019-06 RAN#84 R5-194933 0144 T F Addition of TP analysis for S3.521-1 7.6D.4 2019-06 RAN#84 R5-194933 0144 T F Addition of TP analysis for S6.521-1 7.6D.4 2019-06 RAN#84 R5-194933 0144 T F Addition of TP analysis for S6.521-1 7.6D.2 2019-06 RAN#84 R5-195148 0139 T F Addition of TP analysis for	15.3	5.3.0
2019-06 RAN/884 R5-193919 0149 F Add SA FR1 RF 6.5D 2.4.2 to 38.905		5.3.0
2019-06 RAN#84 R5-194168 0152 - F Test Point analysis update for FR2 TxSpurious UE coexistence to case 2019-06 RAN#84 R5-194168 0152 - F Updating Annex A; Derivation documents 2019-06 RAN#84 R5-194170 0154 - F Test point analysis for NS_35 A-MPR FR1 test case 2019-06 RAN#84 R5-194257 0155 - F Test point analysis for AMPR Intra-band contiguous EN-DC; NS, 2019-06 RAN#84 R5-194402 0158 - F Test point analysis for Asymmetric CH BWs in Reference Sensitivity Requirements in FR1 2019-06 RAN#84 R5-194402 0158 - F Test point analysis for Seymmetric CH BWs in Reference Sensitivity Requirements in FR1 Test Point analysis for Asymmetric CH BWs in Reference Sensitivity Requirements in FR1 Test Point analysis for Seymmetric CH BWs in Reference Sensitivity Requirements in FR1 Test Point analysis for Seymmetric CH BWs in Reference Sensitivity Requirements in FR1 Test Point analysis for Seymmetric CH BWs in Reference Sensitivity Requirements in FR1 Test Point analysis for Seymmetric CH BWs in Reference Sensitivity Requirements in FR1 Test Point analysis for Seymmetric CH BWs in Reference Sensitivity Requirements in FR1 Test Point analysis for Seymmetric CH BWs in Reference Sensitivity Requirements in FR1 Test Point analysis for Seymmetric CH BWs in Reference Sensitivity Requirements in FR1 Test Point analysis for Seymmetric CH BWs in Reference Sensitivity Reference Sensitivity Requirements in FR1 Test Point analysis for Seymmetric CH BWs in Reference Sensitivity Requirements in FR1 Test Point analysis for Seymmetric CH BWs in Reference Sensitivity Requirements in FR1 Test Point analysis for Seymmetric CH BWs in Reference Sensitivity Test Pythological Pythological Seymmetric CH BWs in Reference Sensitivity Test Pytholog		5.3.0
Case		5.3.0
2019-06 RAN#84 R5-194168 0152 - F Updating Annex A; Derivation documents 2019-06 RAN#84 R5-194169 0153 - F Update of test points analysis for NS_35 A-MPR FR1 test case 2019-06 RAN#84 R5-194257 0154 - F Test point analysis for AMPR Intra-band contiguous EN-DC; NS_ 2019-06 RAN#84 R5-194402 0158 - F Test point analysis for AMPR Intra-band contiguous EN-DC; NS_ 2019-06 RAN#84 R5-194402 0158 - F Test Point analysis for EN-DC In-band emissions for intra-band contiguous 2019-06 RAN#84 R5-194459 0160 - F Update to TP analysis for SAS-21-1 7.6D.3 2019-06 RAN#84 R5-194409 0142 1 F Addition of TP analysis for 38.521-1 6.3A.3 2019-06 RAN#84 R5-194909 0163 1 F Addition of TP analysis for 38.521-1 6.3A.3 2019-06 RAN#84 R5-194909 0164 1 F Addition of TP analysis for SAS-21-1 6.3A.3 2019-06 RAN#84 R5-194913 0166 - F Addition of TP analysis for FR1 MOP for CA 2019-06 RAN#84 R5-194917 0166 - F Addition of TP analysis for FR1 MOP for CA 2019-06 RAN#84 R5-194927 0162 1 F Addition of TP analysis for SAS-21-1 7.6D.2 2019-06 RAN#84 R5-194931 0141 1 F Addition of TP analysis for SAS-21-1 7.6D.2 2019-06 RAN#84 R5-194931 0141 1 F Addition of TP analysis for SAS-21-1 7.6D.2 2019-06 RAN#84 R5-194931 0141 1 F Addition of TP analysis for SAS-21-1 7.6D.2 2019-06 RAN#84 R5-194931 0141 1 F Addition of TP analysis for SAS-21-1 7.6D.2 2019-06 RAN#84 R5-194981 0157 1 F Addition of TP analysis for SAS-21-1 7.6D.2 2019-06 RAN#84 R5-194931 0141 1 F Addition of TP analysis for SAS-21-1 7.6D.2 2019-06 RAN#84 R5-194981 0157 1 F Addition of TP analysis for GAS-21-1 7.6D.2 2019-06 RAN#84 R5-194981 0157 1 F Addition of TP analysis for SAS-21-1 7.6D.2 2019-06 RAN#84 R5-194985 0167 - F Addition of TP analysis for GAS-21-1 7.6D.2 2019-06 RAN#84 R5-195146 0138 1 F Addition of TP analysis for SAS-21-1 7.6D.2 2019-06 RAN#84 R5-195148 0138 1 F Addition of TP analysis for SAS-21-1 7.6D.	10.0	5.0.0
2019-06 RAN#84 R5-194169 0153 F Update of test points analysis for NS_35 A-MPR FR1 test case 2019-06 RAN#84 R5-194170 0155 F Test point analysis for A-MPR Intra-band contiguous EN-DC; NS 2019-06 RAN#84 R5-194402 0158 F Test point analysis for A-MPR Intra-band contiguous EN-DC; NS Requirements in FR1 Requirement	15.3	5.3.0
2019-06 RAN#84 R5-194170 0154 F Test point analysis for A-MPR Intra-band contiguous EN-DC; NS 2019-06 RAN#84 R5-194257 0155 F Te analysis for Asymmetric CH BWs in Reference Sensitivity Requirements in FR1 Requirements in FR1 Requirements in FR1 Requirements in FR1 Requirements in FR2 Requirementation in FR2 Requirements in FR2 Requirements in FR2 Requi		5.3.0
2019-06		
Requirements in FR1		5.3.0
2019-06	15.3	5.3.0
Contiguous Con	 	
2019-06 RAN#84 R5-19404 0142 F Addition of TP analysis for SR2 Maximum Output Power 2019-06 RAN#84 R5-194904 0142 F Addition of TP analysis for 38.521-1 f.3A.3 2019-06 RAN#84 R5-194909 0164 1 F Addition of TP analysis for 38.521-1 f.3A.3 2019-06 RAN#84 R5-194913 0165 F Addition of TP analysis for 38.521-1 f.3A.3 2019-06 RAN#84 R5-194913 0165 F Addition of TP analysis for ACS for 2DL CA in FR1 2019-06 RAN#84 R5-194927 0162 1 F Addition of TP analysis for RT1 MOP for CA 2019-06 RAN#84 R5-194931 0141 1 F Addition of TP analysis for RT1 MOP for CA 2019-06 RAN#84 R5-194931 0141 1 F Addition of TP analysis for 38.521-1 7.6D.2 2019-06 RAN#84 R5-194932 0143 1 F Addition of TP analysis for 38.521-1 7.6D.4 2019-06 RAN#84 R5-194933 0144 1 F Addition of TP analysis for 38.521-1 7.6D.4 2019-06 RAN#84 R5-194933 0144 1 F Addition of TP analysis for 38.521-1 7.6D.4 2019-06 RAN#84 R5-194939 0167 F Addition of TP analysis for 38.521-1 7.6D.4 2019-06 RAN#84 R5-194959 0167 F Addition of TP analysis for 38.521-1 7.6D.4 2019-06 RAN#84 R5-194963 0161 1 F Dydate SCS test points for FR2 ACS and Inband blocking test ca	15.3	5.3.0
2019-06 RAN#84 R5-194904 0142 1 F Addition of TP analysis for 38.521-1 7.6D.3	$-\!$	
2019-06		5.3.0
2019-06	15.3	5.3.0
2019-06	15.3	5.3.0
2019-06	15.3	5.3.0
2019-06		5.3.0
2019-06		5.3.0
band for DC 3-n79		5.3.0
2019-06	10.0	5.5.0
2019-06 RAN#84 R5-194932 0143 1 F Addition of TP analysis for 38.521-17.6D.4 2019-06 RAN#84 R5-194933 0144 1 F Addition of TP analysis for 38.521-17.8D.2 2019-06 RAN#84 R5-194969 0167 - F Addition of TP analysis for UL-MIMO cases of 6.3D.1 and 6.3D.3 2019-06 RAN#84 R5-194961 0157 1 F Tenanlysis for FR2 Tx 6.3A.1.1 Minimum output power for CA 2U CA 2019-06 RAN#84 R5-194963 0161 1 F Update SCS test points for FR2 ACS and Inband blocking test ca 2019-06 RAN#84 R5-195146 0138 1 F Addition of TP analysis for SA FR2 6.2.2 2019-06 RAN#84 R5-195148 0139 1 F Addition of TP analysis for SA FR2 6.3.2 2019-06 RAN#84 R5-195148 0139 1 F Addition of TP analysis for SA FR2 6.3.2 2019-06 RAN#84 R5-193730 0146 - F Tenanlysis of T.7D Spurious response for UL-MIMO 2019-07 R	15.3	5.3.0
2019-06		5.3.0
2019-06 RAN#84 R5-194959 0167 - F Addition of TP analysis for UL-MIMO cases of 6.3D.1 and 6.3D.3 2019-06 RAN#84 R5-194961 0157 1 F TP analysis for FR2 Tx 6.3A.1.1 Minimum output power for CA 2U CA 2019-06 RAN#84 R5-194963 0161 1 F Update SCS test points for FR2 ACS and Inband blocking test ca 2019-06 RAN#84 R5-195146 0138 1 F Addition of TP analysis for SA FR2 6.2.2 2019-06 RAN#84 R5-195148 0139 1 F Addition of TP analysis for SA FR2 6.3.2 2019-06 RAN#84 R5-195190 0145 1 F TPanalysis of 7.7D Spurious response for UL-MIMO 2019-06 RAN#84 R5-193730 0146 - F Addition of test frequency selection of 6.5A.3.2 for Rel-16 CA_n4 n79A 2019-09 RAN#85 R5-196435 0150 1 F Addition of test frequency selection of 6.5B.3.3.2 spurious coexistence inter-band for Rel-16 DC configurations 2019-09 RAN#85 R5-196435 0184 - F Corre		
2019-06		5.3.0
CA 2019-06 RAN#84 R5-194963 0161 1 F Update SCS test points for FR2 ACS and Inband blocking test ca 2019-06 RAN#84 R5-195146 0138 1 F Addition of TP analysis for SA FR2 6.2.2 2019-06 RAN#84 R5-195148 0139 1 F Addition of TP analysis for SA FR2 6.3.2 2019-06 RAN#84 R5-195190 0145 1 F TPanalysis of 7.7D Spurious response for UL-MIMO 2019-06 RAN#84 R5-193730 0146 - F Addition of test frequency selection of 6.5A.3.2 for Rel-16 CA_n4 n.79A 2019-06 RAN#85 R5-196435 0184 - F Addition of test frequency selection of 6.5B.3.3.2 spurious co-existence inter-band for Rel-16 DC configurations 2019-09 RAN#85 R5-196445 0185 - F Correction of 4.5 to add DC_3A-n41 2019-09 RAN#85 R5-197315 0175 1 F Addition of TP analysis for FR1 MPR for CA 2019-09 RAN#85 R5-197317 0176 1 F Addition of TP analysis for FR1 ConfigTP for CA 2019-09 RAN#85 R5-197320 0179 1 F Addition of TP analysis of FR1 6.4D.2.1 EVM for UL MIMO 2019-09 RAN#85 R5-197323 0180 1 F Addition of TP analysis of FR1 6.4D.2.2 Carrier leakage for UL MIMO 2019-09 RAN#85 R5-197323 0181 1 F Addition of TP analysis of FR1 6.4D.2.3 Inband emission for UL MIMO 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 FR1 6.4D.2.4 EVM equalizer spectrum Flatness for UL MIMO Expression FR1 6.4D.2.4 EVM equalizer spectrum Flatness for UL MIMO FR1 6.4D.2.4 EVM equalizer spectrum Flatness for UL MIMO FR1 6.4D.2.4 EVM equalizer spectrum Flatness for UL MIMO FR1 6.4D.2.4 EVM equalizer spectrum Flatness for UL MIMO FR1 6.4D.2.4 EVM equalizer spectrum Flatness for UL MIMO FR1 6.4D.2.4 EVM equalizer spectrum Flatness for UL MIMO FR1 6.4D.2.4 EVM equalizer spectrum Flatness for UL MIMO FR1 6.4D.2.4 EVM equalizer spectrum Flatness for UL MIMO FR1 6.4D.2.4 EVM equalizer spectrum Flatness for UL MIMO FR1 6.4D.		5.3.0
2019-06 RAN#84 R5-194963 0161 1 F Update SCS test points for FR2 ACS and Inband blocking test ca 2019-06 RAN#84 R5-195146 0138 1 F Addition of TP analysis for SA FR2 6.2.2 2019-06 RAN#84 R5-195148 0139 1 F Addition of TP analysis for SA FR2 6.3.2 2019-06 RAN#84 R5-195190 0145 1 F TPanalysis of 7.7D Spurious response for UL-MIMO 2019-06 RAN#84 R5-193730 0146 - F Addition of test frequency selection of 6.5A.3.2 for Rel-16 CA_n4 n79A 2019-06 RAN#84 R5-195055 0150 1 F Addition of test frequency selection of 6.5B.3.3.2 spurious coexistence inter-band for Rel-16 DC configurations 2019-09 RAN#85 R5-196435 0184 - F Update of TP analysis of FR2 minimum output power to add UL MIMO 2019-09 RAN#85 R5-196445 0185 - F Correction of 4.5 to add DC_3A-n41 2019-09 RAN#85 R5-197315 0175 1 F Addition of TP analysis for FR1 MP	_ 15.3	5.3.0
2019-06 RAN#84 R5-195146 0138 1 F Addition of TP analysis for SA FR2 6.2.2 2019-06 RAN#84 R5-195148 0139 1 F Addition of TP analysis for SA FR2 6.3.2 2019-06 RAN#84 R5-195190 0145 1 F TPanalysis of 7.7D Spurious response for UL-MIMO 2019-06 RAN#84 R5-193730 0146 - F Addition of test frequency selection of 6.5A.3.2 for Rel-16 CA_n4 n79A 2019-06 RAN#84 R5-195055 0150 1 F Addition of test frequency selection of 6.5B.3.3.2 spurious coexistence inter-band for Rel-16 DC configurations 2019-09 RAN#85 R5-196435 0184 - F Update of TP analysis of FR2 minimum output power to add UL MIMO 2019-09 RAN#85 R5-196445 0185 - F Correction of 4.5 to add DC_3A-n41 2019-09 RAN#85 R5-197315 0175 1 F Addition of TP analysis for FR1 MPR for CA 2019-09 RAN#85 R5-197320 0179 1 F Addition of TP analysis of FR1 6.4D.2.1 EVM for UL MIM		
2019-06 RAN#84 R5-195148 0139 1 F Addition of TP analysis for SA FR2 6.3.2 2019-06 RAN#84 R5-195190 0145 1 F TPanalysis of 7.7D Spurious response for UL-MIMO 2019-06 RAN#84 R5-193730 0146 - F Addition of test frequency selection of 6.5A.3.2 for Rel-16 CA_n4 n79A 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 2019-09 RAN#85 R5-196435 0184 - F Update of TP analysis of FR2 minimum output power to add UL MIMO 2019-09 RAN#85 R5-196445 0185 - F Correction of 4.5 to add DC_3A-n41 2019-09 RAN#85 R5-197315 0175 1 F Addition of TP analysis for FR1 MPR for CA 2019-09 RAN#85 R5-197320 0179 1 F Addition of TP analysis of FR1 6.4D.2.1 EVM for UL MIMO 2019-09 RAN#85 R5-197323 0180 1 F Addition of TP analysis of FR1 6.4D.2.		5.3.0
2019-06 RAN#84 R5-195190 0145 1 F TPanalysis of 7.7D Spurious response for UL-MIMO 2019-06 RAN#84 R5-193730 0146 - F Addition of test frequency selection of 6.5A.3.2 for Rel-16 CA_n4 n79A 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 2019-09 RAN#85 R5-196435 0184 - F Update of TP analysis of FR2 minimum output power to add UL MIMO 2019-09 RAN#85 R5-196445 0185 - F Correction of 4.5 to add DC_3A-n41 2019-09 RAN#85 R5-197315 0175 1 F Addition of TP analysis for FR1 MPR for CA 2019-09 RAN#85 R5-197320 0179 1 F Addition of TP analysis of FR1 6.4D.2.1 EVM for UL MIMO 2019-09 RAN#85 R5-197323 0180 1 F Addition of TP analysis of FR1 6.4D.2.2 Carrier leakage for UL MIMO 2019-09 RAN#85 R5-197323 0181 1 F Addition of	15.3	5.3.0
2019-06 RAN#84 R5-193730 0146 - F Addition of test frequency selection of 6.5A.3.2 for Rel-16 CA_n4 n79A 2019-06 RAN#84 R5-195055 0150 1 F Addition of test frequency selection of 6.5B.3.3.2 spurious coexistence inter-band for Rel-16 DC configurations 2019-09 RAN#85 R5-196435 0184 - F Update of TP analysis of FR2 minimum output power to add UL MIMO 2019-09 RAN#85 R5-196445 0185 - F Correction of 4.5 to add DC_3A-n41 2019-09 RAN#85 R5-197315 0175 1 F Addition of TP analysis for FR1 MPR for CA 2019-09 RAN#85 R5-197317 0176 1 F Addition of TP analysis for FR1 ConfigTP for CA 2019-09 RAN#85 R5-197320 0179 1 F Addition of TP analysis of FR1 6.4D.2.1 EVM for UL MIMO 2019-09 RAN#85 R5-197323 0180 1 F Addition of TP analysis of FR1 6.4D.2.3 Inband emission for UL MIMO 2019-09 RAN#85 R5-197325 0182 1 F Addition of T	15.3	5.3.0
2019-06 RAN#84 R5-193730 0146 - F Addition of test frequency selection of 6.5A.3.2 for Rel-16 CA_n4 n79A 2019-06 RAN#84 R5-195055 0150 1 F Addition of test frequency selection of 6.5B.3.3.2 spurious coexistence inter-band for Rel-16 DC configurations 2019-09 RAN#85 R5-196435 0184 - F Update of TP analysis of FR2 minimum output power to add UL MIMO 2019-09 RAN#85 R5-196445 0185 - F Correction of 4.5 to add DC_3A-n41 2019-09 RAN#85 R5-197315 0175 1 F Addition of TP analysis for FR1 MPR for CA 2019-09 RAN#85 R5-197317 0176 1 F Addition of TP analysis for FR1 ConfigTP for CA 2019-09 RAN#85 R5-197320 0179 1 F Addition of TP analysis of FR1 6.4D.2.1 EVM for UL MIMO 2019-09 RAN#85 R5-197323 0180 1 F Addition of TP analysis of FR1 6.4D.2.3 Inband emission for UL MIMO 2019-09 RAN#85 R5-197325 0182 1 F Addition of T	15.3	5.3.0
179A 2019-06 RAN#84 R5-195055 0150 1 F Addition of test frequency selection of 6.5B.3.3.2 spurious coexistence inter-band for Rel-16 DC configurations 2019-09 RAN#85 R5-196435 0184 - F Update of TP analysis of FR2 minimum output power to add UL MIMO 2019-09 RAN#85 R5-196445 0185 - F Correction of 4.5 to add DC_3A-n41 2019-09 RAN#85 R5-197315 0175 1 F Addition of TP analysis for FR1 MPR for CA 2019-09 RAN#85 R5-197317 0176 1 F Addition of TP analysis for FR1 ConfigTP for CA 2019-09 RAN#85 R5-197320 0179 1 F Addition of TP analysis of FR1 6.4D.2.1 EVM for UL MIMO 2019-09 RAN#85 R5-197323 0180 1 F Addition of TP analysis of FR1 6.4D.2.2 Carrier leakage for UL MIMO 2019-09 RAN#85 R5-197323 0181 1 F Addition of TP analysis of FR1 6.4D.2.3 Inband emission for UL MIMO 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 1 F Addition of TP analysis of FR1 6.4D.2.4 EVM equalizer spectrum 1 F Addition of TP analysis of FR1 6.4D.2.4 EVM equalizer spectrum Flatness for UL MIMO TP analysis of FR1 6.4D.2.4 EVM equalizer spectrum Flatness for UL MIMO TP analysis of FR1 6.4D.2.4 EVM E		6.0.0
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 2019-09 RAN#85 R5-196435 0184 - F Update of TP analysis of FR2 minimum output power to add UL MIMO 2019-09 RAN#85 R5-196445 0185 - F Correction of 4.5 to add DC_3A-n41 2019-09 RAN#85 R5-197315 0175 1 F Addition of TP analysis for FR1 MPR for CA 2019-09 RAN#85 R5-197317 0176 1 F Addition of TP analysis for FR1 ConfigTP for CA 2019-09 RAN#85 R5-197320 0179 1 F Addition of TP analysis of FR1 6.4D.2.1 EVM for UL MIMO 2019-09 RAN#85 R5-197323 0180 1 F Addition of TP analysis of FR1 6.4D.2.2 Carrier leakage for UL MIMO 2019-09 RAN#85 R5-197323 0181 1 F Addition of TP analysis of FR1 6.4D.2.3 Inband emission for UL MIMO 2019-09 RAN#85 R5-197325 0182 1 F Addition of TP		
existence inter-band for Rel-16 DC configurations	16.0	6.0.0
2019-09 RAN#85 R5-196435 0184 - F Update of TP analysis of FR2 minimum output power to add UL MIMO 2019-09 RAN#85 R5-196445 0185 - F Correction of 4.5 to add DC_3A-n41 2019-09 RAN#85 R5-197315 0175 1 F Addition of TP analysis for FR1 MPR for CA 2019-09 RAN#85 R5-197317 0176 1 F Addition of TP analysis for FR1 ConfigTP for CA 2019-09 RAN#85 R5-197320 0179 1 F Addition of TP analysis of FR1 6.4D.2.1 EVM for UL MIMO 2019-09 RAN#85 R5-197322 0180 1 F Addition of TP analysis of FR1 6.4D.2.2 Carrier leakage for UL MIMO 2019-09 RAN#85 R5-197323 0181 1 F Addition of TP analysis of FR1 6.4D.2.3 Inband emission for UL MIMO 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	10.0	0.0.0
MIMO MIMO 2019-09 RAN#85 R5-196445 0185 - F Correction of 4.5 to add DC_3A-n41 2019-09 RAN#85 R5-197315 0175 1 F Addition of TP analysis for FR1 MPR for CA 2019-09 RAN#85 R5-197317 0176 1 F Addition of TP analysis for FR1 ConfigTP for CA 2019-09 RAN#85 R5-197320 0179 1 F Addition of TP analysis of FR1 6.4D.2.1 EVM for UL MIMO 2019-09 RAN#85 R5-197322 0180 1 F Addition of TP analysis of FR1 6.4D.2.2 Carrier leakage for UL MIMO 2019-09 RAN#85 R5-197323 0181 1 F Addition of TP analysis of FR1 6.4D.2.3 Inband emission for UL MIMO 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 1 F Addition of TP analysis of FR1 6.4D.2.4 EVM equalizer spectrum flatness for UL MIMO 1 F Addition of TP analysis of FR1 6.4D.2.4 EVM equalizer spectrum	16.1	6.1.0
2019-09 RAN#85 R5-196445 0185 - F Correction of 4.5 to add DC_3A-n41 2019-09 RAN#85 R5-197315 0175 1 F Addition of TP analysis for FR1 MPR for CA 2019-09 RAN#85 R5-197317 0176 1 F Addition of TP analysis for FR1 ConfigTP for CA 2019-09 RAN#85 R5-197320 0179 1 F Addition of TP analysis of FR1 6.4D.2.1 EVM for UL MIMO 2019-09 RAN#85 R5-197322 0180 1 F Addition of TP analysis of FR1 6.4D.2.2 Carrier leakage for UL MIMO 2019-09 RAN#85 R5-197323 0181 1 F Addition of TP analysis of FR1 6.4D.2.3 Inband emission for UL MIMO 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	10.1	5.1.0
2019-09 RAN#85 R5-197315 0175 1 F Addition of TP analysis for FR1 MPR for CA 2019-09 RAN#85 R5-197317 0176 1 F Addition of TP analysis for FR1 ConfigTP for CA 2019-09 RAN#85 R5-197320 0179 1 F Addition of TP analysis of FR1 6.4D.2.1 EVM for UL MIMO 2019-09 RAN#85 R5-197322 0180 1 F Addition of TP analysis of FR1 6.4D.2.2 Carrier leakage for UL MIMO 2019-09 RAN#85 R5-197323 0181 1 F Addition of TP analysis of FR1 6.4D.2.3 Inband emission for UL MIMO 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	6.1.0
2019-09 RAN#85 R5-197317 0176 1 F Addition of TP analysis for FR1 ConfigTP for CA 2019-09 RAN#85 R5-197320 0179 1 F Addition of TP analysis of FR1 6.4D.2.1 EVM for UL MIMO 2019-09 RAN#85 R5-197322 0180 1 F Addition of TP analysis of FR1 6.4D.2.2 Carrier leakage for UL MIMO 2019-09 RAN#85 R5-197323 0181 1 F Addition of TP analysis of FR1 6.4D.2.3 Inband emission for UL MIMO 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		
2019-09 RAN#85 R5-197320 0179 1 F Addition of TP analysis of FR1 6.4D.2.1 EVM for UL MIMO 2019-09 RAN#85 R5-197322 0180 1 F Addition of TP analysis of FR1 6.4D.2.2 Carrier leakage for UL MIMO 2019-09 RAN#85 R5-197323 0181 1 F Addition of TP analysis of FR1 6.4D.2.3 Inband emission for UL MIMO 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		6.1.0
2019-09 RAN#85 R5-197322 0180 1 F Addition of TP analysis of FR1 6.4D.2.2 Carrier leakage for UL MIMO 2019-09 RAN#85 R5-197323 0181 1 F Addition of TP analysis of FR1 6.4D.2.3 Inband emission for UL MIMO 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		6.1.0
MIMO 2019-09 RAN#85 R5-197323 0181 1 F Addition of TP analysis of FR1 6.4D.2.3 Inband emission for UL MIMO 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		6.1.0
2019-09 RAN#85 R5-197323 0181 1 F Addition of TP analysis of FR1 6.4D.2.3 Inband emission for UL MIMO 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	6.1.0
MIMO 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		
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	6.1.0
flatness for UL MIMO		
flatness for UL MIMO	16.1	6.1.0
2019-09 RAN#85 R5-197326 0186 1 F Test Point analysis for Occupied bandwidth for 2UL CA in FR1	16.1	6.1.0
2019-09 RAN#85 R5-197524 0187 1 F TP_analysis_38.905_7.3ACA_ref_sensitivity		6.1.0
2019-09 RAN#85 R5-197589 0168 1 F New addition of TP analysis for MOP & MOP Spherical Coverage		6.1.0
UL CA in SA FR2	5. 10. 1	2 0
2019-09 RAN#85 R5-197590 0169 1 F New addition of TP analysis for Carrier leakage for UL CA in SA F	22 16 1	610
, ,		
		6.1.0
2019-09 RAN#85 R5-197592 0173 1 F Addition of TP analysis of FR2 6.6 Beam Correspondence		6.1.0
2019-09 RAN#85 R5-197593 0174 1 F Test Point analysis update for FR2 Tx Spurious test case		6.1.0
2019-09 RAN#85 R5-197594 0177 1 F Addition of TP analysis of FR1 Maximum input level for CA		6.1.0
2019-09 RAN#85 R5-197595 0178 1 F Addition of TP analysis of FR1 6.4D.1 Frequency error for UL MIN		6.1.0
2019-09 RAN#85 R5-197596 0183 1 F Addition of TP analysis of FR2 6.2A.2 MPR for 2 UL CA		6.1.0
2019-09 RAN#85 R5-197597 0191 1 F Addition of TP analysis for FR2 AMPR with NS_201		6.1.0
2019-09 RAN#85 R5-197628 0192 2 F Updates of TP analysis for EN-DC MPR test case 6.2.B.2.1		6.1.0
2019-12 RAN#86 R5-198384 0203 F Addition of TP analysis of FR2 6.6 Beam Correspondence v1		6.2.0
10 10 10 10 10 10 10 10 10 10 10 10 10 1		6.2.0
2019-12 RAN#86 R5-198392 0205 F Addition of TP analysis of FR2 6.3D.3.4 SRS time mask for UL-	116 2	

2019-12 RANIBB6 R5-198623 0708 F TPanalysis of TO 7.881 ACS for intra-band configuous EN-DC 16.2.0		l	1	1			MIMO	
2019-12 RANNISS RS-198527 0210 F Test points analysis for NS_03 A-MPR FR1 test case 16.2.0	2019-12	RAN#86	R5-198490	0206		F	-	16.2.0
2019-12 RANN860 R5-199527 0210 F Test points analysis for NS 43 and NS 43U A, MPR FR1 test case 16.2.0 2019-12 RANN860 R5-199327 0211 1 F Test points analysis for NS 400 and NS, 091 A, MPF RF1 test case 16.2.0 2019-12 RANN860 R5-199327 0211 1 F Test points analysis for NS 100 A, MPR FR1 test case 16.2.0 2019-12 RANN860 R5-199372 0220 1 F Addition of test point analysis for SA FR1 TC 6.3.0 Qui-orband 16.2.0 2019-12 RANN860 R5-199410 0199 1 F Update of test point analysis for SA FR1 TC 6.2.2 to add almost 16.2.0 2019-12 RANN860 R5-199487 0202 1 F Update of test point analysis for SA FR1 TC 6.2.2 to add almost 16.2.0 2019-12 RANN860 R5-199488 0201 1 F Update of test point analysis for SA FR1 TC 6.2.2 to add almost 16.2.0 2019-12 RANN860 R5-199489 0207 1 F Addition of test point analysis for SA FR1 TC 7.6.4 A Narrow band 16.2.0 2019-12 RANN860 R5-199489 0207 1 F Addition of test point analysis for SA FR1 TC 6.5.2.4.2 2019-12 RANN860 R5-199509 0199 1 F Update of test point analysis for SA FR1 TC 6.5.2.4.2 2019-12 RANN860 R5-199509 0199 1 F Update of test point analysis for SA FR1 TC 6.5.2.4.2 2019-12 RANN860 R5-199509 0199 1 F Update of test point analysis for SA FR1 TC 6.5.2.4.2 2019-12 RANN860 R5-199509 0199 1 F Update of test point analysis for SA FR1 TC 6.5.2.4.2 2019-12 RANN860 R5-199509 0199 1 F Update of test point analysis for SA FR1 TC 6.5.2.4.2 2019-12 RANN860 R5-199509 0199 1 F Update of test point analysis for SA FR1 TC 6.5.2.4.2 2019-12 RANN860 R5-199509 0199 1 F P analysis for MD/ To FR1 TC 6.5.2.4.2 2019-12 RANN860 R5-199509 0199 1 F P analysis for MD/ To FR1 TC 6.5.2.4.2 2019-12 RANN860 R5-199509 0199 1 F P analysis for MD/ To FR1 TC 6.5.2.4.2 2019-12 RANN860 R5-199509 0199 1 F P analysis for MD/ To FR1 TC 6.5.2.4.2 2019-12 RANN860 R5-199509 0199 1 F	2010 12	10,00	100 100	0200		ľ		10.2.0
2019-12 RANN86 R5-199328 2020 1 F Test portis analysis for NS .05 and NS .050 LA .MPF RF1 test case 16.2.0	2019-12	RAN#86	R5-198523	0208		-		16.2.0
2019-12 RAN-1986 R5-199327 2021 1 F Test points analysis for SA FRI TC 6.3.0 Jul-d-band fie.2.0 2019-12 RAN-1986 R5-199372 0197 1 F Addition of test point analysis for SA FRI TC 6.3.2 of Jul-d-band fie.2.0 2019-12 RAN-1986 R5-199372 0197 1 F Update of test point analysis for SA FRI TC 6.2.2 to add almost fie.2.0 2019-12 RAN-1986 R5-199487 0202 1 F Addition of test point analysis for SA FRI TC 6.2.2 to add almost fie.2.0 2019-12 RAN-1986 R5-199487 0202 1 F Addition of test point analysis for SA FRI TC 7.6.4 Narrow band fie.2.0 2019-12 RAN-1986 R5-199488 0201 1 F Addition of test point analysis for SA FRI TC 7.6.4 Narrow band fie.2.0 2019-12 RAN-1986 R5-199489 0207 1 F Addition of test point analysis for SA FRI TC 7.6.4 Narrow band fie.2.0 2019-12 RAN-1986 R5-199489 0207 1 F Addition of test point analysis for SA FRI TC 6.5.2.4.2 16.2.0 2019-12 RAN-1986 R5-199590 0199 1 F Update of test point analysis for SA FRI TC 6.5.2.4.2 16.2.0 2019-12 RAN-1986 R5-199590 0199 1 F D D P P P P P P P P								
2019-12 RAN886 RS-199372 0197 1 F Addition of test point analysis for SA FR1 TC 7.6.4.3 Out-of-band (6.2.0 biboking for CA 10197 1 F Update of test point analysis for SA FR1 TC 6.2.2 to add almost (6.2.0 contiguous allocation test points for SA FR1 TC 6.2.2 to add almost (6.2.0 contiguous allocation test points analysis for SA FR1 TC 6.2.2 to add almost (6.2.0 contiguous allocation test points analysis for SA FR1 TC 7.6.4 Narrow band (6.2.0 contiguous allocation test points analysis for SA FR1 TC 7.6.4 Narrow band (6.2.0 contiguous allocation test points analysis for SA FR1 TC 7.6.4 Narrow band (6.2.0 contiguous allocation test points analysis for SA FR1 TC 7.6.4 Narrow band (6.2.0 contiguous allocation test points analysis for SA FR1 TC 7.6.4 Narrow band (6.2.0 contiguous allocation test points analysis for SA FR1 TC 7.6.4 Narrow band (6.2.0 contiguous EN) (6.2.0 con					+ -			
Disching for CA Discharged CA					+ -	-		
2019-12 RAN#86 R5-199487 0202 1 F Update of test point analysis for SA FR1 TC 6.2.2 to add almost 16.2.0 16.2.0 17.2 18.2.0 18.2.0 19.2.0	2019-12	RAN#86	R5-199328	0200	1	F	blocking for CA	16.2.0
Contiguous allocation test points Contiguous Contiguous allocation test points Contiguous allocation Con				0197	_		Update of test point analysis for SA FR2 TC 6.2.2	
Intermodulation for CA Intermodulation for CA Intermodulation f	2019-12	RAN#86	R5-199410	0199	1	F		16.2.0
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2019-12	2019-12	RAN#86	R5-199488	0201	1	F	Addition of test point analysis for SA FR1 TC 7.6A.4 Narrow band	16.2.0
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2019-12	2019-12	RAN#86	R5-199509	0194	1	F	<u> </u>	16.2.0
2020-03 RANN87 RS-200412 0221 F Updating TP of MOP for inter-band EN-DC 16.3.0							Addition to TP analysis of FR2 TC 6.3A.4.2.1 Absolute Power	
2020-03 RAN#87 R5-200419 0221 F Editorial change of replacing zip file of FR2 6.3.1 by v2 16.3.0	2020-03	R 4 NI#87	R5-200402	0215	<u> </u>	F		1630
2020-03 RANN87 R5-200419 0222 . F Update of test point analysis for 7.6A.3 Out-of-band blocking for CA 16.3.0 2020-03 RANN87 R5-200459 0223 . F Update of test point analysis for 7.6A.4 Narrow band blocking for CA 16.3.0 2020-03 RANN87 R5-200460 0224 . F Update of test point analysis for 7.6A.4 Narrow band blocking for CA 16.3.0 2020-03 RANN87 R5-200674 0226 . F Addition of Test point analysis for 7.6A.9 Nice band intermodulation for 16.3.0 2020-03 RANN87 R5-200603 0227 . F Test Point analysis for R5.20 Fast points analysis for R5.3 16.3.0 2020-03 RANN87 R5-200763 0229 . F Test Point analysis for R5.3 A-MPR FR1 test case 16.3.0 2020-03 RANN87 R5-200762 0231 . F Test points analysis for NS.3 A-MPR FR1 test case 16.3.0 2020-03 RANN87 R5-200768 0234 . F Test points analysis for NS.43 A-MPR FR1 test case 16.3.0 2020-03 RANN87 R5-200768 0234 . F					<u> </u>			
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LZUZUEUN TRANI#XX TRAEZUZUZA TUZAN TITTE TANININON OF FRANSIVEIE K.A. 3.2.1. SECONVIORICA, M1A. M79A TIRA A.A.	2020-06	RAN#88	R5-202918	0239	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	R5-202932	0244	1	F	Addition of TP analysis for FR1 In-band blocking for 3DL CA	16.4.0
2020-06	RAN#88	R5-202952	0243	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	Ė	F	Introduction of spurious emission TP analysis for Rel-16 EN-DC	16.5.0
2020-09	RAN#89	R5-203643	0270	-	F	configuration DC_40A_n1A Introduction of spurious emission TP analysis for Rel-16 EN-DC	16.5.0
2020.00	D 4 NI#00	DE 202751	0275	-	F	configuration DC_40A_n78A Editorial correction to references to EN-DC configurations	16.5.0
2020-09	RAN#89 RAN#89	R5-203751 R5-204720	0275	1	F	Add_TP_analysis_table for TX_spurious_emission	16.5.0 16.5.0
2020-09	RAN#89	R5-204726	0299	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-	16.5.0
2020-03	IXAIN#03	13-204720	0213	ļ '	'	DC	10.5.0
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	16.5.0
2020-09	RAN#89	R5-204792	0281	1	F	UE co-existence Updating test point analysis for DC_2A-n66A for spurious emissions	16.5.0
						UE co-existence	
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	16.5.0
2020-09	RAN#89	R5-204797	0292	1	F	UE co-existence Correction to test point analysis for spurious emissions UE co-	16.5.0
2020-09	RAN#89	R5-204817	0286	1	F	existence for a few inter-band EN-DC configurations Updating test point analysis for DC_3A-n1A for spurious emissions	16.5.0
						UE co-existence	
2020-09	RAN#89	R5-204818	0287	1	F	Updating test point analysis for DC_7A-n1A for spurious emissions UE co-existence	16.5.0
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
	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		F	Updated TP analysis for 7.3B Reference sensitivity for EN-DC in	16.5.0
2020-09	RAN#89	R5-204959	0201	1	F	FR1 Update of TPanalysis 6.5A.3.2.1_SECoex for CA_n1A-n78A	16.5.0
2020-09	RAN#89	R5-204959	0301 0276	1	F	Update test point analysis for A-MPR NS_18 with CBW being	16.5.0
2020-09	KAIN#09	K3-204903	0276	'	Г	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	ļ-	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
2020-12	RAN#90	R5-205619	0312	-	F	Addition of TP Analysis for TC 6.5A.2.1 Spectrum Emission Mask for CA in FR2	16.6.0
2020-12	RAN#90	R5-205630	0313	-	F	Addition of TP Analysis for TC 6.5A.2.2 Adjacent channel leakage	16.6.0
2020-12	RAN#90	R5-205780	0318	-	F	ratio for CA in FR2 Addition of test point analysis for DC_2A_n5A in Tx spurious	16.6.0
2020-12	RAN#90	R5-205781	0319	-	F	emissions cases Addition of test point analysis for DC_8A_n78A in Tx spurious	16.6.0
2020-12	RAN#90	R5-205782	0320	-	F	emissions cases Addition of test point analysis for DC_12A_n66A in Tx spurious	16.6.0
2020-12	RAN#90	R5-205783	0321	-	F	emissions cases Addition of test point analysis for DC_30A_n5A in Tx spurious	16.6.0
						emissions cases	
2020-12	RAN#90	R5-205785	0322	1-	F	Addition of test point analysis for DC_13A_n66A in Tx spurious	16.6.0

						emissions cases	
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
2020-12	RAN#90	R5-206856	0317	1	F	Updating TP analysis for Inband blocking for 3DL CA	16.6.0
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