



TECHNICAL SPECIFICATION

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5G;
Active Antenna System (AAS) Base Station (BS)
conformance testing;
Part 2: radiated conformance testing
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Contents

Intellectual Property Rights	2
Legal Notice	2
Modal verbs terminology.....	2
Foreword.....	13
1 Scope	14
2 References	14
3 Definitions, symbols and abbreviations	16
3.1 Definitions	16
3.2 Symbols.....	20
3.3 Abbreviations	22
4 General test conditions and declarations	23
4.1 Measurement uncertainties and test requirements	23
4.1.1 General.....	23
4.1.2 Acceptable uncertainty of Test System.....	25
4.1.2.1 General	25
4.1.2.2 Measurement of transmitter	26
4.1.2.3 Measurement of receiver	29
4.1.2.4 Measurement of performance requirement	30
4.1.3 Interpretation of measurement results.....	30
4.2 Conducted and radiated requirement reference points	30
4.3 Base station classes for AAS BS	31
4.4 Regional requirements.....	31
4.5 Operating bands and band categories	32
4.6 Channel arrangements	33
4.7 Requirements for AAS BS capable of multi-band operation	33
4.8 AAS BS configurations	34
4.8.1 Transmit configurations	34
4.8.2 Receive configurations	35
4.8.3 Power supply options.....	36
4.8.4 BS with integrated Iuant BS modem	36
4.9 Capability sets	36
4.10 Manufacturer declarations	37
4.11 Test signal configurations for testing	46
4.11.1 General.....	46
4.11.1A NR Test signal used to build Test Configurations	47
4.11.2 Test signal configurations	47
4.11.2.1 ATCR1: UTRA multicarrier operation	47
4.11.2.1.1 General	47
4.11.2.1.2 ATCR1a generation.....	47
4.11.2.1.3 ATCR1b generation.....	47
4.11.2.1.4 ATCR1 power allocation.....	47
4.11.2.2 ANTCR1: UTRA FDD multicarrier non-contiguous operation.....	48
4.11.2.2.1 General	48
4.11.2.2.2 ANTCR1 generation.....	48
4.11.2.2.3 ANTCR1 power allocation.....	48
4.11.2.3 ATCR2: E-UTRA multicarrier operation.....	48
4.11.2.3.1 General	48
4.11.2.3.2 ATCR2a generation.....	48
4.11.2.3.3 ATCR2b generation.....	49
4.11.2.3.4 ATCR2 power allocation.....	49
4.11.2.4 ANTCR2: E-UTRA multicarrier non-contiguous operation	50
4.11.2.4.1 General	50
4.11.2.4.2 ANTCR2 generation.....	50
4.11.2.4.3 ANTCR2 power allocation.....	50

4.11.2.5	ATCR3: UTRA and E-UTRA multi-RAT operation	50
4.11.2.5.1	General	50
4.11.2.5.2	ATCR3a generation.....	51
4.11.2.5.3	ATCR3b generation.....	51
4.11.2.5.4	ATCR3 power allocation.....	51
4.11.2.6	ANTCR3: UTRA and E-UTRA multi-RAT non-contiguous operation.....	51
4.11.2.6.1	General	51
4.11.2.6.2	ANTCR3a generation.....	52
4.11.2.6.3	ANTCR3 power allocation.....	52
4.11.2.7	ATCR4: Single carrier for receiver tests.....	52
4.11.2.7.1	ATCR4a generation.....	52
4.11.2.7.2	ATCR4b generation.....	52
4.11.2.7.3	ATCR4c generation.....	53
4.11.2.7.3A	ATCR4d generation.....	53
11.2.7.4	ATCR4 power allocation.....	53
4.11.2.8	Generation of MB-MSR test configurations	53
4.11.2.8.1	ATCR5a: MB-MSR test configuration for full carrier allocation.....	53
4.11.2.8.2	ATCR5b: MB-MSR test configuration with high PSD per carrier.....	54
4.11.2.9	ATCR6: Single carrier for transmitter tests	55
4.11.2.9.1	ATCR6a generation.....	55
4.11.2.9.2	ATCR6b generation.....	55
4.11.2.9.3	Void.....	55
4.11.2.9.3A	ATCR6d generation.....	55
4.11.2.9.4	ATCR6 power allocation.....	55
4.11.2.10	ATCR7: E-UTRA and NR multi RAT operation.....	56
4.11.2.10.1	General	56
4.11.2.10.2	ATCR7 generation.....	56
4.11.2.10.3	ATCR7 power allocation.....	56
4.11.2.11	ANTCR7: E-UTRA and NR multi RAT non-contiguous operation	56
4.11.2.11.1	General	56
4.11.2.11.2	ANTCR7 generation.....	57
4.11.2.11.3	ANTCR7 power allocation.....	57
4.11.2.12	ATCR8: NR multicarrier operation.....	57
4.11.2.12.1	General	57
4.11.2.12.2	ATCR8a generation.....	57
4.11.2.12.3	ATCR8b generation.....	58
4.11.2.12.4	ATCR8 power allocation.....	58
4.11.2.13	ANTCR8: NR multicarrier non-contiguous operation	58
4.11.2.13.1	General	58
4.11.2.13.2	ANTCR8 generation.....	58
4.11.2.13.3	ANTCR8 power allocation.....	59
4.12	RF channels and test models	59
4.12.1	RF channels	59
4.12.2	Test models	60
4.13	Format and interpretation of tests.....	61
4.14	Reference coordinate system.....	62
4.15	Co-location requirements	63
4.15.1	General.....	63
4.15.2	Co-location test antenna.....	63
4.15.2.1	General	63
4.15.2.2	Co-location test antenna characteristics	63
4.15.2.3	Co-location test antenna alignment	64
5	Applicability of Requirements	65
5.1	General	65
5.2	Test configurations for AAS BS for operating bands where MSR with more than 1 RAT is supported	68
5.3	Test configurations for multi-carrier capable AAS BS in operating bands where one RAT capability sets are supported	75
5.3.1	General.....	75
5.3.2	AAS BS supporting one RAT only MSR in the operating band.....	75
5.3.3	AAS BS supporting Single-RAT UTRA in the operating band.....	81
5.3.4	AAS BS supporting Single-RAT E-UTRA in the operating band.....	85

5.4	Test configurations for AAS BS operating bands with multi-band dependencies.....	87
5.4.1	AAS BS operating bands with multi-band dependencies supporting MSR operation.....	87
5.4.2	AAS BS operating bands with multi-band dependencies supporting Single-RAT only.....	89
6	Radiated transmitter characteristics.....	92
6.1	General.....	92
6.2	Radiated Transmit Power.....	93
6.2.1	Definition and applicability.....	93
6.2.2	Minimum Requirement.....	93
6.2.3	Test purpose.....	94
6.2.4	Method of test.....	94
6.2.4.1	Initial conditions.....	94
6.2.4.2	Procedure.....	94
6.2.5	Test Requirement.....	95
6.3	OTA Base Station output power.....	95
6.3.1	General.....	95
6.3.2	OTA Maximum output power.....	95
6.3.2.1	Definition and applicability.....	95
6.3.2.2	Minimum Requirement.....	96
6.3.2.3	Test purpose.....	96
6.3.2.4	Method of test.....	96
6.3.2.4.1	Initial conditions.....	96
6.3.2.4.2	Procedure.....	96
6.3.2.5	Test Requirement.....	97
6.3.3	OTA E-UTRA DL RS power.....	97
6.3.3.1	Definition and applicability.....	97
6.3.3.2	Minimum Requirement.....	97
6.3.3.3	Test purpose.....	97
6.3.3.4	Method of test.....	97
6.3.3.4.1	Initial conditions.....	97
6.3.3.4.2	Procedure.....	97
6.3.3.5	Test Requirement.....	98
6.4	OTA Output power dynamics.....	98
6.4.1	General.....	98
6.4.2	OTA UTRA Inner loop power control in the downlink.....	98
6.4.2.1	Definition and applicability.....	98
6.4.2.2	Minimum requirement.....	98
6.4.2.3	Test purpose.....	98
6.4.2.4	Method of test.....	98
6.4.2.4.1	Initial conditions.....	98
6.4.2.4.2	Procedure.....	99
6.4.2.5	Test Requirement.....	99
6.4.3	OTA Power control dynamic range.....	100
6.4.3.1	Definition and applicability.....	100
6.4.3.2	Minimum Requirement.....	100
6.4.3.3	Test purpose.....	100
6.4.3.4	Method of test.....	100
6.4.3.4.1	Initial conditions.....	100
6.4.3.4.2	Procedure.....	100
6.4.3.5	Test Requirement.....	101
6.4.4	OTA total power dynamic range.....	101
6.4.4.1	Definition and applicability.....	101
6.4.4.2	Minimum Requirement.....	102
6.4.4.3	Test purpose.....	102
6.4.4.4	Method of test.....	102
6.4.4.4.1	Initial conditions.....	102
6.4.4.4.2	Procedure.....	102
6.4.4.5	Test Requirement.....	103
6.4.4.5.1	UTRA FDD.....	103
6.4.4.5.2	E-UTRA.....	104
6.4.4.5.3	NR.....	104
6.4.5	OTA IPDL time mask.....	105

6.4.5.1	Definition and applicability.....	105
6.4.5.2	Minimum Requirement	105
6.4.5.3	Test purpose	105
6.4.5.4	Method of test	105
6.4.5.4.1	Initial conditions.....	105
6.4.5.4.2	Procedure.....	105
6.4.5.5	Test Requirement	106
6.4.6	OTA RE Power control dynamic range	106
6.4.6.1	Definition and applicability.....	106
6.4.6.2	Minimum Requirement	106
6.4.6.3	Method of test	106
6.5	OTA Transmit ON/OFF power	107
6.5.1	General.....	107
6.5.2	OTA Transmitter OFF power	107
6.5.2.1	Definition and applicability.....	107
6.5.2.2	Minimum Requirement	107
6.5.2.3	Test purpose	107
6.5.2.4	Method of test	107
6.5.2.4.1	Initial conditions.....	107
6.5.2.4.2	Procedure.....	107
6.5.2.5	Test Requirement	108
6.5.3	OTA Transmitter transient period.....	108
6.5.3.1	Definition and applicability.....	108
6.5.3.2	Minimum Requirement	109
6.5.3.3	Test purpose	109
6.5.3.4	Method of test	109
6.5.3.4.1	Initial conditions.....	109
6.5.3.4.2	Procedure.....	109
6.5.3.5	Test Requirement	110
6.6	OTA Transmitted signal quality	110
6.6.1	General.....	110
6.6.2	OTA Frequency Error.....	110
6.6.2.1	Definition and applicability.....	110
6.6.2.2	Minimum Requirement	111
6.6.2.3	Test purpose	111
6.6.2.4	Method of test	111
6.6.2.5	Test Requirement	111
6.6.2.5.1	UTRA FDD test requirement	111
6.6.2.5.2	E-UTRA and NR test requirement	111
6.6.3	OTA Time alignment error	111
6.6.3.1	Definition and applicability.....	111
6.6.3.2	Minimum Requirement	112
6.6.3.3	Test purpose	112
6.6.3.4	Method of test	112
6.6.3.4.1	Initial conditions.....	112
6.6.3.4.2	Procedure.....	113
6.6.3.5	Test Requirement	114
6.6.3.5.1	UTRA FDD test requirement	114
6.6.3.5.2	E-UTRA test requirement.....	114
6.6.3.5.3	NR test requirement.....	114
6.6.4	OTA modulation quality	114
6.6.4.1	Definition and applicability.....	114
6.6.4.2	Minimum Requirement	114
6.6.4.3	Test purpose	115
6.6.4.4	Method of test	115
6.6.4.4.1	UTRA method of test	115
6.6.4.4.2	E-UTRA and NR method of test	116
6.6.4.5	Test Requirement	118
6.6.4.5.1	UTRA test requirement	118
6.6.4.5.2	E-UTRA and NR test requirement	118
6.7	OTA Unwanted Emissions	119
6.7.1	General.....	119

6.7.2	OTA occupied bandwidth.....	119
6.7.2.1	Definition and applicability.....	119
6.7.2.2	Minimum Requirement.....	119
6.7.2.3	Test purpose.....	120
6.7.2.4	Method of test.....	120
6.7.2.4.1	Initial conditions.....	120
6.7.2.4.2	Procedure.....	120
6.7.2.5	Test Requirement.....	121
6.7.2.5.1	MSR.....	121
6.7.2.5.2	UTRA FDD.....	122
6.7.2.5.3	E-UTRA.....	122
6.7.3	OTA Adjacent Channel Leakage power Ratio.....	122
6.7.3.1	Definition and applicability.....	122
6.7.3.2	Minimum Requirement.....	122
6.7.3.3	Test purpose.....	122
6.7.3.4	Method of test.....	122
6.7.3.4.1	Initial conditions.....	122
6.7.3.4.2	Procedure.....	123
6.7.3.4.2.1	General.....	123
6.7.3.4.2.2	MSR.....	124
6.7.3.4.2.3	UTRA FDD.....	124
6.7.3.4.2.4	E-UTRA.....	124
6.7.3.5	Test Requirement.....	125
6.7.3.5.1	MSR.....	125
6.7.3.5.2	UTRA FDD.....	131
6.7.3.5.3	E-UTRA.....	133
6.7.4	OTA Spectrum emission mask.....	136
6.7.4.1	Definition and applicability.....	136
6.7.4.2	Minimum requirement.....	136
6.7.4.3	Test purpose.....	137
6.7.4.4	Method of test.....	137
6.7.4.4.1	Initial conditions.....	137
6.7.4.4.2	Procedure.....	137
6.7.4.5	Test Requirement.....	138
6.7.4.5.1	UTRA FDD.....	138
6.7.5	OTA Operating band unwanted emission.....	147
6.7.5.1	Definition and applicability.....	147
6.7.5.2	Minimum Requirement.....	147
6.7.5.3	Test purpose.....	148
6.7.5.4	Method of test.....	148
6.7.5.4.1	Initial conditions.....	148
6.7.5.4.2	Procedure.....	148
6.7.5.5	Test Requirement.....	149
6.7.5.5.1	General.....	149
6.7.5.5.2	MSR Band categories 1 and 3.....	149
6.7.5.5.3	MSR Band Category 2.....	158
6.7.5.5.4	MSR Additional requirements.....	165
6.7.5.5.5	E-UTRA.....	169
6.7.6	OTA Spurious emission.....	190
6.7.6.1	General.....	190
6.7.6.2	Mandatory Requirements.....	191
6.7.6.2.1	Definition and applicability.....	191
6.7.6.2.2	Minimum Requirement.....	191
6.7.6.2.3	Test purpose.....	191
6.7.6.2.4	Method of test.....	191
6.7.6.2.5	Test Requirement.....	192
6.7.6.3	Protection of the BS receiver of own or different BS.....	195
6.7.6.3.1	Definition and applicability.....	195
6.7.6.3.2	Minimum Requirement.....	195
6.7.6.3.3	Test purpose.....	195
6.7.6.3.4	Method of test.....	195
6.7.6.3.5	Test Requirement.....	197

6.7.6.4	Additional spurious emissions requirements.....	198
6.7.6.4.1	Definition and applicability.....	198
6.7.6.4.2	Minimum Requirement.....	198
6.7.6.4.3	Test purpose.....	198
6.7.6.4.4	Method of test.....	198
6.7.6.4.5	Test Requirement.....	200
6.7.6.5	Co-location with other base stations.....	229
6.7.6.5.1	Definition and applicability.....	229
6.7.6.5.2	Minimum Requirement.....	229
6.7.6.5.3	Test purpose.....	229
6.7.6.5.4	Method of test.....	229
6.7.6.5.5	Test Requirement.....	229
6.8	OTA Transmitter intermodulation.....	246
6.8.1	Definition and applicability.....	246
6.8.2	Minimum Requirement.....	246
6.8.3	Test purpose.....	246
6.8.4	Method of test.....	247
6.8.4.1	Initial conditions.....	247
6.8.4.2	Procedure.....	247
6.8.5	Test Requirement.....	249
6.8.5.1	MSR test requirements.....	249
6.8.5.1.1	General test requirement.....	249
6.8.5.1.2	Additional test requirement (BC1 and BC2).....	250
6.8.5.1.3	Additional test requirement (BC3).....	251
6.8.5.2	Single RAT UTRA operation.....	251
6.8.5.2.1	General test requirement for UTRA FDD.....	251
6.8.5.3	Single RAT E-UTRA operation.....	252
6.8.5.3.1	General test requirement.....	252
6.8.5.3.2	Void.....	253
7	Radiated receiver characteristics.....	253
7.1	General.....	253
7.2	OTA sensitivity.....	253
7.2.1	Definition and applicability.....	253
7.2.2	Minimum Requirement.....	254
7.2.3	Test Purpose.....	254
7.2.4	Method of test.....	254
7.2.4.1	Initial conditions.....	254
7.2.4.2	Procedure.....	254
7.2.5	Test Requirements.....	255
7.2.5.1	General.....	255
7.2.5.2	UTRA FDD Test Requirements.....	255
7.2.5.3	UTRA TDD 1,28Mcp option Test Requirements.....	256
7.2.5.4	E-UTRA Test Requirements.....	256
7.2.5.5	NR Test Requirements.....	256
7.3	OTA Reference sensitivity level.....	257
7.3.1	Definition and applicability.....	257
7.3.2	Minimum Requirement.....	257
7.3.3	Test purpose.....	257
7.3.4	Method of test.....	257
7.3.4.1	Initial conditions.....	257
7.3.4.2	Procedure.....	258
7.3.5	Test Requirement.....	258
7.3.5.1	General.....	258
7.3.5.2	UTRA FDD Test Requirements.....	258
7.3.5.3	E-UTRA Test Requirements.....	259
7.3.5.4	NR Test Requirements.....	260
7.4	OTA Dynamic range.....	262
7.4.1	Definition and applicability.....	262
7.4.2	Minimum Requirement.....	262
7.4.3	Test purpose.....	262
7.4.4	Method of test.....	262

7.4.4.1	Initial conditions	262
7.4.4.2	Procedure	262
7.4.5	Test Requirement	263
7.4.5.1	UTRA FDD operation.....	263
7.4.5.2	E-UTRA operation.....	263
7.4.5.3	NR operation.....	265
7.5	OTA Adjacent channel selectivity, general blocking, and narrowband blocking.....	269
7.5.1	Definition and applicability	269
7.5.2	Minimum Requirement.....	269
7.5.3	Test purpose.....	269
7.5.4	Method of test	269
7.5.4.1	Initial conditions	269
7.5.4.2	Procedure	270
7.5.4.2.1	General procedure	270
7.5.4.2.2	MSR operation	270
7.5.4.2.3	Single RAT UTRA FDD operation.....	271
7.5.4.2.4	Single RAT E-UTRA operation	271
7.5.5	Test Requirement.....	272
7.5.5.1	MSR operation	272
7.5.5.1.1	General blocking test requirement.....	272
7.5.5.1.2	General narrowband blocking test requirement.....	273
7.5.5.1.3	Additional BC3 blocking test requirement	274
7.5.5.2	Single RAT UTRA FDD operation.....	275
7.5.5.3	Single RAT E-UTRA operation.....	276
7.6	OTA Blocking	278
7.6.1	General.....	278
7.6.2	General Requirement	279
7.6.2.1	Definition and applicability.....	279
7.6.2.2	Minimum Requirement	279
7.6.2.3	Test purpose	279
7.6.2.4	Method of test	279
7.6.2.4.1	Initial conditions	279
7.6.2.4.2	Procedure.....	279
7.6.2.5	Test Requirement	281
7.6.2.5.1	MSR operation	281
7.6.2.5.2	Single RAT UTRA FDD operation	282
7.6.2.5.3	Single RAT E-UTRA operation	283
7.6.3	Co-location Requirement.....	284
7.6.3.1	Definition and applicability.....	284
7.6.3.2	Minimum Requirement	284
7.6.3.3	Test purpose	285
7.6.3.4	Method of test	285
7.6.3.4.1	Initial conditions	285
7.6.3.4.2	Procedure.....	285
7.6.3.5	Test Requirement	285
7.6.3.5.1	MSR operation	285
7.6.3.5.2	Single RAT UTRA FDD operation	291
7.6.3.5.3	Single RAT E-UTRA operation	295
7.7	OTA Receiver spurious emissions	301
7.7.1	Definition and applicability	301
7.7.2	Minimum Requirement.....	301
7.7.3	Test purpose.....	301
7.7.4	Method of test	301
7.7.4.1	Initial conditions	301
7.7.4.2	Procedure	301
7.7.5	Test Requirement.....	302
7.8	OTA Receiver intermodulation	303
7.8.1	Definition and applicability	303
7.8.2	Minimum Requirement.....	303
7.8.3	Test purpose.....	303
7.8.4	Method of test	303
7.8.4.1	Initial conditions	303

7.8.4.2	Procedure	303
7.8.4.2.1	General procedure	303
7.8.4.2.2	MSR operation	304
7.8.4.2.3	Single RAT UTRA FDD operation	304
7.8.4.2.4	Single RAT E-UTRA operation	304
7.8.5	Test Requirement	305
7.8.5.1	MSR operation	305
7.8.5.1.1	General intermodulation test requirement	305
7.8.5.1.2	General narrowband intermodulation test requirement	307
7.8.5.2	Single RAT UTRA operation	311
7.8.5.3	Single RAT E- UTRA operation	312
7.9	OTA In-channel selectivity	316
7.9.1	Definition and applicability	316
7.9.2	Minimum Requirement	316
7.9.3	Test purpose	317
7.9.4	Method of test	317
7.9.4.1	Initial conditions	317
7.9.4.2	Procedure	317
7.9.5	Test Requirement	318
7.9.5.1	E-UTRA test requirement	318
7.9.5.2	NR test requirement	319
8	Radiated performance requirements	322
8.1	General	322
8.1.1	OTA demodulation branches	323
8.2	Radiated performance requirements for MSR	323
8.3	Radiated performance requirements for UTRA FDD	323
8.3.1	General	323
8.3.2	Definitions and applicability	324
8.3.3	Minimum requirements	325
8.3.4	Test purposes	325
8.3.5	Method of test	325
8.3.5.1	Initial conditions	325
8.3.5.2	Procedure	325
8.3.6	Test requirements	326
8.4	Radiated performance requirements for E-UTRA	327
8.4.1	General	327
8.4.2	Definitions and applicability	328
8.4.3	Minimum requirements	328
8.4.4	Test purposes	328
8.4.5	Method of test	329
8.4.5.1	Initial conditions	329
8.4.5.2	Procedure	329
8.4.6	Test requirements	330
8.5	Radiated performance requirements for NR	330
8.5.1	General	330
8.5.2	Definitions and applicability	331
8.5.3	Minimum requirements	331
8.5.4	Test purposes	332
8.5.5	Method of test	332
8.5.5.1	Initial conditions	332
8.5.5.2	Procedure	332
8.5.6	Test requirements	333
Annex A (normative): Test system characterization		334
Annex B (normative): Calibration		335
Annex C (informative): Test tolerances and derivation of test requirements		336
C.1	General	336
C.2	Measurement of transmitter (OTA)	337

C.3	Measurement of receiver (OTA)	339
Annex D (informative): Test system set-up		340
D.1	Transmitter	340
D.1.1	Radiated Transmit Power, OTA E-UTRA DL RS power, output power dynamics and Transmitter signal quality	340
D.1.2	OTA Base Station output power, ACLR, OTA spectrum emissions mask, OTA operating band unwanted emissions	341
D.1.3	OTA spurious emissions	341
D.1.4	OTA Co-location emissions, TX OFF power	342
D.1.5	OTA Transmitter Intermodulation	342
D.2	Receiver	343
D.2.1	OTA sensitivity and OTA Reference sensitivity	343
D.2.2	OTA Dynamic range	343
D.2.3	OTA Adjacent channel selectivity, general blocking, and narrowband blocking	344
D.2.4	OTA Blocking	345
D.2.5	OTA Receiver spurious emissions	346
D.2.6	OTA Receiver intermodulation	346
D.2.7	OTA In-channel selectivity	347
D.3	Performance requirements	348
Annex E (normative): Estimation of Measurement Uncertainty		349
E.1	General	349
E.2	Measurement methodology descriptions	349
E.3	Measurement uncertainty budget format	349
E.4	Measurement uncertainty budgets	349
E.5	Measurement error contribution descriptions	349
Annex F (normative): TRP measurement grids		350
F.1	General	350
F.2	Spherical equal angle grid	350
F.2.1	General	350
F.2.2	Reference angular step criteria	350
F.3	Spherical equal area grid	352
F.4	Spherical Fibonacci grid	353
F.5	Orthogonal cut grid	353
F.5.1	General	353
F.5.2	Operating band unwanted emissions	354
F.5.3	Spurious unwanted emissions	354
F.6	Wave vector space grid	355
F.7	Orthogonal 2 cuts with pattern multiplication	355
F.8	Void	355
F.9	Full sphere with sparse sampling	355
F.10	Beam-based directions	356
F.11	Peak method	356
F.12	Equal sector with peak average	356
F.13	Pre-scan	357
Annex G (normative): Environmental requirements for the BS equipment		358

G.1	General	358
G.2	Normal test environment	358
G.3	Extreme test environment.....	358
G.3.1	General	358
G.3.2	Extreme temperature	358
G.4	Vibration.....	359
G.5	Power supply	359
G.6	Measurement of test environments.....	359
G.7	OTA extreme test methods.....	360
G.7.1	Direct far field method	360
G.7.2	Relative method.....	360
Annex H (informative): Measuring noise close to noise-floor		362
Annex I (informative): Change history.....		363
History		368

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Foreword

This Technical Specification has been produced by the 3rd Generation Partnership Project (3GPP).

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1 Scope

The present document specifies radiated test methods and conformance requirements for 2 types of AAS BS; *hybrid requirements set* which specify requirements for a *hybrid AAS BS* with both a conducted and a radiated interface and *OTA requirements set* which specify requirements for an *OTA AAS BS* which has a radiated interface only.

The *hybrid AAS BS* requirements are specified for E-UTRA AAS Base Station (BS), the FDD mode of UTRA AAS Base Station (BS), the 1,28 Mcps TDD mode of UTRA AAS Base Station (BS) in single RAT and any MSR AAS Base Station (BS) implementation of these RATs including NR operation.

The *OTA AAS BS* requirements are specified for E-UTRA AAS Base Station (BS), the FDD mode of UTRA AAS Base Station (BS), in single RAT and any MSR AAS Base Station (BS) implementation of these RATs and/or NR.

The requirements have been derived from, and are consistent with non-AAS BS specifications in TS 25.104 [2], TS 25.105 [3], TS 36.104 [4] or TS 37.104 [5] and where applicable with the NR specification 38.104 [33]. The technical specification TS 37.145 is in 2 parts, part TS 37.145-1 [9] covers conducted requirements and part TS 37.145-2 (the present document) covers radiated requirements.

The present document does not establish radiated test methods and conformance requirements for Band 46 operation as it is not supported by AAS BS. Conducted Band 46 test requirements are still applicable for AAS BS for protection of and against Band 46 operation, as specified in TS 37.145-1 [9].

The present document does not establish minimum RF characteristics or minimum performance requirements for Narrow-Band Internet of Things (NB-IoT) in band, NB-IoT guard band, or standalone NB-IoT operation, for AAS BS in *single RAT E-UTRA operation* or in *MSR operation* using E-UTRA.

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 25.104: "Base Station (BS) radio transmission and reception (FDD)".
- [3] 3GPP TS 25.105: "Base Station (BS) radio transmission and reception (TDD)".
- [4] 3GPP TS 36.104: "Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) radio transmission and reception".
- [5] 3GPP TS 37.104: "NR, E-UTRA, UTRA and GSM/EDGE; Multi-Standard Radio (MSR) Base Station (BS) radio transmission and reception".
- [6] 3GPP TS 37.105: "Active Antenna System (AAS) Base Station (BS) transmission and reception".
- [7] Void
- [8] Recommendation ITU-R M.1545: "Measurement uncertainty as it applies to test limits for the terrestrial component of International Mobile Telecommunications-2000".
- [9] 3GPP TS 37.145-1: "Active Antenna System (AAS) Base Station (BS) conformance testing; Part 1: Conducted conformance testing".
- [10] 3GPP TS 25.141: "Base Station (BS) conformance testing (FDD)".