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**Universal Mobile Telecommunications System (UMTS);
LTE;
Active Antenna System (AAS) Base Station (BS)
transmission and reception
(3GPP TS 37.105 version 15.7.0 Release 15)**



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Contents

Intellectual Property Rights	2
Legal Notice	2
Modal verbs terminology.....	2
Foreword.....	11
1 Scope	12
2 References	12
3 Definitions, symbols and abbreviations	13
3.1 Definitions	13
3.2 Symbols.....	18
3.3 Abbreviations	19
4 General	19
4.1 Relationship between the AAS BS specification and non-AAS BS single RAT & MSR specifications	19
4.2 Relationship between minimum requirements and test requirements	20
4.3 Conducted and radiated requirement reference points	21
4.4 Base station classes for AAS BS	22
4.5 Regional requirements.....	22
4.6 Operating Bands and Band Categories	24
4.7 Channel arrangements	24
4.8 Requirements for contiguous and non-contiguous spectrum.....	24
4.9 Requirements for AAS BS capable of operation in multiple operating bands	24
4.10 OTA Co-location with other base stations	25
5 Applicability of Requirements	26
5.1 General	26
5.2 Band category 1 (BC1) and band category 2 (BC2)	27
5.3 Band category 3 (BC3).....	30
6 Conducted transmitter characteristics	33
6.1 General	33
6.2 Base station output power	33
6.2.1 General.....	33
6.2.2 Maximum output power.....	34
6.2.2.1 General	34
6.2.2.2 Minimum requirement for MSR operation	34
6.2.2.2.1 General	34
6.2.2.2.2 Additional requirements (regional).....	34
6.2.2.3 Minimum requirement for single RAT UTRA operation.....	34
6.2.2.4 Minimum requirement for single RAT E-UTRA operation.....	34
6.2.2.4.1 General	34
6.2.2.4.2 Additional requirements (regional).....	34
6.2.3 UTRA FDD primary CPICH power	34
6.2.3.1 General	34
6.2.3.2 Minimum requirement for MSR operation	35
6.2.3.3 Minimum requirement for single RAT UTRA operation.....	35
6.2.3.4 Minimum requirement for single RAT E-UTRA operation.....	35
6.2.4 UTRA TDD primary CCPCH power.....	35
6.2.4.1 General	35
6.2.4.2 Minimum requirement for MSR operation	35
6.2.4.3 Minimum requirement for single RAT UTRA operation.....	35
6.2.4.4 Minimum requirement for single RAT E-UTRA operation.....	36
6.2.5 UTRA FDD additional CPICH power for MIMO mode	36
6.2.5.1 General	36
6.2.5.2 Minimum requirement for MSR operation	37
6.2.5.3 Minimum requirement for single RAT UTRA operation.....	37

6.2.5.4	Minimum requirement for single RAT E-UTRA operation.....	38
6.2.6	E-UTRA DL RS power.....	38
6.2.6.1	General.....	38
6.2.6.2	Minimum requirement for MSR operation.....	38
6.2.6.3	Minimum requirement for single RAT UTRA operation.....	38
6.2.6.4	Minimum requirement for single RAT E-UTRA operation.....	38
6.3	Output power dynamics.....	38
6.3.1	General.....	38
6.3.2	UTRA Inner loop power control in the downlink.....	39
6.3.2.1	General.....	39
6.3.2.2	Minimum requirement for MSR operation.....	39
6.3.2.3	Minimum requirement for single RAT UTRA operation.....	39
6.3.2.4	Minimum requirement for single RAT E-UTRA operation.....	39
6.3.3	Power control dynamic range.....	40
6.3.3.1	General.....	40
6.3.3.2	Minimum requirement for MSR operation.....	40
6.3.3.3	Minimum requirement for single RAT UTRA operation.....	40
6.3.3.4	Minimum requirement for single RAT E-UTRA operation.....	40
6.3.4	Total power dynamic range.....	40
6.3.4.1	General.....	40
6.3.4.2	Minimum requirement for MSR operation.....	40
6.3.4.3	Minimum requirement for single RAT UTRA operation.....	41
6.3.4.4	Minimum requirement for single RAT E-UTRA operation.....	41
6.3.5	IPDL time mask.....	41
6.3.5.1	General.....	41
6.3.5.2	Minimum requirement for MSR operation.....	41
6.3.5.3	Minimum requirement for single RAT UTRA operation.....	41
6.3.5.4	Minimum requirement for single RAT E-UTRA operation.....	41
6.3.6	RE Power control dynamic range.....	41
6.3.6.1	General.....	41
6.3.6.2	Minimum requirement for MSR operation.....	42
6.3.6.3	Minimum requirement for single RAT UTRA operation.....	42
6.3.6.4	Minimum requirement for single RAT E-UTRA operation.....	42
6.4	Transmit ON/OFF power.....	42
6.4.1	General.....	42
6.4.2	Transmitter OFF power.....	42
6.4.2.1	General.....	42
6.4.2.2	Minimum requirement for MSR operation.....	42
6.4.2.3	Minimum requirement for single RAT UTRA operation.....	42
6.4.2.4	Minimum requirement for single RAT E-UTRA operation.....	42
6.4.3	Transmitter transient period.....	43
6.4.3.1	General.....	43
6.4.3.2	Minimum requirement for MSR operation.....	43
6.4.3.3	Minimum requirement for single RAT UTRA operation.....	43
6.4.3.4	Minimum requirement for single RAT E-UTRA operation.....	43
6.5	Transmitted signal quality.....	43
6.5.1	General.....	43
6.5.2	Frequency Error.....	43
6.5.2.1	General.....	43
6.5.2.2	Minimum requirement for MSR operation.....	44
6.5.2.3	Minimum requirement for single RAT UTRA operation.....	44
6.5.2.4	Minimum requirement for single RAT E-UTRA operation.....	44
6.5.3	Time alignment error.....	44
6.5.3.1	General.....	44
6.5.3.2	Minimum requirement for MSR operation.....	45
6.5.3.3	Minimum requirement for single RAT UTRA operation.....	45
6.5.3.4	Minimum requirement for single RAT E-UTRA operation.....	45
6.5.4	Modulation quality.....	45
6.5.4.1	General.....	45
6.5.4.2	Minimum requirement for MSR operation.....	45
6.5.4.3	Minimum requirement for single RAT UTRA operation.....	45
6.5.4.4	Minimum requirement for single RAT E-UTRA operation.....	46

6.5.5	Transmit pulse shape filter.....	46
6.5.5.1	General.....	46
6.5.5.2	Void.....	47
6.5.5.3	Void.....	47
6.5.5.4	Void.....	47
6.6	Unwanted Emissions.....	47
6.6.1	General.....	47
6.6.2	Occupied bandwidth.....	47
6.6.2.1	General.....	47
6.6.2.2	Minimum requirement for MSR operation.....	48
6.6.2.3	Minimum requirement for single RAT UTRA operation.....	48
6.6.2.4	Minimum requirement for single RAT E-UTRA operation.....	48
6.6.3	Adjacent Channel Leakage power Ratio.....	48
6.6.3.1	General.....	48
6.6.3.2	Minimum requirement for MSR operation.....	48
6.6.3.3	Minimum requirement for single RAT UTRA operation.....	49
6.6.3.4	Minimum requirement for single RAT E-UTRA operation.....	49
6.6.4	Spectrum emission mask.....	49
6.6.4.1	General.....	49
6.6.4.2	Minimum requirement for MSR operation.....	49
6.6.4.3	Minimum requirement for single RAT UTRA operation.....	49
6.6.4.3.1	General.....	49
6.6.4.3.2	Basic limits for single RAT UTRA FDD operation.....	50
6.6.4.3.3	Basic limits for single RAT UTRA TDD 1,28 Mcps operation.....	55
6.6.4.4	Minimum requirement for single RAT E-UTRA operation.....	57
6.6.5	Operating band unwanted emission.....	58
6.6.5.1	General.....	58
6.6.5.2	Minimum requirement for MSR operation.....	58
6.6.5.2.1	General.....	58
6.6.5.2.2	<i>Basic limits</i> for Band Categories 1 and 3.....	58
6.6.5.2.3	<i>Basic limit</i> for Band Category 2.....	64
6.6.5.2.4	Additional requirements.....	71
6.6.5.3	Minimum requirement for single RAT UTRA operation.....	71
6.6.5.4	Minimum requirement for single RAT E-UTRA operation.....	71
6.6.5.4.1	General.....	71
6.6.5.4.2	Basic limits for Wide Area BS (Category A).....	73
6.6.5.4.3	Basic limits for Wide Area BS (Category B).....	75
6.6.5.4.3.1	General.....	75
6.6.5.4.3.2	Category B requirements (Option 1).....	75
6.6.5.4.3.3	Category B (Option 2).....	79
6.6.5.4.4	Basic limits for Local Area BS (Category A and B).....	81
6.6.5.4.5	Basic limits for Medium Range BS (Category A and B).....	82
6.6.5.4.7	Additional requirements.....	84
6.6.6	Spurious emission.....	84
6.6.6.1	General.....	84
6.6.6.2	Minimum requirement for MSR operation.....	84
6.6.6.3	Minimum requirement for single RAT UTRA operation.....	85
6.6.6.4	Minimum requirement for single RAT E-UTRA operation.....	85
6.7	Transmitter intermodulation.....	85
6.7.1	General.....	85
6.7.2	Minimum requirement for MSR operation.....	86
6.7.2.1	General co-location minimum requirement.....	86
6.7.2.2	Additional co-location minimum requirement (BC1 and BC2).....	87
6.7.2.3	Additional co-location minimum requirement (BC3).....	87
6.7.2.4	Additional co-location minimum requirements.....	88
6.7.2.5	Intra-system minimum requirement.....	88
6.7.3	Minimum requirement for single RAT UTRA operation.....	88
6.7.3.1	General co-location minimum requirement for FDD UTRA.....	88
6.7.3.2	General co-location minimum requirement for 1,28 Mcps TDD UTRA.....	89
6.7.3.3	Intra-system minimum requirement.....	89
6.7.4	Minimum requirement for single RAT E-UTRA operation.....	90
6.7.4.1	General co-location minimum requirement.....	90

6.7.4.2	Additional requirement for Band 41	90
6.7.4.3	Intra-system minimum requirement	91
7	Conducted receiver characteristics	91
7.1	General	91
7.2	Reference sensitivity level.....	92
7.2.1	General.....	92
7.2.2	Minimum requirement for MSR operation	92
7.2.3	Minimum requirement for single RAT UTRA operation	92
7.2.4	Minimum requirement for single RAT E-UTRA operation.....	92
7.3	Dynamic range	93
7.3.1	General.....	93
7.3.2	Minimum requirement for MSR operation	93
7.3.3	Minimum requirement for single RAT UTRA operation	93
7.3.4	Minimum requirement for single RAT E-UTRA operation.....	93
7.4	Adjacent channel selectivity, general blocking, and narrowband blocking.....	94
7.4.1	General.....	94
7.4.2	Minimum requirement for MSR operation	94
7.4.2.1	General minimum requirement	94
7.4.2.2	General narrowband blocking minimum requirement	95
7.4.2.3	Additional BC3 blocking minimum requirement.....	96
7.4.3	Minimum requirement for single RAT UTRA operation	97
7.4.4	Minimum requirement for single RAT E-UTRA operation.....	97
7.5	Blocking.....	97
7.5.1	General.....	97
7.5.2	Minimum requirement for MSR operation	97
7.5.2.1	General minimum requirement	97
7.5.2.2	Co-location minimum requirement	98
7.5.3	Minimum requirement for single RAT UTRA operation.....	102
7.5.3.1	General minimum requirement	102
7.5.3.2	Co-location minimum requirement.....	103
7.5.4	Minimum requirement for single RAT E-UTRA operation.....	103
7.5.4.1	General minimum requirement	103
7.5.4.2	Co-location minimum requirement	107
7.6	Receiver spurious emissions.....	107
7.6.1	General.....	107
7.6.2	Minimum requirement for MSR operation	108
7.6.2.1	General minimum requirement.....	108
7.6.3	Minimum requirement for single RAT UTRA operation	108
7.6.4	Minimum requirement for single RAT E-UTRA operation.....	109
7.7	Receiver intermodulation	109
7.7.1	General.....	109
7.7.2	Minimum requirement for MSR operation	109
7.7.2.1	General intermodulation minimum requirement.....	109
7.7.2.2	General narrowband intermodulation minimum requirement.....	111
7.7.3	Minimum requirement for single RAT UTRA operation	115
7.7.4	Minimum requirement for single RAT E- UTRA operation.....	115
7.8	In-channel selectivity	115
7.8.1	General.....	115
7.8.2	Minimum requirement for MSR operation	115
7.8.3	Minimum requirement for single RAT UTRA operation	115
7.8.4	Minimum requirement for single RAT E-UTRA operation.....	116
8	Performance requirements.....	116
8.1	General	116
8.1.1	UTRA operation	116
8.1.2	E-UTRA operation.....	117
8.2	Minimum requirements for MSR operation	118
8.3	Minimum requirements for UTRA operation.....	118
8.4	Minimum requirements for E-UTRA operation.....	118
9	Radiated transmitter characteristics.....	118
9.1	General	118

9.2	Radiated transmit power.....	119
9.2.1	General.....	119
9.2.2	Minimum requirement for MSR operation.....	119
9.2.3	Minimum requirement for single RAT UTRA operation.....	119
9.2.4	Minimum requirement for single RAT E-UTRA operation.....	119
9.3	OTA Base Station output power.....	120
9.3.1	General.....	120
9.3.2	OTA Maximum output power.....	120
9.3.2.1	General.....	120
9.3.2.2	Minimum requirement for MSR operation.....	120
9.3.2.2.1	General.....	120
9.3.2.2.2	Additional requirements (regional).....	120
9.3.2.3	Minimum requirement for single RAT UTRA operation.....	120
9.3.2.4	Minimum requirement for single RAT E-UTRA operation.....	120
9.3.2.4.1	General.....	120
9.3.2.4.2	Additional requirements (regional).....	121
9.3.3	OTA E-UTRA DL RS power.....	121
9.3.3.1	General.....	121
9.3.3.2	Minimum requirement for MSR operation.....	121
9.3.3.3	Minimum requirement for single RAT UTRA operation.....	121
9.3.3.4	Minimum requirement for single RAT E-UTRA operation.....	121
9.4	OTA Output power dynamics.....	121
9.4.1	General.....	121
9.4.2	OTA UTRA Inner loop power control in the downlink.....	121
9.4.2.1	General.....	121
9.4.2.2	Minimum requirement for MSR operation.....	121
9.4.2.3	Minimum requirement for single RAT UTRA operation.....	122
9.4.2.4	Minimum requirement for single RAT E-UTRA operation.....	122
9.4.3	OTA Power control dynamic range.....	122
9.4.3.1	General.....	122
9.4.3.2	Minimum requirement for MSR operation.....	122
9.4.3.3	Minimum requirement for single RAT UTRA operation.....	122
9.4.3.4	Minimum requirement for single RAT E-UTRA operation.....	123
9.4.4	OTA Total power dynamic range.....	123
9.4.4.1	General.....	123
9.4.4.2	Minimum requirement for MSR operation.....	123
9.4.4.3	Minimum requirement for single RAT UTRA operation.....	123
9.4.4.4	Minimum requirement for single RAT E-UTRA operation.....	123
9.4.5	OTA IPDL time mask.....	124
9.4.5.1	General.....	124
9.4.5.2	Minimum requirement for MSR operation.....	124
9.4.5.3	Minimum requirement for single RAT UTRA operation.....	124
9.4.5.4	Minimum requirement for single RAT E-UTRA operation.....	124
9.4.6	OTA RE Power control dynamic range.....	124
9.4.6.1	General.....	124
9.4.6.2	Minimum requirement for MSR operation.....	125
9.4.6.3	Minimum requirement for single RAT UTRA operation.....	125
9.4.6.4	Minimum requirement for single RAT E-UTRA operation.....	125
9.5	OTA Transmit ON/OFF power.....	125
9.5.1	General.....	125
9.5.2	OTA Transmitter OFF power.....	125
9.5.2.1	General.....	125
9.5.2.2	Minimum requirement for MSR operation.....	126
9.5.2.3	Minimum requirement for single RAT UTRA operation.....	126
9.5.2.4	Minimum requirement for single RAT E-UTRA operation.....	126
9.5.3	OTA Transmitter transient period.....	126
9.5.3.1	General.....	126
9.5.3.2	Minimum requirement for MSR operation.....	126
9.5.3.3	Minimum requirement for single RAT UTRA operation.....	127
9.5.3.4	Minimum requirement for single RAT E-UTRA operation.....	127
9.6	OTA Transmitted signal quality.....	127
9.6.1	General.....	127

9.6.2	OTA Frequency Error.....	127
9.6.2.1	General.....	127
9.6.2.2	Minimum requirement for MSR operation.....	127
9.6.2.3	Minimum requirement for single RAT UTRA operation.....	127
9.6.2.4	Minimum requirement for single RAT E-UTRA operation.....	127
9.6.3	OTA Time alignment error.....	128
9.6.3.1	General.....	128
9.6.3.2	Minimum requirement for MSR operation.....	128
9.6.3.3	Minimum requirement for single RAT UTRA operation.....	128
9.6.3.4	Minimum requirement for single RAT E-UTRA operation.....	128
9.6.4	OTA Modulation quality.....	129
9.6.4.1	General.....	129
9.6.4.2	Minimum requirement for MSR operation.....	129
9.6.4.3	Minimum requirement for single RAT UTRA operation.....	129
9.6.4.4	Minimum requirement for single RAT E-UTRA operation.....	129
9.6.5	OTA Transmit pulse shape filter.....	129
9.6.5.1	General.....	129
9.7	OTA Unwanted Emissions.....	130
9.7.1	General.....	130
9.7.2	OTA occupied bandwidth.....	130
9.7.2.1	General.....	130
9.7.2.2	Minimum requirement for MSR operation.....	131
9.7.2.3	Minimum requirement for single RAT UTRA operation.....	131
9.7.2.4	Minimum requirement for single RAT E-UTRA operation.....	131
9.7.3	OTA Adjacent Channel Leakage power Ratio.....	131
9.7.3.1	General.....	131
9.7.3.2	Minimum requirement for MSR operation.....	131
9.7.3.3	Minimum requirement for single RAT UTRA operation.....	132
9.7.3.4	Minimum requirement for single RAT E-UTRA operation.....	132
9.7.4	OTA Spectrum emission mask.....	133
9.7.4.1	General.....	133
9.7.4.2	Minimum requirement for MSR operation.....	133
9.7.4.3	Minimum requirement for single RAT UTRA operation.....	133
9.7.4.3.1	General.....	133
9.7.4.3.2	Minimum requirements for single RAT UTRA FDD operation.....	133
9.7.4.4	Minimum requirement for single RAT E-UTRA operation.....	139
9.7.5	OTA Operating band unwanted emission.....	139
9.7.5.1	General.....	139
9.7.5.2	Minimum requirement for MSR operation.....	141
9.7.5.2.1	General.....	141
9.7.5.2.2	Minimum requirements for Band Categories 1 and 3.....	141
9.7.5.2.3	<i>Minimum requirement</i> for Band Category 2.....	145
9.7.5.2.4	Additional requirements.....	151
9.7.5.2.4.1	Limits in FCC Title 47.....	151
9.7.5.2.4.2	Unsynchronized operation for BC3.....	151
9.7.5.2.4.3	Protection of DTT.....	152
9.7.5.3	Minimum requirement for single RAT UTRA operation.....	152
9.7.5.4	Minimum requirement for single RAT E-UTRA operation.....	152
9.7.5.4.1	General.....	152
9.7.5.4.2	Minimum requirements for Wide Area BS (Category A).....	153
9.7.5.4.3	Minimum requirements for Wide Area BS (Category B).....	156
9.7.5.4.3.1	General.....	156
9.7.5.4.3.2	Category B requirements (Option 1).....	156
9.7.5.4.3.3	Category B requirements (Option 2).....	159
9.7.5.4.4	Minimum requirements for Local Area BS (Category A and B).....	161
9.7.5.4.5	Minimum requirements for Medium Range BS (Category A and B).....	163
9.7.5.4.6	Additional requirements.....	165
9.7.6	OTA Spurious emission.....	165
9.7.6.1	General.....	165
9.7.6.2	MSR operation.....	166
9.7.6.2.1	Minimum requirement for MSR operation.....	166
9.7.6.2.1.1	Minimum requirement (Category A).....	166

9.7.6.2.1.2	Minimum requirement (Category B)	166
9.7.6.2.1.3	(void).....	166
9.7.6.2.2	Protection of the BS receiver of own or different BS	166
9.7.6.2.3	Additional spurious emissions requirements	166
9.7.6.2.4	Co-location with other base stations.....	167
9.7.6.3	Minimum requirement for single RAT UTRA operation.....	167
9.7.6.3.1	Mandatory Requirements	167
9.7.6.3.1.1	Minimum requirement (Category A)	167
9.7.6.3.1.2	Minimum requirement (Category B)	167
9.7.6.3.2	Protection of the BS receiver of own or different BS	168
9.7.6.3.3	Additional spurious emissions requirements	168
9.7.6.3.4	Co-location with other base stations.....	175
9.7.6.3.4.1	General.....	175
9.7.6.3.4.2	Minimum Requirement.....	175
9.7.6.4	Minimum requirement for single RAT E-UTRA operation.....	181
9.7.6.4.1	Mandatory Requirements	181
9.7.6.4.1.1	Minimum requirement (Category A)	181
9.7.6.4.1.2	Minimum Requirement (Category B).....	181
9.7.6.4.2	Protection of the BS receiver of own or different BS	181
9.7.6.4.3	Additional spurious emissions requirements	181
9.7.6.4.3.1	General.....	181
9.7.6.4.3.2	Minimum Requirement.....	182
9.7.6.4.4	Co-location with other base stations.....	192
9.7.6.4.4.1	General.....	192
9.7.6.4.4.2	Minimum Requirement.....	192
9.8	OTA Transmitter intermodulation.....	198
9.8.1	General.....	198
9.8.2	Minimum requirement for MSR operation	198
9.8.2.1	General minimum requirement	198
9.8.2.2	Additional minimum requirement (BC1 and BC2).....	199
9.8.2.3	Additional minimum requirement (BC3)	199
9.8.2.4	Additional minimum requirements	200
9.8.3	Minimum requirement for single RAT UTRA operation	200
9.8.3.1	General minimum requirement for FDD UTRA	200
9.8.4	Minimum requirement for single RAT E-UTRA operation.....	201
9.8.4.1	General minimum requirement	201
9.8.4.2	Additional requirement for Band 41	201
10	Radiated receiver characteristics.....	202
10.1	General	202
10.2	OTA sensitivity	202
10.2.1	General.....	202
10.2.2	Minimum requirement for MSR operation	203
10.2.3	Minimum requirement for single RAT UTRA operation	203
10.2.4	Minimum requirement for single RAT E-UTRA operation.....	203
10.3	OTA Reference sensitivity level	204
10.3.1	General.....	204
10.3.2	Minimum requirement for MSR operation	204
10.3.3	Minimum requirement for single RAT UTRA operation	204
10.3.4	Minimum requirement for single RAT E-UTRA operation.....	205
10.4	OTA Dynamic range	206
10.4.1	General	206
10.4.2	Minimum requirement for MSR operation	206
10.4.3	Minimum requirement for single RAT UTRA operation.....	206
10.4.4	Minimum requirement for single RAT E-UTRA operation.....	207
10.5	OTA Adjacent channel selectivity, general blocking, and narrowband blocking.....	209
10.5.1	General.....	209
10.5.2	Minimum requirement for MSR operation	210
10.5.2.1	General minimum requirement	210
10.5.2.2	General narrowband blocking minimum requirement	211
10.5.2.3	Additional BC3 blocking minimum requirement.....	212
10.5.3	Minimum requirement for single RAT UTRA operation	213

10.5.3.1	General	213
10.5.3.2	Minimum requirement	213
10.5.3.3	Minimum requirement - Co-location with UTRA-TDD	213
10.5.4	Minimum requirement for single RAT E-UTRA operation.....	214
10.5.4.1	General	214
10.5.4.2	Minimum requirement	214
10.6	OTA Blocking	216
10.6.1	General.....	216
10.6.2	Minimum requirement for MSR operation	216
10.6.2.1	General minimum requirement	216
10.6.2.2	Co-location minimum requirement	217
10.6.3	Minimum requirement for single RAT UTRA operation	221
10.6.3.1	General minimum requirement	221
10.6.3.2	Co-location minimum requirement	223
10.6.4	Minimum requirement for single RAT E-UTRA operation.....	227
10.6.4.1	General minimum requirement	227
10.6.4.2	Co-location minimum requirement	229
10.7	OTA Receiver spurious emissions	233
10.7.1	General.....	233
10.7.2	Minimum requirement for MSR operation	234
10.7.2.1	General minimum requirement	234
10.7.3	Minimum requirement for single RAT UTRA operation	234
10.7.4	Minimum requirement for single RAT E-UTRA operation.....	234
10.8	OTA Receiver intermodulation	235
10.8.1	General.....	235
10.8.2	Minimum requirement for MSR operation	235
10.8.2.1	General intermodulation minimum requirement	235
10.8.2.2	General narrowband intermodulation minimum requirement	237
10.8.3	Minimum requirement for single RAT UTRA operation	240
10.8.4	Minimum requirement for single RAT E-UTRA operation.....	241
10.9	OTA In-channel selectivity	245
10.9.1	General.....	245
10.9.2	Minimum requirement for MSR operation	245
10.9.3	Minimum requirement for single RAT UTRA operation	246
10.9.4	Minimum requirement for single RAT E-UTRA operation.....	246
11	Radiated performance requirements	247
11.1	General	247
11.1.1	OTA demodulation branches	247
11.1.2	UTRA operation	247
11.1.3	E-UTRA operation.....	248
11.2	Minimum requirements for MSR operation	249
11.3	Minimum requirements for UTRA operation.....	249
11.4	Minimum requirements for E-UTRA operation	249
Annex A (normative):	Environmental requirements for the BS equipment	250
Annex B (Informative):	Calculation of EIRP based on fixed assumption of passive antenna gain.....	251
B.1	Calculation of EIRP based on fixed assumption of passive antenna gain	251
Annex C (informative):	Change history	252
History		256

Foreword

This Technical Specification has been produced by the 3rd Generation Partnership Project (3GPP) Technical Specification Group (TSG) Radio Access Networks (RAN).

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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1 Scope

The present document establishes 2 sets of minimum requirements and minimum performance requirements; *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 BS type 1-H MSR configurations).

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 (including NR BS type 1-O MSR configurations).

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 25.104 (V14.2.0): "Base Station (BS) radio transmission and reception (FDD) (Release 14)".
- [7] 3GPP TS 25.105 (V14.0.0): "Base Station (BS) radio transmission and reception (TDD) (Release 14)".
- [8] 3GPP TS 36.104 (V14.4.0): "Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) radio transmission and reception (Release 14)".
- [9] 3GPP TS 37.104 (V14.4.0): "E-UTRA, UTRA and GSM/EDGE Multi-Standard Radio (MSR) Base Station (BS) radio transmission and reception (Release 14)".
- [10] 3GPP TS 25.142 (V14.0.0): "Base Station (BS) conformance testing (TDD) (Release 14)".
- [11] Recommendation ITU-R M.1545: "Measurement uncertainty as it applies to test limits for the terrestrial component of International Mobile Telecommunications-2000".
- [12] 3GPP TS 25.942: "Radio Frequency (RF) system scenarios".