



SLOVENSKI STANDARD
SIST EN 301 908-13 V13.2.1:2022

01-april-2022

**Celična omrežja IMT - Harmonizirani standard za dostop do radijskega spektra -
13. del: Uporabniška oprema za razviti prizemni radijski dostop za UMTS (E-UTRA)**

IMT cellular networks - Harmonised Standard for access to radio spectrum - Part 13:
Evolved Universal Terrestrial Radio Access (E-UTRA) User Equipment (UE)

iTeh STANDARD
PREVIEW
(standards.itech.ai)

Ta slovenski standard je istoveten z: ETSI EN 301 908-13 V13.2.1 (2022-02)

[SIST EN 301 908-13 V13.2.1:2022](https://standards.itech.ai/catalog/standards/sist/f0f6217b-5541-4749-8169-97c8d638b851/sist-en-301-908-13-v13-2-1-2022)

<https://standards.itech.ai/catalog/standards/sist/f0f6217b-5541-4749-8169-97c8d638b851/sist-en-301-908-13-v13-2-1-2022>

ICS:

33.060.99	Druga oprema za radijske komunikacije	Other equipment for radiocommunications
33.070.99	Druge mobilne storitve	Other mobile services

SIST EN 301 908-13 V13.2.1:2022 **en**

**iTeh STANDARD
PREVIEW
(standards.iteh.ai)**

SIST EN 301 908-13 V13.2.1:2022

<https://standards.iteh.ai/catalog/standards/sist/f0f6217b-5541-4749-8169-97c8d638b851/sist-en-301-908-13-v13-2-1-2022>

ETSI EN 301 908-13 V13.2.1 (2022-02)



**IMT cellular networks;
Harmonised Standard for access to radio spectrum;
Part 13: Evolved Universal Terrestrial Radio Access (E-UTRA)
User Equipment (UE)**

[SIST EN 301 908-13 V13.2.1:2022](https://standards.iteh.ai/catalog/standards/sist/f0f6217b-5541-4749-8169-97c8d638b851/sist-en-301-908-13-v13-2-1-2022)

<https://standards.iteh.ai/catalog/standards/sist/f0f6217b-5541-4749-8169-97c8d638b851/sist-en-301-908-13-v13-2-1-2022>

ReferenceREN/MSG-TFES-1137

Keywords3G, 3GPP, cellular, digital, E-UTRA, IMT, LTE, LTE-Advanced, mobile, radio, regulation, UMTS

ETSI650 Route des Lucioles
F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - APE 7112B
Association à but non lucratif enregistrée à la
Sous-Préfecture de Grasse (06) N° w061004871

Important notice

The present document can be downloaded from:

<http://www.etsi.org/standards-search>

The present document may be made available in electronic versions and/or in print. The content of any electronic and/or print versions of the present document shall not be modified without the prior written authorization of ETSI. In case of any existing or perceived difference in contents between such versions and/or in print, the prevailing version of an ETSI deliverable is the one made publicly available in PDF format at www.etsi.org/deliver.

Users of the present document should be aware that the document may be subject to revision or change of status.

Information on the current status of this and other ETSI documents is available at

<https://portal.etsi.org/TB/ETSIDeliverableStatus.aspx>

If you find errors in the present document, please send your comment to one of the following services:

<https://portal.etsi.org/People/CommitteeSupportStaff.aspx><https://standards.iteh.ai/catalog/standards/sist/f0f6217b-5541-4756-b069-513212022><https://standards.iteh.ai/catalog/standards/sist/f0f6217b-5541-4756-b069-513212022>**Notice of disclaimer & limitation of liability**

The information provided in the present deliverable is directed solely to professionals who have the appropriate degree of experience to understand and interpret its content in accordance with generally accepted engineering or other professional standard and applicable regulations.

No recommendation as to products and services or vendors is made or should be implied.

In no event shall ETSI be held liable for loss of profits or any other incidental or consequential damages.

Any software contained in this deliverable is provided "AS IS" with no warranties, express or implied, including but not limited to, the warranties of merchantability, fitness for a particular purpose and non-infringement of intellectual property rights and ETSI shall not be held liable in any event for any damages whatsoever (including, without limitation, damages for loss of profits, business interruption, loss of information, or any other pecuniary loss) arising out of or related to the use of or inability to use the software.

Copyright Notification

No part may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm except as authorized by written permission of ETSI.

The content of the PDF version shall not be modified without the written authorization of ETSI.

The copyright and the foregoing restriction extend to reproduction in all media.

© ETSI 2022.
All rights reserved.

Contents

Intellectual Property Rights	11
Foreword.....	11
Modal verbs terminology.....	12
Introduction	12
1 Scope	13
2 References	16
2.1 Normative references	16
2.2 Informative references.....	17
3 Definition of terms, symbols and abbreviations.....	18
3.1 Terms.....	18
3.2 Symbols.....	21
3.3 Abbreviations	23
4 Technical requirements specifications	24
4.1 Environmental profile.....	24
4.2 Conformance requirements	24
4.2.0 General.....	24
4.2.1 Introduction.....	24
4.2.2 Transmitter Maximum Output Power.....	25
4.2.2.1 Transmitter maximum output power for Single Carrier.....	25
4.2.2.1.1 Definition.....	25
4.2.2.1.2 Limits	26
4.2.2.1.3 Conformance	26
4.2.2.2 Transmitter output power for Carrier Aggregation (DL CA and UL CA)	26
4.2.2.2.1 Definition.....	26
4.2.2.2.2 Limits	27
4.2.2.2.3 Conformance	28
4.2.2.3 Transmitter output power for UL-MIMO.....	28
4.2.2.3.1 Definition.....	28
4.2.2.3.2 Limits	28
4.2.2.3.3 Conformance	28
4.2.2.4 Transmitter output power for category NB1	29
4.2.2.4.1 Definition.....	29
4.2.2.4.2 Limits	29
4.2.2.4.3 Conformance	29
4.2.2.5 Transmitter output power for UE category M1	29
4.2.2.5.1 Definition.....	29
4.2.2.5.2 Limits	29
4.2.2.5.3 Conformance	30
4.2.3 Transmitter Spectrum Emission Mask.....	30
4.2.3.1 Transmitter spectrum emission mask for Single Carrier.....	30
4.2.3.1.1 Definition.....	30
4.2.3.1.2 Limits	30
4.2.3.1.3 Conformance	31
4.2.3.2 Transmitter spectrum emission mask for Carrier Aggregation (DL CA and UL CA)	31
4.2.3.2.1 Definition.....	31
4.2.3.2.2 Limits	31
4.2.3.2.3 Conformance	32
4.2.3.3 Transmitter spectrum emission mask for UL-MIMO	32
4.2.3.3.1 Definition.....	32
4.2.3.3.2 Limits	32
4.2.3.3.3 Conformance	32
4.2.3.4 Transmitter spectrum emission mask for Multi-Cluster PUSCH within a component carrier	33
4.2.3.4.1 Definition.....	33
4.2.3.4.2 Limits	33

4.2.3.4.3	Conformance	33
4.2.3.5	Transmitter spectrum emission mask for category NB1	33
4.2.3.5.1	Definition.....	33
4.2.3.5.2	Limits	33
4.2.3.5.3	Conformance	33
4.2.4	Transmitter Spurious Emissions	33
4.2.4.1	Transmitter spurious emissions for Single Carrier	33
4.2.4.1.1	Definition.....	33
4.2.4.1.2	Limits	33
4.2.4.1.3	Conformance	37
4.2.4.2	Transmitter spurious emissions for Carrier Aggregation (DL CA and UL CA)	37
4.2.4.2.1	Definition.....	37
4.2.4.2.2	Limits	38
4.2.4.2.3	Conformance	43
4.2.4.3	Transmitter spurious emissions for UL-MIMO	43
4.2.4.3.1	Definition.....	43
4.2.4.3.2	Limits	43
4.2.4.3.3	Conformance	43
4.2.4.4	Transmitter spurious emissions for Multi-Cluster PUSCH within a component carrier	43
4.2.4.4.1	Definition.....	43
4.2.4.4.2	Limits	43
4.2.4.4.3	Conformance	44
4.2.4.5	Transmitter spurious emissions for category NB1	44
4.2.4.5.1	Definition.....	44
4.2.4.5.2	Limits	44
4.2.4.5.3	Conformance	44
4.2.5	Transmitter Minimum Output Power	44
4.2.5.1	Transmitter minimum output power for Single Carrier	44
4.2.5.1.1	Definition.....	44
4.2.5.1.2	Limits	44
4.2.5.1.3	Conformance	44
4.2.5.2	Transmitter minimum output power for Carrier Aggregation (DL CA and UL CA)	45
4.2.5.2.1	Definition.....	45
4.2.5.2.2	Limits	45
4.2.5.2.3	Conformance	45
4.2.5.3	Transmitter minimum output power for UL-MIMO	45
4.2.5.3.1	Definition.....	45
4.2.5.3.2	Limits	45
4.2.5.3.3	Conformance	46
4.2.5.4	Transmitter minimum output power for category NB1	46
4.2.5.4.1	Definition.....	46
4.2.5.4.2	Limits	46
4.2.5.4.3	Conformance	46
4.2.6	Receiver Adjacent Channel Selectivity (ACS)	46
4.2.6.1	Receiver Adjacent Channel Selectivity (ACS) for Single Carrier	46
4.2.6.1.1	Definition.....	46
4.2.6.1.2	Limits	46
4.2.6.1.3	Conformance	47
4.2.6.2	Receiver Adjacent Channel Selectivity (ACS) for Carrier Aggregation in DL-only bands	47
4.2.6.2.1	Definition.....	47
4.2.6.2.2	Limits	48
4.2.6.2.3	Conformance	48
4.2.6.3	Receiver Adjacent Channel Selectivity (ACS) for category NB1	49
4.2.6.3.1	Definition.....	49
4.2.6.3.2	Limits	49
4.2.6.3.3	Conformance	49
4.2.7	Receiver Blocking Characteristics	49
4.2.7.1	Receiver Blocking Characteristics for Single Carrier	49
4.2.7.1.1	Definition.....	49
4.2.7.1.2	Limits	49
4.2.7.1.3	Conformance	51
4.2.7.2	Receiver Blocking Characteristics for Carrier Aggregation in DL-only bands.....	51

4.2.7.2.1	Definition.....	51
4.2.7.2.2	Limits	52
4.2.7.2.3	Conformance	54
4.2.7.3	Receiver Blocking Characteristics for category NB1	55
4.2.7.3.1	Definition.....	55
4.2.7.3.2	Limits	55
4.2.7.3.3	Conformance	56
4.2.8	Receiver Spurious Response.....	56
4.2.8.1	Receiver Spurious Response for Single Carrier	56
4.2.8.1.1	Definition.....	56
4.2.8.1.2	Limits	57
4.2.8.1.3	Conformance	57
4.2.8.2	Receiver Spurious Response for Carrier Aggregation in DL-only bands	57
4.2.8.2.1	Definition.....	57
4.2.8.2.2	Limits	57
4.2.8.2.3	Conformance	57
4.2.8.3	Receiver Spurious Response for category NB1	57
4.2.8.3.1	Definition.....	57
4.2.8.3.2	Limits	58
4.2.8.3.3	Conformance	58
4.2.9	Receiver Intermodulation Characteristic	58
4.2.9.1	Receiver Intermodulation Characteristics for Single Carrier	58
4.2.9.1.1	Definition.....	58
4.2.9.1.2	Limits	58
4.2.9.1.3	Conformance	59
4.2.9.2	Receiver Intermodulation Characteristics for Carrier Aggregation in DL-only bands.....	59
4.2.9.2.1	Definition.....	59
4.2.9.2.2	Limits	59
4.2.9.2.3	Conformance	60
4.2.9.3	Receiver Intermodulation Characteristics for category NB1	60
4.2.9.3.1	Definition.....	60
4.2.9.3.2	Limits	60
4.2.9.3.3	Conformance	60
4.2.10	Receiver Spurious Emissions.....	61
4.2.10.1	Receiver Spurious Emissions for Single Carrier	61
4.2.10.1.1	Definition.....	61
4.2.10.1.2	Limits	61
4.2.10.1.3	Conformance	61
4.2.10.2	Receiver Spurious Emissions in DL-only bands	61
4.2.10.2.1	Definition.....	61
4.2.10.2.2	Limits	61
4.2.10.2.3	Conformance	61
4.2.11	Transmitter Adjacent Channel Leakage Power Ratio	62
4.2.11.1	Transmitter adjacent channel leakage power ratio for Single Carrier	62
4.2.11.1.1	Definition.....	62
4.2.11.1.2	Limits	62
4.2.11.1.3	Conformance	63
4.2.11.2	Transmitter adjacent channel leakage power ratio for Carrier Aggregation (DL CA and UL CA).....	63
4.2.11.2.1	Definition.....	63
4.2.11.2.2	Limits for CA UTRA.....	64
4.2.11.2.3	Limits for CA EUTRA	65
4.2.11.2.4	Conformance	65
4.2.11.3	Transmitter adjacent channel leakage power ratio for UL-MIMO.....	65
4.2.11.3.1	Definition.....	65
4.2.11.3.2	Limits	66
4.2.11.3.3	Conformance	67
4.2.11.4	Transmitter adjacent channel leakage power ratio for Multi-Cluster PUSCH within a component carrier	67
4.2.11.4.1	Definition.....	67
4.2.11.4.2	Limits	67
4.2.11.4.3	Conformance	67
4.2.11.5	Transmitter adjacent channel leakage power ratio for category NB1	67

4.2.11.5.1	Definition.....	67
4.2.11.5.2	Limits	67
4.2.11.5.3	Conformance	68
4.2.12	Receiver Reference Sensitivity Level	68
4.2.12.0	General	68
4.2.12.1	Receiver Reference Sensitivity Level for Single Carrier	68
4.2.12.1.1	Definition.....	68
4.2.12.1.2	Limits	68
4.2.12.1.3	Conformance	68
4.2.12.2	Receiver Reference Sensitivity Level for Carrier Aggregation in DL-only bands.....	69
4.2.12.2.1	Definition.....	69
4.2.12.2.2	Limits	69
4.2.12.2.3	Conformance	70
4.2.12.3	Receiver Reference Sensitivity Level for category NB1.....	70
4.2.12.3.1	Definition.....	70
4.2.12.3.2	Limits	70
4.2.12.3.3	Conformance	70
4.2.12.4	Receiver Reference Sensitivity Level for UE category 0.....	70
4.2.12.4.1	Definition.....	70
4.2.12.4.2	Limits	70
4.2.12.4.3	Conformance	71
4.2.12.5	Receiver Reference Sensitivity Level for UE category M1	71
4.2.12.5.1	Definition.....	71
4.2.12.5.2	Limits	71
4.2.12.5.3	Conformance	72
4.2.13	Receiver Total Radiated Sensitivity (TRS).....	72
4.2.13.0	Applicability.....	72
4.2.13.1	Definition	73
4.2.13.2	Limits	73
4.2.13.3	Conformance.....	74
4.2.14	Total Radiated Power (TRP).....	74
4.2.14.0	Applicability.....	74
4.2.14.1	Definition	74
4.2.14.2	Limits	75
5	Testing for compliance with technical requirements.....	76
5.1	Environmental conditions for testing	76
5.2	Void.....	76
5.3	Essential radio test suites.....	76
5.3.0	General.....	76
5.3.1	Transmitter Maximum Output Power	76
5.3.1.1	Transmitter maximum output power for Single Carrier	76
5.3.1.1.1	Method of test.....	76
5.3.1.1.2	Test requirements	77
5.3.1.2	Transmitter maximum output power for intra-band contiguous Carrier Aggregation (DL CA and UL CA)	77
5.3.1.2.1	Method of test.....	77
5.3.1.2.2	Test requirements	78
5.3.1.2A	Transmitter maximum output power for inter-band Carrier Aggregation (DL CA and UL CA)	78
5.3.1.2A.1	Method of test.....	78
5.3.1.2A.2	Test requirements	79
5.3.1.3	Transmitter maximum output power for UL-MIMO	79
5.3.1.3.1	Method of test.....	79
5.3.1.3.2	Test requirements	80
5.3.1.4	Transmitter maximum output power for category NB1	80
5.3.1.4.1	Method of Test	80
5.3.1.4.2	Test requirements	81
5.3.1.5	Transmitter maximum output power for UE category 0	81
5.3.1.5.1	Method of test.....	81
5.3.1.5.2	Test requirements	81
5.3.1.6	Transmitter maximum output power for UE category M1	81
5.3.1.6.1	Method of test.....	81

5.3.1.6.2	Test requirements	82
5.3.2	Transmitter Spectrum Emission Mask	82
5.3.2.1	Transmitter spectrum emission mask for Single Carrier	82
5.3.2.1.1	Method of test	82
5.3.2.1.2	Test requirements	83
5.3.2.2	Transmitter spectrum emission mask for intra-band contiguous Carrier Aggregation (DL CA and UL CA)	83
5.3.2.2.1	Method of test	83
5.3.2.2.2	Test requirements	84
5.3.2.2A	Transmitter spectrum emission mask for inter-band Carrier Aggregation (DL CA and UL CA)	84
5.3.2.2A.1	Method of test	84
5.3.2.2A.2	Test requirements	85
5.3.2.3	Transmitter spectrum emission mask for UL-MIMO	85
5.3.2.3.1	Method of test	85
5.3.2.3.2	Test requirements	86
5.3.2.4	Transmitter spectrum emission mask for Multi-Cluster PUSCH within a component carrier	86
5.3.2.4.1	Method of test	86
5.3.2.4.2	Test requirements	87
5.3.2.5	Transmitter spectrum emission mask for category NB1	87
5.3.2.5.1	Method of test	87
5.3.2.5.2	Test requirements	87
5.3.2.6	Transmitter spectrum emission mask for UE category 0	88
5.3.2.6.1	Method of test	88
5.3.2.6.2	Test requirements	88
5.3.2.7	Transmitter spectrum emission mask for UE category M1	88
5.3.2.7.1	Method of test	88
5.3.2.7.2	Test requirements	89
5.3.3	Transmitter Spurious Emissions	89
5.3.3.1	Transmitter spurious emissions for Single Carrier	89
5.3.3.1.1	Method of test	89
5.3.3.1.2	Test requirements	90
5.3.3.2	Transmitter spurious emissions for intra-band contiguous Carrier Aggregation (DL CA and UL CA)	90
5.3.3.2.1	Method of test	90
5.3.3.2.2	Test requirements	91
5.3.3.2A	Transmitter spurious emissions for inter-band Carrier Aggregation (DL CA and UL CA)	91
5.3.3.2A.1	Method of test	91
5.3.3.2A.2	Test requirements	92
5.3.3.3	Transmitter spurious emissions for UL-MIMO	92
5.3.3.3.1	Method of test	92
5.3.3.3.2	Test requirements	93
5.3.3.4	Transmitter spurious emissions for Multi-Cluster PUSCH within a component carrier	93
5.3.3.4.1	Method of test	93
5.3.3.4.2	Test requirements	93
5.3.3.5	Transmitter spurious emissions for category NB1	94
5.3.3.5.1	Method of test	94
5.3.3.5.2	Test requirements	94
5.3.3.6	Transmitter spurious emissions for UE category 0	95
5.3.3.6.1	Method of test	95
5.3.3.6.2	Test requirements	95
5.3.3.7	Transmitter spurious emissions for UE category M1	95
5.3.3.7.1	Method of test	95
5.3.3.7.2	Test requirements	96
5.3.4	Transmitter Minimum Output Power	96
5.3.4.1	Transmitter minimum output power for Single Carrier	96
5.3.4.1.1	Method of test	96
5.3.4.1.2	Test requirements	97
5.3.4.2	Transmitter minimum output power for intra-band contiguous Carrier Aggregation (DL CA and UL CA)	97
5.3.4.2.1	Method of test	97
5.3.4.2.2	Test requirements	98
5.3.4.2A	Transmitter minimum output power for inter-band Carrier Aggregation (DL CA and UL CA)	98

5.3.4.2A.1	Method of test.....	98
5.3.4.2A.2	Test requirements	99
5.3.4.3	Transmitter minimum output power for UL-MIMO	99
5.3.4.3.1	Method of test.....	99
5.3.4.3.2	Test requirements	100
5.3.4.4	Transmitter minimum output power for category NB1	100
5.3.4.4.1	Method of test.....	100
5.3.4.4.2	Test requirements	100
5.3.4.5	Transmitter minimum output power for UE category 0	101
5.3.4.5.1	Method of test.....	101
5.3.4.5.2	Test requirements	101
5.3.4.6	Transmitter minimum output power for UE category M1	101
5.3.4.6.1	Method of test.....	101
5.3.4.6.2	Test requirements	102
5.3.5	Receiver Adjacent Channel Selectivity (ACS)	102
5.3.5.1	Receiver Adjacent Channel Selectivity (ACS) for Single Carrier	102
5.3.5.1.1	Method of test.....	102
5.3.5.1.2	Test requirements	103
5.3.5.2	Receiver Adjacent Channel Selectivity (ACS) for Carrier Aggregation in DL-only bands	103
5.3.5.2.1	Method of test.....	103
5.3.5.2.2	Test requirements	104
5.3.5.3	Receiver Adjacent Channel Selectivity (ACS) for category NB1	104
5.3.5.3.1	Method of test.....	104
5.3.5.3.2	Test requirements	106
5.3.5.4	Receiver Adjacent Channel Selectivity (ACS) for UE category 0	106
5.3.5.4.1	Method of test.....	106
5.3.5.4.2	Test requirements	106
5.3.5.5	Receiver Adjacent Channel Selectivity (ACS) for UE category M1	106
5.3.5.5.1	Method of test.....	106
5.3.5.5.2	Test requirements	107
5.3.6	Receiver Blocking Characteristics	108
5.3.6.1	Receiver Blocking Characteristics for Single Carrier	108
5.3.6.1.1	Method of test.....	108
5.3.6.1.2	Test requirements	109
5.3.6.2	Receiver Blocking Characteristics for Carrier Aggregation in DL-only bands	110
5.3.6.2.1	Method of test.....	110
5.3.6.2.2	Test requirements	112
5.3.6.3	Receiver Blocking Characteristics for category NB1	112
5.3.6.3.1	Method of test.....	112
5.3.6.3.2	Test requirements	113
5.3.6.4	Receiver Blocking Characteristics for UE category 0	113
5.3.6.4.1	Method of test.....	113
5.3.6.4.2	Test requirements	114
5.3.6.5	Receiver Blocking Characteristics for UE category M1	114
5.3.6.5.1	Method of test.....	114
5.3.6.5.2	Test requirements	116
5.3.7	Receiver Spurious Response	116
5.3.7.1	Receiver Spurious Response for Single Carrier	116
5.3.7.1.1	Method of test.....	116
5.3.7.1.2	Test requirements	116
5.3.7.2	Receiver Spurious Response for Carrier Aggregation in DL-only bands	116
5.3.7.2.1	Method of test.....	116
5.3.7.2.2	Test requirements	117
5.3.7.3	Receiver Spurious Response for category NB1	117
5.3.7.3.1	Method of test.....	117
5.3.7.3.2	Test requirements	117
5.3.7.4	Receiver Spurious Response for UE category 0	118
5.3.7.4.1	Method of test.....	118
5.3.7.4.2	Test requirements	118
5.3.7.5	Receiver Spurious Response for UE category M1	118
5.3.7.5.1	Method of test.....	118
5.3.7.5.2	Test requirements	118

5.3.8	Receiver Intermodulation Characteristics	119
5.3.8.1	Receiver Intermodulation Characteristics for Single Carrier	119
5.3.8.1.1	Method of test.....	119
5.3.8.1.2	Test requirements	119
5.3.8.2	Receiver Intermodulation Characteristics for Carrier Aggregation in DL-only bands.....	120
5.3.8.2.1	Method of test.....	120
5.3.8.2.2	Test requirements	121
5.3.8.3	Receiver Intermodulation Characteristics for category NB1	121
5.3.8.3.1	Test requirements	121
5.3.8.3.2	Test requirements	121
5.3.8.4	Receiver Intermodulation Characteristics for UE category 0.....	122
5.3.8.4.1	Method of test.....	122
5.3.8.4.2	Test requirements	122
5.3.8.5	Receiver Intermodulation Characteristics for UE category M1	122
5.3.8.5.1	Method of test.....	122
5.3.8.5.2	Test requirements	123
5.3.9	Receiver Spurious Emissions.....	123
5.3.9.1	Receiver Spurious Emissions for Single Carrier	123
5.3.9.1.1	Method of test.....	123
5.3.9.1.2	Test requirements	124
5.3.9.2	Receiver Spurious Emissions in DL-only bands	124
5.3.9.2.1	Method of test.....	124
5.3.9.2.2	Test requirements	125
5.3.9.3	Receiver Spurious Emissions for UE category 0	125
5.3.9.3.1	Method of test.....	125
5.3.9.3.2	Test requirements	125
5.3.9.4	Receiver Spurious Emissions for UE category M1	125
5.3.9.4.1	Method of test.....	125
5.3.9.4.2	Test requirements	126
5.3.9.5	Receiver Spurious Emissions for UE category NB1	126
5.3.9.5.1	Method of test.....	126
5.3.9.5.2	Test requirements	126
5.3.10	Transmitter Adjacent Channel Leakage Power Ratio	126
5.3.10.1	Transmitter adjacent channel leakage power ratio for Single Carrier	126
5.3.10.1.1	Method of test.....	126
5.3.10.1.2	Test requirements	126
5.3.10.2	Transmitter adjacent channel leakage power ratio for intra-band contiguous Carrier Aggregation (DL CA and UL CA).....	128
5.3.10.2.1	Method of test.....	128
5.3.10.2.2	Test requirements	129
5.3.10.2A	Transmitter adjacent channel leakage power ratio for inter-band Carrier Aggregation (DL CA and UL CA).....	129
5.3.10.2A.1	Method of test.....	129
5.3.10.2A.2	Test requirements	130
5.3.10.3	Transmitter adjacent channel leakage power ratio for UL-MIMO.....	130
5.3.10.3.1	Method of test.....	130
5.3.10.3.2	Test requirements	131
5.3.10.4	Transmitter adjacent channel leakage power ratio for Multi-Cluster PUSCH within a component carrier	131
5.3.10.4.1	Method of test.....	131
5.3.10.4.2	Test requirements	132
5.3.10.5	Transmitter adjacent channel leakage power ratio for category NB1	132
5.3.10.5.1	Method of test.....	132
5.3.10.5.2	Test requirements	133
5.3.10.6	Transmitter adjacent channel leakage power ratio for UE category 0.....	133
5.3.10.6.1	Method of test.....	133
5.3.10.6.2	Test requirements	134
5.3.10.7	Transmitter adjacent channel leakage power ratio for UE category M1	134
5.3.10.7.1	Method of test.....	134
5.3.10.7.2	Test requirements	135
5.3.11	Receiver Reference Sensitivity Level	135
5.3.11.1	Receiver Reference Sensitivity Level for Single Carrier	135

5.3.11.1.1	Method of test.....	135
5.3.11.1.2	Test requirements	135
5.3.11.2	Receiver Reference Sensitivity Level for Carrier Aggregation in DL-only bands.....	136
5.3.11.2.1	Method of test.....	136
5.3.11.2.2	Test requirements	136
5.3.11.3	Receiver Reference Sensitivity Level for category NB1.....	137
5.3.11.3.1	Method of test.....	137
5.3.11.3.2	Test requirements	137
5.3.11.4	Receiver Reference Sensitivity Level for UE category 0.....	137
5.3.11.4.1	Method of test.....	137
5.3.11.4.2	Test requirements	138
5.3.11.5	Receiver Reference Sensitivity Level for UE category M1	138
5.3.11.5.1	Method of test.....	138
5.3.11.5.2	Test requirements	139
5.3.12	Receiver Total Radiated Sensitivity (TRS).....	139
5.3.12.1	Method of test	139
5.3.12.1.1	Initial conditions.....	139
5.3.12.1.2	Procedure.....	139
5.3.12.1.3	Procedure, reverberation chamber method	139
5.3.12.2	Test requirements	139
5.3.13	Total Radiated Power (TRP).....	139
5.3.13.1	Method of test	139
5.3.13.1.1	Initial conditions	139
5.3.13.1.2	Procedure.....	139
5.3.13.1.3	Procedure, reverberation chamber method	139
5.3.13.2	Test requirements	140
Annex A (informative):	Relationship between the present document and the essential requirements of Directive 2014/53/EU	141
Annex B (normative):	Environmental profile	143
B.1	General	143
B.1.1	Introduction	143
B.1.2	Temperature	143
B.1.3	Voltage	143
B.1.4	Test environment.....	144
Annex C (informative):	Maximum Measurement Uncertainty.....	145
Annex D (informative):	Bibliography.....	146
Annex E (informative):	Change history	147
History		148

Intellectual Property Rights

Essential patents

IPRs essential or potentially essential to normative deliverables may have been declared to ETSI. The declarations pertaining to these essential IPRs, if any, are publicly available for **ETSI members and non-members**, and can be found in ETSI SR 000 314: "*Intellectual Property Rights (IPRs); Essential, or potentially Essential, IPRs notified to ETSI in respect of ETSI standards*", which is available from the ETSI Secretariat. Latest updates are available on the ETSI Web server (<https://ipr.etsi.org/>).

Pursuant to the ETSI Directives including the ETSI IPR Policy, no investigation regarding the essentiality of IPRs, including IPR searches, has been carried out by ETSI. No guarantee can be given as to the existence of other IPRs not referenced in ETSI SR 000 314 (or the updates on the ETSI Web server) which are, or may be, or may become, essential to the present document.

Trademarks

The present document may include trademarks and/or tradenames which are asserted and/or registered by their owners. ETSI claims no ownership of these except for any which are indicated as being the property of ETSI, and conveys no right to use or reproduce any trademark and/or tradename. Mention of those trademarks in the present document does not constitute an endorsement by ETSI of products, services or organizations associated with those trademarks.

DECT™, **PLUGTESTS™**, **UMTS™** and the ETSI logo are trademarks of ETSI registered for the benefit of its Members. **3GPP™** and **LTE™** are trademarks of ETSI registered for the benefit of its Members and of the 3GPP Organizational Partners. **oneM2M™** logo is a trademark of ETSI registered for the benefit of its Members and of the oneM2M Partners. **GSM®** and the GSM logo are trademarks registered and owned by the GSM Association.

Foreword

(standards.iteh.ai)

This Harmonised European Standard (EN) has been produced by ETSI Technical Committee Mobile Standards Group (MSG).

[https://standards.iteh.ai/catalog/standards/sist/f0f6217b-](https://standards.iteh.ai/catalog/standards/sist/f0f6217b-5541-4742-8167-97c8d6386951/sist-en-301-908-13-v13-2-1-2022)

For non-EU countries the present document may be used for regulatory (Type Approval) purposes.

The present document has been prepared under the Commission's standardisation request C(2015) 5376 final [i.9] to provide one voluntary means of conforming to the essential requirements of Directive 2014/53/EU on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC [i.2].

Once the present document is cited in the Official Journal of the European Union under that Directive, compliance with the normative clauses of the present document given in table A-1 confers, within the limits of the scope of the present document, a presumption of conformity with the corresponding essential requirements of that Directive and associated EFTA regulations.

The present document is part 13 of a multi-part deliverable. Full details of the entire series can be found in part 1 [i.12].

National transposition dates

Date of adoption of this EN:	2 February 2022
Date of latest announcement of this EN (doa):	31 May 2022
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	30 November 2022
Date of withdrawal of any conflicting National Standard (dow):	30 November 2023

Modal verbs terminology

In the present document "shall", "shall not", "should", "should not", "may", "need not", "will", "will not", "can" and "cannot" are to be interpreted as described in clause 3.2 of the [ETSI Drafting Rules](#) (Verbal forms for the expression of provisions).

"must" and "must not" are **NOT** allowed in ETSI deliverables except when used in direct citation.

Introduction

The present document is part of a set of standards developed by ETSI and is designed to fit in a modular structure to cover all radio and telecommunications terminal equipment within the scope of the Radio Equipment Directive [i.2]. The present document is produced following the guidance in ETSI EG 203 336 [i.3] as applicable.

iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN 301 908-13 V13.2.1:2022
https://standards.iteh.ai/catalog/standards/sist/f0f6217b-
5541-4749-8169-97c8d638b851/sist-en-301-908-13-
v13-2-1-2022](https://standards.iteh.ai/catalog/standards/sist/f0f6217b-5541-4749-8169-97c8d638b851/sist-en-301-908-13-v13-2-1-2022)

1 Scope

The present document applies to the following radio equipment type:

- User Equipment for Evolved Universal Terrestrial Radio Access (E-UTRA).

This radio equipment type is capable of operating in all or any part of the frequency bands given in tables from 1-1 through 1-5.

Table 1-1: E-UTRA UE operating bands

E-UTRA Band	Direction of UE transmission	E-UTRA operating bands
1	Transmit	1 920 MHz to 1 980 MHz
	Receive	2 110 MHz to 2 170 MHz
3	Transmit	1 710 MHz to 1 785 MHz
	Receive	1 805 MHz to 1 880 MHz
7	Transmit	2 500 MHz to 2 570 MHz
	Receive	2 620 MHz to 2 690 MHz
8	Transmit	880 MHz to 915 MHz
	Receive	925 MHz to 960 MHz
20	Transmit	832 MHz to 862 MHz
	Receive	791 MHz to 821 MHz
22	Transmit	3 410 MHz to 3 490 MHz
	Receive	3 510 MHz to 3 590 MHz
28 (see note 6)	Transmit	703 MHz to 748 MHz
	Receive	758 MHz to 803 MHz
31	Transmit	452,5 MHz to 457,5 MHz
	Receive	462,5 MHz to 467,5 MHz
32 (see note 1) (see note 2)	Transmit	N/A
	Receive	1 452 MHz to 1 496 MHz
33	Transmit and Receive	1 900 MHz to 1 920 MHz
34	Transmit and Receive	2 010 MHz to 2 025 MHz
38	Transmit and Receive	2 570 MHz to 2 620 MHz
40	Transmit and Receive	2 300 MHz to 2 400 MHz
42	Transmit and Receive	3 400 MHz to 3 600 MHz
43	Transmit and Receive	3 600 MHz to 3 800 MHz
46 (see note 3) (see note 4)	Transmit and Receive	5 150 MHz to 5 925 MHz
65 (see note 5)	Transmit	1 920 MHz to 2 010 MHz
	Receive	2 110 MHz to 2 200 MHz
67	Transmit	N/A
	Receive	738 MHz to 758 MHz
68	Transmit	698 MHz to 728 MHz
	Receive	753 MHz to 783 MHz
69 (see note 1)	Transmit	N/A
	Receive	2 570 MHz to 2 620 MHz

NOTE 1: Restricted to E-UTRA operation when carrier aggregation is configured. The downlink operating band is paired with the uplink operating band (external) of the carrier aggregation configuration that is supporting the configured Pcell.

NOTE 2: Radio equipment in band 32 is only allowed to operate between 1 452 MHz and 1 492 MHz.

NOTE 3: This band is an unlicensed band restricted to licensed-assisted operation using Frame Structure Type 3.

NOTE 4: In this version of the present document, restricted to E-UTRA DL operation when carrier aggregation is configured.

NOTE 5: A UE that complies with the E-UTRA Band 65 minimum requirements in the present document also complies with the E-UTRA Band 1 minimum requirements.

NOTE 6: Radio equipment in band 28 is only allowed to operate between 703 MHz to 736 MHz for the transmitter and between 758 MHz to 791 MHz for the receiver.

NOTE 1: The relationship between the present document and essential requirements of article 3.2 of Directive 2014/53/EU [i.2] is given in annex A.