

ETSI EN 301 908-3 V6.2.1 (2013-10)



**IMT cellular networks;
Harmonized EN covering the essential requirements
of article 3.2 of the R&TTE Directive;
Part 3: CDMA Direct Spread (UTRA FDD) Base Stations (BS)**

[ETSI EN 301 908-3 V6.1.3 \(2013-08\)](https://standards.iteh.ai/catalog/standards/etsi/68716d7a-65ff-4bae-b7a8-cf7cab089b19/etsi-en-301-908-3-v6-1-3-2013-08)

<https://standards.iteh.ai/catalog/standards/etsi/68716d7a-65ff-4bae-b7a8-cf7cab089b19/etsi-en-301-908-3-v6-1-3-2013-08>

Reference

REN/MSG-TFES-010-03

Keywords

3G, 3GPP, cellular, digital, IMT, IMT-2000,
mobile, radio, regulation, UMTS, UTRA, WCDMA

ETSI

650 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 - NAF 742 C
Association à but non lucratif enregistrée à la
Sous-Préfecture de Grasse (06) N° 7803/88

(<https://standards.iteh.ai>)
Document Preview

Important notice

Individual copies of the present document can be downloaded from:

<http://www.etsi.org>

The present document may be made available in more than one electronic version or in print. In any case of existing or perceived difference in contents between such versions, the reference version is the Portable Document Format (PDF). In case of dispute, the reference shall be the printing on ETSI printers of the PDF version kept on a specific network drive within ETSI Secretariat.

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

<http://portal.etsi.org/tb/status/status.asp>

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

http://portal.etsi.org/chaicor/ETSI_support.asp

Copyright Notification

No part may be reproduced except as authorized by written permission.
The copyright and the foregoing restriction extend to reproduction in all media.

© European Telecommunications Standards Institute 2013.
All rights reserved.

DECTTM, PLUGTESTSTM, UMTSTM and the ETSI logo are Trade Marks of ETSI registered for the benefit of its Members.
3GPPTM and LTETM are Trade Marks of ETSI registered for the benefit of its Members and
of the 3GPP Organizational Partners.
GSM[®] and the GSM logo are Trade Marks registered and owned by the GSM Association.

Contents

Intellectual Property Rights	6
Foreword.....	6
Introduction	6
1 Scope	7
2 References	8
2.1 Normative references	8
2.2 Informative references	8
3 Definitions, symbols and abbreviations	9
3.1 Definitions	9
3.2 Symbols	10
3.3 Abbreviations	10
4 Technical requirements specifications	11
4.1 Environmental profile.....	11
4.2 Conformance requirements	11
4.2.1 Introduction.....	11
4.2.2 Spectrum emissions mask.....	13
4.2.2.1 Definition	13
4.2.2.2 Limit.....	13
4.2.2.3 Conformance.....	16
4.2.3 Adjacent channel leakage power ratio (ACLR).....	16
4.2.3.1 Definition	16
4.2.3.2 Limits	16
4.2.3.3 Conformance.....	17
4.2.4 Transmitter spurious emissions.....	17
4.2.4.1 Definition	17
4.2.4.2 Limits	18
4.2.4.2.1 Spurious emissions	18
4.2.4.2.2 Co-existence with other systems	18
4.2.4.2.3 Co-existence with services in adjacent frequency bands	20
4.2.4.2.4 Protection of the BS receiver of own or different BS	20
4.2.4.2.5 Co-existence with Home BS operating in other bands	21
4.2.4.3 Conformance	21
4.2.5 Base Station maximum output power	21
4.2.5.1 Definition	21
4.2.5.2 Limit.....	21
4.2.5.3 Conformance.....	22
4.2.6 Transmit intermodulation	22
4.2.6.1 Definition	22
4.2.6.2 Limit.....	22
4.2.6.3 Conformance.....	22
4.2.7 Receiver spurious emissions	22
4.2.7.1 Definition	22
4.2.7.2 Limit.....	23
4.2.7.3 Conformance.....	23
4.2.8 Blocking characteristics	23
4.2.8.1 Definition	23
4.2.8.2 Limit.....	23
4.2.8.3 Conformance.....	27
4.2.9 Receiver intermodulation characteristics	27
4.2.9.1 Definition	27
4.2.9.2 Limit.....	28
4.2.9.3 Conformance.....	29
4.2.10 Receiver adjacent channel selectivity	29

4.2.10.1	Definition	29
4.2.10.2	Limit.....	29
4.2.10.3	Conformance.....	30
4.2.11	Home BS output power for adjacent channel protection	30
4.2.11.1	Definition	30
4.2.11.2	Limit.....	30
4.2.11.3	Conformance.....	31
5	Testing for compliance with technical requirements.....	31
5.1	Environmental conditions for testing	31
5.2	Interpretation of the measurement results	31
5.3	Essential radio test suites.....	33
5.3.1	Spectrum emission mask	33
5.3.1.1	Initial conditions	33
5.3.1.2	Procedures.....	33
5.3.2	Adjacent Channel Leakage power Ratio (ACLR)	33
5.3.2.1	Initial conditions	33
5.3.2.2	Procedure	34
5.3.3	Transmitter spurious emissions.....	34
5.3.3.1	Initial conditions	34
5.3.3.2	Procedure	34
5.3.4	Base Station maximum output power	34
5.3.4.1	Initial conditions	34
5.3.4.2	Procedure	35
5.3.5	Transmit intermodulation	35
5.3.5.1	Initial conditions	35
5.3.5.2	Procedures.....	35
5.3.6	Receiver spurious emissions.....	35
5.3.6.1	Initial conditions	36
5.3.6.2	Procedure	36
5.3.7	Blocking characteristics.....	36
5.3.7.1	Initial conditions	36
5.3.7.2	Procedure	37
5.3.8	Receiver intermodulation characteristics	37
5.3.8.1	Initial conditions	37
5.3.8.2	Procedures.....	37
5.3.9	Adjacent Channel Selectivity (ACS)	38
5.3.9.1	Initial conditions	38
5.3.9.2	Procedure	38
5.3.10	Home BS output power for adjacent channel protection	38
5.3.10.1	Initial conditions	38
5.3.10.2	Procedure	38

Annex A (normative):	HS Requirements and conformance Test specifications Table (HS-RTT).....	40
-----------------------------	--	-----------

Annex B (normative):	Base Station configurations.....	42
-----------------------------	---	-----------

B.1	Receiver diversity	42
B.2	Duplexers	42
B.3	Power supply options	42
B.4	Ancillary RF amplifiers.....	43
B.5	BS using antenna arrays	43
B.5.1	Receiver tests.....	44
B.5.2	Transmitter tests	44
B.6	Transmit diversity and MIMO transmission	44
B.7	BS with integrated Iuant BS modem.....	45

Annex C (informative):	Environmental profile specification	46
-------------------------------	--	-----------

Annex D:	Void	47
Annex E (informative):	Bibliography	48
History		49

iTeh Standards
(<https://standards.iteh.ai>)
Document Preview

[ETSI EN 301 908-3 V6.1.3 \(2013-08\)](https://standards.iteh.ai/catalog/standards/etsi/68716d7a-65ff-4bae-b7a8-cf7cab089b19/etsi-en-301-908-3-v6-1-3-2013-08)

<https://standards.iteh.ai/catalog/standards/etsi/68716d7a-65ff-4bae-b7a8-cf7cab089b19/etsi-en-301-908-3-v6-1-3-2013-08>

Intellectual Property Rights

IPRs essential or potentially essential to the present document may have been declared to ETSI. The information pertaining to these essential IPRs, if any, is 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 (<http://ipr.etsi.org>).

Pursuant to the ETSI IPR Policy, no investigation, 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.

Foreword

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

The present document has been produced by ETSI in response to mandates M/284 and M/406 issued from the European Commission under Directive 98/34/EC [i.1] as amended by Directive 98/48/EC [i.7].

The title and reference to the present document are intended to be included in the publication in the Official Journal of the European Union of titles and references of Harmonized Standard under the Directive 1999/5/EC [i.2].

See article 5.1 of Directive 1999/5/EC [i.2] for information on presumption of conformity and Harmonized Standards or parts thereof the references of which have been published in the Official Journal of the European Union.

The requirements relevant to Directive 1999/5/EC [i.2] are summarized in annex A.

The present document is part 3 of a multi-part deliverable. Full details of the entire series can be found in part 1 [5].

National transposition dates

Date of adoption of this EN:	7 October 2013
Date of latest announcement of this EN (doa):	31 January 2014
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	31 July 2014
Date of withdrawal of any conflicting National Standard (dow):	31 July 2015

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 R&TTE Directive [i.2]. The modular structure is shown in EG 201 399 [i.3].