



**Electromagnetic compatibility
and Radio spectrum Matters (ERM);**

Short Range Devices (SRD);

**Radio equipment to be used in the 25 MHz to 1 000 MHz
frequency range with power levels ranging up to 500 mW;**

**Part 2: Harmonized EN covering essential requirements
under article 3.2 of the R&TTE Directive**

Reference

REN/ERM-TG28-435

Keywords

radio, SRD, testing

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 2012.
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	5
Foreword.....	5
Introduction	5
1 Scope	6
2 References	7
2.1 Normative references	7
2.2 Informative references.....	7
3 Definitions, symbols and abbreviations	8
3.1 Definitions	8
3.2 Symbols.....	8
3.3 Abbreviations	8
4 Technical requirements specifications	8
4.1 Environmental profile.....	8
4.2 Conformance requirements	8
4.2.1 Transmitter requirements.....	8
4.2.1.1 Frequency error and frequency drift.....	8
4.2.1.2 Average power (conducted)	8
4.2.1.3 Effective radiated power	9
4.2.1.4 Types of spread spectrum modulation.....	9
4.2.1.4.1 Frequency Hopping Spread Spectrum devices (FHSS)	9
4.2.1.4.2 Direct sequence or other spread spectrum than FHSS.....	9
4.2.1.5 Transient Power	9
4.2.1.6 Adjacent channel power	9
4.2.1.7 Modulation bandwidth	9
4.2.1.8 Unwanted emissions in the spurious domain	9
4.2.1.9 Frequency stability under low-voltage conditions	9
4.2.1.10 Duty cycle	10
4.2.1.11 Listen Before Talk (LBT)	10
4.2.1.11.1 Minimum transmitter off-time	10
4.2.1.11.2 Minimum listening time	10
4.2.1.11.3 Maximum dead time	10
4.2.1.11.4 Maximum transmitter on-time	10
4.2.1.11.5 Time-out-timer	10
4.3 Receiver requirements	11
4.3.1 Receiver categories	11
4.3.2 Receiver sensitivity	11
4.3.3 Receiver LBT threshold.....	11
4.3.4 Adjacent channel selectivity	11
4.3.5 Blocking.....	11
4.3.6 Spurious response rejection	11
4.3.7 Spurious radiations	12
5 Testing for compliance with technical requirements.....	12
5.1 Description testing for compliance with technical requirements.....	12
5.1.1 Environmental conditions for testing.....	12
5.1.1.1 Normal and extreme test-conditions.....	12
5.1.1.2 Test power source	12
5.1.2 Choice of samples for test suites.....	12
5.1.3 Transmitter test suites	12
5.1.3.1 Frequency error and drift	12
5.1.3.2 Average power (conducted)	12
5.1.3.3 Effective radiated power	13
5.1.3.4 Transient power.....	13
5.1.3.5 Adjacent channel power	13

5.1.3.6	Modulation bandwidth	13
5.1.3.7	Unwanted emissions in the spurious domain	13
5.1.3.8	Frequency stability under low-voltage conditions	13
5.1.4	Receiver test suites.....	13
5.1.4.1	Receiver sensitivity	13
5.1.4.2	Receiver LBT threshold	13
5.1.4.3	Adjacent channel selectivity.....	14
5.1.4.4	Blocking.....	14
5.1.4.5	Spurious response rejection.....	14
5.1.4.6	Receiver spurious radiation.....	14
5.2	Interpretation of measurement results	14
Annex A (normative):	HS Requirements and conformance Test specifications Table (HS-RTT).....	15
Annex B (informative):	The EN title in the official languages	18
Annex C (informative):	Bibliography.....	19
History		20

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

[ETSI EN 300 220-2 V2.4.1 \(2012-05\)](https://standards.iteh.ai/catalog/standards/etsi/ccb3938f-3199-4f8d-b58c-0df469909dc3/etsi-en-300-220-2-v2-4-1-2012-05)

<https://standards.iteh.ai/catalog/standards/etsi/ccb3938f-3199-4f8d-b58c-0df469909dc3/etsi-en-300-220-2-v2-4-1-2012-05>