



SLOVENSKI STANDARD

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9`Y_fca U[bYfbUnXfi y`1j cgh]b`nUXYj Y`j`nj Yn]`n`fUX]`g_`ja`gdY_fca`f0FAŁ!
BUdfUj Y`fUh_Y[UXcgY[U!`7 YghUfUbgdcfU]b`dfca YfbUHY`Ya U]_UfFHHŁ!
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&`XY.`<Ufa cb]n]fUb]`9Bž_]nUYa UV]ghj YbY`nU H]j Y``YbU`"&X]fY_Hj YF/ HH9

Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices;
Road Transport and Traffic Telematics (R&TTE); Short range radar equipment operating in
the 24 GHz range; Part 2: Harmonized EN under article 3.2 of the R&TTE Directive

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ETSI EN 302 288-2 V1.2.1 (2006-05)

Candidate Harmonized European Standard (Telecommunications series)

**Electromagnetic compatibility
and Radio spectrum Matters (ERM);
Short Range Devices;
Road Transport and Traffic Telematics (RTTT);
Short range radar equipment operating in the 24 GHz range;
Part 2: Harmonized EN under article 3.2
of the R&TTE Directive**

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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

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Foreword

This Candidate Harmonized European Standard (Telecommunications series) has been produced by ETSI Technical Committee Electromagnetic compatibility and Radio spectrum Matters (ERM).

The present document has been produced by ETSI in response to a mandate from the European Commission issued under Council Directive 98/34/EC (as amended) laying down a procedure for the provision of information in the field of technical standards and regulations.

The present document is intended to become a Harmonized Standard, the reference of which will be published in the Official Journal of the European Communities referencing the Directive 1999/5/EC [1] of the European Parliament and of the Council of 9 March 1999 on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity ("the R&TTE Directive").

The present document is part 2 of a multi-part deliverable covering Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices, Road Transport and Traffic Telematics (RTTT); Short range radar equipment operating in the 24 GHz range, as identified below:

Part 1: "Technical requirements and methods of measurement";

Part 2: "Harmonized EN under article 3.2 of the R&TTE Directive".

Technical specifications relevant to Directive 1999/5/EC [1] are given in annex A.

National transposition dates

Date of adoption of this EN:	28 April 2006
Date of latest announcement of this EN (doa):	31 July 2006
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	31 January 2007
Date of withdrawal of any conflicting National Standard (dow):	31 January 2008

1 Scope

The present document applies to Short Range Devices (SRDs) in Road Transport and Traffic Telematics (RTTT) systems as described in the scope of EN 302 288-1 [4]:

- with an integral antenna;
- for ultra low power motion and distance monitoring radars for mobile applications only;
- operating in the 22 GHz to 26,625 GHz frequency range.

The applicability of the present document covers only the 24 GHz Short Range Radar (SRR) for road vehicles. The present document does not necessarily include all the characteristics which may be required by a user, nor does it necessarily represent the optimum performance achievable.

NOTE: Member States of the European Union are required to prohibit the taking into service of equipment covered by the present document after a date defined in Commission Decision 2005/50/EC (see bibliography).

The present document covers transmitters intended to operate in a temporary frequency designation under the 24 GHz ECC decision ECC/DEC/(04)10 (see bibliography). The application is also subject to the EU Commission decision on 24 GHz SRR EC 2005/50/EC (see bibliography).

The present document is intended to cover the provisions of Directive 1999/5/EC (R&TTE Directive) [1] article 3.2, which states that "... radio equipment shall be so constructed that it effectively uses the spectrum allocated to terrestrial/space radio communications and orbital resources so as to avoid harmful interference".

The present document responds to the EC mandate M/329 [6] for Harmonized Standards covering Ultrawideband (UWB) applications.

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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 and/or edition number or version number) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies.

Referenced documents which are not found to be publicly available in the expected location might be found at <http://docbox.etsi.org/Reference>.

- | | |
|-----|---|
| [1] | Directive 1999/5/EC of the European Parliament and of the Council of 9 March 1999 on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity (R&TTE Directive). |
| [2] | Council Directive 89/336/EEC of 3 May 1989 on the approximation of the laws of the Member States relating to electromagnetic compatibility (EMC Directive). |
| [3] | Council Directive 73/23/EEC of 19 February 1973 on the harmonization of the laws of Member States relating to electrical equipment designed for use within certain voltage limits (LV Directive). |
| [4] | ETSI EN 302 288-1: "Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices; Road Transport and Traffic Telematics (RTTT); Short range radar equipment operating in the 24 GHz range; Part 1: Technical requirements and methods of measurement". |
| [5] | Void. |

[6] M/329: "Harmonised standards covering Ultrawide band (UWB) applications".

NOTE: <http://europa.eu.int/comm/enterprise/rtte/harstand.htm>.

[7] ETSI EN 301 489 (all parts): "Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services".

[8] ETSI TR 100 028 (all parts): "Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics".

3 Definitions, symbols and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in the R&TTE Directive [1], EN 302 288-1 [4] and the following apply:

environmental profile: range of environmental conditions under which equipment within the scope of EN 302 288-2 is required to comply with the provisions of the present document

3.2 Symbols

For the purposes of the present document, the symbols given in EN 302 288-1 [4] apply.

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3.3 Abbreviations (standards.iteh.ai)

For the purposes of the present document, the abbreviations defined in EN 302 288-1 [4] apply.

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4 Technical requirements specifications

4.1 Environmental conditions

4.1.1 Environmental profile

The technical requirements of the present document apply under the environmental profile for operation of the equipment, which shall be declared by the provider. The equipment shall comply with all the technical requirements of the present document at all times when operating within the boundary limits of the declared operational environmental profile.

4.2 Conformance requirements

4.2.1 Transmitter requirements

4.2.1.1 Limits for transmitters in the range from 22,0 GHz to 26,625 GHz

4.2.1.1.1 Permitted range of operating frequencies

The permitted range of operating frequencies shall not exceed the limits specified in clause 7.1.1.3 of EN 302 288-1 [4].

4.2.1.1.2 Maximum radiated average power density (e.i.r.p.)

The maximum radiated average power density (e.i.r.p.) shall not exceed the limits specified in clause 7.1.2.3 of EN 302 288-1 [4].

4.2.1.1.3 Maximum radiated peak power density (e.i.r.p.)

The maximum radiated peak power density (e.i.r.p.) shall not exceed the limits specified in clause 7.1.3.4 of EN 302 288-1 [4].

4.2.1.2 Limits for transmitters in the range from 24,050 GHz to 24,250 GHz

4.2.1.2.1 Permitted range of operating frequencies

The permitted range of operating frequencies shall not exceed the limits specified in clause 7.1.4.2.4 of EN 302 288-1 [4].

4.2.1.2.2 Equivalent isotropically radiated power (e.i.r.p.)

The equivalent isotropically radiated power (e.i.r.p.) shall not exceed the limits specified in clause 7.1.4.1.3 of EN 302 288-1 [4], table 3.

4.2.1.3 Vertical plane emission limits in the range from 23,6 GHz to 24,0 GHz

The vertical emission limits shall not exceed the limits specified in clause 7.1.5.3 of EN 302 288-1 [4].

4.2.1.4 Transmitter spurious and out-of-band emissions

The transmitter unwanted emissions, i.e. spurious and out-of-band emissions, shall not exceed the limits specified in clause 7.2.4 of EN 302 288-1 [4], tables 5 and 6.

4.2.2 Receiver requirements

4.2.2.1 Receiver spurious emissions

The receiver spurious emissions shall not exceed the limits specified in clause 8.1.3 of EN 302 288-1 [4].

4.2.3 Installation requirements

The installation requirements as defined in EN 302 288-1 [4], annex D, shall be applied.

5 Testing for compliance with technical requirements

5.1 Environmental conditions for testing

Tests defined in the present document shall be carried out at representative points within the boundary limits of the declared operational environmental profile.

Where technical performance varies subject to environmental conditions, tests shall be carried out under a sufficient variety of environmental conditions (within the boundary limits of the declared operational environmental profile) to give confidence of compliance for the affected technical requirements.