
Elektromagnetna združljivost in zadeve v zvezi z radijskim spektrom (ERM) - Cestna transportna in prometna telematika (RTTT) - Radarska oprema kratkega dosega, ki deluje v frekvenčnem območju od 24,05 GHz do 24,25 GHz - 2. del: Harmonizirani EN, ki zajema bistvene zahteve člena 3.2 direktive R&TTE

Electromagnetic compatibility and Radio spectrum Matters (ERM) - Road Transport and Traffic Telematics (RTTT) - Short range radar equipment operating in the 24,05 GHz to 24,25 GHz frequency range for automotive application - Part 2: Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive

(standards.iteh.ai)

[SIST EN 302 858-2 V1.2.1:2011](https://standards.iteh.ai/catalog/standards/sist/b935b07f-00d1-4d4f-b3a1-4863696dea1a/sist-en-302-858-2-v1-2-1-2011)

<https://standards.iteh.ai/catalog/standards/sist/b935b07f-00d1-4d4f-b3a1-4863696dea1a/sist-en-302-858-2-v1-2-1-2011>

Ta slovenski standard je istoveten z: EN 302 858-2 Version 1.2.1

ICS:

33.060.99	Druga oprema za radijske komunikacije	Other equipment for radiocommunications
33.100.01	Elektromagnetna združljivost na splošno	Electromagnetic compatibility in general
35.240.60	Uporabniške rešitve IT v transportu in trgovini	IT applications in transport and trade

SIST EN 302 858-2 V1.2.1:2011 **en**

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 302 858-2 V1.2.1:2011

<https://standards.iteh.ai/catalog/standards/sist/b935b07f-00d1-4d4f-b3a1-4863696dea1a/sist-en-302-858-2-v1-2-1-2011>

ETSI EN 302 858-2 V1.2.1 (2011-07)

Harmonized European Standard

**Electromagnetic compatibility
and Radio spectrum Matters (ERM);
Road Transport and Traffic Telematics (RTTT);
Short range radar equipment operating in the 24,05 GHz to
24,25 GHz frequency range for automotive application;
Part 2: Harmonized EN covering the essential requirements
of article 3.2 of the R&TTE Directive**

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 302 858-2 V1.2.1:2011](https://standards.iteh.ai/catalog/standards/sist/b935b07f-00d1-4d4f-b3a1-4863696dea1a/sist-en-302-858-2-v1-2-1-2011)

<https://standards.iteh.ai/catalog/standards/sist/b935b07f-00d1-4d4f-b3a1-4863696dea1a/sist-en-302-858-2-v1-2-1-2011>



Reference

DEN/ERM-TGSRR-051-2

Keywords

radar, radio, regulation, RTTT, 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

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 302 858-2 V1.2.1:2011

<https://standards.iteh.ai/catalog/standards/sist/b935b07f-00d1-4d4f-b3a1-4863696de778/sist-en-302-858-2-v1-2-1-2011>

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 2011.
All rights reserved.

DECT™, **PLUGTESTS™**, **UMTS™** and the ETSI logo are Trade Marks of ETSI registered for the benefit of its Members.
3GPP™ and **LTE™** 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	4
Foreword.....	4
Introduction	4
1 Scope	5
2 References	5
2.1 Normative references	5
2.2 Informative references.....	6
3 Definitions, symbols and abbreviations	6
3.1 Definitions.....	6
3.2 Symbols.....	6
3.3 Abbreviations	6
4 Technical requirements specifications	6
4.1 Environmental conditions.....	6
4.1.1 Environmental profile.....	6
4.1.2 Choice of models for test suite.....	6
4.2 Transmitter conformance requirements.....	7
4.2.1 Permitted range of operating frequencies	7
4.2.2 Maximum radiated peak power (e.i.r.p.).....	7
4.2.3 Dwell time and repetition time.....	7
4.2.4 Frequency modulation range.....	7
4.2.5 Radiated spurious emissions.....	7
4.3 Receiver conformance requirements.....	7
4.3.1 Receiver spurious radiations	7
4.4 Installation requirements	7
5 Testing for compliance with technical requirements.....	7
5.1 Environmental conditions for testing.....	7
5.1.1 Normal and extreme test conditions.....	7
5.1.2 Test power sources.....	8
5.2 Interpretation of the measurement results	8
5.3 Essential radio test suites.....	8
5.3.1 Transmitter test suites	8
5.3.1.1 Permitted range of frequencies.....	8
5.3.1.2 Maximum radiated peak power (e.i.r.p.).....	8
5.3.1.3 Dwell time and repetition time.....	8
5.3.1.4 Frequency modulation range	8
5.3.1.5 Radiated spurious emissions	8
5.3.2 Receiver test suites.....	8
5.3.2.1 Receiver spurious emissions	8
5.3.3 Installation requirements.....	9
5.4 Interpretation of results and maximum measurement uncertainty.....	9
Annex A (normative): HS Requirements and conformance Test specifications Table (HS-RTT).....	10
Annex B (informative): The EN title in the official languages	12
Annex C (informative): Bibliography.....	13
History	14

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 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 [i.1] (as amended) laying down a procedure for the provision of information in the field of technical standards and regulations.

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 Harmonised 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 summarised in annex A.

The present document is part 2 of a multi-part deliverable covering Electromagnetic compatibility and Radio spectrum Matters (ERM); Road Transport and Traffic Telematics (RTTT); Short range radar equipment operating in the 24,05 GHz to 24,25 GHz frequency range for automotive application, as identified below:

Part 1: "Technical characteristics and test methods";

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

National transposition dates	
Date of adoption of this EN:	5 July 2011
Date of latest announcement of this EN (doa):	31 October 2011
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	30 April 2012
Date of withdrawal of any conflicting National Standard (dow):	30 April 2013

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].

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 302 858-1 [1]:

- with an integral antenna;
- for low power motion and distance monitoring radars for mobile applications only;
- operating in the 24,05 GHz to 24,25 GHz frequency range.

The applicability of the present document covers only the 24 GHz Narrow Band Short Range Radar (NBSRR) 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.

The present document is intended to cover the provisions of Directive 1999/5/EC [i.2] (R&TTE Directive), 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".

These radio equipment types are capable of operating in all or part of the frequency band as specified below.

Table 1: Narrow band short range radar devices frequency of operation

	Frequency Bands/frequencies	Applications
Transmit and Receive	24,050 to 24,250 GHz	Short range radar for vehicle applications

iTeh STANDARD PREVIEW

In addition to the present document, other ENs that specify technical requirements in respect of essential requirements under other parts of article 3 of the R&TTE Directive [i.2] may apply to equipment within the scope of the present document.

NOTE: A list of such ENs is included on the web site <http://www.newapproach.org/>.
<https://standards.itih.ai/catalog/standards/sist/b935b07f-00d1-4d4f-b3a1-4863696dea1a/sist-en-302-858-2-v1-2-1-2011>

2 References

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the reference document (including any amendments) applies.

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

NOTE: While any hyperlinks included in this clause were valid at the time of publication ETSI cannot guarantee their long term validity.

2.1 Normative references

The following referenced documents are necessary for the application of the present document.

- [1] ETSI EN 302 858-1 (V1.2.1): "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".
- [2] ETSI TR 100 028 (V1.4.1) (all parts): "Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics".

2.2 Informative references

The following referenced documents are not necessary for the application of the present document but they assist the user with regard to a particular subject area.

- [i.1] Directive 98/34/EC of the European Parliament and of the Council of 22 June 1998 laying down a procedure for the provision of information in the field of technical standards and regulations.
- [i.2] 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).
- [i.3] ETSI EG 201 399 (V2.1.1): "Electromagnetic compatibility and Radio spectrum Matters (ERM); A guide to the production of candidate Harmonized Standards for application under the R&TTE Directive".

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 [i.2] and EN 302 858-1 [1] apply.

3.2 Symbols iTech STANDARD PREVIEW

For the purposes of the present document, (standards.iteh.ai) the symbols given in EN 302 858-1 [1] apply.

3.3 Abbreviations SIST EN 302 858-2 V1.2.1:2011

For the purposes of the present document, https://standards.iteh.ai/catalog/standards/sist/b935b07f-00d1-4d4f-b3a1-4863696dea1a/sist-en-302-858-2-v1-2-1-2011 the abbreviations given in EN 302 858-1 [1] apply.

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 supplier. 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.

4.1.2 Choice of models for test suite

Measurement shall be performed according to the present document on samples of equipment defined in EN 302 858-1 [1], clause 4.1.1.

4.2 Transmitter conformance requirements

4.2.1 Permitted range of operating frequencies

The permitted range of operating frequencies shall not exceed the limits specified in clause 7.3.3 of EN 302 858-1 [1].

4.2.2 Maximum radiated peak power (e.i.r.p.)

The maximum radiated peak power density (e.i.r.p.) shall not exceed the limits specified in clause 7.4.3 of EN 302 858-1 [1].

4.2.3 Dwell time and repetition time

The maximum dwell time and minimum repetition time shall not violate the limits specified in clause 7.5.3 of EN 302 858-1 [1].

4.2.4 Frequency modulation range

The minimum frequency modulation range shall not fall below the limits specified in clause 7.6.3 of EN 302 858-1 [1].

4.2.5 Radiated spurious emissions

The maximum radiated spurious emissions shall not exceed the limits specified in clause 7.7.3 of EN 302 858-1 [1].

4.3 Receiver conformance requirements

4.3.1 Receiver spurious radiations

Spurious radiations from the receiver shall not exceed the limits specified in clause 8.1.3 of EN 302 858-1 [1].

4.4 Installation requirements

The installation requirements as defined in EN 302 858-1 [1], annex B 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.

5.1.1 Normal and extreme test conditions

Tests shall be made under normal test conditions, and also where stated, under extreme test conditions. The test procedures shall be as specified in EN 302 858-1 [1], clauses 5.3 and 5.4.