



# SLOVENSKI STANDARD

## SIST EN 300 330-2 V1.3.1:2006

01-julij-2006

9`Y\_lfca U[ bYfbUnXfi y`1j cgh]b`nUXYj Yj`nj Yn]`n`fUX]`g\_`ja`gdY\_lfca`f0FAŁĚ  
BUdfUj Y`fUh\_Y[ UXcgY[ UfGF8ŁĚFUX]`g\_UcdfYa Uj`ZY\_j Yb bYa`cVa c`1`cX`-  
\_<n`Xc`&) `A<n]b`g]ghYa ]n]bXi`\_V]`g\_c`nUb\_c`j`ZY\_j Yb bYa`cVa c`1`cX`-`\_<n`Xc`  
'`\$`A<n`Ě`&`"XY.`<Ufa cb]nfUb]`9B`j`g\_`UXi`g` `Ybca`" `&X]fY\_hj`YF/`HH9

Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Radio equipment in the frequency range 9 kHz to 25 MHz and inductive loop systems in the frequency range 9 kHz to 30 MHz; Part 2: Harmonized EN under article 3.2 of the R&TTE Directive (standards.iteh.ai)

[SIST EN 300 330-2 V1.3.1:2006](https://standards.iteh.ai/catalog/standards/sist/449a7a34-beb7-4853-a063-625b84c140ab/sist-en-300-330-2-v1-3-1-2006)

<https://standards.iteh.ai/catalog/standards/sist/449a7a34-beb7-4853-a063-625b84c140ab/sist-en-300-330-2-v1-3-1-2006>

Ta slovenski standard je istoveten z: EN 300 330-2 Version 1.3.1

### ICS:

33.060.20	Sprejemna in oddajna oprema	Receiving and transmitting equipment
33.100.01	Elektromagnetna združljivost na splošno	Electromagnetic compatibility in general

SIST EN 300 330-2 V1.3.1:2006 en

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

SIST EN 300 330-2 V1.3.1:2006

<https://standards.iteh.ai/catalog/standards/sist/449a7a34-beb7-4853-a063-625b84c140ab/sist-en-300-330-2-v1-3-1-2006>

# ETSI EN 300 330-2 V1.3.1 (2006-04)

---

*Candidate Harmonized European Standard (Telecommunications series)*

**Electromagnetic compatibility  
and Radio spectrum Matters (ERM);  
Short Range Devices (SRD);  
Radio equipment in the frequency range  
9 kHz to 25 MHz and inductive loop systems  
in the frequency range 9 kHz to 30 MHz;  
Part 2: Harmonized EN under article 3.2  
of the R&TTE Directive**

---

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

[SIST EN 300 330-2 V1.3.1:2006](https://standards.iteh.ai/catalog/standards/sist/449a7a34-beb7-4853-a063-625b84c140ab/sist-en-300-330-2-v1-3-1-2006)

<https://standards.iteh.ai/catalog/standards/sist/449a7a34-beb7-4853-a063-625b84c140ab/sist-en-300-330-2-v1-3-1-2006>



## Reference

---

REN/ERM-TG28-0405-2

## Keywords

---

radio, regulation, 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 300 330-2 V1.3.1:2006

<https://standards.iteh.ai/catalog/standards/sist/449a7a34-beb7-4853-a063-625b84c1407d/ETSI-ERM-TG28-0405-2-v1-3-1-2006>

**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](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 2006.  
All rights reserved.

**DECT™**, **PLUGTESTS™** and **UMTS™** are Trade Marks of ETSI registered for the benefit of its Members.  
**TIPHON™** and the **TIPHON logo** are Trade Marks currently being registered by ETSI for the benefit of its Members.  
**3GPP™** is a Trade Mark of ETSI registered for the benefit of its Members and of the 3GPP Organizational Partners.

# Contents

Intellectual Property Rights .....	5
Foreword.....	5
Introduction .....	6
1 Scope .....	8
2 References .....	8
3 Definitions, symbols and abbreviations .....	8
3.1 Definitions .....	8
3.2 Symbols.....	8
3.3 Abbreviations .....	8
4 Technical requirements specifications .....	9
4.1 Environmental profile.....	9
4.2 Conformance requirements .....	9
4.2.1 Transmitter requirements .....	9
4.2.1.1 Radiated H-field .....	9
4.2.1.2 RF carrier current .....	9
4.2.1.3 Radiated E-field .....	9
4.2.1.4 Permitted frequency range of the modulation bandwidth .....	9
4.2.1.5 Spurious emissions.....	9
4.2.1.5.1 Conducted spurious emissions at frequencies below 30 MHz .....	9
4.2.1.5.2 Conducted spurious emissions at frequencies $\geq$ 30 MHz .....	9
4.2.1.5.3 Radiated spurious emissions at frequencies below 30 MHz .....	10
4.2.1.5.4 Radiated spurious emissions at frequencies $\geq$ 30 MHz .....	10
4.2.1.6 Duty cycle .....	10
4.2.2 Receiver requirements .....	10
4.2.2.1 Adjacent channel selectivity - in band .....	10
4.2.2.2 Blocking or desensitization .....	10
4.2.2.3 Receiver spurious radiations .....	10
4.2.2.3.1 Radiated emissions below 30 MHz .....	10
4.2.2.3.2 Radiated emissions $\geq$ 30 MHz .....	10
5 Testing for compliance with technical requirements.....	11
5.1 Description of testing for compliance with technical requirements .....	11
5.1.1 Environmental conditions for testing .....	11
5.1.1.1 Normal and extreme test-conditions.....	11
5.1.1.2 Test power source .....	11
5.1.2 Choice of samples for test suites .....	11
5.1.3 Transmitter test suites .....	11
5.1.3.1 Radiated H-field .....	11
5.1.3.2 RF carrier current .....	11
5.1.3.3 Radiated E-field .....	11
5.1.3.4 Permitted frequency range of the modulation bandwidth .....	11
5.1.3.5 Conducted spurious emissions at frequencies below 30 MHz .....	11
5.1.3.6 Conducted spurious emissions at frequencies $\geq$ 30 MHz .....	12
5.1.3.7 Radiated spurious emissions at frequencies below 30 MHz .....	12
5.1.3.8 Radiated spurious emissions at frequencies $\geq$ 30 MHz .....	12
5.1.4 Receiver test suites.....	12
5.1.4.1 Adjacent channel selectivity- in band .....	12
5.1.4.2 Blocking and desensitization.....	12
5.1.4.3 Receiver spurious radiation .....	12
5.2 Interpretation of measurement results .....	12
<b>Annex A (normative): EN Requirements Table (EN-RT) .....</b>	<b>14</b>
<b>Annex B (informative): The EN title in the official languages .....</b>	<b>17</b>

<b>Annex C (informative):</b>	<b>Bibliography</b> .....	<b>19</b>
History .....		20

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

[SIST EN 300 330-2 V1.3.1:2006](https://standards.iteh.ai/catalog/standards/sist/449a7a34-beb7-4853-a063-625b84c140ab/sist-en-300-330-2-v1-3-1-2006)

<https://standards.iteh.ai/catalog/standards/sist/449a7a34-beb7-4853-a063-625b84c140ab/sist-en-300-330-2-v1-3-1-2006>

## 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://webapp.etsi.org/IPR/home.asp>).

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

The present document is part 2 of a multi-part deliverable covering the Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Radio equipment in the frequency range 9 kHz to 25 MHz and inductive loop systems in the frequency range 9 kHz to 30 MHz, as identified below:

Part 1: "Technical characteristics and test methods";

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

The present document has been produced by ETSI in response to a mandate from the European Commission issued under Council Directive 98/34/EC [4] (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").

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

### National transposition dates

Date of adoption of this EN:	24 March 2006
Date of latest announcement of this EN (doa):	30 June 2006
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	31 December 2006
Date of withdrawal of any conflicting National Standard (dow):	31 December 2007

## Introduction

The present document is part of a set of standards designed to fit in a modular structure to cover all radio and telecommunications terminal equipment under the R&TTE Directive [1]. Each standard is a module in the structure. The modular structure is shown in figure 1.

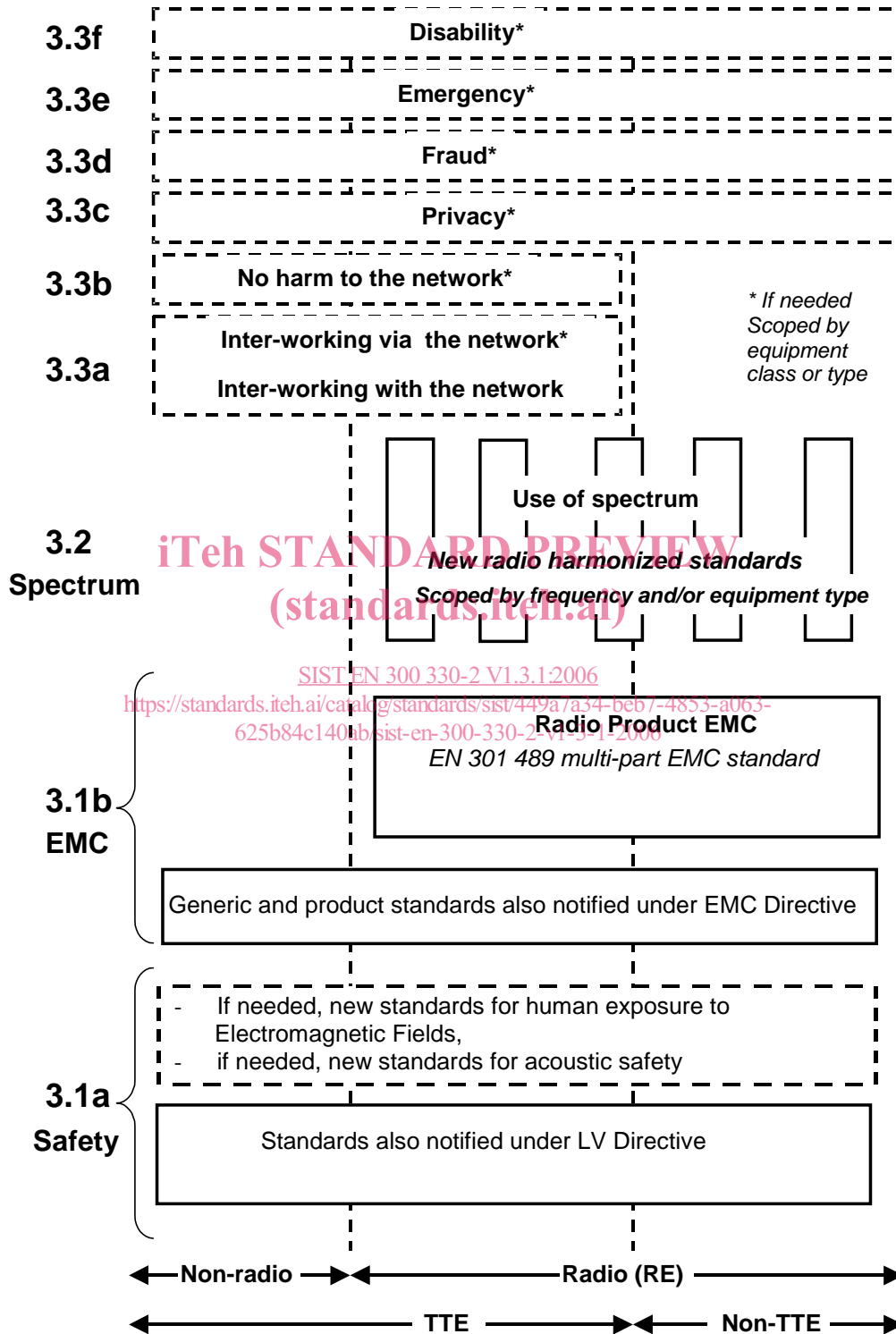


Figure 1: Modular structure for the various standards used under the R&TTE Directive [1]



The left hand edge of the figure 1 shows the different clauses of Article 3 of the R&TTE Directive [1].

For article 3.3 various horizontal boxes are shown. Dotted lines indicate that at the time of publication of the present document essential requirements in these areas have to be adopted by the Commission. If such essential requirements are adopted, and as far and as long as they are applicable, they will justify individual standards whose scope is likely to be specified by function or interface type.

The vertical boxes show the standards under article 3.2 for the use of the radio spectrum by radio equipment. The scopes of these standards are specified either by frequency (normally in the case where frequency bands are harmonized) or by radio equipment type.

For article 3.1b the diagram shows EN 301 489, the multi-part product EMC standard for radio used under the EMC Directive (see bibliography).

For article 3.1a the diagram shows the existing safety standards currently used under the LV Directive and new standards covering human exposure to electromagnetic fields. New standards covering acoustic safety may also be required.

The bottom of the figure shows the relationship of the standards to radio equipment and telecommunications terminal equipment. A particular equipment may be radio equipment, telecommunications terminal equipment or both. A radio spectrum standard will apply if it is radio equipment. An article 3.3 standard will apply as well only if the relevant essential requirement under the R&TTE Directive is adopted by the Commission and if the equipment in question is covered by the scope of the corresponding standard. Thus, depending on the nature of the equipment, the essential requirements under the R&TTE Directive may be covered in a set of standards.

The modularity principle has been taken because:

- it minimizes the number of standards needed. Because equipment may, in fact, have multiple interfaces and functions it is not practicable to produce a single standard for each possible combination of functions that may occur in an equipment;
- it provides scope for standards to be added:
  - under article 3.2 when new frequency bands are agreed; or
  - under article 3.3 should the Commission take the necessary decisions
 without requiring alteration of standards that are already published;
- it clarifies, simplifies and promotes the usage of Harmonized Standards as the relevant means of conformity assessment.

---

# 1 Scope

The present document applies to Short Range Devices (SRDs) transmitters and receivers as described in the scope of EN 300 330-1 [2].

The present document is intended to cover the provisions of article 3.2 of Directive 1999/5/EC [1] (R&TTE Directive) 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".

---

# 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>.

- Top STANDARD PREVIEW**  
**(standards.iteh.ai)**
- [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] ETSI EN 300 330-1 (V1.3.1): "Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Radio equipment in the frequency range 9 kHz to 25 MHz and inductive loop systems in the frequency range 9 kHz to 30 MHz; Part 1: Technical characteristics and test methods".
- [3] ETSI TR 100 028 (all parts): "Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics".
- [4] 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.

---

# 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] and EN 300 330-1 [2] apply.

## 3.2 Symbols

For the purposes of the present document, the symbols given in EN 300 330-1 [2] apply.

## 3.3 Abbreviations

For the purposes of the present document, the abbreviations given in EN 300 330-1 [2] apply.

## 4 Technical requirements specifications

### 4.1 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.

### 4.2 Conformance requirements

#### 4.2.1 Transmitter requirements

##### 4.2.1.1 Radiated H-field

The radiated H-field, as defined in EN 300 330-1 [2], clause 7.2.1.1, shall not exceed the limits in EN 300 330-1 [2], clause 7.2.1.3, table 4.

This requirement applies to transmitters with an integral or dedicated loop antenna.

##### 4.2.1.2 RF carrier current

The RF carrier current, as defined in EN 300 330-1 [2], clause 7.2.2.1, shall not exceed the limits in EN 300 330-1 [2], clause 7.2.2.3, table 5.

This requirement only applies to Product Class 3, as defined in EN 300 330-1 [2], clause 7.1.4.

##### 4.2.1.3 Radiated E-field

The radiated E-field, as defined in EN 300 330-1 [2], clause 7.2.3.1, shall not exceed the limits in EN 300 330-1 [2], clause 7.2.3.3. This requirement only applies to Product Class 4, as defined in EN 300 330-1 [2], clause 7.1.4.

##### 4.2.1.4 Permitted frequency range of the modulation bandwidth

The permitted range of operation frequencies, as defined in EN 300 330-1 [2], clause 7.3.1, shall not exceed the limits in EN 300 330-1 [2], clause 7.3.3.

##### 4.2.1.5 Spurious emissions

###### 4.2.1.5.1 Conducted spurious emissions at frequencies below 30 MHz

The conducted spurious emissions below 30 MHz, as defined in EN 300 330-1 [2], clause 7.4.1, shall not exceed the limits in EN 300 330-1 [2], clause 7.4.2.2.

This requirement only applies to Product Class 3 as defined in EN 300 330-1 [2], clause 7.1.4.

###### 4.2.1.5.2 Conducted spurious emissions at frequencies $\geq$ 30 MHz

The conducted spurious emissions at or above 30 MHz, as defined in EN 300 330-1 [2], clause 7.4.1, shall not exceed the limits in EN 300 330-1 [2], clause 7.4.2.4, table 6.

This requirement only applies to Product Class 3 as defined in EN 300 330-1 [2], clause 7.1.4.