

9`Y_fca U[bYfbUnXfi y`fj cghfØA7L]b`nUXYj Yj`nj Yn]`n`fUX]`g_`ja `gdY_fca `fØFAŁ!
CdfYa UnUdfYbcg`dcXUh`cj`j`ZY_j`Yb`bYa`dUgi`&`ž` ; <n`GA`ž`_`j`i`dcfUV`U
a`cXi`UW`g`_`c`h`b]`_`c`n`f`Undf`y`Yb]a`gdY_fca`!`&`"XY`.<Ufa`cb]n]fUb]`9Bž`_`j`nU`Ya`U
V]ghj`Yb`Y`nU`h`j`Y` `YbU`" &`X]fY`_`h]`Y`F`/`H`H`9

Electromagnetic compatibility and Radio spectrum Matters (ERM); Wideband Transmission systems; Data transmission equipment operating in the 2,4 GHz ISM band and using spread spectrum modulation techniques; Part 2: Harmonized EN covering essential requirements under article 3.2 of the R&TTE Directive

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33.060.99	Druga oprema za radijske komunikacije	Other equipment for radiocommunications
33.100.01	Elektromagnetna združljivost na splošno	Electromagnetic compatibility in general

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ETSI EN 300 328-2 V1.2.1 (2001-12)

Candidate Harmonized European Standard (Telecommunications series)

**Electromagnetic compatibility
and Radio spectrum Matters (ERM);
Wideband Transmission systems;
Data transmission equipment operating
in the 2,4 GHz ISM band and
using spread spectrum modulation techniques;
Part 2: Harmonized EN covering essential requirements
under article 3.2 of the R&TTE Directive**

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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 [6] (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 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 [1]").

The present document is part 2 of a multi-part deliverable covering the Wideband Transmission systems; Data transmission equipment operating in the 2,4 GHz ISM band and using spread spectrum modulation techniques, as identified below:

Part 1: "Technical characteristics and test conditions";
<https://standards.iteh.ai/catalog/standards/sist/63e310ae-2f6f-4775-ae76-0da756d919/sist-en-300-328-2-2002>

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

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

National transposition dates	
Date of adoption of this EN:	30 November 2001
Date of latest announcement of this EN (doa):	28 February 2002
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	31 August 2002
Date of withdrawal of any conflicting National Standard (dow):	31 August 2003

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.

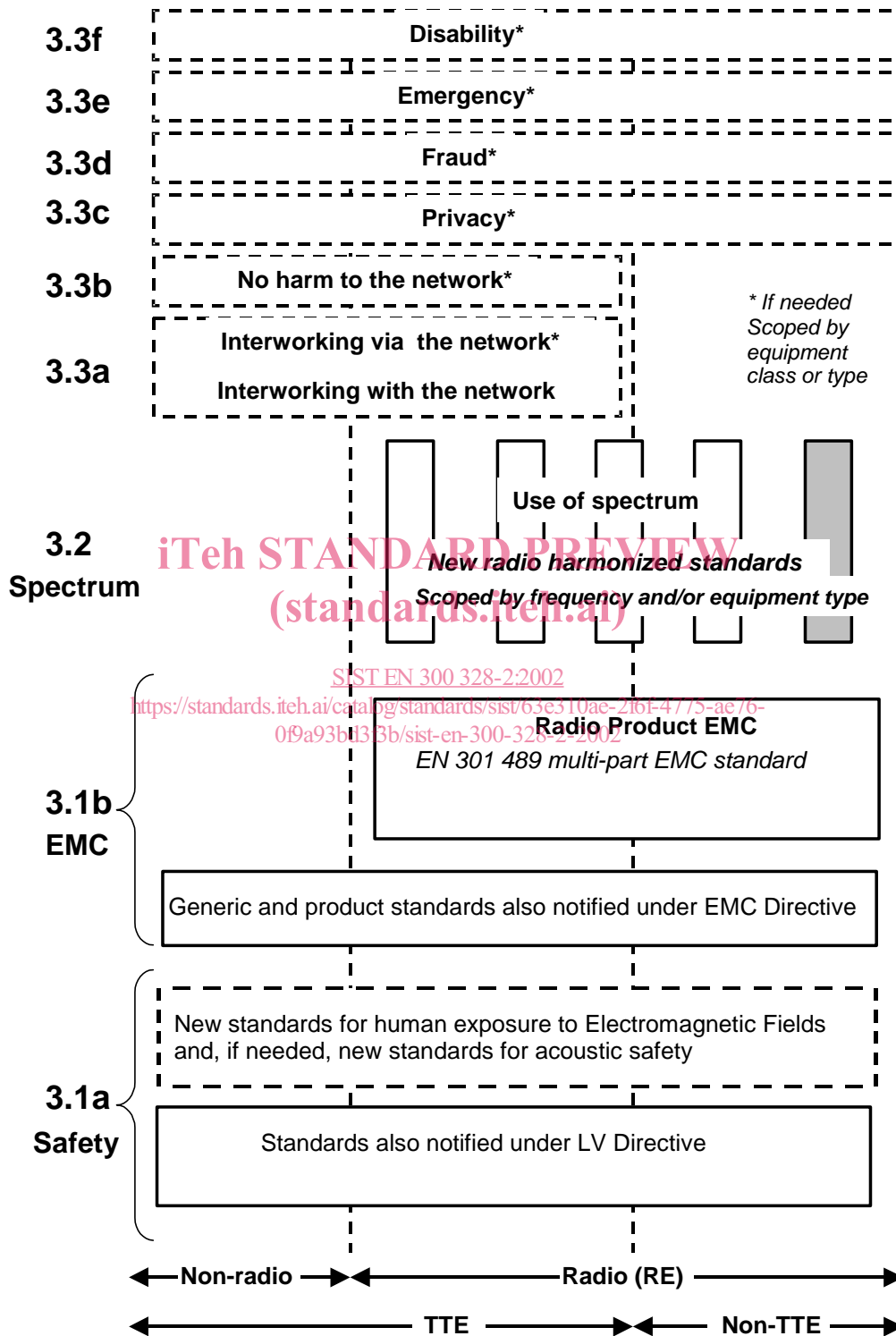


Figure 1: Modular structure for the various standards used under the R&TTE Directive [1]

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 [2].

For article 3.1a figure 1 shows the existing safety standards currently used under the LV Directive [3] 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 [1] 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 [1] 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 the following transceivers, transmitters and receivers including such technologies as IEEE 802.11 (see Bibliography) and HomeRF™.

Fixed, mobile or portable applications, e.g.:

- stand-alone radio equipment with or without their own control provisions;
- plug-in radio devices intended for use with or within a variety of host systems, e.g. personal computers, hand-held terminals, etc.;
- plug-in radio devices intended for use within combined equipment, e.g. cable modems, set-top boxes, access points, etc.;
- combined equipment or a combination of a plug-in radio device and a specific type of host equipment.

The equipment shall utilize wideband radio modulation techniques and aggregate bit rates in excess of 250 kbits/s. Furthermore the equipment shall have an effective radiated power of up to -10 dBW (100 mW) and a power density of up to -10 dBW (100 mW) e.i.r.p. per 100 kHz for frequency hopping spread spectrum modulation or a power density of up to -20 dBW (10 mW) e.i.r.p. per 1 MHz for other forms of spread spectrum modulation.

This radio equipment is capable of operating in all or any part of the frequency band shown in table 1.

Table 1: Industrial, Scientific and Medical (ISM) service frequency band

Direction of transmission	Industrial, Scientific and Medical (ISM) service frequency band
Transmit/Receive	2,4 GHz to 2,483 5 GHz

Equipment using modulation techniques different from those defined in EN 300 328-1 [4], clauses 5.1.1 and 5.1.2 do not fall within the scope of the present document.

The present document is intended to cover the provisions of Directive 1999/5/EC [1] (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".

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 [1] will 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>.

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.

[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.