

**Guidance to the production of candidate Harmonized  
Standards for application under the R&TTE Directive  
(1999/5/EC);  
Pro-forma candidate Harmonized Standard**

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**ETSI**

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## Foreword

This Special Report (SR) has been produced by the Advisory Committee Operational Co-ordination Group (OCG).

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# 1 Scope

The present document is accompanied by a compressed archive containing a pro-forma which is for the production of candidate Harmonized Standards for all radio and telecommunication terminal equipment under the R&TTE Directive (1999/5/EC).

The present document is applicable to all Technical Bodies producing such Harmonized Standards.

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*Guidance note: Text marked <.....> is text which is optional. It may be used as is, modified or deleted as required. In any event, the arrow head brackets should be deleted from your EN before publication.*

**<Draft> ETSI EN XXX XXX VX.X.X (yyyy-mm)**

*Candidate Harmonized European Standard (Telecommunications series)*

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**Harmonized EN for <equipment type(s)> covering essential requirements under article 3.<n> of the R&TTE directive**



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**Reference**

&lt;Work item&gt;

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**Keywords**

&lt;keyword[, keyword]&gt;

**ETSI**

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## Intellectual Property Rights

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## Foreword

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

### *Transposition table*

<b>Proposed national transposition dates</b>	
Date of latest announcement of this EN (doa):	3 months after ETSI publication
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	6 months after doa
Date of withdrawal of any conflicting National Standard (dow):	6 months after doa

# 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.

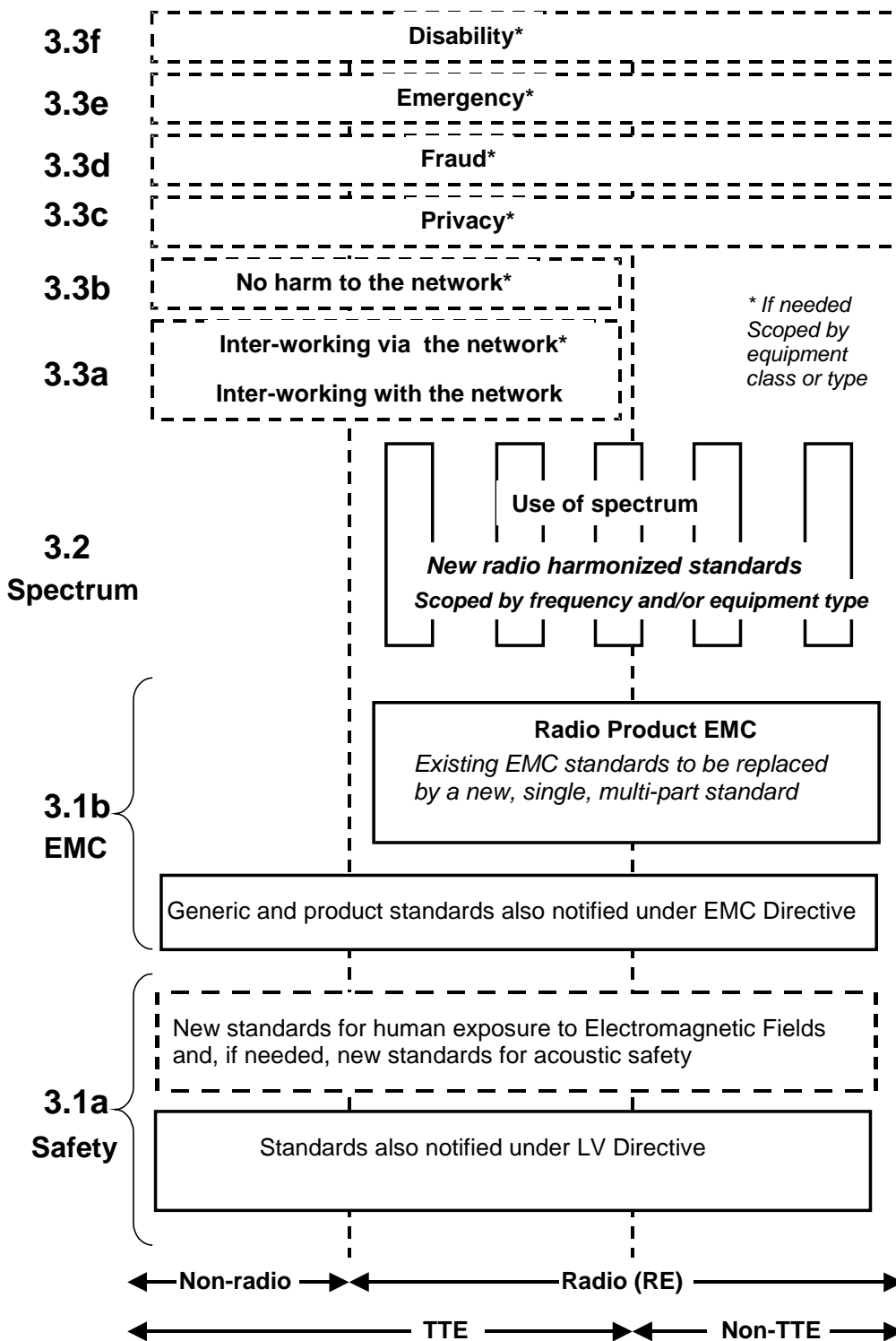


Figure 1: Modular structure for the various standards used under the R&TTE Directive [1]

The left hand edge of the figure 1 shows the different subclauses 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 this standard 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 the new single multi-part product EMC standard for radio, and the existing collection of generic and product standards currently used under the EMC Directive [2]. The parts of this new standard will become available in the second half of 2000, and the existing separate product EMC standards will be used until it is available.

For article 3.1a the diagram 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 decisionswithout 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.

*Guidance note: Indicate the article covered by the present document by shading the appropriate box in figure 1.*

*Guidance note: This clause may be also used by the Technical Body to add any relevant information*

# 1 Scope

The present document applies to the following <radio> <telecommunications terminal> equipment types:

- 1 <equipment type 1>;
- 2 <equipment type 2>;
- 3 <etc.>

*Guidance note: Additional/alternative information to define the equipment type may be provided. A tabular presentation is preferred, e.g.*

*These radio equipment types are capable of operating in all or any part of the frequency bands given below:*

**Table 1: <Radiocommunications> service frequency bands**

	<Radiocommunications> service frequency bands
Transmit <1>	m mmm to n nnn MHz
Receive <1>	m mmm to n nnn MHz
Transmit <2>	m mmm to n nnn MHz
Receive <2>	m mmm to n nnn MHz
.....	.....

*End of guidance note.*

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".>

<Article 3.3 <(a)><(b)><(c)><(d)><(e)><(f)>, which states that <radio> < telecommunications terminal> equipment within the scope of the present document shall be so constructed that:

<"it interworks via networks with other apparatus and that it can be connected to interfaces of the appropriate type throughout the Community".>

<"it does not harm the network or its functioning nor misuse network resources, thereby causing an unacceptable degradation of service".>

<"it incorporates safeguards to ensure that the personal data and privacy of the user and of the subscriber are protected".>

<"it supports certain features ensuring avoidance of fraud".>

<"it supports certain features ensuring access to emergency services".>

<"it supports certain features in order to facilitate its use by users with a disability".>

*Guidance note: Select the one item under Article 3.2 or Article 3.3 covered by the present document.*

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, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, subsequent revisions do apply.
- A non-specific reference to an ETS shall also be taken to refer to later versions published as an EN with the same number.

*Guidance note: All, and only, technical requirements and limits necessary to meet the essential requirements referred to in the Scope of the present document shall be included in the present document. These requirements should be included directly; if they are included by normative reference, that reference shall be specific.*

- [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 of 3 May 1989 on the approximation of the laws of the Member States relating to electromagnetic compatibility (89/336/EEC) (EMC Directive).
- [3] Council Directive of 19 February 1973 on the harmonization of the laws of Member States relating to electrical equipment designed for use within certain voltage limits (73/23/EEC) (LV Directive).
- <[n] ETSI ETR 028, 2<sup>nd</sup> Edition, (March 1994): Radio Equipment and Systems (RES); Uncertainties in the measurement of mobile radio equipment characteristics.>
- <etc.>

## 3 Definitions, symbols and abbreviations

### 3.1 Definitions

For the purposes of the present document, the terms and definitions in the R&TTE Directive [1], and the following terms and definitions apply.

**Environmental profile:** the range of environmental conditions under which equipment within the scope of the present document is required to comply with the provisions of the present document

<etc.>

### 3.2 Symbols

<For the purposes of the present document, the following symbols apply:

<symbol>	<Explanation>
----------	---------------

>

<There are no special symbols used in the present document.>

*Guidance note: Select item appropriate to the present document.*

## 3.3 Abbreviations

For the purposes of the present document, the following abbreviations apply:

EMC	Electro-Magnetic Compatibility
LV	Low Voltage
R&TTE	Radio and Telecommunications Terminal Equipment
<RE	Radio Equipment>
<TTE	Telecommunications Terminal Equipment>
<etc.>	

---

## 4 Technical requirements specifications

*Guidance note:* This is an example layout. At the discretion of the relevant Technical Body other layouts may be used (e.g. conformance testing may be included immediately after each technical requirement in this clause provided that the same technical content is included (see also clause 5).

### 4.1 Environmental profile

The technical requirements of the present document apply under the environmental profile for operation of the equipment, which shall be <determined by the environmental class of the equipment><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 required operational environmental profile.

### 4.2 Conformance requirements

*Guidance note:* All, and only, technical requirements and limits necessary to meet the essential requirements referred to in the Scope of the present document shall be included. These requirements should be included directly; if they are included by normative reference, that reference shall be specific.

#### 4.2.1 <Technical requirement 1>

*Guidance note:* Include a definition of the technical requirement & full details of the conformance requirements.

#### 4.2.2 <Technical requirement 2>

*Guidance note:* Include a definition of the technical requirement & full details of the conformance requirements.

#### 4.2.3 <etc.>

---

## 5 Testing for compliance with technical requirements

### 5.1 Environmental conditions for testing

*Guidance note:* Tests defined in the present document shall be carried out at representative points within the boundary limits of the required operational environmental profile.

*Guidance note:* Where technical performance varies subject to environmental conditions a sufficient variety of environmental conditions (within the boundary limits of the required operational environmental profile) to give confidence of compliance should be inserted here for the affected technical requirements.

## <5.2 Interpretation of the measurement results

The interpretation of the results recorded in a test report for the measurements described in the present document shall be as follows:

- the measured value related to the corresponding limit will be used to decide whether an equipment meets the requirements of the present document;
- the value of the measurement uncertainty for the measurement of each parameter shall be included in the test report;
- the recorded value of the measurement uncertainty shall be, for each measurement, equal to or lower than the figures in table <n>.

For the test methods, according to the present document, the measurement uncertainty figures shall be calculated in accordance with ETR 028 [<n>] and shall correspond to an expansion factor (coverage factor)  $k = 1,96$  or  $k = 2$  (which provide confidence levels of respectively 95% and 95,45% in the case where the distributions characterising the actual measurement uncertainties are normal (Gaussian)).

Table <n> is based on such expansion factors.

**Table <n>: Maximum measurement uncertainty**

Parameter	Uncertainty

>

*Guidance note: If a subclause concerning measurement uncertainties is included in the document then the text shown here should be used and the table completed as required.*

## <5.3 Essential radio test suites>

*Guidance note: Clause numbering depends on applicability.*

*Guidance note: For ENs covering article 3.2 for radio equipment, insert test specifications, if any, considered essential to assessment of conformity in accordance with Annex III of the R&TTE Directive [1].*

## <5.4 Other test specifications>

*Guidance note: Clause numbering depends on applicability.*

*Guidance note: Insert test specifications, if any, considered necessary to assess compliance with the corresponding conformance requirement in clause 4.*



*Guidance note: The following text should only be used for ATSS using TTCN. The subdivision is recommended.*

---

### *Abstract Test Suite (ATS) text block*

*This text should be used for ATSS using TTCN. The subdivision is recommended.*

This ATS has been produced using the Tree and Tabular Combined Notation (TTCN) according to ISO/IEC 9646-3 [*<x>*].

The ATS was developed on a separate TTCN software tool and therefore the TTCN tables are not completely referenced in the table of contents. The ATS itself contains a test suite overview part which provides additional information and references.

---

## <x1> The TTCN Graphical form (TTCN.GR)

The TTCN.GR representation of this ATS is contained in an Adobe Portable Document Format™ file (<any\_name>.PDF contained in archive <Filename>.ZIP) which accompanies the present document.

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## <x2> The TTCN Machine Processable form (TTCN.MP)

The TTCN.MP representation corresponding to this ATS is contained in an ASCII file (<any\_name>.MP contained in archive <Filename>.ZIP) which accompanies the present document.

*Guidance note: The following annex is only to be used where appropriate.*

## <Annex A (normative): The EN Requirements Table (EN-RT)

Notwithstanding the provisions of the copyright clause related to the text of the present document, ETSI grants that users of the present document may freely reproduce the EN-RT proforma in this annex so that it can be used for its intended purposes and may further publish the completed EN-RT.

The EN Requirements Table (EN-RT) serves a number of purposes, as follows:

- it provides a tabular summary of all the requirements;
- it shows the status of each EN-R, whether it is essential to implement in all circumstances (Mandatory), or whether the requirement is dependent on the supplier having chosen to support a particular optional service or functionality (Optional). In particular it enables the EN-Rs associated with a particular optional service or functionality to be grouped and identified;
- when completed in respect of a particular equipment it provides a means to undertake the static assessment of conformity with the EN.

**Table A.1: EN Requirements Table (EN-RT)**

EN Reference		EN <xxx xxx>				Comment
No.	Reference	EN-R (note)	Status			
1	<4.2.1>	<Limits for parameter 1>				
2	<etc.>	<etc.>				
3						
<etc>						

NOTE: <This><These> EN-R<s> <is><are> justified under Article <X> of the R&TTE Directive.

*Guidance note: Select the one item under the relevant Article covered by the present document and amend the Note appropriately.*

### Key to columns:

<b>No</b>	Table entry number;
<b>Reference</b>	Subclause reference number of conformance requirement within the present document;
<b>EN-R</b>	Title of conformance requirement within the present document;
<b>Status</b>	Status of the entry as follows:
M	Mandatory, shall be implemented under all circumstances;
O	Optional, may be provided, but if provided shall be implemented in accordance with the requirements;
O.n	this status is used for mutually exclusive or selectable options among a set. The integer "n" shall refer to a unique group of options within the EN-RT. A footnote to the EN-RT shall explicitly state what the requirement is for each numbered group. For example, "It is mandatory to support at least one of these options", or, "It is mandatory to support exactly one of these options".
<b>Comments</b>	To be completed as required.

*Guidance note: Prior to publication in the Official Journal of the EU, the title of a harmonized standard has to be available in all of the official languages listed in Annex B below. Technical bodies are encouraged to make as much use as possible of their own resources to obtain these translations from the original language. In cases of difficulty, the ETSI technical officer for the TB should be informed so that assistance can be found.*

*The following AnnexB is optional, and is provided as a convenient way to monitor the title translation process and to file the title translations.*

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## <Annex B (informative): The EN title in the official languages

Language	EN title
Danish	
Dutch	
English	
Finnish	
French	
German	
Greek	
Icelandic	
Italian	
Portuguese	
Spanish	
Swedish	

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## <Bibliography

*Guidance note: The Bibliography is optional. If it exists, it shall follow the last annex in the document.*

The following material, though not specifically referenced in the body of the present document, gives supporting information.

*Guidance note: Bibliography format:*

- <Publication>: "<Title>".

>

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## History

Document history		

*Guidance note: This clause shall be the last one in a document.*

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## History

<b>Document history</b>		
V1.1.1	October 1999	Publication
V1.1.2	January 2000	Publication
V1.1.3	March 2000	Publication