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Fixed Radio Systems; Point-to-Point equipments and antennas; Generic harmonized standard for Point-to-Point digital fixed radio systems and antennas covering the essential requirements under article 3.2 of the 1999/5/EC Directive

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Candidate Harmonized European Standard (Telecommunications series)

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Point-to-Point equipments and antennas;
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of the 1999/5/EC Directive**



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Contents

Intellectual Property Rights	4
Foreword	4
Introduction	5
1 Scope	8
2 References	10
3 Definitions, symbols and abbreviations	12
3.1 Definitions.....	12
3.2 Symbols.....	13
3.3 Abbreviations	13
4 Technical requirements specifications	14
4.1 General.....	14
4.2 Environmental profile and tests.....	14
4.3 Wide radio-frequency band covering units specification and tests	14
4.3.1 Radio equipments	14
4.3.2 Antennas for FDRS	16
4.4 Multi-rate covering equipments specification and tests	16
4.5 Transmitting conformance requirements	17
4.5.1 Frequency error / stability (Radio frequency tolerance)	17
4.5.2 Transmitter power	17
4.5.3 Adjacent channel power (Spectrum mask, spectral lines at symbol rate and RTPC).....	19
4.5.3.1 Spectrum mask and spectral lines at symbol rate.....	19
4.5.3.2 Remote Transmit Power Control (RTPC)	20
4.5.4 Spurious emissions	21
4.5.5 Transient behaviour of the transmitter (ATPC and RFC).....	21
4.5.5.1 Automatic Transmit Power Control (ATPC).....	21
4.5.5.2 Remote Frequency Control (RFC).....	21
4.6 Directional conformance requirements	22
4.6.1 Off-axis EIRP density (Radiation Pattern Envelope)	22
4.6.2 Antenna gain.....	23
4.6.3 Antenna X-polar discrimination	24
4.7 Receiving conformance requirements	25
4.7.1 Maximum usable sensitivity inc. duplex (BER as a function of receiver input signal level).....	25
4.7.2 Co-channel interference sensitivity (Co-channel rejection).....	26
4.7.3 Adjacent channel selectivity (Adjacent channel interference sensitivity).....	27
4.7.4 Blocking or desensitization including duplexer (CW Spurious Interference)	28
4.7.5 Spurious emissions	29
4.8 Control and monitoring function requirements	30
4.8.1 Sharing protocols (Interference avoidance requirement).....	30
Annex A (normative): The EN Requirements Table (EN-RT)	31
Bibliography	34
History	35

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Foreword

This Candidate Harmonized European Standard (Telecommunications series) has been produced by ETSI Technical Committee Transmission and Multiplexing (TM), and is now submitted for the ETSI standards One-step Approval Procedure.

The present document has been produced by ETSI in response to a mandate from the European Commission issued under Council Directive 98/34/EC [30] 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").

Proposed national transposition dates	
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

Notes to the NSOs for the OAP procedure:

In tables 2 to 14 reference is made to a specific version of a number of ETS/ENs; most of them are new or under amendment (see reference to relevant Work item number in hidden characters) currently at various stages of approval. When these new or amended ETS/ENs are approved they should be published as ENs with the quoted version number (as currently required for dated references provisions in Harmonized standards).

Prior to the publication of the present document, references of table 2 in the scope will be updated to match with the current status of the references deliverables and the publication of the present document will be held until all the quoted versions are published.

In the case that one or more of the revisions are delayed unacceptably beyond April 2000, the reference will be changed to the previous published version of the ETS/EN and provision will be made for an amendment of the present document for endorsing such amendment.

The present document does not introduce any new technical requirements beyond those already present in the ETS/ENs listed in table 2, currently approved or under approval procedure.

Introduction

Fixed Service Digital Radio systems, used in European countries, are presently referred to in a relatively large number of specific ETSI standards.

These ETS/ENs contain other requirements that even if not considered essential under the R&TTE Directive [1] are nevertheless applicable, on the ETSI commonly understood voluntary basis, to guarantee good performance and operability of FDRS.

These standards cover a very wide range of frequency bands of emission, traffic capacities, channel separations and modulation formats typically summarized in table 1.

Table 1: Fixed Service Digital Radio System (FDRS) parameters

Parameter	Range
Frequency bands	from below 1 GHz to 58 GHz
Traffic capacities	from 9,6 kbit/s to 622 Mbit/s
Channel separations	from 25 kHz to 112 MHz
Modulation formats	from 2 to 512 states (amplitude and/or phase and/or frequency states).
Typical applications	<u>POINT-TO-POINT (P-P) CONNECTIONS:</u> long haul (trunk), rural and urban low/medium/high capacity links <u>POINT-TO-MULTIPOINT (P-MP) CONNECTIONS:</u> rural or urban for narrow-band or wide-band systems for FWA and leased lines <u>STAND ALONE ANTENNAS:</u> for all the above applications when integral antennas are not employed
P-MP access methodologies	TDMA, FH-CDMA, DS-CDMA, FDMA and mixed methodologies

Many of the standards are produced for similar systems which have different capacity and spectrum efficiency parameters for applications in the various radio frequency channel arrangements as shown in table 1. It is expected that other standards will be developed in the future to cover emerging technologies and / or new frequency bands.

All the systems are very similar in the "principles of parameters" but, besides a few common horizontal parameters, they differ in the "required numerical values".

The present document, for point-to-point systems contains only the phenomena relevant to the essential requirements of article 3.2 of the R&TTE Directive [1], giving the reference of the relevant clauses of the ETSI product standards which contain the actual numerical values and the relevant test methods for the declaration of conformity to the essential requirements.

Where appropriate some horizontal requirements are directly reported.

The selection of the phenomena relevant to the essential requirements has been based on the guidance given by EG 201 399 [27] and by the specific analysis applied to FDRS given in TR 101 506 [28].

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.

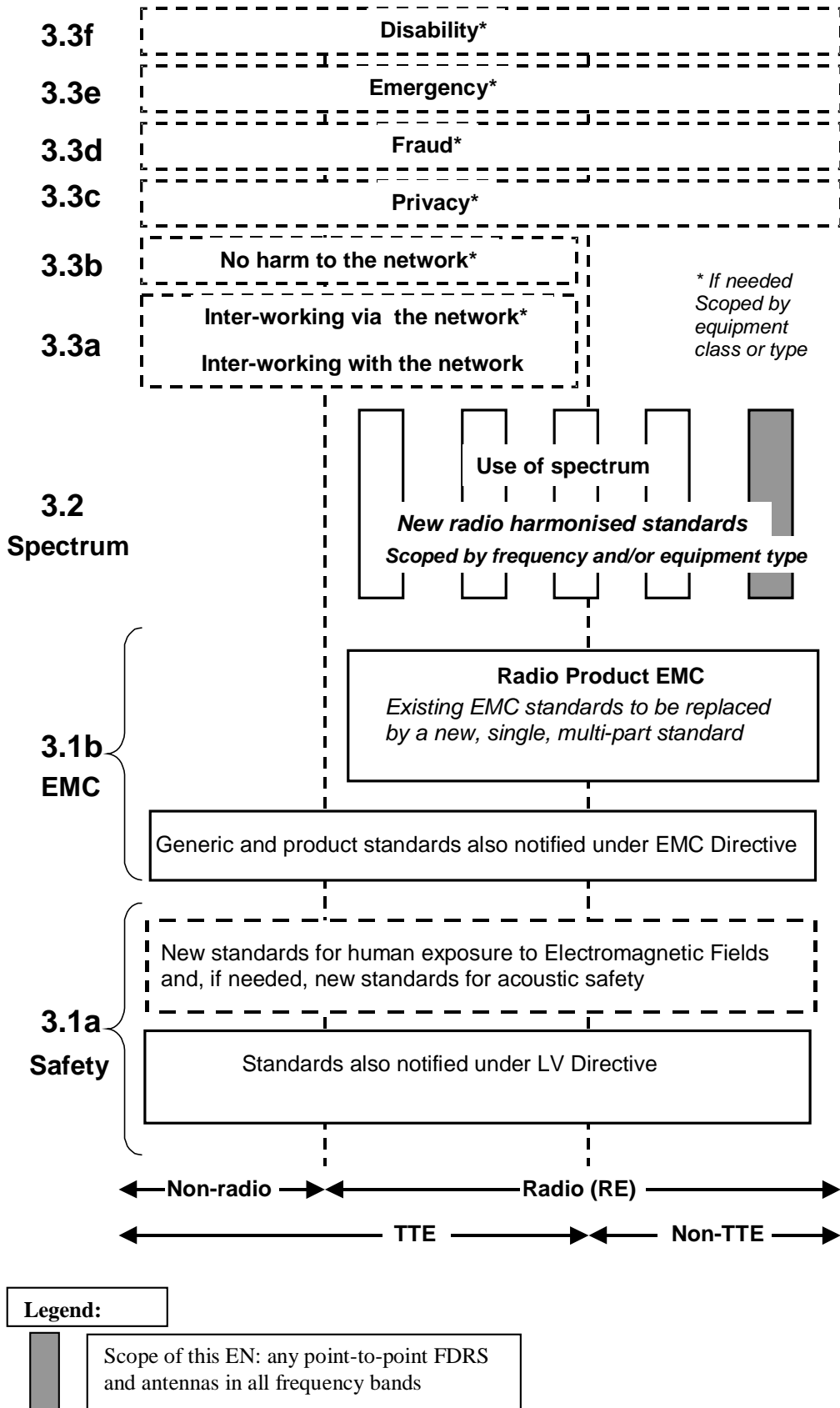


Figure 1: Modular structure for the various standards used under the R&TTE Directive [1]