SLOVENSKI STANDARD
SIST EN 301 357-2 V1.3.1:2006

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Elektromagnetna združljivost in zadeve v zvezi z radijskim spektrom (ERM) ï Brezvrvi ne avdio naprave, delujo e v obmo ju od 25 MHz do 2000 MHz ï 2. del: Harmonizirani EN, ki zajema bistvene zahteve lena 3.2 direktive R&TTE

Electromagnetic compatibility and Radio spectrum Matters (ERM); Cordless audio devices in the range 25 MHz to 2 000 MHz; Part 2: Harmonized EN covering essential requirements of article 3.2 of the R&TTE Directive

Ta slovenski standard je istoveten z: **EN 301 357-2 Version 1.3.1**

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33.100.01	Elektromagnetna združljivost na splošno	Electromagnetic compatibility in general

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Harmonized European Standard (Telecommunications series)

Electromagnetic compatibility and Radio spectrum Matters (ERM); Cordless audio devices in the range 25 MHz to 2 000 MHz; Part 2: Harmonized EN covering essential requirements of article 3.2 of the R&TTE Directive

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Foreword

This 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(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 are given in annex

The present document is part 2, of a multi-part deliverable covering Cordless audio devices in the range 25 MHz to 2 000 MHz, as identified below:

Part 1: "Technical characteristics and test methods";

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

National transposition dates	
Date of adoption of this EN:	21 July 2006
Date of latest announcement of this EN (doa):	31 October 2006
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	30 April 2007
Date of withdrawal of any conflicting National Standard (dow):	30 April 2008

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. The modular structure is shown in EG 201 399.

1 Scope

The present document covers Cordless audio devices considered by definition short-range devices.

- the present document applies to cordless audio consumer radio microphones, in ear monitoring equipment using either 300 kHz bandwidth analogue modulation; or
- 300 kHz, 600 kHz; or
- 1200 kHz digital FDMA modulation; and
- Band II LPD (low power devices) using 200 kHz bandwidth and analogue modulation.

The frequency bands for this equipment may differ from country to country as specified in their national regulations. All equipment is intended to be used with integral antennas.

The types of equipment covered by the present document are as follows:

- cordless headphones;
- cordless loudspeakers;
- consumer radio microphones;
- in-ear monitoring;
- in-vehicle cordless;
- personal cordless;
- broadband multi channel audio systems;
- Band II LPD.

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 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.

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.

[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 301 357-1 (V1.3.1): "Electromagnetic compatibility and Radio spectrum Matters (ERM); Cordless audio devices in the range 25 MHz to 2 000 MHz; Part 1: Technical characteristics and test methods".

[3] Void.

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

3 Definitions, symbols and abbreviations

3.1 Definitions

For the purposes of the present document, the following terms and definitions apply:

artificial antenna: tuned reduced-radiating dummy load equal to the nominal impedance specified by the applicant

integral antenna: antenna, with or without a connector, designed as, and declared as by the manufacturer, an indispensable part of the equipment

integral antenna for Band II LPD only: permanent fixed antenna, which may be built-in, designed as an indispensable part of the equipment

necessary bandwidth: is, for a given class of emission, the width of the frequency band which is just sufficient to ensure the transmission of information at the rate and with the quality required under specified conditions

NOTE: However, the necessary bandwidths of most digital modulation formats are presently not referred to ITU-R Recommendations of SM series.

port: any connection point on or within the Equipment Under Test (EUT) intended for the connection of cables to or from that equipment

radiated measurements: measurements that involve the absolute measurement of a radiated electromagnetic field

spurious emission: emission on a frequency or frequencies which are outside the necessary bandwidth and the level of which may be reduced without affecting the corresponding transmission of information. Spurious emissions include harmonic emissions, parasitic emissions, intermodulation products and frequency conversion products.

3.2 Symbols

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

μW	micro Watt
Ω	ohm
dBc	dB relative to the carrier level
E	field strength
GHz	Giga Hertz
kHz	kilo Hertz
MHz	Mega Hertz
mW	milli Watt
nW	nano Watt

3.3 Abbreviations

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

EUT	Equipment Under Test
FDMA	Frequency Division Multiple Access
LPD	Low Power Device

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 for Band II LPD

4.2.1.1 Basic requirements for Band II LPB

The Band II LPD shall meet the basic requirements according to EN 301 357-1 [2], clause 8.1.

4.2.1.2 Effective radiated power, occupied bandwidth, channel spacing, frequency error and transmitter timeout

The effective radiated power, occupied bandwidth, channel spacing, frequency error and transmitter timeout, as defined in EN 301 357-1 [2], clause 8.2.1, shall not exceed the limits in EN 301 357-1 [2], clause 8.2.1.4.

4.2.1.3 Radiated spurious emissions

The radiated spurious emissions as defined in EN 301 357-1 [2], clause 8.2.1.6, shall not exceed the limits in EN 301 357-1 [2], clause 8.2.1.6.3.

NOTE: For combined equipment such as Band II LPD implemented in cellular phones or in other telecommunication equipment falling under the R&TTE Directive, the ERP measurement of spurious emissions may be made according to the matching EN standards for the main equipment. Refer to EN 301 357-1 [2], clause 8.2.1.6.4.

4.2.2 Frequency error

The frequency error, as defined in EN 301 357-1 [2], clause 8.3.1, shall not exceed the limits in EN 301 357-1 [2], clause 8.3.3, table 3.

This clause does not apply to Band II LPD.

4.2.3 Carrier power

The carrier power, as defined in EN 301 357-1 [2], clause 8.4.1, shall not exceed the limits in EN 301 357-1 [2], clause 8.4.3, table 5.

This clause does not apply to Band II LPD.