

STN	Bezdrôtové zvukové zariadenia pracujúce v kmitočtovom pásme od 25 MHz do 2 000 MHz Harmonizovaná norma vzťahujúca sa na základné požiadavky článku 3.2 Smernice 2014/53/EU	STN EN 301 357 V2.1.1 87 1357
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Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 09/18

Obsahuje: EN 301 357 V2.1.1:2017

127292

ETSI EN 301 357 V2.1.1 (2017-06)



**Cordless audio devices in the range 25 MHz to 2 000 MHz;
Harmonised Standard covering the essential requirements
of article 3.2 of Directive 2014/53/EU**

Reference

REN/ERM-TG17-19-2

Keywordsaudio, harmonised standard, radio, radio MIC,
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
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Sous-Préfecture de Grasse (06) N° 7803/88

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Foreword

This Harmonised European Standard (EN) has been produced by ETSI Technical Committee Electromagnetic compatibility and Radio spectrum Matters (ERM).

The present document has been prepared under the Commission's standardisation request C(2015) 5376 final [i.9] to provide one voluntary means of conforming to the essential requirements of Directive 2014/53/EU on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC [i.1].

Once the present document is cited in the Official Journal of the European Union under that Directive, compliance with the normative clauses of the present document given in table A.1 and table A.2 confers, within the limits of the scope of the present document, a presumption of conformity with the corresponding essential requirements of that Directive and associated EFTA regulations.

National transposition dates	
Date of adoption of this EN:	6 June 2017
Date of latest announcement of this EN (doa):	30 September 2017
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	31 March 2018
Date of withdrawal of any conflicting National Standard (dow):	31 March 2019

Modal verbs terminology

In the present document "**shall**", "**shall not**", "**should**", "**should not**", "**may**", "**need not**", "**will**", "**will not**", "**can**" and "**cannot**" are to be interpreted as described in clause 3.2 of the [ETSI Drafting Rules](#) (Verbal forms for the expression of provisions).

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Introduction

The present document applies to cordless audio devices in the range 25 MHz to 2 000 MHz.

The present document contains requirements to demonstrate that radio equipment both effectively uses and supports the efficient use of radio spectrum in order to avoid harmful interference.

1 Scope

The present document specifies technical characteristics and methods of measurements for cordless audio devices in the range 25 MHz to 2 000 MHz, including:

- cordless headphones;
- cordless loudspeakers;
- consumer radio microphones in the range 863 MHz to 865 MHz;
- in-ear monitoring equipment using either 300 kHz bandwidth analogue modulation or 300 kHz, 600 kHz, 1 200 kHz digital FDMA modulation in the range 863 MHz to 865 MHz;
- in-vehicle cordless;
- personal cordless;
- broadband multi channel audio systems;
- Band II LPD (low power devices) in the 87,5 MHz to 108 MHz range (Broadcasting Band II) using up to 200 kHz bandwidth and analogue modulation;
- and other devices and frequency bands defined within CEPT/ERC/REC 70-03 [i.2], European or National regulation.

NOTE 1: 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.

Table 1: Radiocommunications service frequency bands

Radiocommunications service frequency bands	
Transmit	25 MHz to 2 000 MHz
Receive	25 MHz to 2 000 MHz

NOTE 2: Cordless audio devices covered within the present document are considered, by definition, Short Range Devices (SRD), the power limits for different frequency bands can be found in the current version of CEPT/ERC/REC 70-03 [i.2], annex 13 (or European or national regulations).

NOTE 3: Electromagnetic Compatibility (EMC) requirements are covered by ETSI EN 301 489-9 [i.4].

2 References

2.1 Normative references

References are specific, identified by date of publication and/or edition number or version number. Only the cited version applies.

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The following referenced documents are necessary for the application of the present document.

- [1] Recommendation ITU-R BS.559-2 (1990): "Objective measurement of radio-frequency protection ratios in LF, MF and HF broadcasting".

- [2] IEC 60244-13 (1991): "Methods of measurement for radio transmitters - Part 13: Performance characteristics for FM sound broadcasting".
- [3] ANSI C63.5 (2006): "American National Standard for Calibration of Antennas Used for Radiated Emission Measurements in Electro Magnetic Interference".

2.2 Informative references

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the referenced document (including any amendments) applies.

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The following referenced documents are not necessary for the application of the present document but they assist the user with regard to a particular subject area.

- [i.1] Directive 2014/53/EU of the European Parliament and of the Council of 16 April 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC.
- [i.2] CEPT/ERC/REC 70-03 relating to the use of Short Range Devices (SRD), annex 13.
- [i.3] ETSI EN 300 220 (all parts): "Short Range Devices (SRD) operating in the frequency range 25 MHz to 1 000 MHz".
- [i.4] ETSI EN 301 489-9: "ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 9: Specific conditions for wireless microphones, similar Radio Frequency (RF) audio link equipment, cordless audio and in-ear monitoring devices; Harmonised Standard covering the essential requirements of article 3.1(b) of Directive 2014/53/EU".
- [i.5] ETSI EN 301 908-1: "IMT cellular networks; Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU; Part 1: Introduction and common requirements".
- [i.6] ETSI EN 301 511: "Global System for Mobile communications (GSM); Mobile Stations (MS) equipment; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU".
- [i.7] ETSI EN 301 489-1: "ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements; Harmonised Standard covering the essential requirements of article 3.1(b) of Directive 2014/53/EU and the essential requirements of article 6 of Directive 2014/30/EU".
- [i.8] CEPT/ECC Report 73: "Compatibility of SRD in the FM radio broadcasting band".
- [i.9] Commission Implementing Decision C(2015) 5376 final of 4.8.2015 on a standardisation request to the European Committee for Electrotechnical Standardisation and to the European Telecommunications Standards Institute as regards radio equipment in support of Directive 2014/53/EU of the European Parliament and of the Council.
- [i.10] European Commission: "The 'Blue Guide' on the implementation of EU products rules 2016 (2016/C 272/01)".
- [i.11] ETSI TR 102 273 (all parts) (2001): "Electromagnetic compatibility and Radio spectrum Matters (ERM); Improvement on Radiated Methods of Measurement (using test site) and evaluation of the corresponding measurement uncertainties".
- [i.12] ETSI TR 100 028 (all parts) (12-2001): "Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics".

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