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**Elektromagnetna združljivost in zadeve v zvezi z radijskim spektrom (ERM) -  
Brezžični mikrofoni v frekvenčnem območju od 25 MHz do 3 GHz - 2. del:  
Harmonizirani EN, ki zajema bistvene zahteve člena 3.2 direktive R&TTE**

Electromagnetic compatibility and Radio spectrum Matters (ERM); Wireless microphones in the 25 MHz to 3 GHz frequency range; Part 2: Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive

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**ICS:**

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33.100.01	Elektromagnetna združljivost na splošno	Electromagnetic compatibility in general
33.160.50	Pribor	Accessories

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# ETSI EN 300 422-2 V1.4.1 (2015-06)



**Electromagnetic compatibility  
and Radio spectrum Matters (ERM);  
Wireless microphones  
in the 25 MHz to 3 GHz frequency range;  
Part 2: Harmonized EN covering the essential requirements  
of article 3.2 of the R&TTE Directive**

## Reference

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REN/ERM-TG17WG3-15

## Keywords

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audio, radio, radio MIC, testing**ETSI**

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# Contents

Intellectual Property Rights .....	5
Foreword.....	5
Modal verbs terminology.....	5
Introduction .....	5
1 Scope .....	6
2 References .....	6
2.1 Normative references .....	6
2.2 Informative references.....	6
3 Definitions, symbols and abbreviations .....	7
3.1 Definitions .....	7
3.2 Symbols.....	7
3.3 Abbreviations .....	7
4 Technical requirements specifications for Radio microphones.....	7
4.1 Environmental profile.....	7
4.2 Conformance requirements .....	7
4.2.1 Frequency stability.....	7
4.2.1.1 Definition .....	7
4.2.1.2 Limit.....	7
4.2.1.3 Conformance.....	8
4.2.2 Rated Output Power.....	8
4.2.2.1 Definition .....	8
4.2.2.2 Limit.....	8
4.2.2.3 Conformance.....	8
4.2.3 Necessary bandwidth .....	8
4.2.3.1 Definition .....	8
4.2.3.2 Limit.....	8
4.2.3.3 Conformance.....	8
4.2.4 Spurious emissions .....	8
4.2.4.1 Definition .....	8
4.2.4.2 Limit.....	8
4.2.4.3 Conformance.....	8
4.3 Receiver requirements .....	8
4.3.1 Spurious emissions .....	8
4.3.1.1 Definition .....	8
4.3.1.2 Limit.....	8
4.3.1.3 Conformance.....	8
5 Testing for compliance with technical requirements.....	9
5.1 Environmental conditions for testing .....	9
5.2 Interpretation of the measurement results .....	9
5.3 Essential radio test suites.....	9
5.3.1 Transmitter test suites .....	9
5.3.1.1 Frequency stability .....	9
5.3.1.2 Rated Output Power .....	9
5.3.1.3 Necessary bandwidth .....	10
5.3.1.4 Spurious emissions.....	10
5.3.2 Receiver test suites.....	10
5.3.2.1 Spurious emissions.....	10
6 Technical requirements specifications for Assistive listening devices .....	10
6.1 Environmental profile.....	10
6.2 Conformance requirements .....	10
6.2.1 Frequency stability.....	10
6.2.1.1 Definition .....	10
6.2.1.2 Limit.....	10

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SIST EN 300 422-2 V1.4.1:2015

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6.2.1.3	Conformance .....	10
6.2.2	Rated Output Power .....	10
6.2.2.1	Definition .....	10
6.2.2.2	Limit .....	10
6.2.2.3	Conformance .....	10
6.2.3	Necessary bandwidth .....	11
6.2.3.1	Definition .....	11
6.2.3.2	Limit .....	11
6.2.3.3	Conformance .....	11
6.2.4	Spurious emissions .....	11
6.2.4.1	Definition .....	11
6.2.4.2	Limit .....	11
6.2.4.3	Conformance .....	11
6.3	Receiver requirements .....	11
6.3.1	Spurious emissions .....	11
6.3.1.1	Definition .....	11
6.3.1.2	Limit .....	11
6.3.1.3	Conformance .....	11
7	Testing for compliance with technical requirements .....	11
7.1	Environmental conditions for testing .....	11
7.2	Interpretation of the measurement results .....	12
7.3	Essential radio test suites .....	12
7.3.1	Transmitter test suites .....	12
7.3.1.1	Frequency stability .....	12
7.3.1.2	Rated Output Power .....	12
7.3.1.3	Necessary bandwidth .....	12
7.3.1.4	Spurious emissions .....	12
7.3.2	Receiver test suites .....	13
7.3.2.1	Spurious emissions .....	13
<b>Annex A (normative):</b>	<b>HS Requirements and conformance Test specifications Table</b>	
	<b>(HS-RTT)</b> .....	<b>14</b>
History .....		16

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## Foreword

This Harmonized European Standard (EN) 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 mandate M/284 issued from the European Commission under Council Directive 98/34/EC [i.2] as amended by Directive 98/48/EC.

The title and reference to the present document are intended to be included in the publication in the Official Journal of the European Union of titles and references of Harmonized Standard under the Directive 1999/5/EC [i.1].

The requirements relevant to Directive 1999/5/EC [i.1] are summarized in annex A.

The present document is part 2 of a multi-part deliverable. Full details of the entire series can be found in part 1 [1].

National regulations on maximum power output will apply.

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National transposition dates	
Date of adoption of this EN:	19 May 2015
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Date of latest publication of new National Standard or endorsement of this EN (dop/e):	29 February 2016
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## 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 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 [i.1]. The modular structure is shown in ETSI EG 201 399 [i.3].

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# 1 Scope

The present document applies to equipment operating on radio frequencies between 25 MHz and 3 GHz, using analogue, digital and hybrid (using both analogue and digital modulation) modulation.

The present document applies to the following radio equipment types:

- Professional Wireless Microphone Systems (PWMS);
- in ear monitoring systems;
- consumer radio microphones;
- tour guide systems; and
- Assistive Listening Devices (Aids for the handicapped) comprising personal and public hearing aid systems.

The maximum power recommended for equipment covered by the present document is 250 mW for radio microphones and 500 mW for public hearing aids in the 169,4 MHz to 169,8125 MHz band (erp below 1 GHz and eirp above 1 GHz).

The present document also covers radio microphones used in the 863 MHz to 865 MHz band, with a maximum power of 10 mW.

The present document is intended to cover the provisions of Directive 1999/5/EC [i.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>

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## 2 References

### 2.1 Normative 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 reference document (including any amendments) applies.

Referenced documents which are not found to be publicly available in the expected location might be found at <http://docbox.etsi.org/Reference>.

NOTE: While any hyperlinks included in this clause were valid at the time of publication, ETSI cannot guarantee their long term validity.

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

- [1] ETSI EN 300 422-1 (V1.4.2) (08-2011): "Electromagnetic compatibility and Radio spectrum Matters (ERM); Wireless microphones in the 25 MHz to 3 GHz frequency range; Part 1: Technical characteristics and methods of measurement".

### 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 reference 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 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).
- [i.2] Directive 98/34/EC of the European Parliament and of the Council of 22 June 1998 laying down a procedure for the provision of information in the field of technical standards and regulations.
- [i.3] ETSI EG 201 399: "Electromagnetic compatibility and Radio spectrum Matters (ERM); A guide to the production of Harmonized Standards for application under the R&TTE Directive".
- [i.4] ETSI TR 100 028: "Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics".
- [i.5] ETSI TR 102 215: "Electromagnetic compatibility and Radio spectrum Matters (ERM); Recommended approach, and possible limits for measurement uncertainty for the measurement of radiated electromagnetic fields above 1 GHz".

## 3 Definitions, symbols and abbreviations

### 3.1 Definitions

For the purposes of the present document, the terms and definitions given in ETSI EN 300 422-1 [1] apply.

### 3.2 Symbols

For the purposes of the present document, the symbols given in ETSI EN 300 422-1 [1] apply.

### 3.3 Abbreviations

For the purposes of the present document, the abbreviations given in ETSI EN 300 422-1 [1] apply.

## 4 Technical requirements specifications for Radio microphones

### 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 Frequency stability

##### 4.2.1.1 Definition

This shall be as defined in ETSI EN 300 422-1 [1], clause 3.1.

##### 4.2.1.2 Limit

The transmitter frequency error limit shall be as stated in ETSI EN 300 422-1 [1], clause 8.1.3.