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**Specification for radio disturbance and immunity
measuring apparatus and methods - Part 1-1: Radio
disturbance and immunity measuring apparatus -
Measuring apparatus**

EESTI STANDARDI EESSÕNA**NATIONAL FOREWORD**

See Eesti standard EVS-EN 55016-1-1:2010 sisaldab Euroopa standardi EN 55016-1-1:2010 ingliskeelset teksti.	This Estonian standard EVS-EN 55016-1-1:2010 consists of the English text of the European standard EN 55016-1-1:2010.
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**Specification for radio disturbance and immunity measuring apparatus
and methods -**

**Part 1-1: Radio disturbance and immunity measuring apparatus -
Measuring apparatus
(CISPR 16-1-1:2010)**

Spécifications des méthodes
et des appareils de mesure
des perturbations radioélectriques
et de l'immunité aux perturbations
radioélectriques -
Partie 1-1: Appareils de mesure
des perturbations radioélectriques
et de l'immunité aux perturbations
radioélectriques - Appareils de mesure
(CISPR 16-1-1:2010)

Anforderungen an Geräte
und Einrichtungen sowie Festlegung
der Verfahren zur Messung
der hochfrequenten Störaussendung
(Funkstörungen) und Störfestigkeit -
Teil 1-1: Geräte und Einrichtungen
zur Messung der hochfrequenten
Störaussendung (Funkstörungen)
und Störfestigkeit - Messgeräte
(CISPR 16-1-1:2010)

This European Standard was approved by CENELEC on 2010-03-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: Avenue Marnix 17, B - 1000 Brussels

Foreword

The text of document CIS/A/867/FDIS, future edition 3 of CISPR 16-1-1, prepared by CISPR SC A, Radio-interference measurements and statistical methods, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 55016-1-1 on 2010-03-01.

This European Standard supersedes EN 55016-1-1:2007 + A1:2007 + A2:2008.

This main technical change with respect to EN 55016-1-1:2007 and its amendments consists of the addition of new provisions for the use of spectrum analyzers for compliance measurements.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN and CENELEC shall not be held responsible for identifying any or all such patent rights.

The following dates were fixed:

- | | | |
|--|-------|------------|
| – latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement | (dop) | 2010-12-01 |
| – latest date by which the national standards conflicting with the EN have to be withdrawn | (dow) | 2013-03-01 |

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard CISPR 16-1-1:2010 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

- | | | | |
|-----|-------------------|------|---|
| [1] | CISPR 16-1-2:2003 | NOTE | Harmonized as EN 55016-1-2:2004 (not modified). |
| [2] | CISPR 16-1-3:2004 | NOTE | Harmonized as EN 55016-1-3:2006 (not modified). |
| [3] | CISPR 16-1-4:2007 | NOTE | Harmonized as EN 55016-1-4:2007 (not modified). |
| [4] | CISPR 16-1-5:2003 | NOTE | Harmonized as EN 55016-1-5:2004 (not modified). |
| [5] | CISPR 16-2 series | NOTE | Harmonized in EN 55016-2 series (not modified). |
| [6] | CISPR 16-2-4:2003 | NOTE | Harmonized as EN 55016-2-4:2004 (not modified). |
| [7] | CISPR 16-4 series | NOTE | Harmonized in EN 55016-4 series (not modified). |
| [9] | CISPR 16-4-2:2003 | NOTE | Harmonized as EN 55016-4-2:2004 (not modified). |
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Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
CISPR 11 (mod)	2009	Industrial, scientific and medical equipment - Radio-frequency disturbance characteristics - Limits and methods of measurement	EN 55011	2009
CISPR 14-1	2005	Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 1: Emission	EN 55014-1	2006
CISPR 16-2-1	2008	Specification for radio disturbance and immunity measuring apparatus and methods - Part 2-1: Methods of measurement of disturbances and immunity - Conducted disturbance measurements	EN 55016-2-1	2009
CISPR 16-2-2 + A1 + A2	2003 2004 2005	Specification for radio disturbance and immunity measuring apparatus and methods - Part 2-2: Methods of measurement of disturbances and immunity - Measurement of disturbance power	EN 55016-2-2 + A1 + A2	2004 2005 2005
CISPR 16-2-3	2006	Specification for radio disturbance and immunity measuring apparatus and methods - Part 2-3: Methods of measurement of disturbances and immunity - Radiated disturbance measurements	EN 55016-2-3	2006
CISPR 16-3 + A1 + A2	2003 2005 2006	Specification for radio disturbance and immunity measuring apparatus and methods - Part 3: CISPR technical reports	- - -	- - -
IEC 60050-161 + A1 + A2	1990 1997 1998	International Electrotechnical Vocabulary (IEV) - Chapter 161: Electromagnetic compatibility	- - -	- - -

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INTRODUCTION

The CISPR 16 series, published under the general title *Specification for radio disturbance and immunity measuring apparatus and methods*, is comprised of the following sets of standards and reports:

- CISPR 16-1 – five parts covering measurement instrumentation specifications;
- CISPR 16-2 – five parts covering methods of measurement;
- CISPR 16-3 – a single publication containing various technical reports (TRs) with further information and background on CISPR and radio disturbances in general;
- CISPR 16-4 – five parts covering uncertainties, statistics and limit modelling.

CISPR 16-1 consists of the following parts, under the general title *Specification for radio disturbance and immunity measuring apparatus and methods – Radio disturbance and immunity measuring apparatus*:

- Part 1-1: Measuring apparatus
- Part 1-2: Ancillary equipment – Conducted disturbances
- Part 1-3: Ancillary equipment – Disturbance power
- Part 1-4: Ancillary equipment – Radiated disturbances
- Part 1-5: Antenna calibration test sites for 30 MHz to 1 000 MHz

The International Electrotechnical Commission (IEC) draws attention to the fact that it is claimed that compliance with this document may involve the use of a patent concerning the measuring receiver with rms-average detector (patent no DE 10126830) given in Clause 7.

IEC takes no position concerning the evidence, validity and scope of this patent right.

The holder of this patent right has assured the IEC that he/she is willing to negotiate licences either free of charge or under reasonable and non-discriminatory terms and conditions with applicants throughout the world. In this respect, the statement of the holder of this patent right is registered with IEC. Information may be obtained from:

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81671 Muenchen
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ISO (www.iso.org/patents) and IEC (http://www.iec.ch/tctools/patent_decl.htm) maintain on-line data bases of patents relevant to their standards. Users are encouraged to consult the data bases for the most up to date information concerning patents.

SPECIFICATION FOR RADIO DISTURBANCE AND IMMUNITY MEASURING APPARATUS AND METHODS –

Part 1-1: Radio disturbance and immunity measuring apparatus – Measuring apparatus

1 Scope

This part of CISPR 16 specifies the characteristics and performance of equipment for the measurement of radio disturbance in the frequency range 9 kHz to 18 GHz. In addition, requirements are provided for specialized equipment for discontinuous disturbance measurements.

NOTE In accordance with IEC Guide 107, CISPR 16-1-1 is a basic EMC standard for use by product committees of the IEC. As stated in Guide 107, product committees are responsible for determining the applicability of the EMC standard. CISPR and its sub-committees are prepared to co-operate with product committees in the evaluation of the value of particular EMC tests for specific products.

The specifications in this standard apply to EMI receivers and spectrum analyzers. The term “measuring receiver” used in this standard refers to both EMI receivers and spectrum analyzers.

Further guidance on the use of use of spectrum analyzers and scanning receivers can be found in Annex B of any one of the following standards: CISPR 16-2-1, CISPR 16-2-2 or CISPR 16-2-3.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

CISPR 11:2009, *Industrial, scientific and medical equipment – Radio-frequency disturbance characteristics – Limits and methods of measurement*

CISPR 14-1:2005, *Electromagnetic compatibility – Requirements for household appliances, electric tools and similar apparatus – Part 1: Emission*
Amendment 1 (2008)

CISPR 16-2-1:2008, *Specification for radio disturbance and immunity measuring apparatus and methods – Part 2-1: Methods of measurement of disturbances and immunity – Conducted disturbance measurements*

CISPR 16-2-2:2003, *Specification for radio disturbance and immunity measuring apparatus and methods – Part 2-2: Methods of measurement of disturbances and immunity – Measurement of disturbance power*
Amendment 1 (2004)
Amendment 2 (2005)

CISPR 16-2-3:2006, *Specification for radio disturbance and immunity measuring apparatus and methods – Part 2-3: Methods of measurement of disturbances and immunity – Radiated disturbance measurements*