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**Oprema za informacijsko tehnologijo - Karakteristike občutljivosti za radijske motnje - Mejne vrednosti in merilne metode (CISPR 22:2005, spremenjen)  
(istoveten EN 55022:2006)**

Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement (CISPR 22:2005, modified)

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English version

**Information technology equipment -  
Radio disturbance characteristics -  
Limits and methods of measurement  
(CISPR 22:2005, modified)**

Appareils de traitement de l'information -  
Caractéristiques des perturbations  
radioélectriques -  
Limites et méthodes de mesure  
(CISPR 22:2005, modifiée)

Einrichtungen der Informationstechnik -  
Funkstöreigenschaften -  
Grenzwerte und Messverfahren  
(CISPR 22:2005, modifiziert)

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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, 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: rue de Stassart 35, B - 1050 Brussels**

## Foreword

The text of the International Standard CISPR 22:2003 as well as A1:2004 and CISPR/I/136/FDIS (Amendment 3) and CISPR/I/128/CDV (Amendment 2, fragment 17), prepared by CISPR SC I "Electromagnetic compatibility of information technology equipment, multimedia equipment and receivers", together with the common modifications prepared by the Technical Committee CENELEC TC 210, Electromagnetic compatibility (EMC), was submitted to the CENELEC Unique Acceptance Procedure for acceptance as a European Standard.

In addition, the text of CISPR/I/135A/FDIS (future A2, fragment 1) to CISPR 22:2003, also prepared by CISPR SC I "Electromagnetic compatibility of information technology equipment, multimedia equipment and receivers", was submitted to the CENELEC formal vote as prAD to prEN 55022:2005, with the intention of the two documents being merged and ratified together as a new edition of EN 55022.

During the period of voting on these CENELEC drafts, the amendments CISPR/I/135A/FDIS and CISPR/I/136/FDIS (Amendments 2 and 3 respectively) made to CISPR 22:2003, resulted in the publication of a new (fifth) edition of CISPR 22, in accordance with IEC rules. The resulting CISPR 22:2005 was published in April 2005.

This resulting version of EN 55022, which was ratified on 2005-09-13, is therefore identical to CISPR 22:2005 except for the common modifications that were included in the document submitted to the CENELEC Unique Acceptance Procedure. The common modifications include CISPR/I/128/CDV, as this draft was not implemented in the unamended CISPR 22:2005.

This European Standard supersedes EN 55022:1998 and its amendments A1:2000 and A2:2003.

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The following dates were fixed:

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|--|--|
|  | <u><a href="https://standards.iteh.ai/catalog/standards/sist/85e5a228-f980-4604-8f72-84625d043a3e/sist-en-55022-2007">SIST EN 55022:2007</a></u> |
| – latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement | (dop) 2007-04-01   |
| – latest date by which the national standards conflicting with the EN have to be withdrawn   | (dow) 2009-10-01   |

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and covers essential requirements of EC Directives 89/336/EEC, 2004/108/EC and 1999/5/EC. See Annex ZZ.

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## Endorsement notice

The text of the International Standard CISPR 22:2005 was approved by CENELEC as a European Standard with agreed common modifications as given below.

### COMMON MODIFICATIONS

#### 3 Definitions

3.11 *Replace the definition by:*

##### 3.11

##### **associated equipment**

##### **AE**

equipment needed to maintain the data traffic on the cable attached to the EUT port under test and (or) to maintain the normal operation of the EUT during the test. The associated equipment may be physically located outside the test area

NOTE The AE can be another ITE, a traffic simulator or a connection to a network. The AE can be situated close to the measurement set-up, outside the measurement room or be represented by the connection to a network. AE should not have any appreciable influence on the test results.

#### 4 Classification of ITE

4.2 *Replace the first paragraph by:*

Class A ITE is a category of all other ITE which satisfies the class A ITE limits but not the class B ITE limits. The following warning shall be included in the instructions for use:

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#### 8 General measurement conditions

##### 8.2 General arrangement

*Delete the second sentence in the second paragraph.*

*Delete the second sentence in the eighth paragraph.*

##### 8.3.2 Floor-standing arrangement

*Change "12 mm" to "15 cm" in the second paragraph.*

*Change "12 mm" to "15 cm" in the third paragraph.*

##### 8.4 Operation of the EUT

*Add the following paragraph at the beginning of the subclause:*

The operational conditions of the EUT shall be determined by the manufacturer according to the typical use of the EUT with respect to the expected highest level of emission. The determined operational mode and the rationale for the conditions shall be stated in the test report.

*Replace the last sentence of original second paragraph by:*

Any mechanical activities should be performed.

#### 8.4.1 Operation of visual display units

Delete the subclause.

#### 8.4.2 Operation of facsimile devices

Delete the subclause.

#### 8.4.3 Operation of telephone sets

Delete the subclause.

#### 8.4.4 Operation of multifunction equipment

Renumber this subclause to become:

#### 8.5 Operation of multifunction equipment

### 9 Method of measurement of conducted disturbance at mains terminals and telecommunication ports

#### 9.5 EUT arrangement

##### 9.5.1 General

Add the following paragraph at the end of the subclause:

Where alternative test methods are described in the following subclauses, compliance with the requirements of the subclause may be demonstrated by either or any of the methods described.

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##### 9.5.2 Tabletop equipment arrangement

In the last line of item a), add "Figure 4", before "Figure 5".

##### 9.6.2 Impedance stabilization network (ISN)

Replace item 9.5.2. c) 4) by:

NOTE 1 The above specifications of LCL versus frequency are approximations of the LCL of typical unscreened balanced cables in representative environments. The specification for category 3 cables (9.6.2 c) 3) is considered representative of the LCL of typical telecommunication access networks. They are under continuing study and open to future modification.

NOTE 2 The related uncertainty issues are currently under discussion and a reference to CISPR 16-3<sup>3)</sup> will be included here once this work is concluded.

##### 9.6.3.1 Voltage measurement at balanced telecommunication ports intended for connection to unscreened balanced pairs

Add the following paragraph at the end of the subclause:

Where normal functioning cannot be achieved because of the impact of the ISN on the EUT, the measurement shall be carried out using the method given in 9.6.3.5.

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<sup>3)</sup> CISPR 16-3, *Specification for radio disturbance and immunity measuring apparatus and methods – Part 3: Reports and recommendations of CISPR.*

## 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>
IEC 60083	1997	Plugs and socket-outlets for domestic and similar general use standardized in member countries of IEC	-	-
IEC 61000-4-6	2003	Electromagnetic compatibility (EMC) Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields	-	-
CISPR 11 (mod)	2003	Industrial scientific and medical (ISM) radio-frequency equipment - Electromagnetic disturbance characteristics - Limits and methods of measurement	EN 55011	200X <sup>4)</sup> -
CISPR 13 (mod)	2001	Sound and television broadcast receivers and associated equipment - Radio disturbance characteristics - Limits and methods of measurement	EN 55013	2001
CISPR 16-1-1	2003	Specification for radio disturbance and immunity measuring apparatus and methods Part 1-1: Radio disturbance and immunity measuring apparatus - Measuring apparatus	EN 55016-1-1	2004
CISPR 16-1-2 A1	2003 2004	Specification for radio disturbance and immunity measuring apparatus and methods Part 1-2: Radio disturbance and immunity measuring apparatus - Ancillary equipment - Conducted disturbances	EN 55016-1-2 A1	2004 2005
CISPR 16-1-4 A1	2003 2004	Specification for radio disturbance and immunity measuring apparatus and methods Part 1-4: Radio disturbance and immunity measuring apparatus - Ancillary equipment - Radiated disturbances	EN 55016-1-4 A1	2004 2005
CISPR 16-4-2	2003	Specification for radio disturbance and immunity measuring apparatus and methods Part 4-2: Uncertainties, statistics and limit modelling - Uncertainty in EMC measurements	EN 55016-4-2	2004

<sup>4)</sup> At ratification stage.

## **Annex ZZ** (informative)

### **Coverage of Essential Requirements of EC Directives**

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and within its scope the standard covers essential requirements as given in Article 4(a) of the EC Directive 89/336/EC and Annex I Article 1(a) of the EC Directive 2004/108/EC, and essential requirements of Article 3.1(b) (emission only) of the EC Directive 1999/5/EC.

Compliance with this standard provides one means of conformity with the specified essential requirements of the Directives concerned.

**WARNING:** Other requirements and other EC Directives may be applicable to the products falling within the scope of this standard.

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COMITÉ INTERNATIONAL SPÉCIAL DES PERTURBATIONS RADIOÉLECTRIQUES  
INTERNATIONAL SPECIAL COMMITTEE ON RADIO INTERFERENCE

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**Appareils de traitement de l'information –  
Caractéristiques des perturbations  
radioélectriques –  
Limites et méthodes de mesure**

**Information technology equipment –  
Radio disturbance characteristics –  
Limits and methods of measurement**

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International Electrotechnical Commission, 3, rue de Varembe, PO Box 131, CH-1211 Geneva 20, Switzerland  
Telephone: +41 22 919 02 11 Telefax: +41 22 919 03 00 E-mail: [inmail@iec.ch](mailto:inmail@iec.ch) Web: [www.iec.ch](http://www.iec.ch)

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Commission Electrotechnique Internationale  
International Electrotechnical Commission  
Международная Электротехническая Комиссия

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INTERNATIONAL SPECIAL COMMITTEE ON RADIO INTERFERENCE

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**INFORMATION TECHNOLOGY EQUIPMENT –  
RADIO DISTURBANCE CHARACTERISTICS –  
LIMITS AND METHODS OF MEASUREMENT**

**FOREWORD**

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard CISPR 22 has been prepared by CISPR subcommittee I: Electromagnetic compatibility of information technology equipment, multimedia equipment and receivers.

This fifth edition of CISPR 22 cancels and replaces the fourth edition published in 2003 and amendment 1 (2004).

The documents CISPR//135A/FDIS and CISPR//136/FDIS, circulated to the National Committees as Amendments 2 and 3 respectively, led to the publication of the new edition.

The text of this standard is based on the fourth edition, amendment 1 and the following documents:

FDIS	Report on voting
CISPR/1/135A/FDIS	CISPR/1/148/RVD
CISPR/1/136/FDIS	CISPR/1/147/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

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## INTRODUCTION

The scope is extended to the whole radio-frequency range from 9 kHz to 400 GHz, but limits are formulated only in restricted frequency bands, which is considered sufficient to reach adequate emission levels to protect radio broadcast and telecommunication services, and to allow other apparatus to operate as intended at reasonable distance.

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