
Zvokovni in radiodifuzijski sprejemniki s pripadajočo opremo - Karakteristike občutljivosti za radijske motnje - Mejne vrednosti in merilne metode - Dopolnilo A1 (CISPR 13:2001/A1:2003)

Sound and television broadcast receivers and associated equipment - Radio disturbance characteristics - Limits and methods of measurement

Ton- und Fernseh-Rundfunkempfänger und verwandte Geräte der Unterhaltungselektronik - Funkstöreigenschaften - Grenzwerte und Messverfahren
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Récepteurs de radiodiffusion et de télévision et équipements associés - Caractéristiques des perturbations radioélectriques - Limites et méthodes de mesure

Ta slovenski standard je istoveten z: EN 55013:2001/A1:2003

ICS:

33.100.99	Drugi vidiki v zvezi z EMC	Other aspects related to EMC
33.160.20	Radijski sprejemniki	Radio receivers

SIST EN 55013:2002/A1:2004 en

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EUROPEAN STANDARD

EN 55013/A1

NORME EUROPÉENNE

EUROPÄISCHE NORM

April 2003

ICS 33.100.10

English version

**Sound and television broadcast receivers and associated equipment -
Radio disturbance characteristics -
Limits and methods of measurement
(CISPR 13:2001/A1:2003)**

Récepteurs de radiodiffusion
et de télévision et équipements associés -
Caractéristiques des perturbations
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Ton- und Fernseh-Rundfunkempfänger
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This amendment A1 modifies the European Standard EN 55013:2001; it was approved by CENELEC on 2003-04-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment 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 amendment 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, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and 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 document CISPR/1/58/FDIS, future amendment 1 to CISPR 13:2001, prepared by CISPR SC I, Electromagnetic compatibility of information technology equipment, multimedia equipment and receivers, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as amendment A1 to EN 55013:2001 on 2003-04-01.

The following dates were fixed:

- latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2004-01-01
- latest date by which the national standards conflicting with the amendment have to be withdrawn (dow) 2006-04-01

Annexes designated "normative" are part of the body of the standard.

Annexes designated "informative" are given for information only.

In this standard, annex A is normative and annex B is informative.

Endorsement notice

The text of amendment 1:2003 to the International Standard CISPR13:2001 was approved by CENELEC as an amendment to the European Standard without any modification.

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COMMISSION
ÉLECTROTECHNIQUE
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CISPR
13

2001

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

AMENDEMENT 1
AMENDMENT 1
2003-01

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

Amendement 1

**Récepteurs de radiodiffusion et de télévision
et équipements associés –
Caractéristiques des perturbations
radioélectriques – Limites et méthodes
de mesure**

Amendment 1

**Sound and television broadcast receivers
and associated equipment –
Radio disturbance characteristics –
Limits and methods of measurement**

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FOREWORD

This amendment has been prepared by subcommittee I of CISPR: Electromagnetic compatibility of information technology equipment, multimedia equipment and receivers.

The text of this amendment is based on the following documents:

FDIS	Report on voting
CISPR/I/58/FDIS	CISPR/I/68/RVD

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

The committee has decided that the contents of the base publication and its amendments will remain unchanged until 2006. At this date, the publication will be

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

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CONTENTS

Add, on page 5, after the title of 6.2, the title of the two new annexes:

Annex A (normative) Broadcast receivers for digital signals

Annex B (informative) Specification of the wanted signal

Add to the figure list, on page 5, the title of the new figures as follows:

Figure A.1 – Measurement of the radiofrequency disturbance voltage injected into the mains (see 5.1.3 and 5.1.4) in the frequency range 150 kHz to 30 MHz (side view)

Figure A.2 – Example of isolation transformer for 46 MHz to 1,5 GHz
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Figure A.3 – Typical size of isolation transformer for 46 MHz to 1,5 GHz

Figure A.4 – Typical characteristic of insertion loss of isolation transformer for 46 MHz to 1,5 GHz

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1 Scope and object

Insert below the third paragraph the following new paragraph:

Broadcast receivers for digital signals are covered by Annex A and Annex B.

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Add, after figure 14, the following two new annexes:

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Annex A (normative)

Broadcast receivers for digital signals

A.1 Introduction

This annex gives additional information concerning the methods of measurement of broadcast receivers for digital signals.

Receivers can be equipped with telecom or data connectors and may contain storage and return channel facilities.

For the measurements at ports related to non-broadcast functions, for example, the Telecom and LAN ports, reference is made to the relevant standards, for example, CISPR 22.

A.2 Normative references

See Clause 2.

A.3 Definitions

For the purposes of this annex, the following definitions apply.

A.3.1

digital sound receivers

appliances intended for the reception of sound broadcast, associated data and similar services for digital terrestrial, cable and satellite transmissions

A.3.2

digital television receivers

appliances intended for the reception of television broadcast, data and similar services for digital terrestrial, cable and satellite transmissions. The receiver can be equipped with a display. Receivers without a display are generally referred to as set-top boxes

A.3.3

digital sound signal

RF signal modulated with a digital data stream containing sound information. Data concerning additional services and service provider dependent applications may be included in the data stream

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A.3.4

digital television signal

RF signal modulated with a digital data stream containing video and accompanying sound information. Information concerning the supplied additional services and service provider dependent applications, like the Electronic Programme Guide, may be included in the data stream

NOTE Annex B gives information on signals for terrestrial, cable and satellite systems.

A.4 Limits of disturbance

The relevant limits of Clause 4 apply.

A.5 Measurement procedures

A.5.1 General

See Clause 5.

A.5.2 Measurement of the disturbance voltage at the mains terminals of digital satellite receivers

For digital satellite receivers an isolation transformer shall be used to supply the wanted signal instead of the small pick-up antenna specified in 5.3.2 (see Figure A.1). The maximum crossover capacitance of the transformer is 7,5 pF. This leads to a minimum common-mode impedance of the isolation transformer of 700 Ω at 30 MHz. An example of an isolation transformer and its performance is given in Figures A.2, A.3 and A.4.

NOTE This transformer can also be used for other types of receivers, for example, for terrestrial receivers.

A.5.3 Wanted signals

A.5.3.1 General

The level of a digital television or sound signal is expressed in dB(μ V) across the nominal impedance of 75 Ω ; it relates to the signal power of the signal, which is defined as the mean power of the selected signal as measured with a thermal power sensor.

Care should be taken to limit the measurement to the bandwidth of the signal. When using a spectrum analyser or calibrated receiver, it should integrate the signal power within the nominal bandwidth of the signal.

A.5.3.2 Digital sound signal

The level of the digital sound signal is 50 dB(μ V).

The reference level of all sound channels shall be at full range -6 dB at 1 kHz.

A.5.3.3 Digital television signal

The level of the digital television signals during the test shall be

- for terrestrial systems: VHF 50 dB(μ V), UHF 54 dB(μ V),
- for cable systems: 60 dB(μ V),
- for satellite systems: 60 dB(μ V).

The standard picture is a test pattern consisting of vertical colour bars in accordance with ITU-R BT471-1 Recommendation with a small moving element, coded at 6 Mbit/s.

The reference level of all sound channels shall be at full range -6 dB at 1 kHz.

See further Annex B.