



SLOVENSKI STANDARD
SIST EN 55020:1995/A12:2000
01-april-2000

**Electromagnetic immunity of broadcast receivers and associated equipment -
Amendment A12**

Electromagnetic immunity of broadcast receivers and associated equipment

Störfestigkeit von Rundfunkempfängern und verwandten Geräten der
Unterhaltungselektronik

Immunité électromagnétique des récepteurs de radiodiffusion et des appareils associés

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Ta slovenski standard je istoveten z: EN 55020:1994/A12:1999

SIST EN 55020:1995/A12:2000
<https://standards.iteh.ai/catalog/standards/sist/d010d887-12c6-40a5-bccc-773438d1e2f2/sist-en-55020-1995-a12-2000>

ICS:

33.100.20	Imunost	Immunity
33.160.01	Avdio, video in avdiovizualni sistemi na splošno	Audio, video and audiovisual systems in general

SIST EN 55020:1995/A12:2000 **en**

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 55020/A12

May 1999

ICS 29.020; 33.160.20
UDC 621.396.62:621.397.43:621.396.669.8:621.391.82:620.1:621.317.3

English version

Electromagnetic immunity of broadcast receivers and associated equipment

Immunité électromagnétique des récepteurs de radiodiffusion et appareils associés

Störfestigkeit von Rundfunkempfängern und verwandten Geräten der Unterhaltungselektronik

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SIST EN 55020:1995/A12:2000

This amendment A12 modifies the European Standard EN 55020:1994; it was approved by CENELEC on 1998-08-01. 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, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, 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

This amendment was prepared by SC 210A, EMC Products, of Technical Committee CENELEC TC 210, EMC.

The text of the draft was submitted to the formal vote and was approved by CENELEC as amendment A12 to EN 55020:1994 on 1998-08-01.

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 endorsed (dop) 1999-08-01
- latest date by which the national standards conflicting with the amendment have to be withdrawn (dow) 2001-08-01


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4 Definitions

4.1 Add:

It may also concern digital apparatus (with digital incoming signals) or apparatus with digital processing (of digital or analogue incoming signals).

4.2 Add:

It may also concern digital apparatus (with digital incoming signals) or apparatus with digital processing (of digital or analogue incoming signals).

4.3 Add:

Infrared connections for instance for infrared remote control or for infrared headphones are considered to be direct connections.

Table 1:

- under "FM Rado Ant.", add: "PC FM tuner card"
- under "AM Radio Ant.", add: "PC AM tuner card"
- under "TV Ant.", add: "PC TV tuner card".
- under "Portable Ass. Other", add: "e.g. infrared devices".

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6 Performance criteria **(standards.iteh.ai)**

6.1.1 Evaluation of audio quality [SIST EN 55020:1995/A12:2000](https://standards.iteh.ai/catalog/standards/sist/d0f6d887-12c6-40a5-bcc0-773438d1e2f2/sist-en-55020-1995-a12-2000) <https://standards.iteh.ai/catalog/standards/sist/d0f6d887-12c6-40a5-bcc0-773438d1e2f2/sist-en-55020-1995-a12-2000>

Replace the last sentence by:

For A.M. and F.M. car radios, the criterion is ≥ 26 dB at 500 mW" by "For A.M. and F.M. car radios and broadcast receiver cards for computers the criterion is ≥ 26 dB at 500 mW.

Add at the end:

For infrared headphones the criterion is ≥ 26 dB at an output level specified by the manufacturer.

This value of 26 dB will change to 40 dB three years after dop.

7 Conditions during testing

Add immediately after the clause heading:

For equipment for which the wanted signals are not explicitly described in this standard, the nominal signals as specified by the manufacturer shall be applied during the tests. (This is for instance the case with digital audio and video broadcast receivers, CD players, decoders, etc.). The manufacturer shall specify in his technical report which input signal was applied during the test.

8 Applicability

8.4 Replace "AM sound receivers" by "satellite receivers".

Add two new subclauses:

8.5 For PC tuner cards immunity requirements for the antenna input connector are applicable according to Table 2. PC tuner cards which are separately marketed for incorporation in diverse host units shall be tested in at least one appropriate representative host unit (e.g. PC) of the choice of the card manufacturer.

Measurements are carried out with the tuner card inserted in a personal computer and in operation. Immunity tests to ambient electromagnetic fields are not applicable to PC tuner cards.

8.6 An IR remote control unit shall be tested together with the main unit.

9 Immunity requirements for the antenna input connector

Table 2:

- after "R.F. voltage, Diff. Mode", add: "PC tuner cards for FM and TV".
- after "R.F voltage, Common mode", add: "1kHz AM 80 % depth" and add "PC tuner cards for AM, FM and TV".
- delete the last row.

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10 Immunity requirements at loudspeaker and headphone output connector

Table 10: delete the last row.

11 Immunity requirements for audio input and output connectors (excluding loudspeaker and headphone)

Table 11: delete the last row.

12 Immunity requirements for AC mains power connectors

In table 12, for "Electrical fast transients, Common mode" replace "Under consideration" by:

- | | |
|-------------------------|---|
| - Test specification | 1kV(peak), Tr/Th 5/50 ns, rep. Frequency 5 kHz. |
| - Test set-up | EN 61000-4-4 Direct injection. |
| - Applicability | coupling/decoupling network |
| - Performance criterion | B |

13 Immunity requirements for the enclosure port

Table 13:

- for "Electrostatic discharge" replace "Under consideration" by:
 - Test specification 8 kV air discharge/4kV contact discharge
 - Test setup EN 61000-4-2
 - Applicability FM Radio Ant.
TV Ant.
Ass. Video Tun. Ant.
Associated Video
Satellite Radio
Satellite TV
 - Performance criterion B
- add a new row "Radio frequency electromagnetic field, keyed carrier" with:
 - Test specification 900 ± 5 MHz, 3 V/m, 50 % duty cycle, 200 Hz rep. Frequency.
 - Test setup EN 61000-4-3¹⁾
 - Performance criterion A

1) As an alternative method, a non homogeneous field strength ≥ 3 V/m of similar characteristics as the test specification (e.g. generated with a dummy GSM) may be applied in a shielded room. In case of dispute measurement shall be carried out in accordance with EN 61000-4-3.

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13.1.1 Replace the text of the subclause by:

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For equipment with audio functions other than related to broadcast reception, for instance infrared headphones, table 14 applies. Moreover the frequency band $f_{\text{mod}} + f_{\text{diff}}$ is exempted (f_{mod} = internal frequency for the modulation of the IR carrier, f_{diff} = sidebands depending on the kind of modulation).

13.1.5 Add:

Infrared remote controls shall be tested against the same field strength limit as defined for the equipment to which it is intended to signal. During the test the infrared remote control shall not generate a control signal unintentionally and shall maintain its functions.

13.2.1.1 Replace the last sentence by:

They shall be tested using unwanted signals of frequencies and levels specified in table 18, applied to the mains (in common mode) and loudspeaker and headphone terminals (in differential mode).

17 Measurement of electrical transients

Replace "Under consideration" by:

Test equipment, test setup and test procedure shall be according to EN 61000-4-4 based on the use of a coupling/decoupling network.

20 Measurement of electrostatic discharge

Replace "Under consideration" by:

Test generator, test setup and test procedure shall be according to EN 61000-4-2.

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