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EUROPEAN STANDARD

**EN 55035**

NORME EUROPÉENNE

EUROPÄISCHE NORM

July 2017

ICS 33.100.20

English Version

**Electromagnetic compatibility of multimedia equipment -  
Immunity requirements  
(CISPR 35:2016 , modified)**

Compatibilité électromagnétique des équipements  
multimédia - Exigences d'immunité  
(CISPR 35:2016 , modifiée)

Elektromagnetische Verträglichkeit von Multimediageräten -  
Anforderungen zur Störfestigkeit  
(CISPR 35:2016 , modifiziert)

This European Standard was approved by CENELEC on 2016-09-26. 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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre 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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.



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

**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**

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## European foreword

The text of document CISPR/I/522/FDIS, future edition 1 of CISPR 35:2016, prepared by CISPR SC I "Electromagnetic compatibility of information technology equipment, multimedia equipment and receivers" of CISPR "International special committee on radio interference" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 55035:2017.

A draft amendment, which covers common modifications to CISPR 35:2016 (CISPR/I/522/FDIS), was prepared by CLC/TC 210 "Electromagnetic Compatibility (EMC)" and approved by CENELEC.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2018-01-28
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2022-07-28

Clauses, subclauses, notes, tables, figures and annexes which are additional to those in CISPR 35:2016 are prefixed "Z".

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

This document has been prepared under mandate(s) given to CENELEC by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For the relationship with EU Directive(s) and the standardization request(s), see informative Annexes ZZA and ZZB, which are integral parts of this document.

## Endorsement notice

The text of the International Standard CISPR 35:2016 was approved by CENELEC as a European Standard with agreed common modifications.

### COMMON MODIFICATIONS

#### 1 Modification to Clause 1 "Scope"

**Add** the following new paragraph after the sentence "MME within the scope of CISPR 20 or CISPR 24 is within the scope of this document.":

For MME that falls within the scope of EN 300 386 or any part(s) of EN 301 489 series, the requirements within these product specific/product family standards take precedence over the requirements within this document.

#### 2 Modification to Clause A.4 "Modified test levels and performance criteria"

In Table A.2 "Modified test levels for performance criterion A for the broadcast reception function", **replace** the following:

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The tuned channel  $\pm 0,5$  MHz (lower edge frequency - 0,5 MHz up to the upper edge frequency + 0,5 MHz of the tuned channel) is excluded from testing.

by the following: <https://standards.iteh.ai/catalog/standards/sist/988662e0-1c65-470b-a92a-39aa5291a487/sist-en-55035-2017>

Except for DVB-C, the tuned channel  $\pm 0,5$  MHz (lower edge frequency - 0,5 MHz up to the upper edge frequency + 0,5 MHz of the tuned channel) is excluded from testing. For DVB-C, the disturbance levels are 3 V/m or 3 V, except in the tuned channel  $\pm 0,5$  MHz (lower edge frequency - 0,5 MHz up to the upper edge frequency + 0,5 MHz of the tuned channel), where the disturbance level is 1 V/m.

#### 3 Modification to Annexes

**Add** the following new annexes.

## Annex ZA (normative)

### Normative references to international publications with their corresponding European publications

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

NOTE 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: [www.cenelec.eu](http://www.cenelec.eu).

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
CISPR 16-1-2	2014	Specification for radio disturbance and immunity measuring apparatus and methods - Part 1-2: Radio disturbance and immunity measuring apparatus - Coupling devices for conducted disturbance measurements	EN 55016-1-2	2014
IEC 61000-4-2	2008	Electromagnetic compatibility (EMC) - Part 4-2: Testing and measurement techniques - Electrostatic discharge immunity test	EN 61000-4-2	2009
IEC 61000-4-3	2006	Electromagnetic compatibility (EMC) - Part 4-3: Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test	EN 61000-4-3	2006
+ A1	2007		+ A1	2008
+ A2	2010		+ A2	2010
IEC 61000-4-4	2012	Electromagnetic compatibility (EMC) - Part 4-4: Testing and measurement techniques - Electrical fast transient/burst immunity test	EN 61000-4-4	2012
IEC 61000-4-5	2005	Electromagnetic compatibility (EMC) - Part 4-5: Testing and measurement techniques - Surge immunity test	EN 61000-4-5	2006 <sup>1)</sup>
IEC 61000-4-6	2008	Electromagnetic compatibility (EMC) - Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields	EN 61000-4-6	2009 <sup>2)</sup>

1) EN 61000-4-5:2006 is replaced by EN 61000-4-5:2014, *Electromagnetic compatibility (EMC) - Part 4-5: Testing and measurement techniques - Surge immunity test* (IEC 61000-4-5:2014).

2) EN 61000-4-6:2009 is replaced by EN 61000-4-6:2014, *Electromagnetic compatibility (EMC) - Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields* (IEC 61000-4-6:2013).

## EN 55035:2017 (E)

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61000-4-8	2009	Electromagnetic compatibility (EMC) - Part 4-8: Testing and measurement techniques - Power frequency magnetic field immunity test	EN 61000-4-8	2010
IEC 61000-4-11	2004	Electromagnetic compatibility (EMC) - Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests	EN 61000-4-11	2004
IEC 61000-4-20	2010	Electromagnetic compatibility (EMC) - Part 4-20: Testing and measurement techniques - Emission and immunity testing in transverse electromagnetic (TEM) waveguides	EN 61000-4-20	2010
IEC 61000-4-21	2011	Electromagnetic compatibility (EMC) - Part 4-21: Testing and measurement techniques - Reverberation chamber test methods	EN 61000-4-21	2011
ISO 9241-3	1992	Ergonomic requirements for office work with visual display terminals (VDTs) - Part 3: Visual display requirements	EN 29241-3	1993 <sup>3)</sup>
IEEE Standard 802.3	-	IEEE Standard for Ethernet, Section Three	-	-

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3) EN 29241-3:1992 is withdrawn and replaced by EN ISO 9241-302:2008, *Ergonomics of human-system interaction - Part 302: Terminology for electronic visual displays* (ISO 9241-302:2008).



## Annex ZZA (informative)

### Relationship between this European Standard and the essential requirements of Directive 2014/30/EU [2014 OJ L96] aimed to be covered

This European Standard has been prepared under the European Commission standardization request C(2016) 7641 final of 30.11.2016 <sup>4)</sup>, ('M/552'), as regards harmonized standards in support of Directive 2014/30/EU relating to electromagnetic compatibility, to provide one voluntary means of conforming to essential requirements of Directive 2014/30/EU of the European Parliament and of the Council of 26 February 2014 on the harmonization of the laws of the Member States relating to electromagnetic compatibility [2014 OJ L96].

Once this standard is cited in the Official Journal of the European Union under that Directive, compliance with the normative clauses of this standard given in Table ZZA.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding essential requirements of that Directive, and associated EFTA regulations.

**Table ZZA.1 – Correspondence between this European Standard and the Essential Requirements set out in Directive 2014/30/EU [2014 OJ L96]**

Essential requirements of Directive 2014/30/EU	Clause(s) / sub-clause(s) of this EN	Remarks / Notes
Annex I. 1(b) (electromagnetic immunity)	Clause 5 Immunity requirements Table 1 – Immunity requirements for enclosure ports	Not applicable for broadcast receivers (Annex A) under 2014/30/EU
	Clause 5 Immunity requirements Table 2 – Immunity requirements for analogue/digital data ports	Not applicable for broadcast receivers (Annex A) under 2014/30/EU
	Clause 5 Immunity requirements Table 3 – Immunity requirements for DC network power ports	Not applicable for broadcast receivers (Annex A) under 2014/30/EU
	Clause 5 Immunity requirements Table 4 – Immunity requirements for AC mains power ports	Not applicable for broadcast receivers (Annex A) under 2014/30/EU

**WARNING 1** — Presumption of conformity stays valid only as long as a reference to this European Standard is maintained in the list published in the Official Journal of the European Union. Users of this standard should consult frequently the latest list published in the Official Journal of the European Union.

**WARNING 2** — Other Union legislation may be applicable to the product(s) falling within the scope of this standard.

4) COMMISSION IMPLEMENTING DECISION C(2016) 7641 final of 30.11.2016 on a standardisation request to the European Committee for Standardisation, to the European Committee for Electrotechnical Standardisation and to the European Telecommunications Standards Institute as regards harmonised standards in support of Directive 2014/30/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to electromagnetic compatibility.

## Annex ZZB (informative)

### Relationship between this European Standard and the essential requirements of Directive 2014/53/EU [2014 OJ L153] aimed to be covered

This European Standard has been prepared under the European Commission standardization request C(2015) 5376 final of 4.8.2015 <sup>5)</sup> ('M/536'), as regards harmonized standards in support of Directive 2014/53/EU relating to radio equipment, to provide one voluntary means of conforming to essential requirements of Directive 2014/53/EU of the European Parliament and of the Council of 16 April 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC [2014 OJ L153].

Once this standard is cited in the Official Journal of the European Union under that Directive, compliance with the normative clauses of this standard given in Table ZZB.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding essential requirements of that Directive, and associated EFTA regulations.

**Table ZZB.1 – Correspondence between this European Standard  
and Article 3 of Directive 2014/53/EU [2014 OJ L153]**

Essential requirements of Directive 2014/53/EU	Clause(s) / sub-clause(s) of this EN	Remarks / Notes
Article 3 1.(b) (electromagnetic compatibility), immunity	Clause 5 Immunity requirements Table 1 – Immunity requirements for enclosure ports	Only applicable for broadcast receivers (Annex A) under 2014/53/EU
	Clause 5 Immunity requirements Table 2 – Immunity requirements for analogue/digital data ports	Only applicable for broadcast receivers (Annex A) under 2014/53/EU
	Clause 5 Immunity requirements Table 3 – Immunity requirements for DC network power ports	Only applicable for broadcast receivers (Annex A) under 2014/53/EU
	Clause 5 Immunity requirements Table 4 – Immunity requirements for AC mains power ports	Only applicable for broadcast receivers (Annex A) under 2014/53/EU

**WARNING 1** — Presumption of conformity stays valid only as long as a reference to this European Standard is maintained in the list published in the Official Journal of the European Union. Users of this standard should consult frequently the latest list published in the Official Journal of the European Union.

**WARNING 2** — Other Union legislation may be applicable to the product(s) falling within the scope of this standard.

5) COMMISSION IMPLEMENTING DECISION C(2015) 5376 final of 4.8.2015 on a standardisation request to the European Committee for Electrotechnical Standardisation and to the European Telecommunications Standards Institute as regards radio equipment in support of Directive 2014/53/EU of the European Parliament and of the Council of 16 April 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment. [2014 OJ L153].

## 4 Modifications to Bibliography

**Add the following before EN 300 421:**

EN 300 386, *Electromagnetic compatibility and Radio spectrum Matters (ERM); Telecommunication network equipment; ElectroMagnetic Compatibility (EMC) requirements*

**Add the following after EN 300 744:**

EN 301 489 series, *Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services*

**Add the following after EN 302 878:**

EN 303 340 *Digital Terrestrial TV Broadcast Receivers; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU*

**Add the following notes for the standards indicated:**

CISPR 16-2-1:2014	NOTE	Harmonized as EN 55016-2-1:2014 (not modified).
CISPR 20:2006 & CISPR 20:2006/A1:2013	NOTE	Harmonized as EN 55020:2007 (not modified) <sup>6)</sup> and as EN 55020:2007/A1:201X (not modified) <sup>7)</sup> .
CISPR 24:2010	NOTE	Harmonized as EN 55024:2010 (not modified).
CISPR 32:2015	NOTE	Harmonized as EN 55032:2015 (not modified).
IEC 60942:2003	NOTE	Harmonized as EN 60942:2003 (not modified).
IEC 61672-1:2013	NOTE	Harmonized as EN 61672-1:2013 (not modified).
ISO/IEC 17025:2005	NOTE	Harmonized as EN ISO/IEC 17025:2005 (not modified).

6) EN 55020:2007 is also amended by EN 55020:2007/A11:2011 and by EN 55020:2007/A12:2016.

7) At publication stage.

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# INTERNATIONAL STANDARD

# NORME INTERNATIONALE



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

**Electromagnetic compatibility of multimedia equipment – Immunity requirements**

**(standards.iteh.ai)**

**Compatibilité électromagnétique des équipements multimédia – Exigences d'immunité**

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