SVENSK STANDARD SS-EN 55032

Fastställd	Utgåva	Sida	Ansvarig kommitté
2015-08-19	2	1 (1+106)	SEK TK EMC

Multimediautrustning – EMC-fordringar – Emission

Electromagnetic compatibility of multimedia equipment – Emission requirements

Som svensk standard gäller europastandarden EN 55032:2015. Den svenska standarden innehåller den officiella engelska språkversionen av EN 55032:2015.

Nationellt förord

Europastandarden EN 55032:2015

består av:

– **europastandardens ikraftsättningsdokument,** utarbetat inom CENELEC
– **CISPR 32, Second edition, 2015 - Electromagnetic compatibility of multimedia equipment - Emission requirements**

utarbetad inom International Electrotechnical Commission, IEC.

Tidigare fastställd svensk standard SS-EN 55032, utgåva 1, 2012 och SS-EN 55032 AC2, utgåva 1, 2013, gäller ej fr o m 2018-05-05.

ICS 33.100.10

Denna standard är fastställd av SEK Svensk Elstandard,
som också kan lämna upplysningar om **sakinnehållet** i standarden.
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Standarder underlättar utvecklingen och höjer elsäkerheten

Det finns många fördelar med att ha gemensamma tekniska regler för bl a mätning, säkerhet och provning och för utförande, skötsel och dokumentation av elprodukter och elanläggningar.

Genom att utforma sådana standarder blir säkerhetsfordringar tydliga och utvecklingskostnaderna rimliga samtidigt som marknadens acceptans för produkten eller tjänsten ökar.

Många standarder inom elområdet beskriver tekniska lösningar och metoder som åstadkommer den elsäkerhet som föreskrivs av svenska myndigheter och av EU.

SEK är Sveriges röst i standardiseringsarbetet inom elområdet

SEK Svensk Elstandard svarar för standardiseringen inom elområdet i Sverige och samordnar svensk medverkan i internationell och europeisk standardisering. SEK är en ideell organisation med frivilligt deltagande från svenska myndigheter, företag och organisationer som vill medverka till och påverka utformningen av tekniska regler inom elektrotekniken.

SEK samordnar svenska intressenters medverkan i SEKs tekniska kommittéer och stödjer svenska experters medverkan i internationella och europeiska projekt.

Stora delar av arbetet sker internationellt

Utformningen av standarder sker i allt väsentligt i internationellt och europeiskt samarbete. SEK är svensk nationalkommitté av International Electrotechnical Commission (IEC) och Comité Européen de Normalisation Electrotechnique (CENELEC).

Standardiseringsarbetet inom SEK är organiserat i referensgrupper bestående av ett antal tekniska kommittéer som speglar hur arbetet inom IEC och CENELEC är organiserat.

Arbetet i de tekniska kommittéerna är öppet för alla svenska organisationer, företag, institutioner, myndigheter och statliga verk. Den årliga avgiften för deltagandet och intäkter från försäljning finansierar SEKs standardiseringsverksamhet och medlemsavgift till IEC och CENELEC.

Var med och påverka!

Den som deltar i SEKs tekniska kommittéarbete har möjlighet att påverka framtida standarder och får tidig tillgång till information och dokumentation om utvecklingen inom sitt teknikområde. Arbetet och kontakterna med kollegor, kunder och konkurrenter kan gynnsamt påverka enskilda företags affärsutveckling och bidrar till deltagarnas egen kompetensutveckling.

Du som vill dra nytta av dessa möjligheter är välkommen att kontakta SEKs kansli för mer information.

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 55032

July 2015

ICS 33.100.10

Supersedes EN 55032:2012

English Version

Electromagnetic compatibility of multimedia equipment - Emission Requirements (CISPR 32:2015)

Compatibilité électromagnétique des équipements multimédia - Exigences d'émission (CISPR 32:2015)

Elektromagnetische Verträglichkeit von Multimediageräten und -einrichtungen - Anforderungen an die Störaussendung (CISPR 32:2015)

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

Ref. No. EN 55032:2015 E

SEK Svensk Elstandard

Foreword

The text of document CIS/I/498/FDIS, future edition 2 of CISPR 32, prepared by CISPR SC I "Electromagnetic compatibility of information technology equipment, multimedia equipment and receivers" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 55032:2015.

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)	2016-02-05
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2018-05-05

This document supersedes EN 55032:2012.

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

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

For the relationship with EU Directive see informative Annex ZZ, which is an integral part of this document.

Endorsement notice

The text of the International Standard CISPR 32:2015 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:

CISPR 13:2009	NOTE	Harmonized as EN 55013:2013 (modified).
CISPR 16 Series	NOTE	Harmonized as EN 55016 Series.
CISPR 22:2008	NOTE	Harmonized as EN 55022:2010 (modified).

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

Publication	Year	Title	EN/HD	Year
CISPR 16-1-1	2010	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	2010
+A1	2010		+A1	2010
+A2	2014		+A2	2014
CISPR 16-1-2	2003	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	2004 [1)]
+A1	2004		+A1	2005
+A2	2006		+A2	2006
CISPR 16-1-4	2010	Specification for radio disturbance and immunity measuring apparatus and methods - Part 1-4: Radio disturbance and immunity measuring apparatus - Antennas and test sites for radiated disturbance measurements	EN 55016-1-4	2010
+A1	2012		+A1	2012
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 [2)]
+A1	2010		+A1	2011
+A2	2013		+A2	2013
CISPR 16-2-3	2010	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	2010
			+AC	2013
+A1	2010		+A1	2010
+A2	2014		+A2	2014

[1)] Superseded by EN 55016-1-2:2014 (CISPR 16-1-2:2014): DOW = 2017-04-25.

[2)] Superseded by EN 55016-2-1:2014 (CISPR 16-2-1:2014): DOW = 2017-04-02.

Publication	Year	Title	EN/HD	Year
CISPR 16-4-2	2011	Specification for radio disturbance and immunity measuring apparatus and methods - Part 4-2: Uncertainties, statistics and limit modelling - Measurement instrumentation uncertainty	EN 55016-4-2	2011
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 [3)]
ISO/IEC 17025	2005	General requirements for the competence of testing and calibration laboratories	-	-
ANSI C63.5	2006	American National Standard (for) Electromagnetic Compatibility - Radiated Emission Measurements in Electromagnetic Interference (EMI) Control - Calibration of Antennas (9 kHz to 40 GHz)	-	-
IEEE 802.3	-	IEEE Standard for Information technology - Specific requirements - Part 3: Carrier Sense Multiple Access with Collision Detection (CMSA/CD) Access Method and Physical Layer Specifications	-	-

[3)] Superseded by EN 61000-4-6:2014 (IEC 61000-4-6:2013): DOW = 2016-11-27.

CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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ELECTROMAGNETIC COMPATIBILITY OF MULTIMEDIA EQUIPMENT –

Emission requirements

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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8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard CISPR 32 has been prepared by CISPR subcommittee I: Electromagnetic compatibility of information technology equipment, multimedia equipment and receivers.

This second edition cancels and replaces the first edition published in 2012. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) additional requirements using FAR,
b) additional requirements for outdoor unit of home satellite receiving systems,
c) addition of new informative annexes covering GTEM and RVC,
d) numerous maintenance items are addressed to improve the testing of MME.

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

FDIS	Report on voting
CIS/I/498/FDIS	CIS/I/501/RVD

Full information on the voting for the approval of this publication 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 stability date indicated on the IEC website 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.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

ELECTROMAGNETIC COMPATIBILITY OF MULTIMEDIA EQUIPMENT –

Emission requirements

1 Scope

NOTE Blue coloured text within this document indicates text that will be aligned with the future MME immunity publication CISPR 35.

This International Standard applies to multimedia equipment (MME) as defined in 3.1.24 and having a rated r.m.s. AC or DC supply voltage not exceeding 600 V.

Equipment within the scope of CISPR 13 or CISPR 22 is within the scope of this publication.

MME intended primarily for professional use is within the scope of this publication.

The radiated emission requirements in this standard are not intended to be applicable to the intentional transmissions from a radio transmitter as defined by the ITU, nor to any spurious emissions related to these intentional transmissions.

Equipment, for which emission requirements in the frequency range covered by this publication are explicitly formulated in other CISPR publications (except CISPR 13 and CISPR 22), are excluded from the scope of this publication.

In-situ testing is outside the scope of this publication.

This publication covers two classes of MME (Class A and Class B). The MME classes are specified in Clause 4.

The objectives of this publication are:

1) to establish requirements which provide an adequate level of protection of the radio spectrum, allowing radio services to operate as intended in the frequency range 9 kHz to 400 GHz;
2) to specify procedures to ensure the reproducibility of measurement and the repeatability of results.

2 Normative references

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.

CISPR 16-1-1:2010, *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/AMD1:2010
CISPR 16-1-1:2010/AMD2:2014

CISPR 16-1-2:2003[1], *Specification for radio disturbance and immunity measuring apparatus and methods – Part 1-2: Radio disturbance and immunity measuring apparatus – Ancillary equipment – Conducted disturbances*
CISPR 16-1-2:2003/AMD 1:2004
CISPR 16-1-2:2003/AMD 2:2006

CISPR 16-1-4:2010, *Specification for radio disturbance and immunity measuring apparatus and methods – Part 1-4: Radio disturbance and immunity measuring apparatus – Antennas and test sites for radiated disturbance measurements*
CISPR 16-1-4:2010/AMD1:2012

CISPR 16-2-1:2008[2], *Specification for radio disturbance and immunity measuring apparatus and methods – Part 2-1: Methods of measurement of disturbances and immunity – Conducted disturbance measurements*
CISPR 16-2-1:2008/ AMD 1:2010
CISPR 16-2-1:2008/ AMD 2:2013

CISPR 16-2-3:2010, *Specification for radio disturbance and immunity measuring apparatus and methods – Part 2-3: Methods of measurement of disturbances and immunity – Radiated disturbance measurements*
CISPR 16-2-3:2010/AMD1:2010
CISPR 16-2-3:2010/AMD2:2014

CISPR 16-4-2:2011, *Specification for radio disturbance and immunity measuring apparatus and methods – Part 4-2: Uncertainties, statistics and limit modelling – Measurement instrumentation uncertainty*

IEC 61000-4-6:2008 [3] , *Electromagnetic compatibility (EMC) – Part 4-6: Testing and measurement techniques – Immunity to conducted disturbances, induced by radio-frequency fields*

ISO IEC 17025:2005, *General requirements for the competence of testing and calibration laboratories*

ANSI C63.5-2006, *American National Standard (for) Electromagnetic Compatibility – Radiated Emission Measurements in Electromagnetic Interference (EMI) Control – Calibration of Antennas (9 kHz to 40 GHz)*

IEEE Std 802.3, *IEEE Standard for Information technology – Specific requirements – Part 3: Carrier Sense Multiple Access with Collision Detection (CMSA/CD) Access Method and Physical Layer Specifications*

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1 First edition (2003). This first edition has been replaced in 2014 by a second edition 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*.

2 First edition (2008). This first edition has been replaced in 2014 by a second edition CISPR 16-2-1:2014, *Specification for radio disturbance and immunity measuring apparatus and methods – Part 2-1: Methods of measurement of disturbances and immunity – Conducted disturbance measurements*.

3 Third edition (2008). This third edition has been replaced in 2013 by a fourth edition IEC 61000-4-6:2013, *Electromagnetic compatibility (EMC) – Part 4-6: Testing and measurement techniques – Immunity to conducted disturbances, induced by radio-frequency fields*.