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OSA 1: EMISSION**

**Electromagnetic compatibility - Requirements for
household appliances, electric tools and similar
apparatus - Part 1: Emission**

EESTI STANDARDI EESSÕNA**NATIONAL FOREWORD**

See Eesti standard EVS-EN 55014-1:2017 +A11:2020 sisaldab Euroopa standardi EN 55014-1:2017 ja selle muudatuse A11:2020 ingliskeelset teksti.	This Estonian standard EVS-EN 55014-1:2017 +A11:2020 consists of the English text of the European standard EN 55014-1:2017 and its amendment A11:2020.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas. Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 28.04.2017, muudatus A11 06.03.2020.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation. Date of Availability of the European standard is 28.04.2017, for A11 06.03.2020.
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English Version

**Electromagnetic compatibility - Requirements for household
appliances, electric tools and similar apparatus -
Part 1: Emission
(CISPR 14-1:2016 + COR1:2016)**

Compatibilité électromagnétique - Exigences pour les
appareils électrodomestiques, outillages électriques et
appareils analogues - Partie 1: Emission
(CISPR 14-1:2016 + COR1:2016)

Elektromagnetische Verträglichkeit - Anforderungen an
Haushaltgeräte, Elektrowerkzeuge und ähnliche
Elektrogeräte - Teil 1: Störaussendung
(CISPR 14-1:2016 + COR1:2016)

This European Standard was approved by CENELEC on 2016-09-14. Amendment A11 was approved by CENELEC on 2019-11-27. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard and its 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 CEN-CENELEC Management Centre or to any CENELEC member.

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Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

European foreword

The text of document CISPR/F/681/FDIS, future edition 6 of CISPR 14-1, prepared by SC CISPR/F "Interference related to household appliances, tools, lighting equipment and similar appliances" of IEC/TC CISPR was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 55014-1:2017.

The following dates are fixed:

- latest date by which the document has to be (dop) 2017-10-28
implemented at national level by
publication of an identical national
standard or by endorsement
- latest date by which the national (dow) 2020-04-28
standards conflicting with the
document have to be withdrawn

This document supersedes EN 55014-1:2006.

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This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association.

Endorsement notice

The text of the International Standard CISPR 14-1:2016 + COR1:2016 was approved by CENELEC as a European Standard without any modification.

Amendment A11 European foreword

This document (EN 55014-1:2017/A11:2020) has been prepared by CLC/TC 210 "Electromagnetic Compatibility (EMC)".

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

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INTERNATIONAL ELECTROTECHNICAL COMMISSION
INTERNATIONAL SPECIAL COMMITTEE ON RADIO INTERFERENCE

**ELECTROMAGNETIC COMPATIBILITY –
REQUIREMENTS FOR HOUSEHOLD APPLIANCES,
ELECTRIC TOOLS AND SIMILAR APPARATUS –**

Part 1: Emission

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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The International Standard CISPR 14-1 has been prepared by subcommittee CISPR/F: Interference related to household appliances, tools, lighting equipment and similar appliances, of IEC technical committee CISPR.

This sixth edition cancels and replaces the fifth edition published in 2005, Amendment 1:2008 and Amendment 2:2011. This edition constitutes a technical revision.

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

- full editorial review of the standard, rearranging the structure of several clauses;
- improvements to the operating conditions for testing induction cooking appliances and incorporation of the limits for these appliances in the body of the standard;
- moving all specific operating conditions to Annex A;

- improvement of definitions;
- addition of general and specific test setups (e.g. vacuum cleaners and robotic cleaners) for radiated emission;
- provision for the current probe test method for conducted disturbance measurements on ports other than the AC mains port in alternative to the voltage probe method;
- clarifications about click analysis (e.g. measurements under the presence of continuous disturbances). Further clarification is being developed for future inclusion;
- clarification about the use of the artificial hand;
- introduction of testing on wired network ports of household equipment (equivalent to CISPR 32 requirements);
- clarification in the scope regarding emissions from radio transmitters (copied verbatim from CISPR 32);
- clarification about the measurement of equipment with built-in luminaries.

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

FDIS	Report on voting
CISPR/F/681/FDIS	CISPR/F/684/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.

A list of all parts in the CISPR 14 series can be found on the IEC website under the general title *Electromagnetic compatibility – Requirements for household appliances, electric tools and similar apparatus*.

The committee has decided that the contents of this publication will remain unchanged until the stability 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

The contents of the corrigendum of October 2016 and the interpretation sheet 1 of May 2017 and 2 of May 2017 have been included in this copy.

ELECTROMAGNETIC COMPATIBILITY – REQUIREMENTS FOR HOUSEHOLD APPLIANCES, ELECTRIC TOOLS AND SIMILAR APPARATUS –

Part 1: Emission

1 Scope

This part of CISPR 14 specifies the requirements that apply to the emission of radio-frequency disturbances in the frequency range 9 kHz to 400 GHz from appliances, electric tools and similar apparatus as defined below, whether powered by AC or DC (including a battery).

Within this standard wherever the term “equipment” is used it includes the more specific terms “appliance”, “household or similar appliances”, “electric tool”, “toys” and “apparatus”.

This International Standard is applicable to the following equipment:

- household appliances or similar equipment;

NOTE 1 Examples are equipment used:

- for typical housekeeping functions in the household environment, which includes the dwelling and its associated buildings, the garden, etc.;
- for typical housekeeping functions in shops, offices, commercial and other similar working environments;
- in farms;
- by clients in hotels and other residential type environments;
- for induction cooking, either in residential or commercial environments.

- electric tools;

NOTE 2 Examples of electric tools include electric motor-operated or electromagnetically driven hand-held tools, transportable tools, lawn and garden machinery.

- similar apparatus.

NOTE 3 Examples are external power controllers using semiconductor devices, motor-driven electro-medical apparatus, electric/electronic toys, automatic goods-dispensing machines, entertainment machines, cine or slide projectors, as well as battery chargers and external power supplies for use with products under the scope of this standard.

Also included in the scope of this standard are separate parts of the above mentioned equipment such as motors and switching devices (e.g. power or protective relays); however, no emission requirements apply to such separate parts, unless otherwise stated in this standard.

Excluded from the scope of this standard are:

- equipment for which all emission requirements in the radio-frequency range are explicitly formulated in other CISPR standards;

NOTE 4 Examples are:

- luminaires, including portable luminaires for children, discharge lamps and other lighting devices under the scope of CISPR 15;
- information technology equipment, e.g. home computers, personal computers, electronic copying machines under the scope of CISPR 32;
- audio/video equipment and electronic music instruments other than toys under the scope of CISPR 32;
- mains communication devices, as well as baby surveillance systems;

- equipment which is under the scope of CISPR 11 because of the use of radio frequency energy for heating (other than induction cooking) and therapeutic purposes, microwave ovens (but be aware of 6.5 on multifunction equipment e.g. for click measurements)
 - radio controls, walkie-talkies and other types of radio-transmitters;
 - arc welding equipment.
- equipment intended to be used only on a vehicle, ship or aircraft;
 - the effects of electromagnetic phenomena relating to the safety of the equipment.

Multifunction equipment may be required to comply with clauses in this and other standards. The details are given in 6.5.

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.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

CISPR 16-1-1:2015, *Specification for radio disturbance and immunity measuring apparatus and methods – Part 1-1: Radio disturbance and immunity measuring apparatus – Measuring apparatus*

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*

CISPR 16-1-3:2004, *Specification for radio disturbance and immunity measuring apparatus and methods – Part 1-3: Radio disturbance and immunity measuring apparatus – Ancillary equipment – Disturbance power*
CISPR 16-1-3:2004/AMD1:2016

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 16-2-1:2014, *Specification for radio disturbance and immunity measuring apparatus and methods – Part 2-1: Methods of measurement of disturbances and immunity – Conducted disturbance measurements*

CISPR 16-2-2:2010, *Specification for radio disturbance and immunity measuring apparatus and methods – Part 2-2: Methods of measurement of disturbances and immunity – Measurement of disturbance power*

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