

AS/NZS CISPR 14.1:2021



Australian/New Zealand Standard™

Electromagnetic compatibility — Requirements for household appliances, electric tools and similar apparatus

Part 1: Emission (CISPR 14-1:2020 (ED 7.0) MOD)



AS/NZS CISPR 14.1:2021

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- Department of Defence (Australian Government)
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- Energy Networks Australia
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Australian/New Zealand Standard™

Electromagnetic compatibility — Requirements for household appliances, electric tools and similar apparatus

Part 1: Emission (CISPR 14-1:2020 (ED 7.0) MOD)

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Preface

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee TE-003, Electromagnetic Compatibility, to supersede AS CISPR 14.1:2018, *Electromagnetic compatibility — Requirements for household appliances, electric tools and similar apparatus, Part 1: Emission (CISPR 14-1:2016 (ED 6.0), MOD)*.

The objective of this document is to specify 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).

This document is applicable to —

(a) household appliances or similar equipment;

NOTE 1 Examples are equipment used —

- (a) for typical housekeeping functions in the household environment, which includes the dwelling and its associated buildings, the garden, etc.;
- (b) for typical housekeeping functions in shops, offices, commercial and other similar working environments;
- (c) on farms;
- (d) by clients in hotels and other residential type environments; and
- (e) for induction cooking or air-conditioning, either in residential or commercial environments.

(b) electric tools; and

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

(c) similar apparatus.

NOTE 3 Examples are —

- (a) external power controllers using semiconductor devices;
- (b) motor-driven electro-medical equipment;
- (c) electric/electronic toys;
- (d) personal care and beauty care appliances;
- (e) automatic goods-dispensing machines;
- (f) entertainment machines;
- (g) cine or slide projectors;
- (h) battery chargers and external power supplies for use with products under the scope of this document; and
- (i) electric fence energisers.

Also included in the scope of this document 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 document.

Products which incorporate radio-transmit/receive functions are included in the scope of this document.

Equipment under the scope of this document making use of IPT is also in the scope.

Excluded from the scope of this document are —

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

NOTE 4 Examples are —

- (a) luminaires, including portable luminaires for children, discharge lamps and other lighting devices under the scope of CISPR 15;
 - (b) information technology equipment, e.g. home computers, personal computers, electronic copying machines
 - (c) under the scope of CISPR 32;
 - (d) audio/video equipment and electronic music instruments other than toys under the scope of CISPR 32;
 - (e) mains communication devices, as well as baby surveillance systems;
 - (f) equipment which is under the scope of CISPR 11 (e.g. microwave ovens but be aware of 6.5 on multifunction equipment (e.g. for another function requiring click measurement))
 - (g) radio controls, walkie-talkies and other types of radio-transmitters; and
 - (h) arc welding equipment.
- (ii) equipment intended to be used only on a vehicle, ship or aircraft;
- (iii) equipment used only in industrial environment; and
- (iv) the effects of electromagnetic phenomena relating to the safety of the equipment.

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

The emission requirements in this document are not intended to be applicable to the intentional transmissions from a radio-transmitter as defined by the ITU including their spurious emissions.

The related test reports IECCE TRF CISPR 14-1G:2020 and IECCE TRF CISPR 14-1,2I:2020 are attached to this Standard.

This document is an adoption with national modifications, and has been reproduced from, CISPR 14-1:2020 (Ed. 7.0), *Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus — part 1: Emission*. The modifications are additional requirements and are set out in [Appendix ZZ](#), which has been added at the end of the source text.

[Appendix ZZ](#) lists the variations to CISPR 14-1:2020, for the application of this document in Australia and New Zealand.

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- (A) In the source text “this part of CISPR 14” should read “this document”.
- (B) A full point substitutes for a comma when referring to a decimal marker.

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The terms “normative” and “informative” are used in Standards to define the application of the appendices or annexes to which they apply. A “normative” appendix or annex is an integral part of a Standard, whereas an “informative” appendix or annex is only for information and guidance.

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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 apparatus, of IEC technical committee CISPR.

This seventh edition cancels and replaces the sixth edition published in 2016. This edition constitutes a technical revision.

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

- extension of the frequency range for radiated measurements above 1 GHz;
- revision of general test conditions and addition of new specific test conditions (e.g. for robotic equipment);
- introduction of additional requirements for equipment making use of inductive power transfer technology;

- remove from the normative text any compliance requirement based on statistical evaluation;
- revision of clicks analysis, with particular relevance to the determination of the observation time and the application of the upper quartile method for different types of click analysers.

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

| | |
|----------------|------------------|
| FDIS | Report on voting |
| CIS/F/796/FDIS | CIS/F/799/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

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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).

This document 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;
- on farms;
- by clients in hotels and other residential type environments;
- for induction cooking or air-conditioning, 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 equipment;
- electric/electronic toys;
- personal care and beauty care appliances;
- automatic goods-dispensing machines;
- entertainment machines;
- cine or slide projectors;
- battery chargers and external power supplies for use with products under the scope of this document;
- electric fence energisers.

Also included in the scope of this document 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 document.

Products which incorporate radio transmit/receive functions are included in the scope of this document.

Equipment under the scope of this document making use of IPT is also in the scope.