

AS/NZS CISPR 14.2:2021



Australian/New Zealand Standard™

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

Part 2: Immunity — Product family standard (CISPR 14-2:2020 (ED 3.0) MOD)



AS/NZS CISPR 14.2:2021

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The following are represented on Committee TE-003:

- Australian Broadcasting Corporation
- Australian Communications and Media Authority
- Australian Industry Group
- Consumer Electronics Suppliers Association
- Department of Defence (Australian Government)
- EMC Society of Australia
- Energy Networks Australia
- Engineers Australia
- Free TV Australia
- Lighting Council New Zealand
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Australian/New Zealand Standard™

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

**Part 2: Immunity — Product family standard
(CISPR 14-2:2020 (ED 3.0) 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 14.2:2015, *Electromagnetic compatibility — Requirements for household appliances, electric tools and similar apparatus, Part 2: Immunity—Product family standard*.

The objective of this document is to specify the electromagnetic immunity requirements in the frequency range 0 Hz to 400 GHz that apply to appliances, electric tools and similar apparatus as specified below, whether powered by AC or DC (including a battery).

This document specifies immunity requirements for continuous and transient electromagnetic disturbances, both conducted and radiated.

Unless otherwise specified, this document is applicable to all equipment in the scope of AS/NZS CISPR 14.1, namely —

(a) household appliances or similar apparatus;

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.

Included in the scope of this document are also microwave ovens for domestic use or catering.

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

NOTE 4 For handling cases where equipment under the scope of this document is combined with transmit and/or receive radio functions, see Clause 8.

Excluded from the scope of this document are —

- (i) equipment for which all electromagnetic immunity requirements are explicitly formulated in other CISPR or IEC standards;

NOTE 5 Examples are —

- (a) luminaires, including portable luminaires for children, discharge lamps, LED lamps and other lighting devices under the scope of IEC 61547;
 - (b) multimedia equipment under the scope of CISPR 35;
 - (c) mains communication devices, as well as baby surveillance systems;
 - (d) arc welding equipment.
- (ii) equipment intended to be part of the fixed electrical installation of buildings (e.g. fuses, circuit breakers, cables and switches);
- (iii) medical electrical equipment, including those in the scope of AS/NZS CISPR 14.1;
- (iv) equipment used only in industrial environment;
- (v) equipment intended to be used exclusively in locations where special electromagnetic conditions exist (e.g. high electromagnetic fields nearby broadcast transmitting stations or high energy pulses nearby power generation stations);
- (vi) equipment intended to be used exclusively on a vehicle, ship, boat or aircraft; and
- (vii) the effects of electromagnetic phenomena relating to the safety of apparatus (see AS/NZS IEC 60335 series);

Also excluded from the scope of this document is AC single-phase equipment with a rated voltage higher than 250 V between phase and neutral and AC multi-phase equipment with rated voltage higher than 480 V. Abnormal operation of the equipment, such as simulated faults in the electric circuitry for testing purposes, is not taken into consideration.

This document is an adoption with national modifications, and has been reproduced from, CISPR 14-2:2020 (Ed. 3.0), *Electromagnetic compatibility — Requirements for household appliances, electric tools and similar apparatus — Part 2: Immunity — Product family standard*. 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 14-2:2020, for the application of this document in Australia and New Zealand.

As this document has been reproduced from an International Standard the following applies:

(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.

Australian or Australian/New Zealand Standards that are identical adoptions of international normative references may be used interchangeably. Refer to the online catalogue for information on specific Standards.

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.

CONTENTS

FOREWORD.....	4
INTRODUCTION.....	6
1 Scope.....	7
2 Normative references	8
3 Terms, definitions and abbreviated terms	9
3.1 General.....	9
3.2 General terms and definitions	9
3.3 Abbreviated terms.....	14
4 Classification of apparatus.....	14
5 Tests	15
5.1 Electrostatic discharge.....	15
5.2 Fast transients	15
5.3 Injected currents, 0,15 MHz to 230 MHz.....	16
5.4 Injected currents, 0,15 MHz to 80 MHz	18
5.5 Radio frequency electromagnetic fields, 80 MHz to 6 GHz	19
5.6 Surges	20
5.7 Voltage dips.....	21
6 Performance criteria	21
7 Applicability of immunity tests.....	22
7.1 General.....	22
7.2 Application of tests for the different categories of apparatus	22
7.2.1 General	22
7.2.2 Category I.....	22
7.2.3 Category II.....	23
7.2.4 Category III.....	23
7.2.5 Category IV	23
7.2.6 Category V	24
7.2.7 Exceptions.....	24
8 Test conditions	24
8.1 General.....	24
8.2 Mains operation	25
8.2.1 Voltage at the AC mains port	25
8.2.2 Frequency at the AC mains port.....	25
8.3 DC operation	25
8.3.1 Battery operation	25
8.3.2 Operation from a DC supply other than a battery	25
8.4 Specific test conditions	26
8.4.1 Control settings	26
8.4.2 Auxiliary equipment	26
8.4.3 Specific equipment	26
8.5 Test procedures	28
8.6 Multifunction equipment	29
8.7 Equipment with built-in lighting function	29
8.8 Equipment incorporating radio functions	29
9 Compliance with this publication.....	29
10 Test uncertainty.....	30

11 Test report.....	30
Annex A (informative) Guidance for permissible degradation	31
Bibliography.....	32
Figure 1 – Examples of ports	11
Figure 2 – Example for a test set-up for large EUTs (e.g. refrigerators) where the cable leaves the EUT on a height of more than 1 m above the floor	18
Table 1 – Enclosure port.....	15
Table 2 – Signal ports, control ports and wired network ports	15
Table 3 – Input and output DC power ports	15
Table 4 – Input and output AC power ports	16
Table 5 – Signal ports, control ports and wired network ports	16
Table 6 – Input and output DC power ports	17
Table 7 – Input and output AC power ports	17
Table 8 – Signal ports, control ports and wired network ports	18
Table 9 – Input and output DC power ports	19
Table 10 – Input and output AC power ports	19
Table 11 – Enclosure ports	20
Table 12 – Input AC power ports.....	20
Table 13 – Wired network ports	21
Table 14 – Input AC power ports.....	21
Table 15 – Immunity tests applicable to Category II	23
Table 16 – Immunity tests applicable to Category III	23
Table 17 – Immunity tests applicable to Category IV	23
Table 18 – Immunity tests applicable to Category V	24
Table A.1 – Examples of degradations	31

INTERNATIONAL ELECTROTECHNICAL COMMISSION
INTERNATIONAL SPECIAL COMMITTEE ON RADIO INTERFERENCE

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

Part 2: Immunity – Product family standard

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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International Standard CISPR 14-2 has been prepared by CISPR subcommittee F: Interference relating to household appliances tools, lighting equipment and similar apparatus.

This third edition cancels and replaces the second edition published in 2015. This edition constitutes a technical revision.

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

- a) extension of the frequency range for radiated immunity above 1 GHz;
- b) an advanced categorisation of equipment;
- c) revision of general test conditions and addition of new specific test conditions (e.g. for robotic equipment);
- d) clarification of requirements applicable to equipment incorporating radio functions;

– 5 –

- e) addition of requirements for wired network ports;
- f) revision of definitions and addition of new ones;
- g) delete requirements referring to statistical evaluation;
- h) alignment with CISPR 14-1, where applicable.

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

FDIS	Report on voting
CIS/F/795/FDIS	CIS/F/797/RVD

Full information on the voting for the approval of this document 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, published under the general title *Electromagnetic compatibility – Requirements for household appliances, electric tools and similar apparatus*, can be found on the IEC website.

This document has the status of a product family standard.

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.

INTRODUCTION

The intention of this document is to establish uniform requirements for the electromagnetic immunity of the equipment mentioned in the scope, to fix test specifications of immunity, to refer to basic standards for methods of testing, and to standardize operating conditions, performance criteria and interpretation of results.

Keywords: Immunity, household appliances, electric apparatus, electromagnetic compatibility.

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

Part 2: Immunity – Product family standard

1 Scope

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- 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.

Included in the scope of this document are also microwave ovens for domestic use or catering.

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

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