

Australian/New Zealand Standard™

**Electromagnetic compatibility—  
Immunity requirements for household  
appliances, electric tools and similar  
apparatus**

[IEC CISPR title: Electromagnetic compatibility—Requirements for household appliances, electric tools and similar apparatus, Part 2: Immunity—Product family standard]



**S t a n d a r d s** Australia



**STANDARDS**  
NEW ZEALAND  
*Whakaputa Aotearoa*

## **AS/NZS 4780:2000**

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This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee TE/3, Electromagnetic Interference. It was approved on behalf of the Council of Standards Australia on 28 March 2000 and on behalf of the Council of Standards New Zealand on 11 April 2000. It was published on 12 May 2000.

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# Australian/New Zealand Standard™

## **Electromagnetic compatibility— Immunity requirements for household appliances, electric tools and similar apparatus**

First published as AS/NZS 4780:2000.

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Jointly published by Standards Australia International Ltd, PO Box 1055, Strathfield, NSW 2135 and Standards New Zealand, Private Bag 2439, Wellington 6020

ISBN 0 7337 3368 9

## PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee TE/3, Electromagnetic Interference. This Standard is identical with and has been reproduced from IEC CISPR 14-2:1997, *Electromagnetic compatibility—Requirements for household appliances, electric tools and similar apparatus, Part 2: Immunity—Product family standard*.

The objective of this Standard is to provide the manufacturers, designers and suppliers of household appliances, electric tools and similar apparatus with limits and methods of measurement with regard to their immunity characteristics to interfering signals.

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<i>Reference to International Standard</i>	<i>Australian or Australian/New Zealand Standard</i>
IEC	AS/NZS
50 International Electrotechnical Vocabulary (IEV) – Chapter 161: Electromagnetic compatibility	—
1000 Electromagnetic compatibility (EMC)	—
1000-4-2 Part 4: Testing and measurement techniques, Section 2: Electrostatic discharge immunity test – Basic EMC publication	—
1000-4-3 Part 4: Testing and measurement techniques, Section 3: Radiated, radio-frequency, electromagnetic field immunity test	—
1000-4-4 Part 4: Testing and measurement techniques, Section 4: Electrical fast transient/burst immunity test – Basic EMC publication	—
1000-4-5 Part 4: Testing and measurement techniques, Section 5: Surge immunity test	—
1000-4-6 Part 4: Testing and measurement techniques, Section 6: Immunity to conducted disturbances, induced by radio-frequency fields	—
1000-4-11 Part 4: Testing and measurement techniques, Section 11: Voltage dips, short interruptions and voltage variations immunity test – Basic EMC publication	—

CISPR		AS/NZS	
11	Limits and methods of measurement of electromagnetic disturbance characteristics of industrial, scientific and medical (ISM) radio-frequency equipment	2064	Limits and methods of measurement of electromagnetic disturbance characteristics of industrial, scientific and medical (ISM) radio-frequency equipment
14	Limits and methods of measurement of radio disturbance characteristics of electrical motor-operated and thermal appliances for household and similar purposes, electric tools and similar electric apparatus	1044	Limits and methods of measurement of radio disturbance characteristics of electrical motor-operated and thermal appliances for household and similar purposes, electric tools and similar electric apparatus
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## AUSTRALIAN/NEW ZEALAND STANDARD

# **Electromagnetic compatibility—Immunity requirements for household appliances, electric tools and similar apparatus**

## **1 Scope and object**

1.1 This standard deals with the electromagnetic immunity of appliances and similar apparatus for household and similar purposes that use electricity, as well as electric toys and electric tools, the rated voltage of the apparatus being not more than 250 V for single-phase apparatus to be connected to phase and neutral, and 480 V for other apparatus.

Apparatus may incorporate motors, heating elements or their combination, may contain electric or electronic circuitry, and may be powered by the mains, by batteries, or by any other electrical power source.

Apparatus not intended for household use, but which nevertheless may require the immunity level, such as apparatus intended to be used by laymen in shops, in light industry and on farms, are within the scope of this standard, as far as they are included in CISPR 14, and in addition:

- microwave ovens for domestic use and catering;
- cooking hobs and cooking ovens, heated by means of r.f. energy, (single- and multiple-zone) induction cooking appliances;
- UV and IR radiators for personal care.

1.2 This standard does not apply to:

- equipment for lighting purposes;
- apparatus designed exclusively for heavy industrial purposes;
- apparatus intended to be part of the fixed electrical installation of buildings (such as fuses, circuit breakers, cables and switches);
- apparatus intended to be used in locations where special electromagnetic conditions prevail, such as the presence of high e.m. fields (for example in the vicinity of a broadcast transmitting station), or where high pulses occur on the power network (such as in a power generator station);
- radio and television receivers, audio and video equipment, and electronic music instruments;
- medical electrical appliances;
- personal computers and similar equipment;
- radio transmitters;
- apparatus designed to be used exclusively in vehicles.

1.3 Immunity requirements in the frequency range 0 Hz to 400 GHz are covered.

1.4 The effects of electromagnetic phenomena relating to the safety of apparatus are excluded from this standard and are covered by other standards, for example IEC 335.

Abnormal operation of the apparatus (such as simulated faults in the electric circuitry for testing purposes) is not taken into consideration.

NOTE – Attention is drawn to the fact that additional requirements may be necessary for apparatus intended to be used on board ships or aircraft.