

Australian/New Zealand Standard™

**Sound and television broadcast  
receivers and associated equipment—  
Immunity characteristics—Limits and  
methods of measurement**



## **AS/NZS CISPR 20:2006**

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee TE-003, Electromagnetic Interferences. It was approved on behalf of the Council of Standards Australia on 10 April 2006 and on behalf of the Council of Standards New Zealand on 19 May 2006.

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The following are represented on Committee TE-003:

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Australian Communications and Media Authority  
Australian Electrical and Electronic Manufacturers Association  
Australian Information Industry Association  
Consumer Electronics Supplier Association  
Electrical Compliance Testing Association  
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## PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee TE-003, Electromagnetic Interferences, as one of a series of Standards intended to facilitate control of electromagnetic interference and the compatibility of electrical and electronic equipment.

This Standard is identical with, and has been reproduced from CISPR 20:2005, *Sound and television broadcast receivers and associated equipment—Immunity characteristics—Limits and methods of measurement*.

The objective of this Standard is to provide methods of measurement and specified limits applicable to sound and television receivers and to associated equipment with regard to their immunity characteristics to disturbing signals. This Standard is also applicable to the immunity of outdoor units of direct to home (DTH) satellite receiving systems for individual reception. Defines the immunity test requirements for equipment defined in the scope in relation to continuous and transient, conducted and radiated disturbances including electrostatic discharges. Immunity requirements are given in the frequency range 0 Hz to 400 GHz. Test requirements are specified for each port (enclosure or connector) considered.

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- (a) Its number does not appear on each page of text and its identity is shown only on the cover and title page.
- (b) In the source text ‘this International Standard’ should read ‘this Australian/New Zealand Standard’.
- (c) A full point should be substituted for a comma when referring to a decimal marker.
- (d) Any French text on figures should be ignored.

References to International Standards should be replaced by references to Australian or Australian/New Zealand Standards, as follows:

<i>Reference to International Standard</i>		<i>Australian/New Zealand Standard</i>	
CISPR		AS/NZS	CISPR
16	Specification for radio disturbance and immunity measuring apparatus and methods	16	Specification for radio disturbance and immunity measuring apparatus and methods
16-1-1	Part 1-1: Radio disturbance and immunity measuring apparatus—Measuring apparatus	16.1.1	Part 1-1: Radio disturbance and immunity measuring apparatus—Measuring apparatus
16-1-3	Part 1-3: Reports and recommendations of CISPR	16.1.3	Part 1.3: Reports and recommendations of CISPR
22	Information technology equipment—Radio disturbance characteristics—Limits and methods of measurement	22	Information technology equipment—Radio disturbance characteristics—Limits and methods of measurement
24	Information technology equipment—Immunity characteristics—Limits and methods of measurement	24	Information technology equipment—Immunity characteristics—Limits and methods of measurement

IEC		AS/NZS	
61000	Electromagnetic compatibility (EMC)	61000	Electromagnetic compatibility (EMC)
61000-4	Part 4: Testing and measurement techniques	61000.4.2	Part 4.2: Testing and measurement techniques—Electrostatic discharge
61000-4-2	Section 2: Electrostatic discharge immunity test		
61000-4-3	Section 3: Radiated, radio-frequency, electromagnetic field immunity test	61000.4.3	Part 4.3: Testing and measurement techniques—Radiated radio-frequency electromagnetic field immunity test
61000-4-4	Section 4: Electrical fast transient/burst immunity test	61000.4.4	Part 4.4: Testing and measurement techniques—Electrical fast transient/burst immunity test.

Only international references that have been adopted as Australian or Australian/New Zealand Standards have been listed.

The terms ‘normative’ and ‘informative’ have been used in this Standard to define the application of the annex to which they apply. A ‘normative’ annex is an integral part of a Standard, whereas an ‘informative’ annex is only for information and guidance.

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## AUSTRALIAN/NEW ZEALAND STANDARD

**Sound and television broadcast receivers and associated equipment—Immunity characteristics—Limits and methods of measurement****1 Scope and object**

This standard for immunity requirements applies to television broadcast receivers, sound broadcast receivers and associated equipment intended for use in the residential, commercial and light industrial environment.

This standard describes the methods of measurement and specified limits applicable to sound and television receivers and to associated equipment with regard to their immunity characteristics to disturbing signals.

This standard is also applicable to the immunity of outdoor units of direct to home (DTH) satellite receiving systems for individual reception.

NOTE 1 Receiving systems for collective reception, in particular cable distribution head ends (Community Antenna Television, CATV) and community reception systems (Master Antenna Television, MATV) are covered by IEC 60728-2.

NOTE 2 Broadcast receivers for digital signals are covered by Annex I and Annex J.

Immunity requirements are given in the frequency range 0 Hz to 400 GHz. Radio-frequency tests outside the specified frequency bands or concerning other phenomena than given in this standard are not required.

The objective of this standard is to define the immunity test requirements for equipment defined in the scope in relation to continuous and transient, conducted and radiated disturbances including electrostatic discharges.

These test requirements represent essential electromagnetic immunity requirements.

Test requirements are specified for each port (enclosure or connector) considered.

NOTE 3 This standard does not specify electrical safety requirements for equipment such as protection against electric shocks, unsafe operation, insulation co-ordination and related dielectric tests.

NOTE 4 In special cases, situations will arise where the level of disturbances may exceed the levels specified in this standard e.g. where a hand-held transmitter is used in proximity to an equipment. In these instances special mitigation measures may have to be employed.

The environments encompassed by this standard are residential, commercial and light-industrial locations, both indoor and outdoor. The following list, although not comprehensive, gives an indication of locations which are included:

- residential properties, e.g. houses, apartments, etc.;
- retail outlets, e.g. shops, supermarkets, etc.;
- business premises, e.g. offices, banks, etc.;
- areas of public entertainment, e.g. cinemas, public bars, dance halls, etc.;
- outdoor locations, e.g. petrol stations, car parks, amusement and sports centres, etc.;