Australian/New Zealand Standard™

Electromagnetic compatibility for radiocommunications equipment (EN 300 339:1998, MOD)

Standards Australia

STANDARDS NEW ZEALAND

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee TE-003, Electromagnetic Interference. It was approved on behalf of the Council of Standards Australia on 21 March 2001 and on behalf of the Council of Standards New Zealand on 12 March 2001. It was published on 5 May 2001.

The following interests are represented on Committee TE-003:

Australian Broadcasting Corporation
Australian Chambers of Commerce and Industry
Australian Communications Authority
Australian Competent Bodies Association
Australian Electrical and Electronic Manufacturers Association
Australian Information Industry Association
Australian Subscription Television and Radio Association
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We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Please address your comments to the Chief Executive of either Standards Australia International or Standards New Zealand at the address shown on the back cover.

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PREFACE

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

The objective of this Standard is to provide designers, manufacturers and installers of radiocommunications equipment with limits and methods of test to afford protection to the radiofrequency spectrum from radio disturbances emitted from the equipment at other than the antenna.

It has been reproduced from European Telecommunication Standard EN 300 339 V1.1.1(1998-06), *Electromagnetic compatibility and Radio spectrum Matters (ERM)—General Electro-Magnetic Compatibility (EMC) for radio communications equipment*, which was drawn up by the Electromagnetic Compatibility and Radio Spectrum Matters (ERM) Technical Committee of the European Telecommunications Standards Institute (ETSI).

The ETSI Standard was reviewed to establish the relevance of its contents and some requirements have been varied to reflect local conditions and usage.

The text of EN 300 339 has been varied technically to accommodate different or additional requirements for Australia and New Zealand. Vertical lines in the left hand margin indicate the clause or table affected and the variations are listed in Annex ZZ.

Statements expressed in mandatory terms in notes and figures are deemed to be requirements of this Standard.

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.

As this Standard is reproduced from a European Standard the following applies:

(a) Its number appears on the cover and title page while the European Standard number appears only on the cover.

(b) In the source text ‘this European Telecommunications Standard’ should read ‘this Australian/New Zealand Standard’

(c) A full point substitutes for a comma when referring to a decimal marker.

(d) In the source text ‘radio’ should read ‘radiocommunication’.

References to international or other Standards should be replaced by equivalent Australian or Joint Australian/New Zealand Standards as follows:

Reference to International Standard		*Australian or Australian/New Zealand Standard*	
IEC		AS/NZS	
1000	Electromagnetic compatibility (EMC)	61000	Electromagnetic compatability
1000-4	Testing and measurement techniques	6100.4	Testing and measurement techniques
1000-4-2	Electrostatic discharge test	—	
1000-4-3	Radiated, radio-frequency, electromagnetic field immunity test	61000.4.3	Radiated, radio-frequency, electromagnetic field immunity test
1000-4-4	Electrical fast transient/burst immunity test	—	
1000-4-5	Surge immunity test	61000.4.5	Surge immunity test
1000-4-6	Immunity to conducted disturbances, induced by radio-frequency fields	61000.4.6	Immunity to conducted disturbances, induced by radio-frequency fields
1000-4-11	Voltage dips, short interruptions and voltage variations immunity tests	—	

ISO		AS/NZS	
7637	Road vehicles, Electrical disturbance by conducting and coupling	—	
7637.1	Part 1: Passenger cars and light commercial vehicles with nominal 12 V supply voltage—Electrical conduction along supply lines only	—	
7637.2	Part 2: Commercial vehicles with nominal 24 V supply voltage - Electrical transient conduction along supply lines only	—	
CISPR			
16	Specification for radio disturbance and immunity measuring apparatus and methods	1052	Specification for radio disturbance and immunity measuring apparatus and methods
16.1	Radio disturbance and immunity measuring apparatus	1052.1	Radio disturbance and immunity measuring apparatus
16.2	Methods of measurement of disturbances and immunity	1052.2	Methods of measurement of disturbances and immunity
EN			
50081	Electromagnetic compatibility - Generic emission standard	4251	Electromagnetic compatibility— Generic emission standard
50081-1	Part 1: Residential, commercial and light industry	4251.1	Part 1: Residential, commercial and light industry
50082	Electromagnetic compatibility - Generic immunity standard	4252	Electromagnetic compatibility; Generic immunity standard
50082-1	Part 1: Residential, commercial and light industry	4252.1	Part 1: Residential, commercial and light industry
55022	Limits and methods of measurement of radio disturbance characteristics of information technology equipment	3548	Limits and methods of measurement of radio disturbance characteristics of information technology equipment

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AUSTRALIAN/NEW ZEALAND STANDARD

Electromagnetic compatibility for radiocommunications equipment (EN 300 339:1998, MOD)

1 Scope

The present document covers the assessment of radiocommunication and ancillary equipment in respect of Electromagnetic Compatibility (EMC).

The present document may be applied to all categories of radiocommunications equipment with the exception of broadcast receivers. It does not apply to inductive communications equipment.

Where a relevant Harmonized dedicated product EMC EN or product family Harmonized EMC EN exists, such an EN takes precedence over the present document.

The present document specifies the applicable EMC tests, the methods of measurements, the limits and the minimum performance criteria for radio equipment operating in the frequency range 9 kHz to 3 000 GHz, and any associated ancillary equipment.

The present document contains all of the EMC requirements for radio equipment. However, it does not specify general methods of measurement related to the antenna port.

The present document does not specify requirements for emission above 40 GHz from the antenna port or enclosure port.

For equipment operating at frequencies above 20 GHz, specialized methods of measurement may be found in other standards related to the effective use of the radio spectrum.

The electromagnetic environments encompassed in the present document refer to generic standards EN 50081-1 [2], EN 50082-1 [3], except for the vehicular environment class which refers to ISO 7637-1 [4] and ISO 7637-2 [5].

The EMC requirements have been selected to ensure an adequate level of compatibility for apparatus at residential, commercial, light industrial and vehicular environments. The levels, however, do not cover extreme cases which may occur in any location but with a low probability of occurrence.

The present document may not cover those cases where a potential source of interference producing individually repeated transient phenomena or a continuous phenomena is permanently present, for example a radar or broadcast site in the near vicinity. In such a case it may be necessary to use special protection applied to either the source of interference, or the interfered part, or both.

Certain products such as high power radio transmitters, which cannot be tested in a normal test laboratory environment, can be tested on-site or at the manufacturer's premises. The general basis for the test methods and limits used to assess these products should be in accordance with the present document, where appropriate.

Compliance of radio equipment with the requirements of the present document does not signify compliance with any requirements related to the use of the equipment, for example licensing requirements.

Compliance with the requirements of the present document does not signify compliance with any safety requirements. However, it is the responsibility of the assessor of the equipment to record in the report any observations regarding the test sample becoming dangerous or unsafe as a result of the application of the tests called for in the present document.

The present document is based on the considerations and guidance given in ETR 238 [14].