AS/NZS CISPR 25:2004
CISPR 25:2002

Australian/New Zealand Standard™

Radio disturbance characteristics for the protection of receivers used on board vehicles, boats, and on devices—Limits and methods of measurement

STANDARDS AUSTRALIA

STANDARDS NEW ZEALAND
Paerewa Aotearoa

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 24 March 2004 and on behalf of the Council of Standards New Zealand on 16 April 2004. It was published on 17 May 2004.

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Australian/New Zealand Standard™

Radio disturbance characteristics for the protection of receivers used on board vehicles, boats, and on devices—Limits and methods of measurement

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee TE-003, Electromagnetic Interference.

This Standard is identical with, and has been reproduced from, CISPR 25:2002, *Radio disturbance characteristics for the protection of receivers used on board vehicles, boats, and on devices—Limits and methods of measurement*.

The objective of this Standard is to develop limits and methods of measurement regarding radio disturbance characteristics, for the protection of receivers used on board vehicles, boats, and on devices.

The terms ‘normative’ and ‘informative’ are used 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 an international standard, the following applies:

(a) Its number appears on the cover and title page while the international standard number appears only on the cover

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

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

Reference to International Standard		*Australian/New Zealand Standard*	
CISPR		AS/NZS CISPR	
12	Vehicles, boats and internal combustion engine driven devices—Radio disturbance characteristics—Limits and methods of measurement for the protection of receivers except those installed in the vehicle/boat/device itself or in adjacent vehicles/boats/devices	12	Vehicles, boats and internal combustion engine driven devices—Radio disturbance characteristics—Limits and methods of measurement for the protection of receivers except those installed in the vehicle/boat/device itself or in adjacent vehicles/boats/devices
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Radio disturbance characteristics for the protection of receivers used on board vehicles, boats, and on devices—Limits and methods of measurement

1 Scope

This International Standard contains limits[1] and procedures for the measurement of radio disturbances in the frequency range of 150 kHz to 1 000 MHz. The standard applies to any electronic/electrical component intended for use in vehicles and devices. Refer to International Telecommunications Union (ITU) publications for details of frequency allocations. The limits are intended to provide protection for receivers installed in a vehicle from disturbances produced by components/modules in the same vehicle[2]. The methods and limits for a complete vehicle are in Clause 5 and the methods and limits for components/modules are in Clause 6.

NOTE Achieving satisfactory compatibility with on-board radio reception will also in most cases provide satisfactory compatibility with adjacent radio receiver reception.

The receiver types to be protected are: sound and television receivers[3], land mobile radio, radio telephone, amateur and citizens' radio. For the purpose of this standard, a vehicle is a machine, which is self-propelled. Vehicles include (but are not limited to) passenger cars, trucks, agricultural tractors and snowmobiles. Annex A provides guidance in determining whether this standard is applicable to a particular equipment.

The limits in this standard are recommended and subject to modification as agreed between the vehicle manufacturer and the component supplier. This standard is also intended to be applied by manufacturers and suppliers of components and equipment which are to be added and connected to the vehicle harness or to an on-board power connector after delivery of the vehicle.

This International Standard does not include protection of electronic control systems from radio frequency (RF) emissions, or from transient or pulse-type voltage fluctuations. These subjects are expected to be included in ISO publications.

The methods described in Clauses 5 and 6 apply to the suppression of on-board radio disturbances for motor vehicles, devices and working machinery, to achieve acceptable radio reception with on-board radio receivers. The requirements contained herein specify the maximum permissible disturbance voltage at the receiver end of the vehicle antenna transmission line in the frequency range of 150 kHz to 1 000 MHz.

On-board radio disturbance suppression reduces the radio disturbance energy which is applied by electrical equipment within the vehicle to the on-board power supply of a vehicle. Disturbances can also be coupled from vehicle wiring to the receiving antenna on the vehicle. Both articles describe methods of safeguarding radio reception in the same vehicle in which the disturbance arises. Annex B provides a helpful methodology for resolution of disturbance problems.

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[1] Only a complete vehicle test can be used to determine the component compatibility with respect to a vehicle's limit.

[2] Adjacent vehicles can be expected to be protected in most situations.

[3] Adequate television protection will result from compliance with the levels at the mobile service frequencies.