AS/NZS CISPR 15:2011

Australian/New Zealand Standard™

Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment (CISPR 15, Ed.7.2 (2009) MOD)

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 25 November 2011 and on behalf of the Council of Standards New Zealand on 6 December 2011.
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The following are represented on Committee TE-003:

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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 or Standards New Zealand at the address shown on the back cover.

This Standard was issued in draft form for comment as DR AS/NZS CISPR 15.

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee TE-003, Electromagnetic Interference, to supersede AS/NZS CISPR 15:2006, *Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment*, 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 specify the limits and methods of test for the measurement of radio disturbance characteristics of electrical lighting and similar equipment. The frequency range covered is 9 kHz to 400 GHz.

This Standard is an adoption with national modifications and has been reproduced from CISPR 15, Ed.7.2 (2009), *Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment* and has been varied as indicated to take account of Australian/New Zealand conditions.

The Australian variations are found in Appendix ZZ and are related to the suitability of the CDN test method, which has been limited for use for products producing broadband noise disturbances only. This limitation was put in place because the CDN test method fails to consider the VSWR (voltage standing wave ratio) present on the products cables especially for narrowband emissions. Hence the CDN test method given in Annex B is not suitable for narrowband emission measurements.

The source document incorporates Amendment 1 (2006) and Amendment 2 (2008). The amended text is indicated by vertical lines in the margins.

As this Standard is reproduced from an International Standard, a full point substitutes for a comma when referring to a decimal marker.

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

Reference to International Standard		*Australian/New Zealand Standard*	
IEC		AS/NZS	
60050	International Electrotechnical Vocabulary (IEV)	—	
60050.161	Chapter 161: Electromagnetic compatibility	—	
60155	Glow-starters for fluorescent lamps	—	
60598	Luminaires	60598	Luminaires
60598-1	Part 1: General requirements and tests	60598.1	Part 1: General requirements and tests (IEC 60598-1:2003, MOD)
CISPR		AS/NZS CISPR	
11	Industrial, scientific and medical (ISM) radio-frequency equipment—Electromagnetic disturbance characteristics—Limits and methods of measurement	11	Industrial, scientific and medical equipment—Radiofrequency disturbance characteristics—Limits and methods of measurement

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

CONTENTS

AUSTRALIAN/NEW ZEALAND STANDARD

Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment (CISPR 15, Ed.7.2 (2009) MOD)

1 Scope

This standard applies to the emission (radiated and conducted) of radiofrequency disturbances from:

– all lighting equipment with a primary function of generating and/or distributing light intended for illumination purposes, and intended either for connection to the low voltage electricity supply or for battery operation;
– the lighting part of multi-function equipment where one of the primary functions of this is illumination;
– independent auxiliaries exclusively for use with lighting equipment;
– UV and IR radiation equipment;
– neon advertising signs;
– street/flood lighting intended for outdoor use;
– transport lighting (installed in buses and trains).

Excluded from the scope of this standard are:

– lighting equipment operating in the ISM frequency bands (as defined in Resolution 63 (1979) of the ITU Radio Regulation);
– lighting equipment for aircraft and airports;
– apparatus for which the electromagnetic compatibility requirements in the radio-frequency range are explicitly formulated in other IEC or CISPR standards.

NOTE Examples are:

– built-in lighting devices in other equipment, for example scale illumination or neon devices;
– photocopiers;
– slide projectors;
– lighting equipment for road vehicles.

The frequency range covered is 9 kHz to 400 GHz.

Multi-function equipment which is subjected simultaneously to different clauses of this standard and/or other standards shall meet the provisions of each clause/standard with the relevant functions in operation.

The limits in this standard have been determined on a probabilistic basis to keep the suppression of disturbances within economically reasonable limits while still achieving an adequate level of radio protection and electromagnetic compatibility. In exceptional cases, additional provisions may be required.