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AS CISPR 16.1.1:2017

Australian STANDARD

Specification for radio disturbance and immunity measuring apparatus and methods

Part 1.1: Radio disturbance and immunity measuring apparatus—Measuring apparatus

STANDARDS Australia

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- Australian Communications and Media Authority
- Australian Industry Group
- Australian Information Industry Association
- Consumer Electronics Suppliers Association
- Curtin University of Technology
- Department of Defence (Australian Government)
- Electrical Compliance Testing Association
- EMC Society of Australia
- Energy Networks Australia
- Engineers Australia
- Free TV Australia
- Lighting Council Australia
- Wireless Institute Australia

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Australian Standard®

Specification for radio disturbance and immunity measuring apparatus and methods

Part 1.1: Radio disturbance and immunity measuring apparatus—Measuring apparatus

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PREFACE

This Standard was prepared by the Australian members of the Joint Standards Australia/Standards New Zealand Committee TE-003, Electromagnetic Compatibility, to supersede AS/NZS CISPR 16.1.1:2012, *Specification for radio disturbance and immunity measuring apparatus and methods*, Part 1.1: *Radio disturbance and immunity measuring apparatus—Measuring apparatus*.

The objective of this Standard is to specify the characteristics and performance of equipment for the measurement of radio disturbance in the frequency range 9 kHz to 18 GHz. In addition, requirements are provided for specialized equipment for discontinuous disturbance measurements.

This Standard is identical with, and has been reproduced from CISPR 16-1-1, Ed 4.2 (2015), *Specification for radio disturbance and immunity measuring apparatus and methods*, Part 1-1: *Radio disturbance and immunity measuring apparatus—Measuring apparatus*

As this Standard is reproduced from an International Standard, the following applies:

(a) In the source text 'this part of CISPR 16' should read 'this Australian Standard'.

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

Australian or Australian/New Zealand Standards that are identical adoptions of international normative references may be used interchangeably. Refer to the online catalogue for information on specific standards.

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.

CONTENTS

INTRODUCTION

The CISPR 16 series, published under the general title *Specification for radio disturbance and immunity measuring apparatus and methods,* is comprised of the following sets of standards and reports:

- CISPR 16-1 – six parts covering measurement instrumentation specifications;
- CISPR 16-2 – five parts covering methods of measurement;
- CISPR 16-3 – a single publication containing various technical reports (TRs) with further information and background on CISPR and radio disturbances in general;
- CISPR 16-4 – five parts covering uncertainties, statistics and limit modelling.

CISPR 16-1 consists of the following parts, under the general title *Specification for radio disturbance and immunity measuring apparatus and methods – Radio disturbance and immunity measuring apparatus:*

– Part 1-1: Measuring apparatus
– Part 1-2: Ancillary equipment – Conducted disturbances
– Part 1-3: Ancillary equipment – Disturbance power
– Part 1-4: Ancillary equipment – Radiated disturbances
– Part 1-5: Antenna calibration sites and reference test sites for 5 MHz to 18 GHz
– Part 1-6: EMC-antenna calibration

The International Electrotechnical Commission (IEC) draws attention to the fact that it is claimed that compliance with this document may involve the use of a patent concerning the measuring receiver with rms-average detector (patent no DE 10126830) given in Clause 7.

IEC takes no position concerning the evidence, validity and scope of this patent right.

The holder of this patent right has assured the IEC that he/she is willing to negotiate licences either free of charge or under reasonable and non-discriminatory terms and conditions with applicants throughout the world. In this respect, the statement of the holder of this patent right is registered with IEC. Information may be obtained from:

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AUSTRALIAN STANDARD

Specification for radio disturbance and immunity measuring apparatus and methods

Part 1.1:
Radio disturbance and immunity measuring apparatus—Measuring apparatus

1 Scope

This part of CISPR 16 specifies the characteristics and performance of equipment for the measurement of radio disturbance in the frequency range 9 kHz to 18 GHz. In addition, requirements are provided for specialized equipment for discontinuous disturbance measurements.

NOTE In accordance with IEC Guide 107, CISPR 16-1-1 is a basic EMC standard for use by product committees of the IEC. As stated in Guide 107, product committees are responsible for determining the applicability of the EMC standard. CISPR and its sub-committees are prepared to co-operate with product committees in the evaluation of the value of particular EMC tests for specific products.

The specifications in this standard apply to EMI receivers and spectrum analyzers. The term “measuring receiver” used in this standard refers to both EMI receivers and spectrum analyzers. The calibration requirements for measuring receivers are detailed in Annex J.

Further guidance on the use of use of spectrum analyzers and scanning receivers can be found in Annex B of any one of the following standards: CISPR 16-2-1:2014, CISPR 16-2-2:2010 or CISPR 16-2-3:2010.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

CISPR 11:2015, *Industrial, scientific and medical equipment – Radio-frequency disturbance characteristics – Limits and methods of measurement*

CISPR 14-1:2005, *Electromagnetic compatibility – Requirements for household appliances, electric tools and similar apparatus – Part 1: Emission*
CISPR 14-1:2005/AMD1:2008
CISPR 14-1:2005/AMD2:2011

CISPR 16-2-1:2014, *Specification for radio disturbance and immunity measuring apparatus and methods – Part 2-1: Methods of measurement of disturbances and immunity – Conducted disturbance measurements*

CISPR 16-2-2:2010, *Specification for radio disturbance and immunity measuring apparatus and methods – Part 2-2: Methods of measurement of disturbances and immunity – Measurement of disturbance power*

CISPR 16-2-3:2010, *Specification for radio disturbance and immunity measuring apparatus and methods – Part 2-3: Methods of measurement of disturbances and immunity – Radiated disturbance measurements*
CISPR 16-2-3:2010/AMD1:2010
CISPR 16-2-3:2010/AMD2:2014