

Australian/New Zealand Standard™

**Specification for radio disturbance and
immunity measuring apparatus and
methods**

**Part 1.6: Radio disturbance and
immunity measuring apparatus—EMC
antenna calibration**



AS/NZS CISPR 16.1.6:2015

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Australian/New Zealand Standard™

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Part 1.6: Radio disturbance and immunity measuring apparatus—EMC antenna calibration

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PREFACE

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

The objective of this Standard is to provide procedures and supporting information for the calibration of antennas for determining antenna factors (AF) that are applicable to antennas intended for use in radiated disturbance measurements.

This Standard is identical with, and has been reproduced from CISPR 16-1-6, Ed. 1.0 (2014), *Specification for radio disturbance and immunity measuring apparatus and methods*, Part 1-6: *Radio disturbance and immunity measuring apparatus—EMC antenna calibration*.

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16-1-4:2010 AMD1:2012	Part 1-4: Radio disturbance and immunity measuring apparatus—Antennas and test sites for radiated disturbance measurements	16.1.4:2013	Part 1.4: Radio disturbance and immunity measuring apparatus—Antennas and test sites for radiated disturbance measurements
16-1-5:2014	Part 1-5: Radio disturbance and immunity measuring apparatus—Antenna calibration sites and reference test sites for 5 MHz to 18 GHz	16.1.5:2015	Part 1.5: Radio disturbance and immunity measuring apparatus—Antenna calibration sites and reference test sites for 5 MHz to 18 GHz

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The terms ‘normative’ and ‘informative’ have been used in this Standard to define the application of the annexes 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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NOTES

AUSTRALIAN/NEW ZEALAND STANDARD

Specification for radio disturbance and immunity measuring apparatus and methods

Part 1.6:

Radio disturbance and immunity measuring apparatus—EMC antenna calibration

1 Scope

This part of CISPR 16 provides procedures and supporting information for the calibration of antennas for determining antenna factors (AF) that are applicable to antennas intended for use in radiated disturbance measurements.

It has the status of a basic EMC Standard in accordance with IEC Guide 107, *Electromagnetic compatibility – Guide to the drafting of electromagnetic compatibility publications*.

The AF of an antenna is influenced by nearby surroundings and by its position in space relative to the radiating source. This standard focuses on antenna calibrations that provide the AF in a free-space environment in the direction of the boresight of the antenna. The frequency range addressed is 9 kHz to 18 GHz. The relevant antenna types covered in this standard are monopole, loop, dipole, biconical, log-periodic dipole-array (LPDA), hybrid and horn antennas.

Guidance is also provided on measurement uncertainties associated with each calibration method and configuration, and the test instrumentation used.

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 16-1-4:2010, *Specification for radio disturbance and immunity measuring apparatus and methods – Part 1-4: Radio disturbance and immunity measuring apparatus – Antennas and test sites for radiated disturbance measurements*
CISPR 16-1-4:2010/AMD 1:2012

CISPR 16-1-5:2014, *Specification for radio disturbance and immunity measuring apparatus and methods – Part 1-5: Radio disturbance and immunity measuring apparatus – Antenna calibration sites and reference test sites for 5 MHz to 18 GHz*

IEC 60050-161, *International Electrotechnical Vocabulary (IEV) – Chapter 161: Electromagnetic compatibility*

ISO/IEC Guide 98-3:2008, *Uncertainty of measurement – Part 3: Guide to the expression of uncertainty in measurement (GUM:1995)*