BS EN 55016-1-6:2015+A2:2022

BSI Standards Publication

Specification for radio disturbance and immunity measuring apparatus and methods

Part 1-6: Radio disturbance and immunity measuring apparatus — EMC antenna calibration

bsi.

National foreword

This British Standard is the UK implementation of EN 55016-1-6:2015+A2:2022. It is identical to CISPR 16-1-6:2014, incorporating amendment 1:2017 and amendment 2:2022. It supersedes BS EN 55016-1-6:2015+A1:2017, which will be withdrawn on 7 April 2025.

The start and finish of text introduced or altered by amendment is indicated in the text by tags. Tags indicating changes to CISPR text carry the number of the CISPR amendment. For example, text altered by CISPR amendment 1 is indicated by A1 A1.

The UK participation in its preparation was entrusted to Technical Committee GEL/210, EMC - Policy committee.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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Published by BSI Standards Limited 2022

ISBN 978 0 580 94032 3

ICS 33.100.10; 33.100.20

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This British Standard was published under the authority of the Standards Policy and Strategy Committee on 28 February 2015.

Amendments/corrigenda issued since publication

Date	Text affected
31 March 2018	Implementation of CISPR amendment 1:2017 with CENELEC endorsement A1:2017
31 July 2022	Implementation of CISPR amendment 2:2022 with CENELEC endorsement A2:2022

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 55016-1-6:2015+A2

April 2022

ICS 33.100.10; 33.100.20

English Version

Specification for radio disturbance and immunity measuring apparatus and methods - Part 1-6: Radio disturbance and immunity measuring apparatus - EMC antenna calibration (CISPR 16-1-6:2014)

Spécifications des méthodes et des appareils de mesure des perturbations radioélectriques et de l'immunité aux perturbations radioélectriques - Partie 1-6: Appareils de mesure des perturbations radioélectriques et de l'immunité aux perturbations radioélectriques - Étalonnage des antennes CEM (CISPR 16-1-6:2014)

Anforderungen an Geräte und Einrichtungen sowie Festlegung der Verfahren zur Messung der hochfrequenten Störaussendung (Funkstörungen) und Störfestigkeit - Teil 1-6: Geräte und Einrichtungen zur Messung der hochfrequenten Störaussendung (Funkstörungen) und Störfestigkeit - Kalibrierung von Antennen für EMV-Messungen (CISPR 16-1-6:2014)

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Ref. No. EN 55016-1-6:2015 E

European foreword

The text of document CISPR/A/1087/FDIS, future edition 1 of CISPR 16-1-6, prepared by CISPR SC A “Radiointerference measurements and statistical methods" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 55016-1-6:2015.

The following dates are fixed:

• latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2015-10-21
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2018-01-21

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The text of the International Standard CISPR 16-1-6:2014 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

CISPR 16-1-1:2010	NOTE	Harmonized as EN 55016-1-1:2010 (not modified).
CISPR 16-2-3:2010	NOTE	Harmonized as EN 55016-2-3:2010 (not modified).
CISPR 16-4-2:2011	NOTE	Harmonized as EN 55016-4-2:2011 (not modified).
CISPR 25:2008	NOTE	Harmonized as EN 55025:2008 (not modified).
IEC 61000-4-22:2010	NOTE	Harmonized as EN 61000-4-22:2010 (not modified).
IEC 61169-16:2006	NOTE	Harmonized as EN 61169-16:2007 (not modified).
ISO/IEC 17043:2010	NOTE	Harmonized as EN ISO/IEC 17043:2010 (not modified).

European foreword to amendment A1

The text of document CISPR/A/1195/FDIS, future CISPR 16-1-6:2014/A1, prepared by CISPR SC A "Radio-interference measurements and statistical methods" of CISPR "International special committee on radio interference" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 55016-1-6:2015/A1:2017.

The following dates are fixed:

• latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2017-11-26
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2020-05-26

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The text of the International Standard CISPR 16-1-6:2014/A1:2017 was approved by CENELEC as a European Standard without any modification.

European foreword to amendment A2

The text of document CIS/A/1362/FDIS, future CISPR 16-1-6/AMD2, prepared by CISPR SC A "Radio-interference measurements and statistical methods" of CISPR "International special committee on radio interference" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 55016-1-6:2015/A2:2022.

The following dates are fixed:

• latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2023-01-07
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2025-04-07

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Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

Endorsement notice

The text of the International Standard CISPR 16-1-6:2014/AMD2:2022 was approved by CENELEC as a European Standard without any modification.

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

INTERNATIONAL SPECIAL COMMITTEE ON RADIO INTERFERENCE

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Part 1-6: Radio disturbance and immunity measuring apparatus – EMC antenna calibration

FOREWORD

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International Standard CISPR 16-1-6 has been prepared by CISPR subcommittee A: Radio-interference measurements and statistical methods.

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 text of this standard is based on the following documents:

FDIS	Report on voting
CISPR/A/1087/FDIS	CISPR/A/1098/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts of CISPR 16 series, under the general title *Specification for radio disturbance and immunity measuring apparatus and methods*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

CISPR 16-1-6:2014+A2:2022

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.

A2 CISPR 16-1-2, *Specification for radio disturbance and immunity measuring apparatus and methods – Part 1-2: Radio disturbance and immunity measuring apparatus – Coupling devices for conducted disturbance measurements*

CISPR 16-1-4:2019, *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* A2

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)*