

BSI Standards Publication

Specification for radio disturbance and immunity measuring apparatus and methods

Part 2-3: Methods of measurement of disturbances and immunity — Radiated disturbance measurements



National foreword

This British Standard is the UK implementation of EN 55016-2-3:2017+A2:2023. It is identical to CISPR 16-2-3:2016, incorporating amendment 1:2019 and amendment 2:2023. It supersedes BS EN 55016-2-3:2017+A1:2019, which will be withdrawn on 19 July 2026.

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 A1 is indicated by $\boxed{\text{A1}}$ $\boxed{\text{A1}}$.

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

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English Version

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(CISPR 16-2-3:2016)

Spécifications des méthodes et des appareils de mesure des perturbations radioélectriques et de l'immunité aux perturbations radioélectriques - Partie 2-3: Méthodes de mesure des perturbations et de l'immunité - Mesures des perturbations rayonnées (CISPR 16-2-3:2016) Anforderungen an Geräte und Einrichtungen sowie Festlegung der Verfahren zur Messung der hochfrequenten Störaussendung (Funkstörungen) und Störfestigkeit - Teil 2-3: Verfahren zur Messung der hochfrequenten Störaussendung (Funkstörungen) und Störfestigkeit -Messung der gestrahlten Störaussendung (CISPR 16-2-3:2016)

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN 55016-2-3:2017+A2:2023

European foreword

The text of document CISPR/A/1176A/FDIS, future edition 4 of CISPR 16-2-3, prepared by CISPR SC A "Radio-Interference measurements and statistical methods" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 55016-2-3:2017.

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CISPR 11:2015	NOTE	Harmonized as EN 55011:2016.
CISPR 16-1-6:2014	NOTE	Harmonized as EN 55016-1-6:2015.
CISPR 22:2008	NOTE	Harmonized as EN 55022:2010.
IEC 61140:2016	NOTE	Harmonized as EN 61140:2016.
ISO/IEC Guide 2:2004	NOTE	Harmonized as EN 45020:2006.
ISO/IEC 17000:2004	NOTE	Harmonized as EN ISO/IEC 17000:2004.
IEC 61000-4-21	NOTE	Harmonized as EN 61000-4-21.

Foreword to amendment A1

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CISPR 11:2015 NOTE Harmonized as EN 55011:2016

CISPR 32:2015 NOTE Harmonized as EN 55032:2015 (not modified)

EN 55016-2-3:2017+A2:2023

European foreword to amendment A2

The text of document CIS/A/1391/FDIS, future CISPR 16-2-3/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 55016-2-3:2017/A2:2023.

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Annex ZA

(normative)

Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

Publication IEC 60050-161	<u>Year</u> -	<u>Title</u> International Electrotechnical Vocabulary (IEV) - Chapter 161: Electromagnetic	<u>EN/HD</u> -	<u>Year</u> -	
IEC 61000-4-3	2006	compatibility Electromagnetic compatibility (EMC) Part 4-3: Testing and measurement techniques - Radiated, radio-frequency,		2006	
+ A1 + A2 IEC 61000-4-20	2007 2010 -	electromagnetic field immunity test Electromagnetic compatibility (EMC) - Part 4-20: Testing and measurement techniques - Emission and immunity testing in transverse electromagnetic (TEM) waveguides	+ A1 + A2 : EN 61000-4-20	2008 2010	
CISPR 14-1	2016	Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 1: Emission	FprEN 55014-1	2016	
CISPR 16-1-1	-	Specification for radio disturbance and immunity measuring apparatus and methods - Part 1-1: Radio disturbance and immunity measuring apparatus - Measuring appartus	- I	-	
CISPR 16-1-2	2014	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	EN 55016-1-2	2014	
CISPR 16-1-4	im - m	pecification for radio disturbance and imunity measuring apparatus and methods Part 1-4: Radio disturbance and immunity easuring apparatus - Antennas and test tes for radiated disturbance measurements	EN IEC 55016-1-4	2019	
+ A1	2020		+ A1	2020	
+ A2	2023		+ A2	2023	A_2

 A_2

EN 55016-2-3:2017+A2:2023

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	EN 55016-2-1	2014
CISPR 16-4-2	2011	Specification for radio disturbance and immunity measuring apparatus and methods - Part 4-2: Uncertainties, statistics and limit modelling - Measurement instrumentation uncertainty	EN 55016-4-2	2011
+ A1	2014		+ A1	2014
+ A2	2018		+ A2	2018
CISPR TR 16-4-1 CISPR TR 16-4-5	-	Specification for radio disturbance and immunity measuring apparatus and methods - Part 4-1: Uncertainties, statistics and limit modelling - Uncertainties in standardized EMC tests	-	-
GISFR 1R 10-4-3	-	Specification for radio disturbance and immunity measuring apparatus and methods - Part 4-5: Uncertainties, statistics and limit modelling - Conditions for the use of alternative test methods		-

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INTERNATIONAL ELECTROTECHNICAL COMMISSION INTERNATIONAL SPECIAL COMMITTEE ON RADIO INTERFERENCE

SPECIFICATION FOR RADIO DISTURBANCE AND IMMUNITY MEASURING APPARATUS AND METHODS –

Part 2-3: Methods of measurement of disturbances and immunity – Radiated disturbance measurements

FOREWORD

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International Standard CISPR 16-2-3 has been prepared by CISPR subcommittee A: Radio-interference measurements and statistical methods.

This fourth edition edition cancels and replaces the third edition published in 2010, its Amendment 1:2010 and its Amendment 2:2014. This edition constitutes a technical revision.

This edition includes the following significant technical change with respect to the previous edition: addition of content on correction of the electric field strength to account for phase centre of log-periodic dipole array antennas.

It has the status of a basic EMC publication 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/1176A/FDIS	CISPR/A/1182/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 the CISPR 16 series, published 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 website 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.

INTRODUCTION

Amendment of CISPR 16-2-3 regarding EUT volume specifications for radiated disturbance measurements depending on test method and on measurement distance

SPECIFICATION FOR RADIO DISTURBANCE AND IMMUNITY MEASURING APPARATUS AND METHODS –

Part 2-3: Methods of measurement of disturbances and immunity – Radiated disturbance measurements

1 Scope

This part of CISPR 16 specifies the methods of measurement of radiated disturbance phenomena in the frequency range of 9 kHz to 18 GHz. The aspects of measurement uncertainty are specified in CISPR 16-4-1 and CISPR 16-4-2.

NOTE In accordance with IEC Guide 107 [13]¹, CISPR 16-2-3 is a basic EMC publication 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 subcommittees are prepared to co-operate with product committees in the evaluation of the value of particular EMC tests for specific products.

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 14-1:2016, Electromagnetic compatibility – Requirements for household appliances, electric tools and similar apparatus – Part 1: Emission

CISPR 16-1-1, Specification for radio disturbance and immunity measuring apparatus and methods – Part 1-1: Radio disturbance and immunity measuring apparatus – Measuring apparatus

CISPR 16-1-2:2014, 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 CISPR 16-1-4:2019/AMD1:2020

CISPR 16-1-4:2019/AMD2:2023 (2)

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 TR 16-4-1, Specification for radio disturbance and immunity measuring apparatus and methods – Part 4-1: Uncertainties, statistics and limit modelling – Uncertainties in standardized EMC tests

¹ Numbers in square brackets refer to the Bibliography.