BS EN 55016-1-2:2014



BSI Standards Publication

# 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

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**National foreword**

This British Standard is the UK implementation of EN 55016-1-2:2014. It is identical to CISPR 16-1-2:2014. It supersedes BS EN 55016-1-2:2004+A2:2006, which will be withdrawn on 25 April 2017.

BSI as a member of CENELEC, is obliged to publish EN 55016-1-2:2014 as a British Standard. However, attention is drawn to the fact that during the development of this European Standard, the UK committee voted against its approval as a European Standard.

The concern is that clause 9 does not provide a representative simulation of mains cabling. The UK will continue to work to improve this standard and its application to dependent standards. Technical justification was presented at the Tokyo EMC conference in May 2014 in the paper: "Measurement Method, Uncertainty and Cable Balance – with Implications for the CDNE-M" by D M Lauder & R C Marshall, Paper 14A-A3, 2014 International Symposium on Electromagnetic Compatibility, May 12-16 2014, Tokyo, Japan". This academic paper is available from the British Library.

The UK participation in its preparation was entrusted by Technical Committee GEL/210, EMC - Policy committee, to Subcommittee GEL/210/12, EMC basic, generic and low frequency phenomena Standardization.

A list of organizations represented on this subcommittee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Published by BSI Standards Limited 2014

ISBN 978 0 580 72758 0

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 31 July 2014.

**Amendments/corrigenda issued since publication**

| Date | Text affected |
|---|---|

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

# EN 55016-1-2

July 2014

ICS 33.100.10; 33.100.20

Supersedes EN 55016-1-2:2004

English Version

# 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 16-1-2:2014)

Spécifications des méthodes et des appareils de mesure des perturbations radioélectriques et de l'immunité aux perturbations radioélectriques - Partie 1-2: Appareils de mesure des perturbations radioélectriques et de l'immunité aux perturbations radioélectriques - Dispositifs de couplage pour la mesure des perturbations conduites (CISPR 16-1-2:2014)

Anforderungen an Geräte und Einrichtungen sowie Festlegung der Verfahren zur Messung der hochfrequenten Störaussendung (Funkstörungen) und Störfestigkeit - Teil 1-2: Geräte und Einrichtungen zur Messung der hochfrequenten Störaussendung (Funkstörungen) und Störfestigkeit - Koppeleinrichtungen zur Messung der leitungsgeführten Störaussendung (CISPR 16-1-2:2014)

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Ref. No. EN 55016-1-2:2014 E

## Foreword

The text of document CISPR/A/1051/FDIS, future edition 2 of CISPR 16-1-2, prepared by SC A "Radio-interference measurements and statistical methods" of IEC/TC CISPR "International special committee on radio interference" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 55016-1-2:2014.

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) | 2015-01-25 |
| • latest date by which the national standards conflicting with the document have to be withdrawn | (dow) | 2017-04-25 |

This document supersedes EN 55016-1-2:2004.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

## Endorsement notice

The text of the International Standard CISPR 16-1-2:2014 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 16-2 Series | NOTE | Harmonized as EN 55016-2 Series (not modified). |
| CISPR 16-4 Series | NOTE | Only Part 4-2 harmonized as EN 55016-4-2. |
| CISPR 22 | NOTE | Harmonized as EN 55022. |

# Annex ZA
(normative)

## Normative references to international publications with their corresponding European publications

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.

NOTE 1 When 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 | Year | Title | EN/HD | Year |
|---|---|---|---|---|
| CISPR 16-1-1 | 2010 | Specification for radio disturbance and immunity measuring apparatus and methods - Part 1-1: Radio disturbance and immunity measuring apparatus - Measuring apparatus | EN 55016-1-1 | 2010 |
| 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 |
| IEC 61000-4-6 | 2008 | Electromagnetic compatibility (EMC) - Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields | EN 61000-4-6 | 2009 |
| IEC 60050 | Series | International Electrotechnical Vocabulary - Part 802: Ultrasonics | - | - |

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# 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

## 1 Scope

This part of the CISPR 16 series specifies the characteristics and performance of equipment for the measurement of radio disturbance voltages and currents in the frequency range 9 kHz to 1 GHz.

NOTE In accordance with IEC Guide 107, CISPR 16 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.

Specifications for ancillary apparatus are included for artificial mains networks, current and voltage probes and coupling units for current injection on cables.

It is intended that the requirements of this publication are fulfilled at all frequencies and for all levels of radio disturbance voltages and currents within the CISPR indicating range of the measuring equipment.

Methods of measurement are covered in the CISPR 16-2 series, and further information on radio disturbance is given in CISPR 16-3, while uncertainties, statistics and limit modelling are covered in the CISPR 16-4 series.

## 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 16-1-1:2010, *Specification for radio disturbance and immunity measuring apparatus and methods – Part 1-1: Radio disturbance and immunity measuring apparatus – Measuring apparatus*

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 16-4-2:2011, *Specification for radio disturbance and immunity measuring apparatus and methods – Part 4-2: Uncertainties, statistics and limit modelling – Measurement instrumentation uncertainty*

IEC 60050 (all parts), *International Electrotechnical Vocabulary* (available at <http://www.electropedia.org>)

IEC 61000-4-6:2008, *Electromagnetic compatibility (EMC) – Part 4-6: Testing and measurement techniques – Immunity to conducted disturbances, induced by radio-frequency fields*