

Specification for radio disturbance and immunity measuring apparatus and methods —

Part 4-3: Uncertainties, statistics and limit modelling — Statistical considerations in the determination of EMC compliance of mass-produced products

ICS 33.100.10; 33.100.20

National foreword

This Published Document reproduces verbatim CISPR 16-4-3:2003. Together with PD CISPR/TR 16-3:2003, PD CISPR/TR 16-4-1:2003 and PD CISPR/TR 16-4-4:2003, it supersedes BS CISPR 16-3:2000 which is withdrawn.

The UK participation in its preparation was entrusted by Technical Committee GEL/210, EMC — Policy, to Subcommittee GEL/210/12, EMC — Basic and generic standards, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

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

Cross-references

The British Standards which implement international publications referred to in this document may be found in the *BSI Catalogue* under the section entitled “International Standards Correspondence Index”, or by using the “Search” facility of the *BSI Electronic Catalogue* or of British Standards Online.

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Summary of pages

This document comprises a front cover, an inside front cover, the CISPR title page, pages 2 to 25 and a back cover.

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TECHNICAL REPORT

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INTERNATIONAL SPECIAL COMMITTEE ON RADIO INTERFERENCE

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

**Part 4-3:
Uncertainties, statistics and limit modelling –
Statistical considerations in the determination
of EMC compliance of mass-produced products**



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

SPECIFICATION FOR RADIO DISTURBANCE AND IMMUNITY MEASURING APPARATUS AND METHODS –

Part 4-3: Uncertainties, statistics and limit modelling – Statistical considerations in the determination of EMC compliance of mass-produced products

FOREWORD

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This first edition of CISPR 16-4-3, together with CISPR 16-4-1, CISPR 16-4-4 and the second edition of CISPR 16-3, cancels and replaces the first edition of CISPR 16-3, published in 2000, and its amendment 1 (2002). It contains the relevant clauses of CISPR 16-3 without technical changes.

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

A bilingual version of this publication may be issued at a later date.

The committee has decided that the contents of this publication will remain unchanged until 2004. At this date, the publication will be

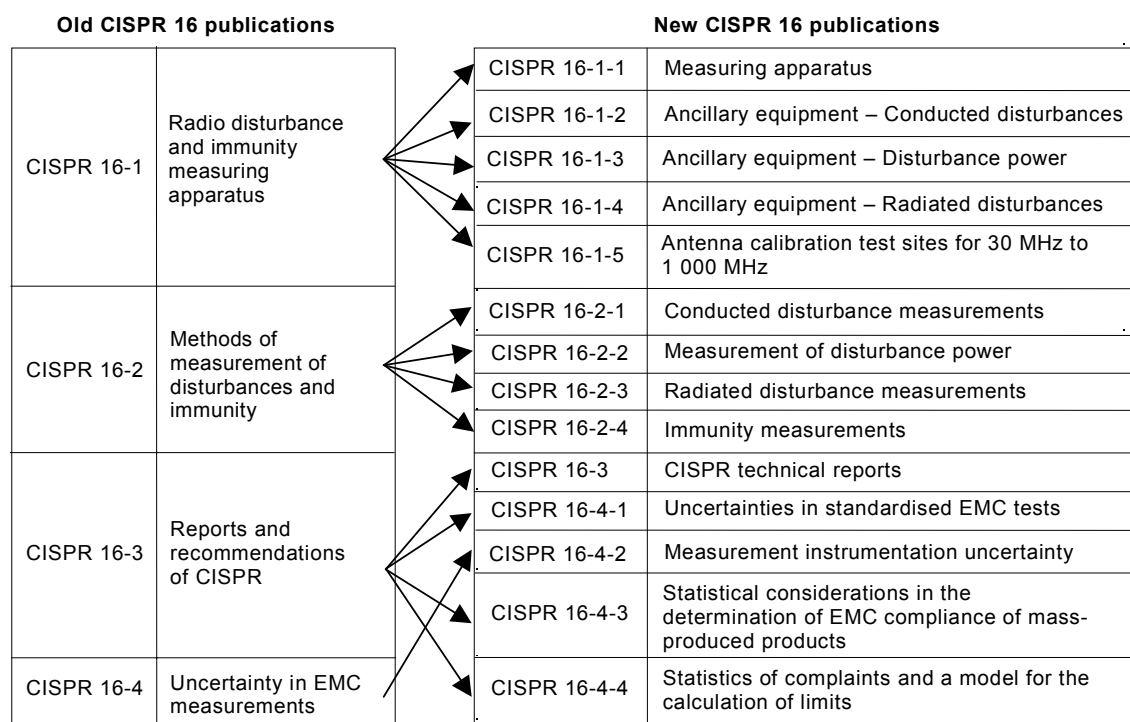
- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

The text of this publication is based on the following documents:

Recommendation 46/1 – p/o CISPR. 11, 1990; Report 48 – p/o CISPR 8B, 1975; Report 59: CIS/A(Sec)58 + CIS/A(Sec)58A, 1983.

INTRODUCTION

CISPR 16-1, CISPR 16-2, CISPR 16-3 and CISPR 16-4 have been reorganised into 14 parts, to accommodate growth and easier maintenance. The new parts have also been renumbered. See the list given below.



More specific information on the relation between the 'old' CISPR 16-3 and the present 'new' CISPR 16-4-3 is given in the table after this introduction (TABLE RECAPITULATING CROSS REFERENCES).

Measurement instrumentation specifications are given in five new parts of CISPR 16-1, while the methods of measurement are covered now in four new parts of CISPR 16-2. Various reports with further information and background on CISPR and radio disturbances in general are given in CISPR 16-3. CISPR 16-4 contains information related to uncertainties, statistics and limit modelling.

CISPR 16-4 consists of the following parts, under the general title *Specification for radio disturbance and immunity measuring apparatus and methods - Uncertainties, statistics and limit modelling*:

- Part 4-1: Uncertainties in standardised EMC tests,
- Part 4-2: Uncertainty in EMC measurements,
- Part 4-3: Statistical considerations in the determination of EMC compliance of mass-produced products,
- Part 4-4: Statistics of complaints and a model for the calculation of limits.

TABLE RECAPITULATING CROSS-REFERENCES

First edition of CISPR 16-3 Clauses, subclauses	First edition of CISPR 16-4-3 Clauses
1.1	1
1.2	2
1.3	3
2.3	4
2.2	5
2.4	6

SPECIFICATION FOR RADIO DISTURBANCE AND IMMUNITY MEASURING APPARATUS AND METHODS –

Part 4-3: Uncertainties, statistics and limit modelling – Statistical considerations in the determination of EMC compliance of mass-produced products

1 Scope

This part of CISPR 16 contains recommendations on statistics of disturbance complaints, on the significance of CISPR limits, and specific reports.

Over the years, the CISPR prepared a number of recommendations and reports that have significant technical merit but were not generally available. Reports and recommendations were for some time published in CISPR 7 and 8.

At its meeting in Campinas, Brazil, in 1988, subcommittee A agreed on the table of contents of the first edition of part 3 and to publish the reports for posterity by giving the reports a permanent place in part 3. In 2003, the relevant clauses on statistics were transferred to CISPR 16-4-3.

2 Normative references

The following referenced documents are indispensable for the application 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.

CISPR 16-1:2003 (all parts), *Specification for radio disturbance and immunity measuring apparatus and methods – Radio disturbance and immunity measuring apparatus*

CISPR 16-2:2003 (all parts), *Specification for radio disturbance and immunity measuring apparatus and methods – Methods of measurement of disturbances and immunity*

CISPR 16-3:2003 *Specification for radio disturbance and immunity measuring apparatus and methods – Part 3: CISPR technical reports*

CISPR 16-4-1:2003, *Specification for radio disturbance and immunity measuring apparatus and methods – Part 4-1: Uncertainties, statistics and limit modelling – Uncertainties in standardized EMC tests*

CISPR 16-4-2:2003, *Specification for radio disturbance and immunity measuring apparatus and methods – Part 4-2: Uncertainties, statistics and limit modelling – Measurement instrumentation uncertainties*

CISPR 16-4-4:2003, *Specification for radio disturbance and immunity measuring apparatus and methods – Part 4-4: Uncertainties, statistics and limit modelling – Statistics of complaints and a model for the calculation of limits*

3 Definitions

For the purpose of this part of CISPR 16, the definitions of CISPR 16-1 and IEC 60050(161) as well as the following definitions apply.