SLOVENSKI STANDARD
SIST EN IEC 61967-4:2021

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Nadomešča:
SIST EN 61967-4:2005
SIST EN 61967-4:2005/A1:2006
SIST EN 61967-4:2005/AC:2017

Integrirana vezja - Meritve elektromagnetnega sevanja - 4. del: Meritve prevajanega sevanja, metoda neposrednega sklopa 1 ohm/150 ohmov (IEC 61967-4:2021)

Integrated circuits - Measurement of electromagnetic emissions - Part 4: Measurement of conducted emissions, 1 ohm/150 ohm direct coupling method (IEC 61967-4:2021)

Integrierte Schaltungen - Messung von elektromagnetischen Aussendungen – Teil 4: Messung der leitungsgeführten Aussendungen - Messung mit direkter 1-Ohm-/150-Ohm-Kopplung (IEC 61967-4:2021)

Circuits intégrés - Mesure des émissions électromagnétiques - Partie 4 : Mesure des émissions conduites - Méthode par couplage direct 1 ohm/150 ohm (IEC 61967-4:2021)

Ta slovenski standard je istoveten z: **EN IEC 61967-4:2021**

ICS:

31.200	Integrirana vezja, mikroelektronika	Integrated circuits. Microelectronics

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EUROPEAN STANDARD

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Supersedes EN 61967-4:2002 and all of its amendments and corrigenda (if any)

English Version

Integrated circuits - Measurement of electromagnetic emissions - Part 4: Measurement of conducted emissions - 1 Ω/150 Ω direct coupling method (IEC 61967-4:2021)

Circuits intégrés - Mesure des émissions électromagnétiques - Partie 4: Mesure des émissions conduites - Méthode par couplage direct 1 Ω/150 Ω (IEC 61967-4:2021)

Integrierte Schaltungen - Messung von elektromagnetischen Aussendungen - Teil 4: Messung der leitungsgeführten Aussendungen - Messung mit direkter 1-Ohm-/150-Ohm-Kopplung (IEC 61967-4:2021)

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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

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European foreword

The text of document 47A/1101/CDV, future edition 2 of IEC 61967-4, prepared by SC 47A "Integrated circuits" of IEC/TC 47 "Semiconductor devices" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 61967-4:2021.

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) 2022-01-20
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2024-04-20

This document supersedes EN 61967-4:2002 and all of its amendments and corrigenda (if any).

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

Endorsement notice

The text of the International Standard IEC 61967-4:2021 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 16-1-2	NOTE	Harmonized as EN 55016-1-2
CISPR 25	NOTE	Harmonized as EN 55025

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	Year	Title	EN/HD	Year
IEC 61000-4-6	-	Electromagnetic compatibility (EMC) - Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields	EN 61000-4-6	-
IEC 61967-1	-	Integrated circuits - Measurement of electromagnetic emissions - Part 1: General conditions and definitions	EN IEC 61967-1	-

IEC 61967-4

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INTERNATIONAL STANDARD

NORME INTERNATIONALE

colour inside

Integrated circuits – Measurement of electromagnetic emissions – Part 4: Measurement of conducted emissions – 1 Ω/150 Ω direct coupling method

Circuits intégrés – Mesure des émissions électromagnétiques – Partie 4: Mesure des émissions conduites – Méthode par couplage direct 1 Ω/150 Ω

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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INTEGRATED CIRCUITS – MEASUREMENT OF ELECTROMAGNETIC EMISSIONS –

Part 4: Measurement of conducted emissions – 1 Ω/150 Ω direct coupling method

FOREWORD

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IEC 61967-4 has been prepared by subcommittee 47A: Integrated circuits, of IEC technical committee 47: Semiconductor devices. It is an International Standard.

This second edition cancels and replaces the first edition published in 2002 and Amendment 1:2006. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) frequency range of 150 kHz to 1 GHz has been deleted from the title;
b) recommended frequency range for 1 Ω method has been reduced to 30 MHz;
c) Annex G with recommendations and guidelines for frequency range extension beyond 1 GHz has been added.

The text of this International Standard is based on the following documents:

Draft	Report on voting
47A/1101/CDV	47A/1107/RVC

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

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

A list of all parts of the IEC 61967 series, under the general title *Integrated circuits – Measurement of electromagnetic emissions* can be found on the IEC website.

Future standards in this series will carry the new general title as cited above. Titles of existing standards in this series will be updated at the time of the next edition.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

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

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INTEGRATED CIRCUITS – MEASUREMENT OF ELECTROMAGNETIC EMISSIONS –

Part 4: Measurement of conducted emissions – 1 Ω/150 Ω direct coupling method

1 Scope

This part of IEC 61967 specifies a method to measure the conducted electromagnetic emission (EME) of integrated circuits by direct radio frequency (RF) current measurement with a 1 Ω resistive probe and RF voltage measurement using a 150 Ω coupling network. These methods ensure a high degree of reproducibility and correlation of EME measurement results.

2 Normative references

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.

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

IEC 61967-1, *Integrated circuits – Measurement of electromagnetic emissions – Part 1: General conditions and definitions*

3 Terms and definitions

For the purposes of this document, the terms and definitions of IEC 61967-1 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at http://www.electropedia.org/
- ISO Online browsing platform: available at http://www.iso.org/obp

4 General

4.1 Measurement basics

The maximum tolerated emission level from an integrated circuit (IC) depends on the permitted maximum emission level of the electronic system, which includes the IC, and also on the immunity level of other parts of the electronic system itself (so called inherent EMC). The value of this emission level is dependent on system and application specific (ambient) parameters. To characterise ICs, i.e. to provide typical EME values for a data sheet, a simple measurement procedure and non-resonant measurement setup are required to guarantee a high degree of reproducibility. Subclause 4.1 describes the basis of this test procedure.