

SLOVENSKI STANDARD SIST EN IEC 61967-8:2023

01-september-2023

Integrirana vezja - Meritve elektromagnetnega sevanja - 8. del: Merjenje sevanega oddajanja - Metoda z IC na tračnem valovodu (IEC 61967-8:2023)

Integrated circuits - Measurement of electromagnetic emissions - Part 8: Measurement of radiated emissions - IC stripline method (IEC 61967-8:2023)

Integrierte Schaltungen - Messung von elektromagnetischen Aussendungen - Teil 8: Messung der abgestrahlten Aussendungen - IC-Streifenleiterverfahren (IEC 61967-8:2023)

Circuits intégrés - Mesure des émissions électromagnétiques - Partie 8: Mesure des émissions rayonnées - Méthode de la ligne TEM à plaques (stripline) pour CI (IEC 61967 -8:2023)

Ta slovenski standard je istoveten z: EN IEC 61967-8:2023

ICS:

31.200 Inte

Integrirana vezja, mikroelektronika Integrated circuits.
Microelectronics

SIST EN IEC 61967-8:2023

en

SIST EN IEC 61967-8:2023

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN IEC 61967-8:2023

https://standards.iteh.ai/catalog/standards/sist/70ac0ffd-1c81-4022-b43b-8d71da0bf22c/sistential-en-iec-61967-8-2023

EUROPEAN STANDARD NORME EUROPÉENNE

EN IEC 61967-8

FUROPÄISCHE NORM

June 2023

ICS 31.200

Supersedes EN 61967-8:2011

English Version

Integrated circuits - Measurement of electromagnetic emissions - Part 8: Measurement of radiated emissions - IC stripline method (IEC 61967-8:2023)

Circuits intégrés - Mesure des émissions électromagnétiques - Partie 8: Mesure des émissions rayonnées - Méthode de la ligne TEM à plaques (stripline) pour circuit intégré (IEC 61967-8:2023) Integrierte Schaltungen - Messung von elektromagnetischen Aussendungen - Teil 8: Messung der abgestrahlten Aussendungen - IC-Streifenleiterverfahren (IEC 61967-8:2023)

This European Standard was approved by CENELEC on 2023-06-07. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.



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 IEC 61967-8:2023 (E)

European foreword

The text of document 47A/1152/FDIS, future edition 2 of IEC 61967-8, 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 61967-8:2023.

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) 2024-03-07 level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting with the (dow) 2026-06-07 document have to be withdrawn

This document supersedes EN 61967-8:2011 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.

This document has been prepared under a Standardization Request given to CENELEC by the European Commission and the European Free Trade Association.

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

https://standards.iteh.ai/catalog/standards/sist/70ac0ffd-1c81-4022-h43h-8d71da0hf22c/sist

The text of the International Standard IEC 61967-8:2023 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following note has to be added for the standard indicated:

IEC 61967-2 NOTE Approved as EN 61967-2

EN IEC 61967-8:2023 (E)

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.cencenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	EN/HD	<u>Year</u>
IEC 60050-131	-	International Electrotechnical Vocabulary - Part 131: Circuit theory	-	-
IEC 60050-161	<u>.</u> Teh	International Electrotechnical Vocabulary. Chapter 161: Electromagnetic compatibility		-
IEC 61000-4-20	-	Electromagnetic compatibility (EMC) - Part 4-20: Testing and measurement techniques - Emission and immunity testing in transverse electromagnetic (TEM) waveguides	EN IEC 61000-4-20) -
IEC 61967-11dards.	i te h.ai/c	Integrated circuits - Measurement of 402 electromagnetic emissions - Part 1: General conditions and definitions	EN IEC 61967-1	22c/sist-

SIST EN IEC 61967-8:2023

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN IEC 61967-8:2023

https://standards.iteh.ai/catalog/standards/sist/70ac0ffd-1c81-4022-b43b-8d71da0bf22c/sistential-en-iec-61967-8-2023



IEC 61967-8

Edition 2.0 2023-05

INTERNATIONAL STANDARD

NORME INTERNATIONALE



Integrated circuits – Measurement of electromagnetic emissions – Part 8: Measurement of radiated emissions – IC stripline method

Circuits intégrés – Mesure des émissions électromagnétiques – Partie 8: Mesure des émissions rayonnées – Méthode de la ligne TEM à plaques (stripline) pour circuit intégré dards/sist/70ac0ffd-1c81-4022-b43b-8d71da0bf22c/sist-

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION ELECTROTECHNIQUE INTERNATIONALE

ICS 31.200 ISBN 978-2-8322-6932-9

Warning! Make sure that you obtained this publication from an authorized distributor.

Attention! Veuillez vous assurer que vous avez obtenu cette publication via un distributeur agréé.

CONTENTS

FORE	NORD	.4			
1 Sc	cope	6			
2 No	ormative references	6			
3 Te	erms and definitions	6			
	eneral				
	est conditions				
5.1	General				
5.2	Supply voltage				
5.3	Frequency range				
	est equipment				
6.1	General				
6.2	RF measuring instrument				
6.3	Preamplifier				
6.4	IC stripline				
6.5	50 Ω termination				
	est set-up				
7.1	General				
7.2	Test configuration	9			
7.3	EMC test board (PCB)	9			
8 Te	est procedure				
8.1	General				
8.2	Ambient conditions	9			
8.3	Operational check	10			
8.4	Verification of IC stripline RF characteristic	10			
8.5	Test technique	10			
9 Te	est report	11			
9.1	General	11			
9.2	Measurement conditions	11			
10 IC	Emissions reference levels	11			
Annex	A (normative) IC stripline description	12			
A.1	General				
A.2	Characteristic impedance of stripline arrangements				
A.3	Conversion for different active conductor heights				
A.4	Example for IC stripline arrangement				
	B (informative) Specification of emission levels				
B.1	Scope				
Б. I В.2	·				
Б.2 В.3	General Specification of amission levels				
	Specification of emission levels				
B.4	Presentation of results				
Bibliog	raphy	17			
Figure	Figure 1 – IC stripline test set-up9				
Figure	Figure A.1 – Cross-section view of an example of an unshielded IC stripline12				
Figure A.2 – Cross-section view of an example of an IC stripline with housing12					
Figure	A.3 – Example of IC stripline with housing	14			
_					

SIST EN IEC 61967-8:2023

IEC 61967-8:2023 © IEC 2023	- 3 <i>-</i>	
Figure B.1 – Emission characterization lev	vels	16
Table A.1 – Maximum DUT dimensions fo	r 6,7 mm IC stripline open version	13
Table A.2 – Maximum DUT dimensions fo	r 6.7 mm IC stripline closed version	13

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN IEC 61967-8:2023

https://standards.iteh.ai/catalog/standards/sist/70ac0ffd-1c81-4022-b43b-8d71da0bf22c/sisten-iec-61967-8-2023

INTERNATIONAL ELECTROTECHNICAL COMMISSION

INTEGRATED CIRCUITS – MEASUREMENT OF ELECTROMAGNETIC EMISSIONS –

Part 8: Measurement of radiated emissions – IC stripline method

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

IEC 61967-8 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 2011. 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 3 GHz was deleted from the scope;
- b) extension of upper usable frequency to 6 GHz or higher as long as the defined requirements are fulfilled.

IEC 61967-8:2023 © IEC 2023

- 5 -

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

Draft	Report on voting	
47A/1152/FDIS	47A/1153/RVD	

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/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 https://standards.iteh.ai/catalog/standards/sist/70ac0ffd-1c81-4022-b43b-8d71da0bf22c/sist-
- amended.

IMPORTANT – The "colour inside" logo on the cover page of this document 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.