

ILNAS

Institut luxembourgeois de la normalisation
de l'accréditation, de la sécurité et qualité
des produits et services

ILNAS-EN IEC 61967-8:2023

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

Integrierte Schaltungen - Messung von
elektromagnetischen Aussendungen -
Teil 8: Messung der abgestrahlten
Aussendungen - IC-

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

06/2023



National Foreword

This European Standard EN IEC 61967-8:2023 was adopted as Luxembourgish Standard ILNAS-EN IEC 61967-8:2023.

Every interested party, which is member of an organization based in Luxembourg, can participate for FREE in the development of Luxembourgish (ILNAS), European (CEN, CENELEC) and International (ISO, IEC) standards:

- Participate in the design of standards
- Foresee future developments
- Participate in technical committee meetings

<https://portail-qualite.public.lu/fr/normes-normalisation/participer-normalisation.html>

THIS PUBLICATION IS COPYRIGHT PROTECTED

Nothing from this publication may be reproduced or utilized in any form or by any mean - electronic, mechanical, photocopying or any other data carries without prior permission!

ILNAS-EN IEC 61967-8:2023

EUROPEAN STANDARD **EN IEC 61967-8**

NORME EUROPÉENNE

EUROPÄISCHE 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

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- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2026-06-07

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

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

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>	<u>EN/HD</u>	<u>Year</u>
IEC 60050-131	-	International Electrotechnical Vocabulary - - Part 131: Circuit theory		-
IEC 60050-161	-	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 61967-1	-	Integrated circuits - Measurement of electromagnetic emissions - Part 1: General conditions and definitions	EN IEC 61967-1	-



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**



CONTENTS

FOREWORD	4
1 Scope	6
2 Normative references	6
3 Terms and definitions	6
4 General	7
5 Test conditions	7
5.1 General.....	7
5.2 Supply voltage	7
5.3 Frequency range.....	7
6 Test equipment.....	8
6.1 General.....	8
6.2 RF measuring instrument	8
6.3 Preamplifier	8
6.4 IC stripline	8
6.5 50 Ω termination	8
7 Test set-up	8
7.1 General.....	8
7.2 Test configuration	9
7.3 EMC test board (PCB)	9
8 Test procedure	9
8.1 General.....	9
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 Test 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.....	12
A.2 Characteristic impedance of stripline arrangements	13
A.3 Conversion for different active conductor heights	14
A.4 Example for IC stripline arrangement	14
Annex B (informative) Specification of emission levels.....	15
B.1 Scope	15
B.2 General.....	15
B.3 Specification of emission levels	15
B.4 Presentation of results	15
Bibliography.....	17
Figure 1 – IC stripline test set-up	9
Figure A.1 – Cross-section view of an example of an unshielded IC stripline	12
Figure A.2 – Cross-section view of an example of an IC stripline with housing	12
Figure A.3 – Example of IC stripline with housing	14

Figure B.1 – Emission characterization levels 16

Table A.1 – Maximum DUT dimensions for 6,7 mm IC stripline open version..... 13

Table A.2 – Maximum DUT dimensions for 6,7 mm IC stripline closed version 13