
Polprevodniški elementi - 16-3. del: Mikrovalovna integrirana vezja - Frekvenčni pretvorniki - Dopolnilo A2 (IEC 60747-16-3:2002/A2:2017)

Semiconductor devices - Part 16-3: Microwave integrated circuits - Frequency converters (IEC 60747-16-3:2002/A2:2017)

Halbleiterbauelemente - Teil 16-3: Integrierte Schaltungen zur Frequenzumsetzung von Mikrowellen (IEC 60747-16-3:2002/A2:2017)

Dispositifs à semiconducteurs - Partie 16-3: Circuits intégrés hyperfréquences - Convertisseurs de fréquence (IEC 60747-16-3:2002/A2:2017)

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Ta slovenski standard je istoveten z: EN 60747-16-3:2002/A2:2017

ICS:

31.080.01	Polprevodniški elementi (naprave) na splošno	Semiconductor devices in general
31.200	Integrirana vezja, mikroelektronika	Integrated circuits. Microelectronics

SIST EN 60747-16-3:2004/A2:2018 **en**

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EUROPEAN STANDARD

EN 60747-16-3:2002/A2

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2017

ICS 31.080.99

English Version

**Semiconductor devices - Part 16-3: Microwave integrated
circuits - Frequency converters
(IEC 60747-16-3:2002/A2:2017)**

Dispositifs à semiconducteurs - Partie 16-3: Circuits
intégrés hyperfréquences - Convertisseurs de fréquence
(IEC 60747-16-3:2002/A2:2017)

Halbleiterbauelemente - Teil 16-3: Integrierte Schaltungen
zur Frequenzumsetzung von Mikrowellen
(IEC 60747-16-3:2002/A2:2017)

This amendment A2 modifies the European Standard EN 60747-16-3:2002; it was approved by CENELEC on 2017-09-20. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment 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 amendment 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.

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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

EN 60747-16-3:2002/A2:2017 (E)**European foreword**

The text of document 47E/545/CDV, future IEC 60747-16-3:2002/A2, prepared by SC 47E "Discrete semiconductor devices" of IEC/TC 47 "Semiconductor devices" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60747-16-3:2002/A2:2017.

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) 2018-06-20
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2020-09-20

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 60747-16-3:2002/A2:2017 was approved by CENELEC as a European Standard without any modification.

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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

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
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Replace the existing references to IEC 60050-702, IEC 60617 and IEC 60747-1 including modifications done by A1 as follows:

IEC 60050-702	-	International electrotechnical vocabulary (IEV) - Chapter 702: Oscillations, signals and related devices	-	-
IEC 60617-DB	-	Graphical symbols for diagrams	-	-
IEC 60747-1	2006	Semiconductor devices - Part 1: General	-	-
+A1	2010		-	-

SIST EN 60747-16-3:2004/A2:2018

Delete in Amendment 1 the existing reference to IEC 60747-16-1 and the related footnote.

<http://standards.iteh.ai/sist-en-60747-16-3-2004-a2-2018>

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INTERNATIONAL STANDARD

AMENDMENT 2

Semiconductor devices –
Part 16-3: Microwave integrated circuits – Frequency converters

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FOREWORD

This amendment has been prepared by subcommittee 47E: Discrete semiconductor devices, of IEC technical committee 47: Semiconductor devices.

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

CDV	Report on voting
47E/545/CDV	47E/562/RVC

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

The committee has decided that the contents of this amendment and the base publication will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

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

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

[SIST EN 60747-16-3:2004/A2:2018](https://standards.iteh.ai/catalog/standards/sist/951d1519-28ab-4c82-922b-a6ac0e91bf8e/sist-en-60747-16-3-2004-a2-2018)

<https://standards.iteh.ai/catalog/standards/sist/951d1519-28ab-4c82-922b-a6ac0e91bf8e/sist-en-60747-16-3-2004-a2-2018>

CONTENTS

Replace the existing title of subclauses 6.6 and 6.12 with the following new title:

- 6.6 RF/IF, IF/RF isolation
6.12 Intermodulation distortion (P_n/P_1)

Replace the existing title of Figure 6 with the following new title:

Figure 6 – Circuit diagram for the measurement of the IF/RF isolation for type B

2 Normative references

Replace the existing references IEC 60050-702, IEC 60617 and IEC 60747-1 including the amendments brought to them by Amendment 1 as follows:

IEC 60050-702, *International Electrotechnical Vocabulary – Chapter 702: Oscillations, signals and related devices* (available at < <http://www.electropedia.org/>>)

IEC 60617, *Graphical symbols for diagrams* (available at < <http://std.iec.ch/iec60617> >)

IEC 60747-16-3:2002/AMD2:2017 – 3 –
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IEC 60747-1:2006, *Semiconductor devices – Part 1: General*
IEC 60747-1:2006/AMD 1:2010

Delete, in Amendment 1, the existing reference IEC 60747-16-1 and the related footnote:

IEC 60747-16-1:2001, *Semiconductor devices – Part 16-1: Microwave integrated circuits – Amplifiers*
Amendment 1 (2007)¹

3 Terms and definitions

Delete the footnote for 3.12 and replace the existing terminological entry 3.12 with the following:

3.12 output power

P_o
RF power measured at the output port

[SOURCE: IEC 60747-4:2007/AMD1:2017, 7.2.2]

Replace the existing terminological entry 3.15 and the amendments brought to it by Amendment 1 with the following:

3.15 intermodulation distortion

P_n/P_1
ratio of the n th order component of the output power to the fundamental component of the output power

NOTE The abbreviation “ IMD_n ” is in common use for the n th order intermodulation distortion.

[SOURCE: IEC 60747-4:2007/AMD1:2017, 7.2.19]

5.6 Electrical characteristics

Table 3 – Electrical characteristics

Replace, in this table, the existing parameter 5.6.13 with the following new parameter:

Sub-clause	Parameters	Min.	Typical*	Max.	Types	
					A	B
5.6.13	Intermodulation distortion		+	+	+	+

6.6 RF/IF isolation

Replace the existing title of subclause 6.6 with the following new title:

6.6 RF/IF, IF/RF isolation

6.6.2 RF/IF isolation ($P_{IF}/P_{IF(RF)}$) – Type B

Replace the existing title of subclause 6.6.2 with the following new title:

6.6.2 IF/RF isolation ($P_{IF}/P_{IF(RF)}$) – Type B