SLOVENSKI STANDARD
SIST EN 60747-16-4:2005/A2:2018

01-januar-2018

Polprevodniški elementi - 16-4. del: Mikrovalovna integrirana vezja - Stikala - Dopolnilo A2 (IEC 60747-16-4:2004/A2:2017)

Semiconductor devices - Part 16-4: Microwave integrated circuits - Switches (IEC 60747-16-4:2004/A2:2017)

Halbleiterbauelemente - Teil 16-4: Integrierte Mikrowellenschaltkreise - Schalter (IEC 60747-16-4:2004/A2:2017)

Dispositifs à semiconducteurs - Partie 16-4: Circuits intégrés hyperfréquences - Commutateurs (IEC 60747-16-4:2004/A2:2017)

Ta slovenski standard je istoveten z: **EN 60747-16-4:2004/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 60747-16-4:2005/A2:2018 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 60747-16-4:2004/A2

November 2017

ICS 31.080.99

English Version

Semiconductor devices - Part 16-4: Microwave integrated circuits - Switches (IEC 60747-16-4:2004/A2:2017)

Dispositifs à semiconducteurs - Partie 16-4: Circuits intégrés hyperfréquences - Commutateurs (IEC 60747-16-4:2004/A2:2017)

Halbleiterbauelemente - Teil 16-4: Integrierte Mikrowellenschaltkreise - Schalter (IEC 60747-16-4:2004/A2:2017)

This amendment A2 modifies the European Standard EN 60747-16-4:2004; 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.

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

Ref. No. EN 60747-16-4:2004/A2:2017 E

European foreword

The text of document 47E/546/CDV, future IEC 60747-16-4:2004/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 60747-16-4:2004/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 60747-16-4:2004/A2:2017 was approved by CENELEC as a European Standard without any modification.

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

Publication	Year	Title	EN/HD	Year
Replace the existing references to IEC 60617, IEC 60747-1 and IEC 60747-16-1, including modifications done by A1 as follows:				
IEC 60617-DB	-	Graphical symbols for diagrams	-	-
IEC 60747-1	2006	Semiconductor devices - Part 1: General	-	-
+A1	2010		-	-
IEC 60747-16-1	2001	Semiconductor devices - Part 16-1: Microwave integrated circuits - Amplifiers	EN 60747-16-1	2002
+A1	2007		+A1	2007
+A2	2017		+A2	2017

IEC 60747-16-4

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INTERNATIONAL STANDARD

AMENDMENT 2

Semiconductor devices – Part 16-4: Microwave integrated circuits – Switches

INTERNATIONAL ELECTROTECHNICAL COMMISSION

ICS 31.080.99

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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/546/CDV	47E/563/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.

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

CONTENTS

Replace the existing titles of subclauses 5.7 and 5.8 with the following new titles:

5.7 Adjacent channel power ratio ($P_{adj}/P_{o(mod)}$)

5.8 nth order harmonic distortion ratio (P_{nth}/P_1)

2 Normative references

Replace the existing references IEC 60617, IEC 60747-1 and IEC 60747-16-1, including the amendments brought to them by Amendment 1 as follows:

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

IEC 60747-1:2006, *Semiconductor devices – Part 1: General*
IEC 60747-1:2006/AMD1:2010

IEC 60747-16-1:2001, *Semiconductor devices – Part 16-1: Microwave integrated circuits – Amplifiers*
IEC 60747-16-1:2001/AMD1:2007
IEC 60747-16-1:2001/AMD2:2017

3 Terms and definitions

Replace the existing terminological entry 3.10 as follows:

3.10
adjacent channel power ratio
$P_{adj}/P_{o(mod)}$
ratio of the total output power in a specified frequency band away from a specified carrier signal frequency to the total power in a specified carrier signal frequency band, when a modulation signal is supplied

[SOURCE: IEC 60747-16-1:2001/AMD2:2017, 3.21]

Replace the existing terminological entry 3.11 and the amendments brought to it by Amendment 1 as follows:

3.11
***n*th order harmonic distortion ratio**
P_{nth}/P_1
ratio of the power of the nth order harmonic component measured at the output port of the device to the power of the fundamental frequency measured at the output port

[SOURCE: IEC 60747-16-1:2001/AMD2:2017, 3.14]

4.6 Electrical characteristics

Replace the existing parameters 4.6.12 and 4.6.13 and the amendments brought to them by Amendment 1 with the following new parameters:

Subclause	Parameters	Min.	Typical[a]	Max.
4.6.12	Adjacent channel power ratio (where appropriate)		+	+
4.6.13	nth order harmonic distortion ratio (where appropriate)		+	+

5.7 Adjacent channel power ratio ($P_{o(mod)}/P_{adj}$)

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

5.7 Adjacent channel power ratio ($P_{adj}/P_{o(mod)}$)

5.7.3 Principle of measurements

Replace the existing second sentence in the first paragraph with the following new sentence:

Adjacent channel power ratio $P_{adj}/P_{o(mod)}$ is the ratio of P_{adj} to $P_{o(mod)}$.

Replace the existing second paragraph and Equation (14) with the following:

$P_{adj}/P_{o(mod)}$ in dBc is given as the following equation in the circuit of Figure 6.

$$P_{adj}/P_{o(mod)} = P_{adj} - P_{o(mod)} = P_3 - P_2 \quad (14)$$