



**SLOVENSKI STANDARD**  
**SIST EN IEC 60747-16-8:2023**

**01-marec-2023**

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**Polprevodniški elementi - 16-8. del: Mikrovalovna integrirana vezja - Omejljniki  
(IEC 60747-16-8:2022)**

Semiconductor devices - Part 16-8: Microwave integrated circuits - Limiters (IEC 60747-16-8:2022)

Halbleiterbauelemente - Teil 16-8: Integrierte Mikrowellen-Verstärker -  
Schaltungsbegrenzer (IEC 60747-16-8:2022)

Dispositifs à semiconducteurs - Partie 16-8: Circuits intégrés hyperfréquences -  
Limiteurs (IEC 60747-16-8:2022)

**Ta slovenski standard je istoveten z: EN IEC 60747-16-8:2023**

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**ICS:**

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

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**en**



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NORME EUROPÉENNE  
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**EN IEC 60747-16-8**

January 2023

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English Version

**Semiconductor devices - Part 16-8: Microwave integrated  
circuits - Limiters  
(IEC 60747-16-8:2022)**

Dispositifs à semiconducteurs - Partie 16-8: Circuits  
intégrés hyperfréquences - Limiteurs  
(IEC 60747-16-8:2022)

Halbleiterbauelemente - Teil 16-8: Integrierte Mikrowellen-  
Verstärker - Schaltungsbegrenzer  
(IEC 60747-16-8:2022)

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**EN IEC 60747-16-8:2023 (E)****European foreword**

The text of document 47E/793/FDIS, future edition 1 of IEC 60747-16-8, 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 IEC 60747-16-8:2023.

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In the official version, for Bibliography, the following notes have to be added for the standard indicated:

- IEC 60747-16-1:2001 NOTE Harmonized as EN 60747-16-1:2002 (not modified)
- IEC 60747-16-1:2001/AMD1:2007 NOTE Harmonized as EN 60747-16-1:2002/A1:2007 (not modified)
- IEC 60747-16-1:2001/AMD2:2017 NOTE Harmonized as EN 60747-16-1:2002/A2:2017 (not modified)
- IEC 60747-16-4:2004 NOTE Harmonized as EN 60747-16-4:2004 (not modified)
- IEC 60747-16-4:2004/AMD1:2009 NOTE Harmonized as EN 60747-16-4:2004/A1:2011 (not modified)
- IEC 60747-16-4:2004/AMD2:2017 NOTE Harmonized as EN 60747-16-4:2004/A2:2017 (not modified)
- IEC 60747-16-6:2019 NOTE Harmonized as EN IEC 60747-16-6:2019 (not modified)

## 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](http://www.cenelec.eu).

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60747-1	2006	Semiconductor devices - Part 1: General	-	-
+ A1	2010		-	-
IEC 60747-4	-	Semiconductor devices - Discrete devices -- Part 4: Microwave diodes and transistors	--	-
IEC 61340-5-1	-	Electrostatics - Part 5-1: Protection of electronic devices from electrostatic phenomena - General requirements	EN 61340-5-1	-
IEC/TR 61340-5-2	-	Electrostatics - Part 5-2: Protection of electronic devices from electrostatic phenomena - User guide	-	-





# INTERNATIONAL STANDARD

# NORME INTERNATIONALE

**Semiconductor devices –  
Part 16-8: Microwave integrated circuits – Limiters**

**Dispositifs à semiconducteurs –  
Partie 16-8: Circuits intégrés hyperfréquences – Limiteurs**

<https://standards.iteh.ai/catalog/standards/sist/99667797-9c7a-437f-b30f-6cd9743940f0/sist-en-iec-60747-16-8-2023>

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

## SEMICONDUCTOR DEVICES –

Part 16-8: Microwave integrated circuits –  
Limiters

## FOREWORD

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IEC 60747-16-8 has been prepared by subcommittee 47E: Discrete semiconductor devices, of IEC technical committee 47: Semiconductor devices. It is an International Standard.

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

Draft	Report on voting
47E/793/FDIS	47E/799/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](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/publications](http://www.iec.ch/publications).

A list of all parts in the IEC 60747 series, published under the general title *Semiconductor devices*, can be found on the IEC website.

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](http://webstore.iec.ch) in the data related to the specific document. At this date, the document will be

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## SEMICONDUCTOR DEVICES –

### Part 16-8: Microwave integrated circuits – Limiters

#### 1 Scope

This part of IEC 60747 specifies the terminology, essential ratings and characteristics, and measuring methods of microwave integrated circuit limiters.

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

IEC 60747-4, *Semiconductor devices – Discrete devices – Part 4: Microwave diodes and transistors*

IEC 61340-5-1, *Electrostatics – Part 5-1: Protection of electronic devices from electrostatic phenomena – General requirements*

IEC TR 61340-5-2, *Electrostatics – Part 5-2: Protection of electronic devices from electrostatic phenomena – User guide*

#### 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

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

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

##### 3.1

##### insertion loss

$L_{ins}$

ratio of the input power to the output power, in the linear region of the power transfer curve  
 $P_o(\text{dBm}) = f(P_i)$

Note 1 to entry: In this region,  $\Delta P_o(\text{dBm}) = \Delta P_i(\text{dBm})$ .

Note 2 to entry: Usually the insertion loss is expressed in decibels.

[SOURCE: IEC 60747-16-4:2004/AMD 1:2009, 3.1, modified – “at the switched on port” has been deleted]