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# INTERNATIONAL STANDARD



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

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

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Frequency converters****FOREWORD**

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**IEC 60747-16-3 edition 1.2 contains the first edition (2002-05) [documents 47E/212/FDIS and 47E/219/RVD], its amendment 1 (2009-03) [documents 47E/357/CDV and 47E/372/RVC] and its amendment 2 (2017-08) [documents 47E/545/CDV and 47E/562/RVC].**

**In this Redline version, a vertical line in the margin shows where the technical content is modified by amendments 1 and 2. Additions are in green text, deletions are in strikethrough red text. A separate Final version with all changes accepted is available in this publication.**

International Standard IEC 60747-16-3 has been prepared by subcommittee 47E: Discrete semiconductor devices, of IEC technical committee 47: Semiconductor devices.

The committee has decided that the contents of the base publication and its amendments will remain unchanged until the maintenance result date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

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**SEMICONDUCTOR DEVICES –****Part 16-3: Microwave integrated circuits –  
Frequency converters****1 Scope**

This part of IEC 60747 provides new measuring methods, terminology and letter symbols, as well as essential ratings and characteristics for integrated circuit microwave frequency converters.

**2 Normative references**

The following referenced documents are indispensable for the application 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 60050-702:1992, International Electrotechnical Vocabulary – Chapter 702: Oscillations, signals and related devices~~

~~IEC 60617-12, Graphical symbols for diagrams – Part 12: Binary logic elements~~

~~IEC 60617-13, Graphical symbols for diagrams – Part 13: Analogue elements~~

~~IEC 60747-1:1983, Semiconductor devices – Discrete devices and integrated circuits – Part 1: General~~

~~IEC 60747-16-1:2001, Semiconductor devices – Part 16-1: Microwave integrated circuits – Amplifiers~~  
~~Amendment 1 (2007)<sup>4</sup>~~

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

IEC 60748-2:1997, *Semiconductor devices – Integrated circuits – Part 2: Digital integrated circuits*

IEC 60748-3, *Semiconductor devices – Integrated circuits – Part 3: Analogue integrated circuits*

IEC 60748-4, *Semiconductor devices – Integrated circuits – Part 4: Interface integrated circuits*

<sup>4</sup>~~There exists a consolidated edition 1.1 published in 2007, including the base publication (2001) and its Amendment 1 (2007).~~

IEC 61340-5-1:2007, *Electrostatics – Part 5-1: Protection of electronic devices from electrostatic phenomena – General requirements*

IEC/TR 61340-5-2:2007, *Electrostatics – Part 5-2: Protection of electronic devices from electrostatic phenomena – User guide*

# FINAL VERSION

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

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