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I.S. EN 60747-16-5:2013

Semiconductor devices -- Part 16-5: Microwave integrated circuits - Oscillators (IEC 60747-16-5:2013 (EQV))

I.S. EN 60747-16-5:2013

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English version

**Semiconductor devices -
Part 16-5: Microwave integrated circuits -
Oscillators
(IEC 60747-16-5:2013)**

Dispositifs à semiconducteurs -
Partie 16-5: Circuits intégrés
hyperfréquences -
Oscillateurs
(CEI 60747-16-5:2013)

Halbleiterbauelemente -
Teil 16-5: Integrierte
Mikrowellenschaltkreise -
Oszillatoren
(IEC 60747-16-5:2013)

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Foreword

The text of document 47E/452/FDIS, future edition 1 of IEC 60747-16-5, 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 60747-16-5:2013.

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) 2014-04-24
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2016-07-24

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In the official version, for Bibliography, the following note has to be added for the standard indicated:

IEC 60679-1:2007 NOTE Harmonized as EN 60679-1:2007 (not modified).

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 When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60617	Data base	Graphical symbols for diagrams	-	-
IEC 60747-1 + corr. August + A1	2006 2008 2010	Semiconductor devices - Part 1: General	-	-
IEC 60747-4	2007	Semiconductor devices - Discrete devices - Part 4: Microwave diodes and transistors	-	-
IEC 60747-16-3 + A1	2002 2009	Semiconductor devices - Part 16-3: Microwave integrated circuits - Frequency converters	EN 60747-16-3 + A1	2002 2009
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	CLC/TR 61340-5-2	-

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

SEMICONDUCTOR DEVICES –

Part 16-5: Microwave integrated circuits –
Oscillators

FOREWORD

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International Standard IEC 60747-16-5 has been prepared by subcommittee 47E: Discrete semiconductor devices, of IEC technical committee 47: Semiconductor devices.

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

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47E/452/FDIS	47E/454/RVD

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

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

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

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The committee has decided that the contents of this publication will remain unchanged until the stability 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

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

SEMICONDUCTOR DEVICES –

Part 16-5: Microwave integrated circuits – Oscillators

1 Scope

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

This standard is applicable to the fixed and voltage-controlled semiconductor microwave oscillator devices, except the oscillator modules such as synthesizers which require external controllers.

NOTE This document is not applicable to the quartz crystal controlled oscillators. They are specified by IEC 60679-1.

2 Normative references

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.

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

IEC 60747-1:2006, *Semiconductor devices – Part 1: General* ¹⁾
Amendment 1:2010

IEC 60747-4:2007, *Semiconductor devices – Discrete devices – Part 4: Microwave diodes and transistors*

IEC 60747-16-3:2002, *Semiconductor devices – Part 16-3: Microwave integrated circuits – Frequency converters* ²⁾
Amendment 1:2009

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

3.1 oscillation frequency

f_{osc}
frequency measured at the output port

1) A consolidated edition (2010) exists, including IEC 60747-1:2006 and its Amendment 1.

2) A consolidated edition (2010) exists, including IEC 60747-16-3:2002 and its Amendment 1.

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