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Part 16-4: Microwave integrated circuits – Switches

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SEMICONDUCTOR DEVICES –

Part 16-4: Microwave integrated circuits – Switches

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IEC 60747-16-4 edition 1.2 contains the first edition (2004-07) [documents 47E/256/FDIS and 47E/261/RVD], its amendment 1 (2009-03) [documents 47E/358/CDV and 47E/373/RVC] and its amendment 2 (2017-08) [documents 47E/546/CDV and 47E/563/RVC].

This Final version does not show where the technical content is modified by amendments 1 and 2. A separate Redline version with all changes highlighted is available in this publication.

International Standard IEC 60747-16-4 has been prepared by subcommittee 47E: Discrete semiconductor devices, of IEC technical committee 47: Semiconductor devices.

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

The committee has decided that the contents of the base publication and its amendments 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- withdrawn,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 16-4: Microwave integrated circuits – Switches

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 switches.

There are many combinations for RF ports in switches, such as SPST (single pole single throw), SPDT (single pole double throw), SP3T (single pole triple throw), DPDT (double pole double throw), etc. Switches in this standard are based on SPDT. However, this standard is applicable to the other types of switches.

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 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 60747-4, *Semiconductor devices – Discrete devices – Part 4: Microwave devices*

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

IEC 60748-2, *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*

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*

3 Terms and definitions

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

Terms related to electrical characteristics