

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Semiconductor devices –
Part 16-9: Microwave integrated circuits – Phase shifters**

**Dispositifs à semiconducteurs –
Partie 16-9: Circuits intégrés hyperfréquences – Déphaseurs**



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SEMICONDUCTOR DEVICES –

Part 16-9: Microwave integrated circuits –
Phase shifters

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IEC 60747-16-9 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/835/FDIS	47E/842/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. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

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SEMICONDUCTOR DEVICES –

Part 16-9: Microwave integrated circuits – Phase shifters

1 Scope

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

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 60747-4:2007, *Semiconductor devices – Discrete devices – Part 4: Microwave diodes and transistors*
IEC 60747-4:2007/AMD1:2017

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 terminology 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 Reference state

State where the phase difference between input and output of the phase shifter is a particular value

Note 1 to entry: The condition for the reference state shall be specified.

Note 2 to entry: Though the phase difference at the reference state is usually maximum, median, or minimum value of all available phase differences of the phase shifter, other values can be acceptable.