

FINAL VERSION

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



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SEMICONDUCTOR DEVICES –

Part 16-3: Microwave integrated circuits –
Frequency converters

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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, *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*

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 purpose of this part of IEC 60747, the following terms and definitions apply:

3.1

conversion gain, G_c

ratio of the desired converted output power to the input power

NOTE Usually, the conversion gain is expressed in decibels.

3.2

conversion gain flatness, ΔG_c

difference between the maximum and the minimum conversion gain for a specified input power in a specified frequency range