

# INTERNATIONAL STANDARD



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**Semiconductor devices –  
Part 5-16: Optoelectronic devices – Light emitting diodes – Test method of the  
flat-band voltage of GaN-based light emitting diodes based on the photocurrent  
spectroscopy**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

## SEMICONDUCTOR DEVICES –

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diodes based on the photocurrent spectroscopy**

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The text of this International Standard is based on the following documents:

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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](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/publications](http://www.iec.ch/publications).

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## SEMICONDUCTOR DEVICES –

### **Part 5-16: Optoelectronic devices – Light emitting diodes – Test method of the flat-band voltage of GaN-based light emitting diodes based on the photocurrent spectroscopy**

#### **1 Scope**

This part of IEC 60747 specifies the measuring method of flat-band voltage of single GaN-based light emitting diode (LED) die or package without phosphor, based on the photocurrent (PC) spectroscopy. White LEDs for lighting applications are out of the scope of this part of IEC 60747.

#### **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 60747-5-6:2021, *Semiconductor devices – Part 5-6: Optoelectronic devices – Light emitting diodes*

IEC 60747-5-15:2022, *Semiconductor devices – Part 5-15: Optoelectronic devices – Light emitting diodes – Test method of the flat-band voltage based on the electroreflectance spectroscopy*