IEC 62149-11

Edition 1.0 2020-04

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Fibre optic active components and devices – Performance standards – Part 11: Multiple channel transmitter/receiver chip scale package with multimode fibre interface

Composants et dispositifs actifs fibroniques – Normes de performances – Partie 11: Boîtier-puce émetteur/récepteur à plusieurs canaux avec interface à fibre multimodale

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IEC Central Office
3, rue de Varembé
CH-1211 Geneva 20
Switzerland

Tel.: +41 22 919 02 11
info@iec.ch
www.iec.ch

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FIBRE OPTIC ACTIVE COMPONENTS AND DEVICES – PERFORMANCE STANDARDS –

Part 11: Multiple channel transmitter/receiver chip scale package with multimode fibre interface

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International Standard IEC 62149-11 has been prepared by subcommittee 86C: Fibre optic systems and active devices, of IEC technical committee 86: Fibre optics.

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

CDV	Report on voting
86C/1596/CDV	86C/1615/RVC

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

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

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INTRODUCTION

A photonic chip scale package (CSP) is used to convert electrical signals into optical signals and vice-versa. This document covers the performance standards for photonic chip scale packages for use with multimode fibre through free space optics or multiple channel optical fibre connectors.

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FIBRE OPTIC ACTIVE COMPONENTS AND DEVICES – PERFORMANCE STANDARDS –

Part 11: Multiple channel transmitter/receiver chip scale package with multimode fibre interface

1 Scope

This part of IEC 62149 specifies the performance standards for a multiple channel transmitter/receiver chip scale package (CSP) with multimode fibre interface that operates at up to 28 Gbit/s per channel. It specifies the parameters that apply, with clearly defined conditions, severities, and pass/fail criteria. The tests are intended to be run as an initial design verification to prove any product's ability to satisfy the performance standard's requirements.

A product that has been shown to meet all the requirements of a performance standard can be declared as complying with the performance standard, but is then controlled by a quality assurance/quality conformance program.

2 Normative references

There are no normative references in this document.

3 Terms and definitions, abbreviated terms and symbols

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

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- IEC Electropedia: available at http://www.electropedia.org/
- ISO Online browsing platform: available at http://www.iso.org/obp

3.1 Terms and definitions

3.1.1
photonic chip scale package
chip O/E and/or E/O convertor, where electrical I/Os and optical I/Os are also included

3.2 Abbreviated terms

CDR	clock data recovery
CSP	chip scale package
DIV	inverted data input voltage
DIP	non-inverted data input voltage
E/O	electrical to optical
I/O	input/output
LD	laser diode
MOD	optical modulator
O/E	optical to electrical
OMA	optical modulation amplitude

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