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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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Fibre optic active components and devices - Performance standards - Part 11: Multiple channel transmitter/receiver chip scale package with multimode fibre interface (IEC 62149-11:2020)

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IEC 62007-2	NOTE	Harmonized as EN 62007-2
IEC 62148-1	NOTE	Harmonized as EN IEC 62148-1
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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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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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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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- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
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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

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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

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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
DIN	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