

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Fibre optic active components and devices – Package and interface standards –
Part 19: Photonic chip scale package**

**Composants et dispositifs actifs fibroniques – Normes de boîtier et d'interface –
Partie 19: Boîtier à puce photonique**





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

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

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**Composants et dispositifs actifs fibroniques – Normes de boîtier et d'interface –
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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**FIBRE OPTIC ACTIVE COMPONENTS AND DEVICES –
PACKAGE AND INTERFACE STANDARDS –****Part 19: Photonic chip scale package**

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International Standard IEC 62148-19 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:

| FDIS | Report on voting |
|---------------|------------------|
| 86C/1574/FDIS | 86C/1586/RVD |

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.

A list of all parts in the IEC 62148 series, published under the general title *Fibre optic active components and devices – Package and interface standards*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

INTRODUCTION

A photonic chip scale package is used to convert electrical signals into optical signals and vice-versa. This document covers the physical interface for photonic chip scale packages. These modules are designed for use with free space optics or multiple channel optical fibre connectors.

FIBRE OPTIC ACTIVE COMPONENTS AND DEVICES – PACKAGE AND INTERFACE STANDARDS –

Part 19: Photonic chip scale package

1 Scope

This part of IEC 62148 covers the photonic chip scale package.

The purpose of this document is to specify adequately the physical requirements of optical transmitters and receivers that will enable mechanical interchangeability of transmitters and receivers.

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 62148-1, *Fibre optic active components and devices – Package and interface standards – Part 1: General and guidance*

3 Terms, definitions and abbreviated terms

3.1 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

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

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

| | |
|-----|-----------------------|
| CSP | chip scale package |
| O/E | optical to electrical |
| E/O | electrical to optical |
| I/O | input/output |
| SIG | signal |
| TX | transmitter |
| RX | receiver |
| MOD | optical modulator |
| LD | laser diode |