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# INTERNATIONAL STANDARD

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**Fibre optic active components and devices – Package and interface standards –  
Part 18: 40-Gbit/s serial transmitter and receiver components for use with  
the LC connector interface**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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**FIBRE OPTIC ACTIVE COMPONENTS AND DEVICES –  
PACKAGE AND INTERFACE STANDARDS –**
**Part 18: 40-Gbit/s serial transmitter and receiver components  
for use with the LC connector interface**

## FOREWORD

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International Standard IEC 62148-18 has been prepared by subcommittee 86C: Fibre optic systems and active devices, of IEC technical committee 86: Fibre optics.

The text of this standard is based on the following documents:

CDV	Report on voting
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Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication 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 publication will remain unchanged until the stability date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

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- withdrawn,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

A bilingual version of this publication may be issued at a later date.

## INTRODUCTION

Compact optical sub-assembly (OSA) modules for 40 Gbit/s are used to convert electrical signals into optical signals and vice-versa. This part of IEC 62148 covers the physical interface for 40-Gbit/s compact OSA modules. These modules are designed for use with the LC fibre optic connector specified in IEC 61754-20, and are intended to be applied to 40 Gbit/s or higher bit rate transceivers.

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

### **Part 18: 40-Gbit/s serial transmitter and receiver components for use with the LC connector interface**

#### **1 Scope**

This part of IEC 62148 covers the 40-Gbit/s serial physical interface specification of transmitter and receiver components for use with the LC connector interface.

The purpose of this standard is to adequately specify the physical requirements of optical transmitters and receivers that will enable mechanical interchangeability of transmitters and receivers complying with this standard both at the PCB level and for any panel-mounting requirement.

#### **2 Normative references**

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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*

IEC Guide 107, *Electromagnetic compatibility – Guide to the drafting of electromagnetic compatibility publications*