ICS 33.180.20 SLOVENSKÁ TECHNICKÁ NORMA Máj 2025

STN	**Optovláknové aktívne súčiastky a prvky Normy na puzdro a rozhranie Časť 11: Moduly laserových diód s integrovaným modulátorom so 14 vývodmi a moduly čerpacích laserových diód so 14 vývodmi**	**STN EN IEC 62148-11** 35 9255

Fibre optic active components and devices - Package and interface standards - Part 11: 14-pin modulator integrated laser diode modules and pump laser diode modules

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 04/25

Obsahuje: EN IEC 62148-11:2025, IEC 62148-11:2024

Oznámením tejto normy sa od 29.02.2028 ruší
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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 62148-11

February 2025

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Supersedes EN 62148-11:2009

English Version

Fibre optic active components and devices - Package and interface standards - Part 11: 14-pin modulator integrated laser diode modules and pump laser diode modules (IEC 62148-11:2024)

Composants et dispositifs actifs fibroniques - Normes de boîtier et d'interface - Partie 11: Modules à diodes laser à modulateur intégré de 14 broches et à diodes laser de pompage de 14 broches
(IEC 62148-11:2024)

Aktive Lichtwellenleiterbauelemente und -geräte - Gehäuse- und Schnittstellennormen - Teil 11: 14-polige modulare integrierte Laserdiodenmodule und Pumplaserdiodenmodule
(IEC 62148-11:2024)

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

European foreword

The text of document 86C/1925/CDV, future edition 3 of IEC 62148-11, prepared by SC 86C "Fibre optic systems, sensing and active devices" of IEC/TC 86 "Fibre optics" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62148-11:2025.

The following dates are fixed:

• latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2026-02-28
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2028-02-29

This document supersedes EN 62148-11:2009 and all of its amendments and corrigenda (if any).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

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Endorsement notice

The text of the International Standard IEC 62148-11:2024 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following note has to be added for the standard indicated:

IEC 60793-2-50 NOTE Approved as EN IEC 60793-2-50

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

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.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cencenelec.eu.

Publication	Year	Title	EN/HD	Year
IEC 61754	series	Fibre optic interconnecting devices and passive components - Fibre optic connector interfaces	EN 61754	series
IEC 62148-1	-	Fibre optic active components and devices - Package and interface standards - Part 1: General and guidance	EN IEC 62148-1	-

IEC 62148-11

Edition 3.0 2024-12

INTERNATIONAL STANDARD

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FOREWORD

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IEC 62148-11 has been prepared by subcommittee 86C: Fibre optic systems and active devices, of IEC technical committee 86: Fibre optics. It is an International Standard.

This third edition cancels and replaces the second edition published in 2009. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) change of the document title to better reflect the type of modules covered by this document;
b) separation of the electrical and mechanical interface specifications for modulator integrated laser diode modules and for pump laser diode modules into independent subclauses;

c) updates of the dimensions specified in Figure 4 to reflect the latest market situation;

d) removal of former subclause 6.3 ("Drawings of footprint").

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

Draft	Report on voting
86C/1925/CDV	86C/1948/RVC

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. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

A list of all parts of 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 webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

INTRODUCTION

Modulator integrated laser diode modules are used to convert electrical signals into optical signals. Pump laser diode modules are used to supply optical pump power in rare earth doped optical fibre amplifiers and Raman amplifiers. This document covers the physical interface for modulator integrated laser diode modules and pump laser diode modules. These modules are designed as pigtailed 14-pin packages with a thermo-electric cooler.

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

Part 11: 14-pin modulator integrated laser diode modules and pump laser diode modules

1 Scope

This part of IEC 62148 covers physical interface specifications for 14-pin modulator integrated laser diode transmitter modules and for 14-pin pump laser diode modules.

This document specifies the physical requirements of modulator integrated laser diode modules and pump laser diode modules to enable mechanical interchangeability of modules complying with this document, both at the printed circuit board level and with respect to panel mounting requirements.

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 61754 (all parts), *Fibre optic interconnecting devices and passive components – Fibre optic connector interfaces*

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