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**Aktivne komponente in naprave optičnih vlaken – Standardi oblike in vmesnika– 10. del: SFF MU duplex 20 kontaktnih oddajnikov in sprejemnikov (IEC 62148- 10:2003)\***

Fibre optic active components and devices - Package and interface standards - Part 10: SFF MU duplex 20-pin transceivers (IEC 62148- 10:2003)

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EUROPEAN STANDARD

**EN 62148-10**

NORME EUROPÉENNE

EUROPÄISCHE NORM

April 2003

ICS 33.180.20

English version

**Fibre optic active components and devices –  
Package and interface standards  
Part 10: SFF MU duplex 20-pin transceivers  
(IEC 62148-10:2003)**

Composants et dispositifs actifs  
en fibres optiques –  
Normes de boîtier et d'interface  
Partie 10: Emetteurs-récepteurs  
SFF MU duplex à 20 broches  
(CEI 62148-10:2003)

Aktive Lichtwellenleiterbauelemente  
und -geräte –  
Gehäuse- und Schnittstellennormen  
Teil 10: Sende- und Empfangsmodule  
des Typs SFF MU Duplex  
mit 20 Anschlüssen  
(IEC 62148-10:2003)

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This European Standard was approved by CENELEC on 2003-03-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.

**CENELEC**

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

**Central Secretariat: rue de Stassart 35, B - 1050 Brussels**

## Foreword

The text of document 86C/493/FDIS, future edition 1 of IEC 62148-10, prepared by SC 86C, Fibre optic systems and active devices, of IEC TC 86, Fibre optics, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 62148-10 on 2003-03-01.

The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2003-12-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2006-03-01

Annexes designated "normative" are part of the body of the standard.  
In this standard, annex ZA is normative.  
Annex ZA has been added by CENELEC.

This standard constitutes Part 10 of the EN 62148 series, published under the general title *Fibre optic active components and devices - Package and interface standards*. This series consists of Part 1, devoted to general requirements, and various parts specific to individual module families.

- Part 1: General and guidance  
Part 2: SFF MT-RJ 10-pin transceivers  
Part 3: SFF MT-RJ 20-pin transceivers  
Part 4: PN 1x9 plastic optical fibre transceivers  
Part 5: SC 1x9 fibre optic modules [SIST EN 62148-10:2004](https://standards.iteh.ai/catalog/standards/sist/b5147ffe-db57-4270-ba1c-2823f8ab35bc/sist-en-62148-10-2004)  
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Part 7: SFF LC 10-pin transceivers  
Part 8: SFF LC 20-pin transceivers  
Part 9: SFF MU duplex 10-pin transceivers  
Part 10: SFF MU duplex 20-pin transceivers  
Part 11: 14-pin modulator-integrated laser diode modules

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## Endorsement notice

The text of the International Standard IEC 62148-10:2003 was approved by CENELEC as a European Standard without any modification.

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**Annex ZA**  
(normative)

**Normative references to international publications  
with their corresponding European publications**

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61754-6	- <sup>1)</sup>	Fibre optic connector interfaces Part 6: Type MU connector family	EN 61754-6	1997 <sup>2)</sup>
IEC 62148-1	- <sup>1)</sup>	Fibre optic active components and devices - Package and interface standards Part 1: General and guidance	EN 62148-1	2002 <sup>2)</sup>

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<sup>1)</sup> Undated reference.

<sup>2)</sup> Valid edition at date of issue.

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NORME  
INTERNATIONALE  
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2003-02

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**Composants et dispositifs actifs  
en fibres optiques –  
Normes de boîtier et d'interface –**

**Partie 10:  
Émetteurs récepteurs SFF MU duplex à 20 broches**

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**Fibre optic active components and devices –  
Package and interface standards –**

**Part 10:  
SFF MU duplex 20-pin transceivers**

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Commission Electrotechnique Internationale  
International Electrotechnical Commission  
Международная Электротехническая Комиссия

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**FIBRE OPTIC ACTIVE COMPONENTS AND DEVICES –  
PACKAGE AND INTERFACE STANDARDS –****Part 10: SFF MU duplex 20-pin transceivers**

## FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, the IEC publishes International Standards. Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of the IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested National Committees.
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- 6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 62148-10 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:

FDIS	Report on voting
86C/493/FDIS	86C/512/RVD

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.

This standard constitutes Part 10 of the IEC 62148 series, published under the general title *Fibre optic active components and devices – Package and interface standards*. This series consists of Part 1, devoted to general requirements, and various parts specific to individual module families.

- Part 1: General and guidance
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