

**Fibre optic active components and devices - Package  
and interface standards - Part 2: SFF 10-pin transceivers**

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 62148-2:2011 sisaldab Euroopa standardi EN 62148-2:2011 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 28.02.2011 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 14.01.2011.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 62148-2:2011 consists of the English text of the European standard EN 62148-2:2011.

This standard is ratified with the order of Estonian Centre for Standardisation dated 28.02.2011 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

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English version

**Fibre optic active components and devices -  
Package and interface standards -  
Part 2: SFF 10-pin transceivers  
(IEC 62148-2:2010)**

Composants et dispositifs actifs en fibres  
optiques -  
Normes de boîtier et d'interface -  
Partie 2: Emetteurs-récepteurs SFF à 10  
broches  
(CEI 62148-2:2010)

Aktive Lichtwellenleiterbauelemente  
und -geräte -  
Gehäuse- und Schnittstellennormen -  
Teil 2: Sende- und Empfangsmodule des  
Typs kleine Bauform (SFF) mit 10  
Anschlüssen  
(IEC 62148-2:2010)

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

**Management Centre: Avenue Marnix 17, B - 1000 Brussels**

## Foreword

The text of document 86C/975/FDIS, future edition 2 of IEC 62148-2, 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 62148-2 on 2011-01-10.

This European Standard supersedes EN 62148-2:2003, EN 62148-7:2003 and EN 62148-9:2003.

With respect to EN 62148-2:2003, this EN 62148-2:2011 includes 10-pin SFF-LC, and SFF MU devices.

This standard should be read in conjunction with EN 62148-1.

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

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) 2011-10-10
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2014-01-10

Annex ZA has been added by CENELEC.

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## Endorsement notice

The text of the International Standard IEC 62148-2:2010 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

The following referenced documents are indispensable for the application 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 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 61754-6-1	-	Fibre optic connector interfaces - Part 6-1: Type MU connector family - Simplified receptacle MU-PC connector interfaces	EN 61754-6-1	-
IEC 61754-18	-	Fibre optic connector interfaces - Part 18: Type MT-RJ connector family	EN 61754-18	-
IEC 61754-20	-	Fibre optic connector interfaces - Part 20: Type LC connector family	EN 61754-20	-
IEC 62148-1	-	Fibre optic active components and devices - Package and interface standards - Part 1: General and guidance	EN 62148-1	-

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## INTRODUCTION

Fibre optic transceivers are used to convert electrical signals into optical signals and vice versa. This standard covers the physical interface for a 10-pin small form factor (SFF) transceiver. This transceiver is designed for use with the SFF MU/MT-RJ/LC duplex optical connector and with through-hole printed circuit-board applications.

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

## Part 2: SFF 10-pin transceivers

### 1 Scope

This part of IEC 62148 covers the physical interface specifications for the SFF MT-RJ/LC/MU duplex 10-pin fibre optic transceiver module family.

The intent of this standard is to adequately specify the physical requirements of an optical transceiver that will enable mechanical interchangeability of transceivers complying with this standard both at the printed circuit wiring board and for any panel-mounting requirement.

### 2 Normative references

The following referenced documents are indispensable for the application 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 61754-6, *Fibre optic connector interfaces – Part 6: Type MU connector family*

IEC 61754-18, *Fibre optic connector interfaces – Part 18: Type MT-RJ connector family*

IEC 61754-20, *Fibre optic connector interfaces – Part 20: Type LC connector family*

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

### 3 Terms, definitions and abbreviations

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

#### 3.1 Terms and definitions

##### 3.1.1

##### **small form factor optical transceiver**

a compact optical digital signal transceiver whose package has the same cross sectional outline as the receptacle of an electrical connector compliant with the IEC 60603-7 series

#### 3.2 Abbreviations

SFF small form factor

### 4 Classification

The transceiver described in this standard is classified as type 1 according to IEC 62148-1.