
Plošče z optičnimi vezji - 4-214. del: Standardi za vmesnike - Sestav OCB z valovodom, zaključenim z enovrstičnimi dvaintridesetimi simetričnimi PMT-konektorji (IEC 62496-4-214:2020)

Optical circuit boards - Part 4-214: Interface standards - Terminated waveguide OCB assembly using a single-row thirty-two-channel symmetric PMT connector (IEC 62496-4-214:2020)

Optische Leiterplatten - Teil 4-214: Schnittstellen Standard - Konfektionierter OCB Wellenleiter mit einreihigem symmetrischen 32-Kanal PMT Steckverbinder (IEC 62496-4-214:2020)

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Cartes à circuits optiques - Partie 4-214 : Normes d'interface - Terminaison d'un ensemble de cartes à circuits optiques à guide d'onde utilisant un connecteur PMT symétrique de trente-deux canaux sur une seule rangée (IEC 62496-4-214:2020)

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EUROPEAN STANDARD

EN IEC 62496-4-214

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Optical circuit boards - Part 4-214: Interface standards -
Terminated waveguide OCB assembly using a single-row thirty-
two-channel symmetric PMT connector
(IEC 62496-4-214:2020)

Cartes à circuits optiques - Partie 4-214 : Normes
d'interface - Terminaison d'un ensemble de cartes à circuits
optiques à guide d'onde utilisant un connecteur PMT
symétrique de trente-deux canaux sur une seule rangée
(IEC 62496-4-214:2020)

Optische Leiterplatten - Teil 4-214: Schnittstellen Standard -
Konfektionierter OCB Wellenleiter mit einreihigem
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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

EN IEC 62496-4-214:2020 (E)**European foreword**

The text of document 86/563/CDV, future edition 1 of IEC 62496-4-214, prepared by IEC/TC 86 "Fibre optics" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62496-4-214:2020.

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) 2021-03-17
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2023-06-17

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

IEC 61754-5 NOTE Harmonized as EN 61754-5

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.cenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 62496-1	-	Optical circuit boards - Part 1: General	EN 62496-1	-
IEC 62496-4	-	Optical circuit boards - Part 4: Interface standards - General and guidance	EN 62496-4	-

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INTERNATIONAL STANDARD

Optical circuit boards –
Part 4-214: Interface standards – Terminated waveguide OCB assembly using
a single-row thirty-two-channel symmetric PMT connector

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OPTICAL CIRCUIT BOARDS –

Part 4-214: Interface standards – Terminated waveguide OCB assembly using a single-row thirty-two-channel symmetric PMT connector

FOREWORD

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International Standard IEC 62496-4-214 has been prepared by IEC technical committee 86: Fibre optics.

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

CDV	Report on voting
86/563/CDV	86/564/RVC

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 62496 series, published under the general title *Optical circuit boards*, 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.

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OPTICAL CIRCUIT BOARDS –

Part 4-214: Interface standards – Terminated waveguide OCB assembly using a single-row thirty-two-channel symmetric PMT connector

1 Scope

This part of IEC 62496 defines the standard interface dimensions for a terminated waveguide optical circuit board (OCB) assembly (referred to simply as "assembly") using single-row thirty-two-channel connectors for polymer waveguides connected with a symmetric PMT connector.

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 62496-1, *Optical circuit boards – Part 1: General*

IEC 62496-4, *Optical circuit boards – Part 4: Interface standards – General and guidance*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 62496-1 and IEC 62496-4 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>

4 Description

The assembly is an assembly comprised of a symmetric PMT connector and a thirty-two-channel waveguide OCB. The symmetric PMT connector is a rectangular connector having the same outer dimensions as the type MT connector specified in IEC 61754-5. The symmetric PMT connector is aligned using alignment pins and is normally secured by the use of a latching spring and mates with the type MT connector as shown in Figure 1. Dimensions of components for the assembly are shown in Annex A. The waveguide OCB comprises a planar light-guide consisting of a core and cladding material appropriate to transmit light as the operational wavelengths require, the light-guide being supported on a substrate. Preferably, the substrate will be flexible in order to accommodate compliance to the MT connector. The cores of the waveguide OCB are aligned with the optical fibres of the MT connector after mating using two guide pins and a clamp spring. Dimensions of a single-row thirty-two-channel MT ferrule are shown in Annex B. This symmetric PMT connector is not intermateable with the standard 16 channel MT ferrules.