SVENSK STANDARD

SS-EN IEC 62496-2-5, utg 1:2023

Fastställd	Sida	Ansvarig kommitté
2023-09-20	1 (23)	SEK TK 86

Optiska mönsterkort – Mätning och provning – Del 2-5: Flexibilitetstest för flexibla optoelektriska kretsar

Optical circuit boards – Basic test and measurement procedures – Part 2-5: Flexibility test for flexible opto-electric circuits

Som svensk standard gäller europastandarden EN IEC 62496-2-5:2023. Den svenska standarden innehåller den officiella engelska språkversionen av EN IEC 62496-2-5:2023.

Nationellt förord

Europastandarden EN IEC 62496-2-5:2023

består av:

– **europastandardens ikraftsättningsdokument,** utarbetat inom CENELEC

– **IEC 62496-2-5, First edition, 2022 - Optical circuit boards – Basic test and measurement procedures – Part 2-5: Flexibility test for flexible opto-electric circuits**

utarbetad inom International Electrotechnical Commission, IEC.

ICS 33.180.01

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Det finns många fördelar med att ha gemensamma tekniska regler för bl a mätning, säkerhet och provning och för utförande, skötsel och dokumentation av elprodukter och elanläggningar.

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 62496-2-5

January 2023

ICS 33.180.01

English Version

Optical circuit boards - Basic test and measurement procedures - Part 2-5: Flexibility test for flexible opto-electric circuits (IEC 62496-2-5:2022)

Cartes à circuits optiques - Procédures fondamentales d'essais et de mesures - Partie 2-5: Essai de flexibilité pour les circuits optoélectriques souples (IEC 62496-2-5:2022)

Optische Leiterplatten - Grundlegende Prüf- und Messverfahren - Teil 2-5: Biegsamkeitstest für biegsame opto-elektrische Schaltkreise (IEC 62496-2-5:2022)

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

Ref. No. EN IEC 62496-2-5:2023 E

European foreword

The text of document 86/605/FDIS, future edition 1 of IEC 62496-2-5, prepared by IEC/TC 86 "Fibre optics" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62496-2-5:2023.

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) 2023-10-11
•	latest date by which the national standards conflicting with the document have to be withdrawn	(dow) 2026-01-11

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.

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

Endorsement notice

The text of the International Standard IEC 62496-2-5:2022 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standard indicated:

IEC 60793-2-10 NOTE Harmonized as EN IEC 60793-2-10

IEC 60793-2-20 NOTE Harmonized as EN 60793-2-20

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.

Publication	Year	Title	EN/HD	Year
IEC 60068-1	-	Environmental testing - Part 1: General and guidance	EN 60068-1	-
IEC 60793-2	series	Optical fibres - Part 2: Product specifications	EN IEC 60793-2	series
IEC 62496-2-1	-	Optical circuit boards - Part 2-1: Measurements - Optical attenuation and isolation	EN 62496-2-1	-
ISO 5626	1993	Paper - determination of folding endurance	-	-

IEC 62496-2-5

Edition 1.0 2022-12

INTERNATIONAL STANDARD

NORME INTERNATIONALE

colour inside

Optical circuit boards – Basic test and measurement procedures – Part 2-5: Flexibility test for flexible opto-electric circuits

Cartes a circuits optiques – Procédures fondamentales d'essais et de mesures – Partie 2-5: Essai de flexibilité pour les circuits optoélectriques souples

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OPTICAL CIRCUIT BOARDS – BASIC TEST AND MEASUREMENT PROCEDURES –

Part 2-5: Flexibility test for flexible opto-electric circuits

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of 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, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as “IEC Publication(s)”). 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. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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IEC 62496-2-5 has been prepared by IEC technical committee 86: Fibre optics. It is an International Standard.

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

Draft	Report on voting
86/605/FDIS	86/609/RVD

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/standardsdev/publications.

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 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 – BASIC TEST AND MEASUREMENT PROCEDURES –

Part 2-5: Flexibility test for flexible opto-electric circuits

1 Scope

This part of IEC 62496 defines a test method for folding flexibility inspection of flexible opto-electric circuits with a flexibility tester endurance tester and presents a guideline for a step stress test method for finding the predetermined minimum mechanical folding radii below which the flexible opto-electric circuits can be damaged by intended folding distortion. Here, test samples are used instead of products for the flexibility test of their flexible opto-electric circuits, and the test samples have the same material, layer structure, processing technology and equipment as the products.

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 60068-1, *Environmental testing – Part 1: General and guidance*

IEC 60793-2 (all parts), *Optical fibres – Part 2: Product specifications*

IEC 62496-2-1, *Optical circuit boards – Part 2-1: Measurements – Optical attenuation and isolation*

ISO 5626:1993, *Paper – Determination of folding endurance*