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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 46385.4-2026

Optical circuit boards - Part 4: Interface - General and guidance

光路板 第4部分：接口 总则和导则

(English Translation)

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References

Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents".

Drafting.

This document is Part 4 of GB/T 46385 "Optical Circuit Boards". GB/T 46385 has already published the following parts.

---Part 2: Basic Test and Measurement Procedures - Guidelines for Optical Property Measurement Conditions;

---Part 2-1. Basic Test and Measurement Procedures for Optical Attenuation and Isolation Measurement;

---Part 2-2. Basic Test and Measurement Procedures for Dimensional Measurement;

---Parts 2-4. Basic Test and Measurement Procedures for Optical Transmission Tests Without Input/Output Pigtail Optical Circuit Boards;

---Part 3: General Performance Principles and Guidelines;

---Part 4: Interface General Principles and Guidelines.

This document is modified to adopt IEC 62496-4:2011 "Optical circuit boards - Part 4: Interface standards - General rules and guidelines".

Compared with IEC 62496-4:2011, this document has undergone the following structural adjustments.

---3.3 corresponds to A.3 in IEC 62496-4:2011;

---6.1 corresponds to the first paragraph of Chapter 6 in IEC 62496-4:2011; 6.2~6.6 correspond to Chapter 6 of IEC 62496-4:2011.

---7.1 corresponds to the first and second paragraphs of Chapter 7 in IEC 62496-4:2011; 7.2~7.6 correspond to IEC 62496-4:2011.

Chapter 7, (1)~(5);

---Appendix A corresponds to Appendix B in IEC 62496-4:2011;

---Appendix B corresponds to Appendix A in IEC 62496-4:2011;

---Appendix C corresponds to the suspension section under 3.2 in IEC 62496-4:2011.

The technical differences between this document and IEC 62496-4:2011, and the reasons therefor, are as follows.

---Added normative references to GB/T 46385.1 (see Chapter 3) to improve the standard's usability;

---The term and definition of "core shape" have been added (see 3.2.1) to improve the standard's usability;

---Add "phit" to Figure 22 (see 6.6) to improve the standard's usability;

---The specified size for Category A has been changed from "10mm" to "100mm", and the classification has been changed from "Category 1, Category 2" to "Category A, Category B" (see...) 10.4), to maintain consistency with other categories in this document;

---Increased the precision of the square/circular core shape of rigid and flexible optical circuit boards (see 10.5) to suit my country's technical conditions and improve the standard.

Quasi-practicality.

The following editorial changes have been made to this document.

---To align with existing standards, the standard name has been changed to "Optical Circuit Boards Part 4: Interface General Rules and Guidelines";

---IEC 60793-1-45 has been replaced with GB/T 15972.45, which is cited in the informational reference.

---Change the additional information in the definitions of 3.1.1, 3.1.2, 3.1.9, 3.2.5, 3.3.3, and 3.3.10 to notes;

---Correct "3.10.1.4" in section 4.1 to "3.2.4";

---The "-z" and angle designation "pi-thetat" have been removed from Figure 14;

---Correct "V2" to "V2b" in Figure 24;

---Change the tolerance classifications in sections 10.2, 10.3, and 10.4 from textual descriptions to tabular format;

---An example and coordinates of a rigid waveguide optical circuit board have been added (see the second paragraph of Appendix A).

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed and is under the jurisdiction of the Ministry of Industry and Information Technology of the People's Republic of China.

1 Scope

This document defines the terminology for optical circuit board (OCB) interfaces and specifies the I/O port coordinates and I/O port deflection for waveguide-type optical circuit boards.

Requirements for tolerance grades of corners, mirror corners, holes, dimension markings, gauges, and optical circuit boards.

This document applies to the interface between rigid and flexible optical circuit boards.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included.

For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies.

This document.

GB/T 46385.1 Optical circuit boards - Part 1: General principles (GB/T 46385.1-2025, IEC 62496-1:2008, MOD)

3 Terms and Definitions

The terms and definitions defined in GB/T 46385.1 and the following terms and definitions apply to this document.

3.1 General Definition

3.1.1

The dimensions and positions (relative to the positioning points) that constitute the features of the optical path board.