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

GB/T 16529.1-2025

Replacing GB/T 16529.2-1997

Optical cable closures - Part 1: Generic specification

光缆接头盒 第1部分：总规范

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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 1 of GB/T 16529 "Optical Cable Junction Boxes". GB/T 16529 has already published the following parts.

1. General Specifications. This document partially replaces GB/T 16529.2-1997 "Fiber Optic Cable Joints - Part

2. Specifications for Fiber Optic Cable Joints and Connectors". Compared with GB/T 16529.2-1997, the main technical changes in "Fiber Discs" are as follows, except for structural adjustments and editorial modifications.

a) Added the terms "optical cable connector", "fiber optic connector", "connector box outer sheath", "fiber optic installation device", "hybrid connector box", and "compression connector". "Jack box", "Non-pressurized junction box", "Cabinet", "Base", "Patch panel/board", "Single link", "Single unit", "Multiple units", "Single strip" The terms "multi-band" and "communication port" (see 3.1, 3.2, 3.4~3.17) have been removed, along with the terms "connector fastener" and "connector fiber optic tray" (see.1997 edition). (1.4.1, 1.4.2)

b) Added classification requirements for optical cable splice closures (see 4.1);

c) Added material requirements for optical cable splice boxes (see 4.3);

d) Increased structural requirements for fiber optic splice closures (see 4.4);

e) Increased requirements for the electrical and environmental performance of junction boxes (see

f) The grouping and inspection items for junction box type testing and factory inspection have been changed, and additional losses, insulation resistance, and withstand voltage have been added. Temperature, impact, drop, temperature cycling, low-temperature impact, solar radiation, and chemical corrosion tests were tested; insertion loss, impact, and climate compliance tests were removed. Preliminary tests, condensation, rapid temperature change, water vapor permeation, solvent resistance, and resistance to contaminated liquids (see Table 2, Tables

2.2 of the.1997 edition). Table 3.2);

g) The detailed specifications for blank junction boxes have been removed (see Chapter 4 of the.1997 edition). 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. This document was drafted by: the 8th Research Institute of China Electronics Technology Group Corporation, China Electronics Technology Standardization Institute, and Jiangsu Tongding Broadband. Limited Liability Company, Hangzhou Futong Communication Technology Co., Ltd., Shanghai Honghui Optoelectronic Technology Co., Ltd., Beijing Hongxun Jiyue Communication Equipment Testing Limited Liability Company, Jiangsu Tongguang Optical Cable Co., Ltd., Jiangsu Hengtong Optic-Electric Co., Ltd. The main drafters of this document are. Xu Danli, Wang Qiang, Zhou Haifeng, Yang Chao, Sun Bing, Lu Guobin, Zhang Liyong, Shen Jiangbo, Zhu Xubiao, and Fan Hongjun. Wu Min. Release history of this document and the document it replaces.

---First published in.1997 as GB/T 16529.2-1997 "Fiber Optic Cable Joints Part

2.Specifications for Fiber Optic Cable Joints" Boxes and fiber collection trays;

1 Scope

GB/T 16529.1-2025 is the Chinese national standard on optical cable closures - part 1: generic specification, in the field of telecommunications and audio-video engineering. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 2 December 2025 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 April 2026. Classification: ICS 33.180.20, CCS M42. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This document specifies the classification and requirements of optical cable junction boxes, inspection rules, and describes the corresponding test methods. This document applies to fiber optic junction boxes in terrestrial fiber optic transmission systems. This document does not apply to submarine fiber optic cable junction boxes.

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 1182 Product Geometric Specification (GPS) - Geometric Tolerances. Shape, Orientation, Position and Runout Tolerances

GB/T 1800.1 Product Geometric Specification (GPS) - Linear Dimensional Tolerances - ISO Notation System - Part

3 Inspection With measurement

GB/T 39560 (all parts) Determination of certain substances in electronic and electrical products YD/T 629.1 Monitoring methods for changes in optical fiber transmission attenuation - Part

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