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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 18310.27-2026

Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-27: Tests - Dust (laminar flow)

纤维光学互连器件和无源器件 基本试验和测量程序 第2-27部分：试验 灰尘（层流）

(English Translation)

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Preview: page 1 of 5 shown, 9 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/gb-t-18310-27-2026

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Table of Contents

Foreword
Introduction
1 Scope
2 Normative references
3 Terms and Definitions
4 General Rules
5.1 Test Chamber
5.2 Dust
5.3 Optical Measurement Equipment
6 Procedures
6.1 DUT Preparation
6.2 Preprocessing
6.3 DUT Installation
6.4 Initial Inspection and Measurements
6.5 Monitoring of optical performance
6.6 Initial Dust Exposure
6.7 High Temperature Regulation
6.8 Dust exposure
6.9 Recovery
6.10 Final Inspection and Measurement
7 Severity Level
8 Details of regulations and reporting
References

Introduction

Fiber optic interconnects and passive devices play a vital role in fiber optic products and applications. With the advancement of optical communication technology and manufacturing... With the continuous emergence of new products, testing and measurement technologies for fiber optic interconnects and passive devices have also developed rapidly. To improve product testing and measurement procedures... To promote international coordination and trade, the IEC has developed and published the IEC 61300 series of test and measurement procedures standards to date.

Preview: page 2 of 5 shown, 9 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/gb-t-18310-27-2026

It covers the measurement and testing of optical performance, mechanical properties, and environmental adaptability of fiber optic interconnects and passive devices, and is an internationally recognized... Basic standards for the inspection and acceptance of internal support products. my country has established a standard system for testing and measurement procedures for fiber optic interconnect devices and passive devices, referencing the IEC 61300 series standards.

Including GB/T 18309 "Basic Test and Measurement Procedures for Fiber Optic Interconnects and Passive Devices Part 1: General Principles and Guidelines", GB/T 18310 "Basic Test and Measurement Procedures for Fiber Optic Interconnects and Passive Devices - Part 2: Tests" and GB/T 18311 "Basic Test and Measurement Procedures for Fiber Optic Interconnects and Passive Devices, Part 3: Inspection and Measurement" aims to establish product specifications.

It provides a complete and unified set of methodologies and standards for product testing and verification.

GB/T 18310 is proposed to consist of the following parts.

--Part 2-1.Test Vibrations (Sine). The purpose is to determine the test procedure for vibrations (sine).

--Part 2-2.Testing Mating Durability. The purpose is to determine the testing procedures for mating durability.

--Part 2-4.Testing the Holding Force of Optical Fibers/Cables. The purpose is to determine the test procedures for the holding force of optical fibers/cables.

--Part 2-5.Torsion Testing. The purpose is to determine the testing procedure for torsion.

--Part 2-7.Test Bending Moment. The purpose is to determine the test procedure for bending moment.

--Part 2-9.Test Impact. The purpose is to determine the test procedure for impact.

--Part 2-10.Testing for resistance to compression and load. The purpose is to determine the testing procedures for resistance to compression and load.

--Part 2-11.Testing Axial Compression. The purpose is to determine the test procedure for axial compression.

--Part 2-12.Impact Testing. The purpose is to determine the impact testing procedure.

--Part 2-14.Testing High Optical Power. The purpose is to determine the testing procedure for high optical power.

--Part 2-15.Testing the Torsional Strength of the Locking Mechanism. The purpose is to determine the test procedure for the torsional strength of the locking mechanism.

Preview: page 3 of 5 shown, 9 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/gb-t-18310-27-2026

--Part 2-17.Testing at Low Temperatures. The purpose is to determine the testing procedures for low temperatures.

--Part 2-18.Dry Heat Test. The purpose is to determine the test procedure for dry heat.

--Part 2-19.Testing under constant humidity and heat. The purpose is to determine the testing procedure for constant humidity and heat.

--Part 2-21.Test Temperature-Humidity Combination Cyclic Test. The purpose is to determine the test procedure for the temperature-humidity combination cycle.

--Part 2-22.Testing Temperature Changes. The purpose is to determine the testing procedures for temperature changes.

--Part 2-23.Testing the seal of non-pressurized junction boxes. The purpose is to determine the testing procedure for the seal of non-pressurized junction boxes.

--Part 2-24.Screening test of open ceramic centering sleeve by applying stress. The purpose is to determine the stress applied... Test procedure for screening open-type ceramic centering sleeves under stress.

--Part 2-26.Salt Spray Test. The purpose is to determine the salt spray test procedure.

--Part 2-27.Test Dust (Laminar Flow). The purpose is to determine the test procedures for dust (laminar flow).

--Part 2-28.Testing Corrosive Atmospheres (Sulfur Dioxide). The purpose is to determine the testing methods for corrosive atmospheres (sulfur dioxide). program.

--Part 2-33.Assembly and disassembly of experimental mechanical connectors, fiber optic management systems, and protective enclosures. The purpose is to determine the appropriate... Test procedures for product assembly and disassembly.

--Part 2-34.Testing for resistance to solvents and contaminated liquids. The purpose is to determine the testing procedures for resistance to solvents and contaminated liquids.

--Part 2-35.Testing Fiber Optic Cable Nullification. The purpose is to determine the testing procedure for fiber optic cable nutation.

--Part 2-37.Testing fiber optic cable bending in protective enclosures and rugged connectors. The purpose is to determine the fiber optic cable bending characteristics of protective enclosures and rugged connectors. Optical cable bending test procedure for connectors.

--Part 2-38.Testing the sealing of pressure-sealed protective cases and ruggedized optical connectors. The purpose is to determine the appropriate devices. The sealing test procedure.

--Part 2-39.Tests for sensitivity to external magnetic fields. The purpose is to determine the

Preview: page 4 of 5 shown, 9 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/gb-t-18310-27-2026

test procedures for sensitivity to external magnetic fields.

--Part 2-40.Screening test for attenuation of single-mode adjustable-angle optical connectors. The purpose is to determine the appropriate optical connector. Screening test procedure for device attenuation.

--Part 2-41.Screening Tests for Attenuation of Single-Mode Adjustable Angle-Free Optical Connectors. The aim is to determine the appropriate optical connector... Screening test procedure for device attenuation.

--Part 2-42.Static Lateral Loading of the Test Strain Relief Mechanism. The purpose is to determine the static lateral load of the strain relief mechanism. Load test procedure.

--Part 2-43.Screening Tests for Return Loss of Test Single-Mode Physical Contact (PC) Optical Connectors. The aim is to determine the appropriate return loss... Screening test procedure for return loss of optical connectors.

--Part 2-44.Testing the flexure of stress relief devices. The purpose is to determine the flexure testing procedure for stress relief devices.

--Part 2-45.Testing for water immersion durability. The purpose is to determine the test procedures for water immersion durability.

--Part 2-47.Testing for Temperature Shock. The purpose is to determine the testing procedures for temperature shock.

--Part 2-48.Test Temperature and Humidity Cycling. The purpose is to determine the test procedure for temperature and humidity cycling.

--Part 2-49.Test Connector Installation Test. The purpose is to determine the test procedure for connector installation.

--Part 2-50.Screening Tests for Optical Connectors under Static Load. The purpose is to determine the screening performance of optical connectors under static load. Screening test procedures.

--Part 2-51.Transmission characteristics of test optical connectors under tensile load. The purpose is to determine the transmission characteristics of optical connectors under tensile load. Transmission characteristic test procedure.

--Part 2-54.Testing Corrosive Atmospheres (Gas Mixtures). The purpose is to determine the testing methods for corrosive atmospheres (gas mixtures). program.

--Part 2-55.Testing the Installation Strength of the Adapter. The purpose is to determine the testing procedure for the installation strength of the adapter.

--Part 2-56.Testing the wind resistance of the installed wiring box. The purpose is to determine the wind resistance of the installed wiring box. Verification procedure.

Preview: page 5 of 5 shown, 9 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/gb-t-18310-27-2026