

Indoor gigabit fiber optic cable models and specifications



AI Overview

Indoor gigabit fiber optic cables include multimode (OM1, OM2, OM3) and singlemode (OS1, OS2) types, with various constructions for plenum, riser, and general indoor use, supporting high-speed data transmission up to 10 Gbps and beyond.

Multimode Indoor Fiber Cables

- OM1 (62.5/125 μm):** Suitable for 1 Gbps up to 275 meters; commonly used in legacy networks; available in tight-buffered 900 μm or distribution cables for indoor use (plenum or riser).
- OM2 (50/125 μm):** Supports 1 Gbps up to 550 meters; often used in enterprise LANs; available in plenum-rated and riser-rated indoor constructions.
- OM3 (50/125 μm , laser-optimized):** Supports 10 Gbps up to 300 meters; ideal for high-speed backbone and data center applications; available in tight-buffered or distribution cables with plenum or riser jackets.
- OM4 (50/125 μm , enhanced laser-optimized):** Extends 10 Gbps up to 400 meters; suitable for 40/100 Gbps short-range applications; indoor plenum and riser options available.

Singlemode Indoor Fiber Cables

- OS1 (9/125 μm):** Standard indoor singlemode fiber; supports gigabit and 10 Gbps Ethernet over distances up to 2 km; tight-buffered or distribution cables for indoor use.
- OS2 (9/125 μm , ITU-T G.652D):** Optimized for longer distances and low attenuation; suitable for indoor backbone and campus networks; plenum and riser-rated options available.

Construction Types

- Tight-Buffered Cables:** Individual fibers coated with 900 μm buffer; ideal for indoor patching, riser, and plenum installations; easy to terminate and splice.
- Distribution Cables:** Multiple fibers in a central tube; suitable for horizontal and backbone runs; available in plenum (OFNP) or riser (OFNR) jackets.
- Plenum-Rated (OFNP):** Fire-retardant jacket for air-handling spaces; required for compliance in many commercial buildings.
- Riser-Rated (OFNR):** Suitable for vertical runs between floors; less stringent fire rating than plenum.

Key...

Article Content

Fiber Optic Cable Types: A Complete Guide

The plethora of fiber optic cable types can seem overwhelming, but choosing the right cable for the job is important. Read on to learn what fiber optic

The Ultimate Guide to Indoor Fiber Cable in 2025

Explore Indoor Fiber Cable in 2025: types, uses, and installation tips. Find top indoor fiber optic solutions for reliable, high-speed networks with EPCOM.

Fiber Optic Cable Types – Multimode and Single Mode

Fiber Optic Cable Types – Multimode and Single Mode Application Fiber Optic connectors and cables are present in nearly every communications

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A Comprehensive Guide to Indoor and Outdoor Fiber

Indoor fiber optic cable installation typically involves routing the cables through cable trays, conduits, or raceways within buildings or data centers.

Cisco 40GBASE QSFP Modules Data Sheet

Cisco QSFP-40G-CSR4 Cisco 40GBASE-CSR4 QSFP Modules extend the reach of the IEEE 40GBASE-SR4 interface to 300 and 400 meters on laser-optimized OM3, and OM4/OM5

Fiber Indoor Cables

Explore CommScope's Fiber Optic Cables for reliable connectivity. Our high-quality fiber optic cabling solutions ensure seamless data transmission.

25 Indoor_Cable_Application_Note

General Indoor Cable Description Indoor Optical Cable is intended primarily for use within an environmentally controlled structure (e.g., home, commercial, or controlled environment vault) to

Fiber Optic Indoor Cables

Corning indoor fiber optic cables are used in spaces that require a flame retardant jacket. These cables may be deployed in duct (conduit) or cable tray.

Indoor Optical Fiber Cable Selection Guide

Abalone offers a comprehensive range of indoor fiber optic cable solutions tailored to various deployment scenarios, including data centers, FTTH, and industrial

How to Choose Indoor Fiber Optic Cable

Selecting the right indoor fiber optic cable is essential for ensuring efficient data transmission, network stability, and future scalability. Indoor fiber optic cables are

FiberHome Optical Cable Specifications | PDF | Optical

Indoor cable SPEC - Free download as PDF File (.pdf), Text File (.txt) or read online for free. This document contains specifications for four fiber optic cables

Fiber Optic Cables For Indoor Applications

Fiber Optic Cables For Indoor Applications QZ Group indoor fiber optic cables are used exclusively within buildings and must have a flame-retardant jacket to fit

Fiber Optic Cable Buying Guide | Eaton

Fiber Optic Cable Buying Guide Choosing single-mode or multimode fiber for high-performance data networking and telecommunications Fast data transmission,

Spec Sheet

Siemon fiber optic cables are offered in XGLO and LightSystem configurations supporting high- International loose tube fiber cables are ideal for campus and building.

FiberHome Optical Cable Specifications | PDF | Optical

Each cable specification includes a cross-section diagram, materials used, fiber type, dimensions, weight, and mechanical properties. All four cables are

Multimode Fiber Types: OM1 vs OM2 vs OM3 vs OM4

How Many Types of Multimode Fiber? Identified by ISO 11801 standard, multimode fiber optic cables can be classified into OM1 fiber, OM2

Indoor Fiber Optic Cables: Basics & How to Choose (2023)

Learn everything you need to know about indoor fiber optic cables in this comprehensive guide. Explore installation steps, cable types, and emerging trends for building reliable and high-speed indoor

Opti-Core Fibre Optic Indoor Cable 2 to 96-Fibres EuroClass ...

Fibres 13 to 24 use same sequence as 1 to 12 and have a mark every 70mm. Fiber 22 is white with a mark every 35mm.

Fiber Optic Cable

Belden's extensive line of indoor and outdoor cable products is offered in tight buffer and loose tube designs. Learn more about each fiber cable Belden has to offer.

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Spec Sheet

A = Armor LightSystem OM3, 50/125 OM4, configurations Singlemode supporting high-speed, Siemon LSOH applications (IEC 60332-3) such as indoor/outdoor Gigabit Ethernet, armor 10 Gigabit loose

Contact Us

For more information, pricing, or custom solutions, please contact us:

Website: <https://www.mr-security.co.za>

Email: info@mr-security.co.za

Phone: +33 1 45 23 67 81

Address: 10 Rue de la Paix, 75002 Paris, France

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