

10 Gigabit fiber optic cable is multimode



AI Overview

10 Gigabit OM3 multimode fiber optic cables support high-speed data transmission up to 10Gbps over distances up to 300 meters, using 50/125µm duplex fibers with LC, SC, or ST connectors.

Key Features

- Fiber Type:** OM3 multimode, 50-micron core / 125-micron cladding, laser-optimized for 850nm light sources.
- Data Rate:** Supports 10 Gigabit Ethernet (10GbE) up to 300 meters; also compatible with lower-speed applications.
- Duplex Design:** Two parallel fibers allow simultaneous bidirectional communication, improving network efficiency.
- Connectors:** Common options include LC-LC, LC-SC, SC-SC, and ST-ST, with Ultra Physical Contact (UPC) polish for low insertion loss.
- Jacket Types:** OFNR (riser-rated), LSZH (low smoke zero halogen), and plenum options for indoor, riser, or fire-safe installations.
- Insertion Loss / Return Loss:** Typically $\leq 0.2-0.3$ dB insertion loss and ≥ 35 dB return loss, ensuring stable, high-performance connections.
- Durability:** Rated for over 500 matings with minimal signal degradation; operating temperature range -20°C to $+70^{\circ}\text{C}$.

Performance and Applications

- Bandwidth:** 1500 MHz·km at 850nm, 500 MHz·km at 1300nm, optimized for VCSEL-based short-range links.
- Distance:** Maximum 10Gbps transmission up to 300 meters; suitable for LAN, data centers, and enterprise networks.
- Compatibility:** Works with SFP/SFP+ transceivers, media converters, routers, switches, and patch panels.
- Color Coding:** Aqua jacket for OM3, aiding in easy identification and network organization.

Installation and Maintenance

- Numbered Fibers:** Duplex cables often labeled "1" and "2" for correct polarity alignment.
- Protective Dust Caps:** Included to prevent contamination and extend cable lifespan.
- Flexible Lengths:** Available from 0.2 meters up to 300 meters, allowing customization for network layouts.
- High Reliability:** Low insertion loss and high return loss ensure minimal signal degradation over time.

Summary

10 Gigabit OM3 multimode fiber optic cables are ideal for high-speed, short-range networking applications. They provide reliable, low-loss connecti...

Article Content

OFNP OM4 Tight Buffer Fiber Cable | Corning Glass | Indoor & Outdoor

OM4 Multimode 50/125 Indoor/Outdoor Plenum OFNP Distribution Fiber Optic Cable with Corning Glass This OM4 plenum distribution fiber cable is composed of 2-24 colored tight buffers, aramid yarn, and

Exploring Multimode Fiber Distance Limits in Data Centers

This article discusses multimode fiber distance limits, the types of multimode fiber and their respective distance capabilities, and solutions to

Fiber Optic Cable Range: Comprehensive Guide

Fiber optic cable range varies depending on whether you're using single or multimode fiber. Learn the potential for both cable types.

Cisco 10GBASE SFP+ Modules Data Sheet

The Cisco® 10GBASE SFP+ modules (Figure 1) give you a wide variety of 10 Gigabit Ethernet connectivity options for data center, enterprise

SFP+ Cables

Online shopping. w/24h-delivery, 7Days & Refund Guarantee. CE, RoHS and ISO9001 Certified. SFP+ Cables, QSFP+ Cables, MiniSAS Cables, XFP Cables,

10 Gigabit Ethernet Fiber Design Considerations

This paper has introduced some basic fiber related concepts and outlined some of the key points to understand and consider when designing a 10 Gigabit Ethernet network.

Fiber Optic Connectivity Market Share & Forecast, 2026-2033

The fiber optic cables segment is expected to account for 36.0% of the global fiber optic connectivity market share in 2026. The global fiber optic connectivity market is dominated by fiber

Monoprice OM4 Multi-Mode Fiber Optic Cable LC-LC 6m - TRINCOS

Monoprice OM4 Multi-Mode Fiber Optic Cable 6m LC-LC, optimized for 10 Gigabit Ethernet. Perfect for high-speed networking. Order today.

Ultra Spec Cables 2M Multimode Duplex 10 Gigabit Fiber Optic Cable

About this item Ultra Spec Cable, Inc fiber optic cables are made with glass to ensure quality. The 50 micron core is laser optimized for 10Gb performance. The ends come terminated with UPC polish to

Used 1M-30M FC-FC Duplex Multimode OM3 10 Gigabit Fiber Optic Cable ...

1M-30M FC-FC Duplex Multimode OM3 10 Gigabit Fiber Optic Cable Patch Cord Type: OM3 10Gbps Multimode Fiber Patch Cord Material: LSZH (Low Smoke Zero Halogen) Storage Temp: -10°C ~

SFP Optical Transceiver | SFP Optical Module | Perle

Perle SFP Optical Transceivers are hot-swappable, compact media connectors that provide instant fiber connectivity for your networking gear. They are a cost

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Tripp Lite LC Multimode Fiber Media Converter Gigabit RJ45 10

Extends a Gigabit Ethernet signal up to 550 meters over Multimode Fiber Optic Cable Auto detects Full/Half Duplex Transfer Mode Supports Multimode 50/125 cable up to 550M or 62.5/125 cable up to

SeaMAX Fiber Optic Patch Cord, 5m, LC/LC UPC, OM3 Multimode,

The SeaMAX Fiber Optic Patch Cord is a high-performance duplex multimode fiber optic cable designed for reliable optical connectivity in data centers, enterprise networks, telecommunications, and storage

Can you run 10gb over multimode fiber?

Yes, it is possible to run 10gb over multimode fiber using 10Gbps transceivers and appropriate fiber optic cables. However, the maximum distance over which 10gb can be run over

Cisco 10GBASE SFP+ Modules Data Sheet

The Cisco 10GBASE-SR module supports a link length of 26 meters on standard Fiber Distributed Data Interface (FDDI)-grade Multimode Fiber (MMF). Using 2000 MHz * km MMF (OM3),

Tight Buffer Fiber Optic Cable, OM4, OFNP Indoor/Outdoor

Multimode fiber gives you high bandwidth at high speeds (10 to 100MBS - Gigabit to 275m to 2km) over medium distances. Light waves are dispersed into numerous paths, or modes, as they travel through

StarTech D01ML55U-FIBER-MEDIA Gigabit Fiber to RJ45

This compact Gigabit Fiber to Ethernet Media Converter upgrades Cat6 or similar cabling to an EMI-free fiber connection. With a built-in USB cable for power, it's perfect for scenarios where external power

10-Gigabit Multimode Cables (OM3) for Sale | Cables on Demand

LC to SC Duplex 10Gb Multimode OM3 Fiber Optic Patch Cables by Amphenol offer unparalleled optical network performance at data-rates up to 10-Gigabits per second.

Multimode Fiber Types: OM1 vs OM2 vs OM3 vs OM4

Multimode fiber is a common choice to achieve 10 Gbit/s speed over distances required by LAN enterprise and data center applications. There are

Multimode Fiber and 10GE

This new fiber is referred to by some as 10 Gigabit Ethernet multimode fiber and is an 850 nm, laser-optimized, 50/125 micron fiber with an effective modal bandwidth of 2000 MHz km and is detailed in

Multi-mode optical fiber

Multi-mode optical fiber is a type of optical fiber mostly used for communication over short distances, such as within a building or on a campus. Multi-mode links can

Fiber Optic Cable Types Explained

Our comprehensive guide to types of fiber optic cables. Learn all about the differences between single mode and multimode cables, as well as the various

Cat6 vs Fiber, What is the Difference and How to Choose?

Comparing fiber vs Cat6 cables. Explore the reliability and cost-effectiveness of Cat6 and the power and versatility of fiber optic cables.

SeaMAX MM-PC-SC/SC-5-D-OM3 Fiber Optic Patch Cord, 5m,

Constructed with OM3 50/125 µm multimode fiber, the patch cord supports high-bandwidth applications including 1 Gigabit Ethernet, 10 Gigabit Ethernet, Fibre Channel, and other high-speed optical

Ultra Spec Cables 10 Meter 10Gb OM3 Multimode Duplex Fiber

Our cables are manufactured using laser optimized multimode Corning Optical Fiber and OFNR Rated PVC Zipcord jackets, which are lightweight, flexible and non-flammable. Each cable is factory tested

C2G 85514 InfiniBand/fibre optic cable 2 m SC OFNR Turquoise

This OM3 Duplex Multimode Fibre Optic Cable is ideal for connecting 10GBase-SR, 10GBase-LRM, SFP+ and QSFP+ transceivers for 10 gigabit network connections. This cable has a LSZH jacket

What Is Fiber Optic Cable?

A fiber optic cable is a long-distance network telecommunications cable made from strands of glass fibers that uses pulses of light to transfer data.

Contact Us

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