

Do you have multimode four-core optical cables



Overview

The types of multimode fiber are distinguished by their core diameters, transmission performance, and optimal operating distances.

Key Takeaways

Yes, multimode four-core optical cables are available, including high-performance OM3 and OM4 types suitable for short-distance, high-speed data transmission.

A four-core optical cable contains four individual optical fibers within a single protective jacket, allowing for multiple independent data channels. These cables are commonly used to support two duplex links or one duplex link with two backup fibers for redundancy. Each fiber can carry light signals independently, making them ideal for high-speed networking applications.

Multimode Fiber Types

Multimode fiber (MMF) is designed for short-distance communication, typically within buildings or campuses. It has a larger core diameter (50–62.5 μm) that allows multiple light modes to propagate simultaneously, supporting high data rates over moderate distances. Common multimode types include:

- OM1: 62.5 μm core, supports 10G Ethernet up to 33 meters.
- OM2: 50 μm core, supports 10G Ethernet up to 82 meters.

- OM3: 50 μm laser-optimized, supports 10G Ethernet up to 300 meters, 40/100G up to 100 meters.
 - OM4: 50 μm laser-optimized, supports 10G Ethernet up to 400 meters, 40/100G up to 150 meters, ideal for high-performance data centers .
 - OM5: Enhanced wideband multimode fiber for future high-speed applications.
- Applications

Multimode four-core cables are widely used in:

- Data centers for high-speed Ethernet connections.
- Enterprise networks for backbone and inter-building links.
- Redundant network setups where multiple fibers provide failover capability.
- Short-range high-bandwidth applications such as 40G and 100G Ethernet .

Specifications and Connectors

- Core diameter: Typically 50 μm for OM3/OM4.
- Outer jacket: LSZH for indoor safety or PE for outdoor use.
- Connectors: SC, ST, or LC terminations are common.
- Wavelength: Operates at 850 nm for laser-optimized multimode fibers.
- Transmission distance: Up to 400 meters at 10 Gbps for OM4 . These cables are commercially available and can be ordered from suppliers with options for fast shipping and warranty coverage . In summary, multimode four-core optical cables are readily available in various OM types, with OM4 being the preferred choice for high-speed, short-distance applications in modern network infrastructures.

Article Content

The Ultimate Guide to 4 Core Optical Cable: Specs,

This guide covers everything you need to know about 4 core fiber, including its internal

Single Mode vs. Multimode Fiber Optic Cables

Multimode fiber (MMF) is a kind of optical fiber mostly used in communication over short distances, for example, inside

Everything You Need to Know About Multimode Fiber Cable

Multimode fibers have larger core diameters, support multiple light modes, and are generally less expensive for short

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

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The Ultimate Guide to Multimode Fiber Optic Cable

Single-mode fiber optics and multimode fiber optic cables differ in their core dimensions and

Multimode Fiber Types: OM1 vs OM2 vs OM3 vs OM4 vs OM5

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Multimode Fiber Optic Cable Types: OM1 vs OM2 vs OM3 vs OM4 vs

Multimode fiber optic cable types OM1, OM2, OM3, OM4 and OM5 compared for core size, bandwidth, speed, distance

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Explore multimode fiber optic cables for enterprise, campus, and data center networks. Learn about OM1-OM5 types,

OM3 vs OM4 Multimode Fiber: What's the difference?

OM3 vs OM4 Color Laser-optimized OM3 and OM4 multimode fiber are defined as an aqua jacket when used with LC

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Explore the characteristics, advantages, and practical applications of multimode fiber optic cable in this comprehensive guide. Learn

Nexans 4-core fiber optic cable, MM 50 multimode, IN / OUT

These specifications indicate the standard design and performance requirements for the supply of fiber optic cable. These

Fiber Optic Cable Types – Multimode and Single Mode

The Optical Core – a glass tube (core) propagates the light signals through the fiber cable.

Understanding Fibre Optic Cable Types: Single-mode vs Multimode

Single-mode and Multimode fibre optic cables are crucial components in various applications, yet distinguishing

Multimode vs Single Mode Fiber Optic Cables: Full Comparison

Compare multimode vs single mode fiber to understand their core differences and applications. Learn which fiber type

Multimode Fiber Differences: OM1 vs OM2 vs OM3 vs OM4 vs OM5

Multimode fiber optic cables are designed to carry multiple modes or light paths simultaneously. They have larger

Fiber Optic Cable Types: Comprehensive Guide

Two Types of Fiber Optic Cable Fiber optic cables fall into two main categories: single-mode fiber (SMF) and multimode

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