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.Overview

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.

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• 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

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

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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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Single Mode vs Multimode Fiber Cable: Compare core size, bandwidth, distance, cost, and best use cases to help you

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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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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

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

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