

Are there gigabit multimode fiber optic cables available



Overview

Shop durable fiber optic cables with LC, ST, and SC connectors. Perfect for SAN networks, servers, and enterprise installations.

Key Takeaways

Yes, gigabit multimode fiber optic cables are widely available, with OM1, OM2, OM3, OM4, and OM5 types supporting 1 Gbit/s Ethernet over varying distances.

Multimode Fiber Overview

Multimode fiber (MMF) is designed for short- to medium-range data transmission, typically within buildings or across campuses. It has a larger core diameter (50 μm or 62.5 μm) that allows multiple light modes to propagate simultaneously, making it suitable for high-speed applications like gigabit Ethernet (1 Gbit/s) and beyond.

Fiber Types Supporting Gigabit Speeds
OM1 (62.5 μm core, orange jacket): Supports 1 Gbit/s Ethernet up to approximately 275 meters and 10 Gbit/s up to 33 meters. Commonly used in older network infrastructures.

OM2 (50 μm core, orange jacket): Supports 1 Gbit/s Ethernet up to 550 meters and 10 Gbit/s up to 82 meters. Often used for legacy 1 Gbit/s applications.
OM3 (50 μm core, aqua jacket): Laser-optimized for VCSELs, supports 1 Gbit/s Ethernet over long distances and 10 Gbit/s up to 300 meters.

Ideal for modern enterprise and data center networks. OM4 (50 μm core, aqua jacket): Enhanced version of OM3, supports 10 Gbit/s up to 550 meters and is fully backward compatible with OM3. Suitable for high-performance LANs and data centers.

OM5 (50 μm core, lime green jacket): Supports short-wavelength division multiplexing (SWDM) and is optimized for multi-wavelength applications. It also supports 1 Gbit/s Ethernet and higher speeds, though its main advantage is for 40G/100G networks.

Practical Considerations

Distance: The maximum distance for 1 Gbit/s Ethernet depends on the fiber type. OM1 and OM2 are suitable for shorter runs, while OM3, OM4, and OM5 can handle longer distances in modern networks. Transceivers: Gigabit Ethernet over MMF typically uses LED or VCSEL-based transceivers.

VCSE

MMFs are more efficient for higher speeds and longer distances. Applications: MMF is commonly used in enterprise LANs, data centers, and backbone connections within buildings due to its cost-effectiveness and ease of installation compared to single-mode fiber. In summary, gigabit multimode fiber optic cables are readily available, and the choice of OM type depends on the required distance, network speed, and future scalability.

OM3 and OM4 are the most common choices for modern gigabit networks, while OM1 and OM2 are mostly found in legacy installations.

Article Content

Amazon : Multimode Fiber Cable

Shop durable fiber optic cables with LC, ST, and SC connectors. Perfect for SAN networks, servers, and enterprise installations.

Multi-mode optical fiber

OverviewApplicationsComparison with single-mode fiberTypesEncircled fluxExternal links

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 be used for data rates up to 800 Gbit/s. Multi-mode fiber has a fairly large core diameter that enables multiple light modes to be propagated and limits the maximum length of a transmission link because of modal dispersion. The standard G.651.1 defines the multimode

Multimode Fiber Types Introduction and Application

There are several kinds (OM1 vs OM2 vs OM3 vs OM4 vs OM5) of multimode fiber types available for high-speed network installations, and each with a different reach and data-rate capability.

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

A complete guide to multimode fiber types OM1, OM2, OM3, OM4, and OM5. Compare speed, distance, bandwidth, and applications, and learn how to choose.

Multimode Fiber Cable Types: OM1/OM2/OM3/OM4/OM5 Compared

Compare all five multimode fiber grades — OM1 through OM5 — with full specs, bandwidth, distance limits, and real-world data center use cases. Learn which grade fits your

OM1 vs OM2 vs OM3 vs OM4 vs OM5 Multimode Fiber Guide

Compare OM1, OM2, OM3, OM4, and OM5 multimode fiber specs, distances, bandwidth, and applications. Essential guide for data center fiber selection.

Fiber Optic Cable Types: A Complete Guide

If you're looking to expand a legacy fiber optic connection, or only need a very short, low-performance fiber optic cable, Cable Matters' OM1 multimode fiber optic cable is available at a low

Multimode Optical Fiber Selection & Specification

For entry-level One Gigabit (1 GbE) speed performance, Corning Cable Systems product offering is referred to as LANscape Pretium® 150 optical fiber. OM2 is no longer recommended for new

TAA Compliant Fiber Patch Cable, SC-LC MM 50/125 OM3

TAA Compliant Fiber Patch Cable, SC-LC, Multimode 50/125 10 Gig OM3, Duplex. These cables have low-loss reliability for multimode telecommunications and data center applications. Shop Cables Plus

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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

TAA Compliant Fiber Patch Cable LC-LC MM 50/125

TAA Compliant Fiber Patch Cable, LC-LC, UPC, Multimode 50/125 Micron OM4, Duplex, 1.8mm OFNR Rated and available today at Cables Plus USA.

Fast Ethernet vs Gigabit Ethernet: What is the difference

Ethernet technology allows people to communicate with each other over a single cable, and more and more devices and objects are becoming smart. Although there are many varieties of

10 Best Loose Tube Fiber Optic Cables (July 2026)

If you are running fiber between buildings, across campus environments, or any outdoor network infrastructure, this guide covers the best loose tube fiber optic cables for outdoor runs

Recognizing Multimode Fiber Types by Color

However, there are some non-standardized colors and inconsistencies that you should be aware of. Let's take a closer look at the colors for multimode fiber types. OM1 If the fiber cable in your network

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

Description 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,

Black Box Fiber Optic Duplex Patch Network Cable FO625-010M-LCLC

Black Box Fiber Optic Duplex Patch Network Cable Black Box's Connect line of general-purpose OM1 62.5/125 multimode cabling is constructed to meet or exceed TIA/EIA industry standards, providing

Everything You Need to Know About Multimode Fiber

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

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