

All Models of Multimode Optical Cables



AI Overview

The main multimode optical cable models are OM1, OM2, OM3, OM4, and OM5, each differing in core size, bandwidth, distance, and application suitability.

Overview of Multimode Fiber Models

Model	Core Diameter	Jacket Color	Light Source	Bandwidth	Maximum Distance	Typical Use
OM1	62.5 μm	Orange	LED	Lower modal bandwidth, suitable for legacy networks	Up to 275 m at 1 Gbps	100 Mbps Ethernet, older enterprise LANs
OM2	50 μm	Orange	LED	Moderate, supports higher speeds than OM1	Up to 82 m at 10 Gbps	1–10 Gbps Ethernet, cost-sensitive networks
OM3	50 μm	Aqua	Laser-optimized (VCSEL)	High, supports 10–40 Gbps	300 m at 10 Gbps	Modern data centers, high-speed LANs
OM4	50 μm	Aqua	Laser-optimized (VCSEL)	Very high, supports 10–100 Gbps	550 m at 10 Gbps	High-performance computing, 40/100 GbE networks
OM5	50 μm	Lime Green	Laser-optimized, supports Short Wavelength Division Multiplexing (SWDM)	4700 MHz·km at 850 nm, 2470 MHz·km at 953 nm	150 m+ at 100 Gbps	Future-proof data centers, multi-wavelength 40/100/400 GbE networks

Key Considerations

- Core Size:** OM1 has the largest core (62.5 μm), while OM2–OM5 have 50 μm cores, enabling higher bandwidth and longer distances.
- Jacket Color Coding:** OM1/OM2 (orange), OM3/OM4 (aqua), OM5 (lime green) for easy identification.
- Light Source Compatibility:** OM1/OM2 use LEDs, limiting speed and distance; OM3–OM5 are laser-optimized for VCSELs, supporting higher data rates.
- Applications:** OM1/OM2 are suitable for legacy or cost-sensitive networks, OM3/OM4 for modern high-speed LANs and data centers, and OM5 for wideband SWDM applications. Selecting the appropriate multimode fiber depends o...

Article Content

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

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

Multimode Fiber Types: OM1 vs OM2 vs OM3 vs OM4

Identified by ISO 11801 standard, multimode fiber optic cables can be classified into OM1 fiber, OM2 fiber, OM3 fiber, OM4 fiber and newly released

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

Tripp Lite N320-02M Duplex Multimode Fiber Patch Cable

The Tripp Lite N320-02M Duplex Multimode Fiber Patch Cable is used in fiber optic network communication systems for connecting networking equipment, switches, and fiber-enabled devices.

Single Mode vs. Multimode Fiber Optic Cables

There are two main types of fiber optic cables: single mode and multimode. Although they can do the same job in some instances, the different

Multimode Fiber Overview: OM1, OM2, OM3 & OM4

A practical guide to OM1, OM2, OM3, OM4 multimode fibers: core differences, bandwidth, applications, and migration strategies for modern optical

Fiber Optic Cable Types: Single Mode vs. Multi-mode

When building fiber optic cabling, many choices must be made. Choosing single mode or multi-mode installation is unquestionably one of the

5 Best Fiber Optic Cable | Under 10ms Latency Data Lines

How To Choose The Best Fiber Optic Cable Not all fiber cables are interchangeable. The wrong mode or connector type will either fail to link or introduce enough loss to cripple throughput. Focus on three

Cables | Belkin US

Fiber Optic Cable; 10GB Aqua Multimode LC/LC Duplex MMF, 50/125 OM3 \$17.99 - \$75.99 Add to Cart

SFP Optical Transceiver | SFP Optical Module | Perle

For example, by simply replacing the pluggable optical transceiver, a media converter that was originally used in a multimode network can be re-configured

Everything You Need to Know About Multimode Fiber

There are four types of multimode fiber optic cables: OM1, OM2, OM3 and OM4. Each of these is intended for different uses and has various

Single Mode vs. Multimode Fiber: Core Differences and

How do you choose between single mode and multimode fiber? Compare their differences in core size, light source, bandwidth, transmission

Optical Fibers & OEM Fiber Assemblies | CeramOptec

PRODUCTS The right solution for every challenge From bare fibers to custom optical fiber cables and fiber assemblies – engineered for maximum

Fiber Optic Cable Types – Multimode and Single Mode

Application Fiber Optic connectors and cables are present in nearly every communications project that we might sell into, be it a DAS installation or a Base Station with wireless backhaul, you can be

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Shop for fiber optic cables at Cables Plus USA, leader in fiber optic products supply offering high-quality products at the best value through our fiber optic cable

Small Form-factor Pluggable

Small Form-factor Pluggable connected to a pair of fiber-optic cables Small Form-factor Pluggable (SFP) is a compact, hot-pluggable network interface module

MPO MTP Patchcord MM OM3 12F Fiber Optic Cable for Data Center

High-performance MPO/MTP OM3 fiber optic patch cord for data centers & telecom. Customizable, 100% tested, with low-loss connectors for stable transmission.

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,

MPO MTP OM4 Multimode 12F Fiber Optic Patchcord for Data Center

Product Description MPO MTP Patchcord Multimode OM4 Trunk Cable 12F Fiber Optic MPO/MTP fiber optic patch cords feature connectors at both ends of fiber optic cables, enabling active connections

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

Multimode Fiber Optic Cable Types: OM1 vs OM2 vs

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

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,

Cisco 10GBASE SFP+ Modules Data Sheet

Cisco SFP+ Active optical cables Cisco SFP+ Active Optical Cables (Figure 5) are direct-attach fiber assemblies with SFP+ connectors. They are

A Guide to Multimode Fiber Types (OM1-OM5) -

OM1-OM5 multimode fiber standards, detailing their core sizes, jacket colors, transmission capabilities and more.

MPO MTP OM3 Multimode 24F Fiber Optic Patchcord

High-performance MPO/MTP OM3 multimode 24F fiber optic patchcord for data centers & telecom. Customizable, rigorously tested, with premium ferrules for stable connectivity.

The Fiber Optic Association

More FOA Standard FOA-7: Mode Conditioning For Testing Multimode Fiber Optic Cables (Mandrel wrap, encircled flux) FOA Standard FOA-5 Fiber Optic

OM1 vs OM2 vs OM3 vs OM4 vs OM5 Multimode Fiber

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

New LEONI 4-channel LC-to-LC OM3 multimode fiber optic trunk cable

New LEONI 4-channel LC-to-LC OM3 multimode fiber optic trunk cable For Sale - DOTmed Listing #5722337: LEONI CABLE The sale of this item may be subject to regulation by the

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