Om4 Dual-core Multimode Fiber



Overview

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.

Key Takeaways

OM4 is a high-performance 50-micron multimode fiber optimized for high-speed data transmission in short- to medium-range networks. OverviewOM4 fiber is a laser-optimized multimode fiber (MMF) with a 50 µm core diameter, designed to support high-bandwidth applications in data centers, enterprise networks, and campus environments. It is backward compatible with OM3 fiber, allowing seamless upgrades in existing multimode infrastructures.

The fiber is typically identified by its aqua-colored jacket for easy recognition. Key SpecificationsCore/Cladding Size: 50/125 µmBandwidth: OM4 offers significantly higher modal bandwidth than OM3, supporting 4700 MHz·km at 850 nm for laser-optimized applications. Supported Data Rates and Distances: 10 Gbps Ethernet: up to 550 meters40 Gbps Ethernet: up to 150 meters100 Gbps Ethernet: up to 150 metersLight Source Compatibility: Optimized for VCSEL (Vertical-Cavity Surface-Emitting Laser) sources, which are cost-effective and energy-efficient.

Advantages

High Bandwidth: Supports faster data rates over longer distances compared to OM1, OM2, and OM3 fibers.

© 2026 CGWEB NETWORK INFRASTRUCTURE - All rights reserved

Cost-

Effective: Compatible with lower-cost VCSEL transceivers, reducing overall network deployment costs. Backward Compatibility: Can operate with existing OM3 networks, simplifying upgrades.

Short- to Medium-

Range Optimization: Ideal for data center horizontal cabling, server interconnects, and high-speed LANs. ApplicationsOM4 fiber is widely used in scenarios requiring high-speed, short-range connectivity, including: Data center backbone and horizontal cabling10G, 40G, and 100G Ethernet networksEnterprise LANs and campus networksHigh-performance computing clustersComparison with Other Multimode FibersFiber TypeCore SizeMax 10G DistanceMax 40G/100G DistanceTypical UseOM162. 5 µm300 mNot recommendedLegacy LANsOM250 µm500 mLimitedEarly 1G/10GOM350 µm300 m100 mModern 10G/40GOM450 µm550 m150 mHigh-speed data centersOM550 µm550 m150 m (SWDM)SWDM-enabled, future-proofOM4 provides a balance of high bandwidth, cost efficiency, and backward compatibility, making it the mainstream choice for modern high-speed multimode networks.

In summary, OM4 dual-core multimode fiber is a robust solution for high-speed, short- to medium-range optical networks, offering enhanced bandwidth, VCSEL compatibility, and practical deployment flexibility in data centers and enterprise environments.

Article Content

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

OM2, OM3, OM4 vs. OM5 | How to Choose the Right Fiber Optic

Multimode fiber comes in different types, and the most common are OM2, OM3, OM4, and OM5. All four use a 50-micron glass core, but they do not perform the same. Each supports a

OM4 Multimode Fiber FAQ: High-Speed Connectivity

OM4 (Optical Multimode 4) is a type of multimode fiber optic cable that is designed to support higher data rates and longer distances compared to

Multimode Fiber Guide: OM1 to OM5 | PHILISUN

This guide compares multimode fiber types by core size, bandwidth, distance, jacket color, optics and upgrade path. It also links to PHILISUN OM3,

© 2026 CGWEB NETWORK INFRASTRUCTURE - All rights reserved

TR33 OM4

When deployed in loss-optimized QuickNetTM cabling systems, Panduit® OM4 Fiber can provide extended reach beyond the rated length, as well as the ability to deploy more connectivity with

Multimode Optical Fiber Selection & Specification

OM4 is a laser-optimized fiber that further extends the capabilities of OM3, and is fully compatible with legacy OM3 and OM2 installations. Corning Cable Systems'' LANscape Pretium 550 is suitable for 10

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

This comprehensive guide explores Multimode Fiber Cable Types, covering technical specifications, deployment scenarios, and best practices to help you optimize your fiber infrastructure

Understanding the Differences Between OM4 and OM5 Multimode Fiber

Learn the basics of multimode fiber and the evolution of the different fiber standards as well as the differences between OM4 and OM5 and when OM5 is an appropriate choice and when

Multi-mode optical fiber

These fibers easily support applications ranging from Ethernet (10 Mbit/s) to gigabit Ethernet (1 Gbit/s) and, because of their relatively large core size, were ideal for

Mpo-mpo fiber jumper□8/12/24-core 10g standard□om3/om4 single

Who knows? the wiring in the computer room is as messy as a wool ball, the 10g switch alarms when plugged in, and the om4 optical cable degrades beyond the standard when bent... until i

OM4 Multimode Cables

OM4 Multimode Cables are high-performance optical fiber cables with a 50µm core, supporting up to 400 meters at 10 Gbps and 150 meters at 100 Gbps, OM4

Fiber Optic Cable Jacket Guide: OFNP vs OFNR, LSZH, PVC, PE,

Compare fiber optic cable jacket materials and fire ratings: OFNP vs OFNR, LSZH, PVC, PE, TPU. Selection guide for data center, FTTH, outdoor, and industrial use. Request samples.

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

© 2026 CGWEB NETWORK INFRASTRUCTURE - All rights reserved

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,

Fiber Optic Pigtail OM4 MultiMode SC | Fiber4u Technologies |

Fiber Protection: Features dual-coated, bend-insensitive fibers, ideal for maintaining performance in tight bends and corners. Applications: Telecommunication Networks: Fiber4u pigtails offer reliable data

HES 24 Core Steel Armored Fiber Optic Cable OM4 50/125µ MultiMode |

Applications: OM4 MultiMode models of HES branded single and multi-tube steel armored, single-jacketed fiber optic cables provide a reliable transmission solution for critical network infrastructures

MPO/MTP-24 Female-to-Female OM4 Fiber Patch Cable | Type B

Premium MPO/MTP-24 UPC (vrouwelijk) naar MPO/MTP-24 UPC (vrouwelijk) multimode OM4 glasvezel patchkabel. 24 vezels, dubbele rij, Type B kruispolarisatie, 0.35 dB Max IL.

MPO/MTP-24 Buchse auf Buchse OM4 Glasfaser-Patchkabel | Typ B

Premium MPO/MTP-24 UPC (Female) to MPO/MTP-24 UPC (Female) multi-mode OM4 fiber optic patch cord. 24-fiber dual-row, Type B cross polarity, 0.35dB Max IL. Optimized for high-density core switch

MPO/MTP-12 Female to Female OM4 Fiber Patch Cable | Type B

12-Fiber Core: 40G/100G/400G Direct Switch-to-Switch Interconnects. Premium Con: MTP® / MPO-12 UPC Female connectors. Ultra-Low Loss: Max 0.35dB insertion loss. OM4 MM Fiber: Utilizing

Related Video Reference

This video was associated with the source search result. Verify technical details against current product documentation and project requirements.

© 2026 CGWEB NETWORK INFRASTRUCTURE - All rights reserved

Contact Us

Continue your research online:

Website: https://cgweb.co.za
Technical inquiry: https://cgweb.co.za/project-enquiry.html

This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

© 2026 CGWEB NETWORK INFRASTRUCTURE - All rights reserved