Multimode Fiber Optic Connector Specifications and Models Table



Overview

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

Key Takeaways

Multimode fiber types OM1, OM2, OM3, OM4, and OM5 differ in core size, bandwidth, maximum distance, optical source, and jacket color, providing a clear guide for network design and deployment.

Multimode Fiber Specifications

Fiber TypeCore/Cladding (µm)Bandwidth (MHz·km)Max Distance @ 10 Gb/sOptical SourceJacket ColorTypical ApplicationsOM162. 5 / 125200 @ 850 nm33 mLEDOrange100 Mb/s Ethernet, legacy LANsOM250 / 125500 @ 850 nm82 mLEDOrange1 Gb/s Ethernet, short-distance LANsOM350 / 1252000 @ 850 nm300 mVCSEL / LaserAqua10 Gb/s Ethernet, 40/100 GbE up to 100 m, data centersOM450 / 1254700 @ 850 nm550 mVCSEL / LaserAqua10 Gb/s Ethernet, 40/100 GbE up to 150 m, high-performance computingOM550 / 1254700 @ 850 nm, 2470 @ 953 nm550 mVCSEL / Laser, SWDMLime GreenShort-wavelength division multiplexing (SWDM), 40/100/400 GbE, future-proof data centersKey Notes: OM1 and OM2 are legacy fibers, primarily using LED sources and suitable for lower-speed networks (1–10 Gb/s) over short distances.

© 2026 FD SOLUCIONES OPTICAL SYSTEMS - All rights reserved

OM3 and OM4 are laser-optimized, bend-insensitive fibers designed for VCSEL sources, supporting higher data rates and longer distances in modern LANs and data centers. OM5 supports short-wavelength division multiplexing (SWDM), enabling multiple wavelengths over a single fiber for higher aggregate bandwidth, making it ideal for next-generation high-speed networks. Core diameter: OM1 has a larger 62.

5 µm core, while OM2–OM5 have 50 µm cores, allowing more efficient laser transmission. Jacket color helps identify fiber type in installations: orange for OM1/OM2, aqua for OM3/OM4, and lime green for OM5. Bandwidth is measured as Effective Modal Bandwidth (EMB) at 850 nm, with OM4 and OM5 providing higher EMB for longer distances and higher-speed applications.

This table provides a quick reference for selecting the appropriate multimode fiber type based on network speed, distance, and optical source requirements, ensuring compatibility with enterprise and data center standards.

Article Content

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

How Many Types of Multimode Fiber? Identified by ISO 11801 standard, multimode fiber optic cables can be classified into OM1 fiber, OM2 fiber, OM3 fiber, OM4 fiber and newly released

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.

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

Types of Multimode Fiber There are several types of multimode fibers classified by the ISO 11801 standard, including OM1, OM2, OM3, OM4, and the recently released OM5 fiber. Each

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

OM2 Opti OM3 OM4 Multimode TR2 042214

Panduit OM2 and laser-optimized OM3, OM4 and Signature CoreTM multimode fibers exceed domestic and international standards for optical fiber, including TIA-492AAAB, TIA-492AAAC, TIA-492AAAD

DTS0079 Standard Table

© 2026 FD SOLUCIONES OPTICAL SYSTEMS - All rights reserved

The following pages list the standard fibers, cables, connectors, lenses, and laser head adaptors available from OZ Optics. Accompanying each table are technical notes to help you make the most

Fiber-optic communication

Modern fiber-optic communication systems generally include optical transmitters that convert electrical signals into optical signals, optical fiber cables to carry the

Product Type

Connectors Explore reliable copper and fiber connectors and more. High-performance options simplify installation for superior connectivity

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

Multimode Optical Fiber Selection & Specification

All multimode fibers utilizing the above nomenclature should be graded-index MMF and compliant with industry prevailing standards and terminology for optical fiber.

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 be used for data rates up to 800 Gbit/s.

Fiber Connector Types: A Complete Guide (2024)

A fiber connector is a precise coupling device to join fiber cables quickly. This guide introduces LC, SC, FC, ST, MPO, CS and many others.

Fiber Optic Cable Buying Guide

Fiber Optic Cable Buying Guide Understand how to choose fiber optic cable by comparing single-mode vs. multimode, network speed and distance needs,

Fibre Optic Cable & Connector Guide

Proper selection of fibre optic cables and connectors for specific uses are becoming more and more important as fibre optic systems become the transmission medium for communications and aircraft

OM3-OM4_6p_CorrP1_HR

© 2026 FD SOLUCIONES OPTICAL SYSTEMS - All rights reserved

OM4 multimode fiber is ideal for 10G link applicationsrequiringahigherpowerbudget, for example when more connectors are required, which is the case in Data Centers.

Fiber Optic Connector Types

However, no matter what the fiber connector types are, they have the same function and similar basic components—ferrule, connector body and coupling device. And these fiber connectors are widely

Specifications For Fiber Optic Networks

Specifications For Legacy Fiber Optic Networks A listing of many fiber optic LANs and links available in the last 30 years, with basic operational specs.

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 every communications

Related Video Reference

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

Contact Us

Continue your research online:

Website: https://fdsoluciones.es
Technical inquiry: https://fdsoluciones.es/project-enquiry.html

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

© 2026 FD SOLUCIONES OPTICAL SYSTEMS - All rights reserved