

What is the multimode fiber model comparison table



AI Overview

OM1, OM2, OM3, OM4, and OM5 multimode fibers differ in core size, bandwidth, maximum distance, optical source, and typical applications.

Fiber Type	Core Size (μm)	Bandwidth (MHz·km)	Max Distance (10G Ethernet)	Optical Source	Jacket Color	Typical Applications
OM1	62.5	200 @ 850 nm	33 m	LED	Orange	100 Mb/s Ethernet, legacy LANs
OM2	50	500 @ 850 nm	82 m	LED	Orange	1 Gb/s Ethernet, short-distance LANs
OM3	30	2000 @ 850 nm	300 m	Laser-optimized (VCSEL)	Aqua	10 Gb/s Ethernet, data centers
OM4	30	4700 @ 850 nm	550 m	Laser-optimized (VCSEL)	Aqua	10/40/100 Gb/s Ethernet, high-speed data centers
OM5	30	4700 @ 850 nm (supports SWDM)	550 m	Laser-optimized (VCSEL)	Lime Green	40/100 Gb/s Ethernet, SWDM, future-proof data centers

Key Notes: OM1 and OM2 are legacy fibers, primarily using LED sources, suitable for short-distance Ethernet connections within buildings or campuses. OM3 and OM4 are laser-optimized multimode fibers (LOMMF) designed for VCSELs, supporting higher data rates and longer distances, commonly used in modern data centers. OM5 introduces Short Wavelength Division Multiplexing (SWDM), allowing multiple wavelengths over a single fiber, enabling higher aggregate bandwidth without additional fibers. Jacket colors help identify fiber types: orange for OM1/OM2, aqua for OM3/OM4, and lime green for OM5. Bandwidth is measured at 850 nm, the standard wavelength for multimode fiber, and determines the maximum data rate over a given distance. This table provides a clear overview for selecting the appropriate multimode fiber type based on distance, speed, and application requirements in enterprise networks and data centers.

Article Content

Single-Mode vs Multimode Fiber Optic Cables: A Comprehensive Comparison

Compare Single Mode vs Multimode fiber optic cables. Expert analysis on distance, bandwidth, 800G compatibility, and TCO for modern network infrastructure.

Single Mode vs. Multimode Fiber: Core Differences and Selection Guide

For a clearer comparison, the following sections examine the main differences between single mode and multimode fiber in terms of jacket color, core diameter, light source and wavelength,

Single Mode vs. Multimode Fiber: Core Differences and Selection Guide

How do you choose between single mode and multimode fiber? Compare their differences in core size, light source, bandwidth, transmission distance, and cost to identify the right application.

Single Mode vs Multimode Fiber – Distance, Performance & Cost ...

Learn the key differences between single mode vs multimode fiber optic cables, including core size, distance, bandwidth, and cost. Find out which fiber type suits your network needs best.

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

Explore the differences between OM1 to OM5 multimode fiber. Understand bandwidth, reach, and which fiber type suits your network performance and scalability needs.

NYT Connections archive

Every NYT Connections puzzle ever published is listed here, organised by date, with all four category groups and their sixteen words. The NYT only offers the current day's puzzle for free,

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

This comprehensive guide elaborates on the definition, classification, core differences, and practical application scenarios of various multimode fiber types, helping you select the most

Comprehensive Guide to Multimode Fiber: Types, Applications, and Comparison

The ability of multimode fiber to propagate multiple light modes simultaneously allows it to carry more data at a given time, making it a popular choice for local area networks (LANs) and data

Multi -mode optical fiber model and application comparison

There are several different types of multi-mode optical fiber, each with its own specific characteristics and applications. In this article, we will compare some of the most common multi

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.

Single Mode vs Multimode Fiber: 2026 Guide to 800G & AI Infrastructure

Discover the ultimate comparison of single mode vs multimode fiber—covering physics, cost, distance, and data center strategies for future-ready networks.

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

Identified by ISO 11801 standard, multimode fiber optic cables can be classified into OM1 fiber, OM2 fiber, OM3 fiber, OM4 fiber and newly released OM5 fiber. The next part will compare

Single Mode vs Multimode Fiber: Which Should You Choose for Long

Learn the key differences between single-mode and multimode fiber optic cables, including distance, bandwidth, and cost. Find out which fiber type best fits your switch connections

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

Comprehensive Guide to Multimode Fiber: Types, Applications, and

One such vital component is the optical fiber, specifically, the multimode fiber. In this article, we dive into the world of multimode fibers, comparing the five major types: OM1, OM2, OM3,

OM1 vs OM2 vs OM3 vs OM4 vs OM5: Understanding Multimode

With several types available—OM1, OM2, OM3, OM4, and OM5—each offering distinct performance characteristics, selecting the right fiber can be challenging. This guide breaks down the

Multimode Fiber Overview: OM1, OM2, OM3 & OM4 Explained

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

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 best fits your networking needs and budget.

Contact Us

For more information, pricing, or custom solutions, please contact us:

Website: <https://umele-pestovani.eu>

Email: info@umele-pestovani.eu

Phone: +49 152 287 6349

Address: Neue Mainzer Straße 66-68, 60311 Frankfurt am Main, Germany

This document is for informational purposes only. Specifications subject to change without notice.

