

Multimode fiber model comparison table and price



AI Overview

OM1-OM5 multimode fibers differ in core size, bandwidth, maximum distance, and cost, with OM1 being the most affordable and OM5 optimized for high-speed, future-proof networks.

Fiber Type	Core Size	Bandwidth	Max Distance (10G Ethernet)	Jacket Color	Light Source	Typical Applications	Price per Foot (USD)
OM1	62.5 μm	200 MHz $\cdot$ km	33 m	Orange	LED	Legacy 100M-1G Ethernet	\$2.50-\$4.00
OM2	250 μm	500 MHz $\cdot$ km	82 m	Orange	LED	1G Ethernet, limited	\$2.50-\$4.50
OM3	350 μm	2000 MHz $\cdot$ km	300 m	Aqua	VCSEL	10G/25G Ethernet, moderate distance	\$3.28-\$4.50
OM4	50 μm	4700 MHz $\cdot$ km	400 m	Aqua	VCSEL	10G/25G/40G/100G Ethernet, longer distance for armored/specialized	\$4.50-\$5.50 (up to \$13.50)
OM5	50 μm	4700 MHz $\cdot$ km (SWDM)	400 m	Lime Green	VCSEL, SWDM	High-speed, wavelength-division multiplexing, future-proof	Typically higher than OM4, varies by vendor

Key Insights OM1 and OM2 are older standards, suitable for short-distance, low-speed networks, and are the most cost-effective options for legacy systems. OM3 and OM4 are laser-optimized for VCSEL sources, supporting higher data rates (10G-100G) and longer distances, making them ideal for modern enterprise and data center networks. OM5 supports Short Wavelength Division Multiplexing (SWDM), enabling multiple wavelengths over a single fiber for future-proof high-speed applications.

Pricing varies by fiber type, jacket rating (riser, plenum, armored), and whether the cable is factory-terminated. OM1 is the cheapest, while OM4 and OM5 can be significantly more expensive, especially for specialized or armored cables.

Selection Tip: For short runs under 150 meters, OM3 may suffice, saving cost compared to OM4. For future-proofing and high-density networks, OM4 or OM5 is recommended. This table and guidance help balance performance requirements...

Article Content

2025 Single-Mode vs Multimode Fiber: Distance, Cost

Compare single-mode (OS2) and multimode (OM3-OM5) fiber: reach tables, link-budget steps, MPO polarity, cost/TCO, and Cisco/Huawei/Ruijie optic examples.

FS Community

Hier sollte eine Beschreibung angezeigt werden, diese Seite lässt dies jedoch nicht zu.

Multimode Fiber Types: OM1 vs OM2 vs OM3 vs OM4

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

Single Mode vs Multimode Fiber- Distance,

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

Comprehensive Guide to Multimode Fiber: Types,

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

Single Mode vs Multimode Fiber Cable: Difference

Learn the complete differences between single mode and multimode fiber optic cables, including distance, core size, wavelength, cost, and best

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.

What are the cost differences between multimode and single-mode fiber?

What are the cost differences between multimode and single-mode fiber? Search Model Trained on March 2025 | Vector Size: 1024 | Vocab Size: 153496 Okay, let's break down the cost differences

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

Single Mode vs Multimode Fiber: The Complete Guide

Single Mode vs Multimode Fiber: The Complete Guide to Choosing Right Single mode or multimode? It's the first decision in every fiber installation

Single Mode vs Multimode Fiber: Difference and

Single-mode fiber has a smaller core diameter and allows for the transmission of a single mode of light, enabling longer transmission distances

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

Fiber Optic Cable Types: Single Mode vs Multimode

The differences between single mode vs multimode fiber lie in the core diameter, wavelength, bandwidth, color sheath, distance, and cost. Read

Single Mode vs Multimode Fiber Cable

This article will focus on the basic construction, fiber distance, cost, fiber color, etc., to make an in-depth comparison between single mode and multimode fiber

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

Single Mode vs Multimode Fiber Cable: Guide to Fiber

Single Mode vs Multimode Fiber Cable: Compare core size, bandwidth, distance, cost, and best use cases to help you choose the right fiber cable for

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

As data centers and enterprise networks evolve, the demand for high-speed, scalable, and cost-effective optical solutions continues to grow. Among the available options, multimode fiber

Single-Mode vs. Multimode Fiber Cable: A Direct

Single-mode fiber is preferred for long-distance networks, high-bandwidth applications, and future-proofing. In contrast, multimode fiber is more suitable for

Single Mode vs Multimode Fiber, What is The

Initial Published: December 22, 2022 In this in-depth single mode vs. Multimode Fiber comparison, I will compare those two fiber optic cables, helping

Single-Mode vs. Multi-Mode Fibers: Technical

Discover ROI-boosting fiber choices: Single Mode vs Multimode Fiber. Get the right speed & savings for your network—download our guide for free today!

Single-Mode vs Multimode Fiber Optic Cables: A

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

Multimode vs Single Mode Fiber Optic Cables: Full

Compare multimode vs single mode fiber to understand their core differences and applications. Learn which fiber type best fits your networking

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,

Single Mode vs. Multimode Fiber Optic Cables: How to

Explore the key differences between single mode and multimode fiber optic cables, including construction, bandwidth, distance, and cost, to make a choice.

Singlemode vs Multimode Fiber Optic Cable

One confusing aspect around fiber optic cabling technology is the difference between Singlemode Fiber (SMF) and Multimode Fiber (MMF). The

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

How Do Multimode Fiber Optic Cable Prices.

This guide compares multimode cable prices across OM1-OM5 and explains what really moves the number: fiber grade, fiber count, jacket rating,

Multi-Mode Fibers for Light Transport — FindLight

Source Multi-Mode Fibers for reliable light transport, sensing, and imaging. Compare core sizes, NA, coating, and attenuation from verified suppliers.

Single Mode vs Multimode Fiber: The Ultimate

Confused about single mode vs multimode fiber? We compare core size, bandwidth, distance, and system costs to help you choose the right cable.

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,

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