

OEM Long Distance Optical Cable Multimode



Summary of Content

OEM multimode optical cables can be customized for long-distance, high-speed data transmission using OM3, OM4, or OM5 fibers, supporting distances up to 550 meters at 10Gbps and beyond.

Multimode Fiber Overview

Multimode fiber (MMF) features a larger core diameter, typically 50 μm or 62.5 μm , allowing multiple light modes to propagate simultaneously. This design enables cost-effective, high-bandwidth transmission for short- to medium-range applications, such as enterprise LANs, data centers, and campus networks . MMF is generally more economical than single-mode fiber for distances under 500 meters and supports VCSEL-based optics for efficient power consumption .

Fiber Types and Long-Distance Capabilities

- OM1 (62.5 μm core): Suitable for 100Mb Ethernet and short 10GbE links up to 33 meters .
- OM2 (50 μm core): Supports 1GbE and 10GbE up to 82 meters .
- OM3 (50 μm laser-optimized): 10GbE up to 300 meters; 40/100GbE up to 100 meters .
- OM4 (50 μm laser-optimized): Extends 10GbE links to 550 meters, 40/100GbE up to 150 meters; fully backward compatible with OM3 .

Article Content

Exploring Multimode Fiber Distance Limits in Data Centers

Fiber optic cabling is essential for high-speed, reliable connectivity in modern data centers. Multimode fiber is widely

Bulk Fiber Optic Cable

Our Singlemode fiber optic cable is designed for long-distance communication. It has a smaller core diameter than multimode fiber,

Fiber Optic Transmission Distance: Single Mode vs. Multimode Guide

Learn how fiber optic transmission distance varies between single mode vs. multimode fiber. Discover key factors

Multimode Fiber: Differences Between OM1, OM2, OM3, OM4, and OM5

Discover the key differences between OM1, OM2, OM3, OM4, and OM5 multimode fibers. This guide covers core

Single Mode vs Multimode Fiber: What's the difference?

Before we start with our topic, Single Mode vs Multimode Fiber, let's have a look at what FO

Multimode Fiber Optic Cable Types: OM1 vs OM2 vs

Multimode fiber optic cable types OM1, OM2, OM3, OM4 and OM5 compared for core size,

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,

Multimode Fiber Types: OM1 vs OM2 vs OM3 vs OM4

Identified by ISO 11801 standard, multimode fiber optic cables can be classified into OM1

Multimode Fiber Optic Cables – Mouser

Multimode Fiber Optic Cables are available at Mouser Electronics. Mouser offers inventory, pricing, & datasheets for Multimode Fiber

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

Fiber Optic Cable Buying Guide

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

Multimode Optical Fiber and Cables - Lightera

Lightera Multimode optical fiber and fiber optic cables provide high-speed data transmission solutions for your network infrastructure.

Fiber Optic Cables Custom Solutions | FiberMania OEM/ODM

As an experienced OEM/ODM provider, we offer fully customizable Fiber Optic Cables to meet specific client requirements.

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

Given this inherent limitation, multimode fiber optic cable is usually deployed at distances of

Multimode Fiber Optic Cable

Designed for high-speed, short-distance data transmission, this multimode fiber optic cable offers excellent bandwidth performance

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

Multimode fiber optic cables are widely used for short-range communication applications.

Everything You Need to Know About Multimode Fiber Cable

Multimode fiber works well for short to medium distances, providing scalable capacity and cost-effective deployment

10 Best Fiber Optic Manufacturers for 2026

Discover the best fiber optic manufacturers globally, offering cutting-edge multimode and single mode fiber solutions.

5 Key Differences OEM Buyers Must Know Between Single Mode

Understand the 5 key differences between single mode and multimode fiber patch cords. This OEM guide covers

Multimode Fiber Distance — OM3, OM4 Max Distance by Data Rate

This guide covers the actual distance limits for OM3 and OM4 multimode fiber at every common data rate, what

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

E. What is Laser Optimized Multimode Fiber (LOMMF)? Laser Optimized Multimode Fiber (LOMMF) refers to fibers

Fiber Optic Cable Range: Comprehensive Guide

Fiber optic cable range varies depending on whether you're using single or multimode fiber.

Multimode Fiber Data Sheet

GENERAL DESCRIPTION R& M offers the full range of multimode fibers for all its cables, whether for installations or assemblies.

Contact Us

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