Multimode fiber parameters om3

AI Overview

OM3 multimode fiber is a 50/125 µm laser-optimized fiber designed for high-speed data transmission up to 10, 40, and 100 Gbps over short to medium distances.

Core and Cladding

OM3 fiber has a 50 µm core diameter and a 125 µm cladding diameter, following the graded-index multimode fiber design. This smaller core compared to older OM1/OM2 fibers allows for better modal dispersion control and improved performance with laser sources like VCSELs .

Wavelength and Light Source

OM3 is optimized for 850 nm wavelength operation, which is standard for vertical-cavity surface-emitting lasers (VCSELs). It can also operate at 1300 nm, though 850 nm is the primary wavelength for high-speed LAN and data center applications .

Bandwidth and Modal Performance

OM3 fiber is laser-optimized multimode fiber (LOMMF) with a minimum modal bandwidth of 2000 MHz·km at 850 nm under overfilled launch (OFL) conditions. This high bandwidth supports 10 Gbps Ethernet up to 300 meters, and emerging 40/100 Gbps Ethernet up to 100 meters .

Maximum Transmission Distance...

Article Content

Mar 24, 2026

Multimode Fiber Data Sheet

This fiber is a bend-insensitive, graded-index multimode fiber designed for transmission speeds of 1 Gbps but also appropriate for

Feb 12, 2026

Understanding OM3 Multimode Fiber: Advanced Guide on Fiber Optic

Explore our advanced guide on OM3 multimode fiber optic cables to understand the differences between OM1, OM2,

Jan 02, 2026

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

Introduction Fiber optic cables are the backbone of modern telecommunications infrastructure, enabling high-speed

May 18, 2026

Multimode Distance Limits: OM3 vs. OM4 Fiber Standards

Under this standard, OM3 fiber is officially rated to support a maximum multimode distance of 300m. This distance satisfies the

Jan 27, 2026

Multimode Fibers – optical glass fiber, large-core fibers, fiber ...

Multimode fibers are fibers supporting more than one guided mode per polarization direction – in some cases even a large number of

Oct 23, 2025

Multimode Fiber Data Sheet

OM3 Fiber 50/125 This fiber is a laser-optimized, bend-insensitive, graded-index multimode fiber designed for transmission speeds of

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OM1, OM2, OM3, OM4, OM5 and OS1, OS2 Fiber

The multimode fiber is prefixed with “OM” and the singlemode mode “OS”. The new designation in ANSI/TIA-568.3-D

May 02, 2026

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

Mar 25, 2026

Multimode fiber standards: OM1, OM2, OM3, OM4, and OM5

In fiber optic communication systems, multimode fiber is favored because of its suitability for short-distance

Dec 02, 2025

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

Sep 18, 2025

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

Multimode fibers OM1 through OM5 offer varying levels of performance, bandwidth, and transmission capabilities.

Apr 09, 2026

A Technical Comparison of OM1, OM2, OM3, OM4, and OM5 Fibers

A Technical Comparison of OM1, OM2, OM3, OM4, and OM5 Fibers In the architecture of modern enterprise networks, data centers,

Jan 02, 2026

Multimode Fiber Types: OM1 vs OM2 vs OM3 vs OM4

A complete guide to multimode fiber types OM1, OM2, OM3, OM4, and OM5. Compare

Aug 25, 2025

OM3 vs OM4: Understanding the Differences in

What is the difference between OM3 and OM4 multimode fiber? Bandwidth and attenuation

Jun 11, 2026

OM1 vs OM2 vs OM3 vs OM4 vs OM5 Multimode Fiber

Understanding The Differences Between OM1 vs OM2 vs OM3 vs OM4 vs OM5 Multimode

Dec 05, 2025

IEEE 802.3 Multimode Optical Fiber Ethernet Standards

Multimode Ethernet Standards Update! The TIA FOTC provides overviews and updates for published and emerging IEEE 802.3

Dec 11, 2025

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

A complete guide to multimode fiber types: from OM1 to OM5, covering modal dispersion, bandwidth limits, cabling design, and

Jul 11, 2026

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

Explore differences between OM1, OM2, OM3, OM4, OM5 multimode fiber, including core size, bandwidth,

Apr 21, 2026

Understanding the Differences Between OM4 and OM5

Multimode fiber is a staple of fiber-optic cable infrastructure in data centers and campus

May 10, 2026

Multimode Optical Fiber Selection & Specification

Table 5 provides the bandwidth and attenuation parameters for OM-compliant fiber types specified in Tables 3 and 4. For a fuller

Feb 08, 2026

OM3 vs OM4 Multimode Fiber: What''s the difference?

OM3 fiber and OM4 fiber are both laser-optimized multimode fibers with 50/125μm fiber cores, which need to meet the

Nov 20, 2025

Corning® ClearCurve® OM3/OM4 Multimode Optical Fiber

Corning® ClearCurve® OM3/OM4 Multimode Optical Fiber Product Information Bend Performance and Compatibility Corning®

Feb 02, 2026

OM3 vs OM4: Key Differences and Practical Applications

OM3 and OM4 multimode fibers share many similarities, such as their fiber core size,

Jul 08, 2026

Optical Fiber OM3 (50/125µm Multimode Fiber)

Datasheet: GD101699v5 850 nm LASER-OPTIMIZED 50/125 MULTIMODE OPTICAL FIBER IEC 60793-2-10 Type A1a.2 and

Jul 16, 2026

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

The difference between multimode fiber optic cables is important when choosing the right cabling for your network.

Aug 29, 2025

Multimode fiber | Fact File | CommScope

Evolution of fiber cabling types used in the enterprise differences between and advantages of OM3 OM4 OM5 and multimode and

Contact Us

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