Om3 Single-film optical fiber

Overview

Corning® ClearCurve® OM2, OM3, and OM4 Optical FibersBuilt on Corning's reliability and award-winning quality, ClearCurve OM2, OM3, and OM4 fibers are desi.

Key Takeaways

OM3 is a laser-optimized multimode fiber (LO-MMF) with a 50 µm core, designed for high-speed Ethernet applications up to 100G over short distances. Key Characteristics of OM3 FiberCore Diameter: 50 micrometers, smaller than OM1 (62. 5 µm) but optimized for laser sources like VCSELs.

Modal Bandwidth: 2000 MHz·km at 850 nm wavelength, allowing high-speed data transmission. Jacket Color: Aqua, standard for OM3 multimode fiber. Light Source Compatibility: Optimized for vertical-cavity surface-emitting lasers (VCSELs), which are cost-effective and energy-efficient.

Performance and ApplicationsOM3 fiber is widely used in enterprise LANs, data centers, and short-range high-speed networks. Its performance supports: 10G Ethernet: Up to 300 meters25G Ethernet: Up to 70 meters40G/100G Ethernet: Up to 100 meters OM3 is backward compatible with OM2 fiber but offers significantly higher bandwidth and longer reach for laser-based applications. It is ideal for inter-rack connections, server-to-switch links, and high-density data center environments.

Comparison with Other Multimode FibersOM1: 62. 5 µm core, LED-based, supports 10G Ethernet only up to 33 meters. OM2: 50 µm core, LED-based, supports 10G Ethernet up to 82 meters.

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OM4: 50 µm core, higher modal bandwidth (4700 MHz·km), supports 10G up to 550 meters and 40G/100G up to 150 meters. OM5: Wideband multimode fiber (WB-MMF), supports multiple WDM channels for future-proof high-density applications. SummaryOM3 single-film optical fiber is a cost-effective, high-performance multimode fiber optimized for laser-based transceivers, making it suitable for modern data centers and enterprise networks requiring 10G to 100G Ethernet over short distances.

Its combination of 50 µm core, 2000 MHz·km bandwidth, and VCSEL compatibility ensures reliable, high-speed connectivity while remaining compatible with existing multimode infrastructure.

Article Content

Corning® ClearCurve® OM2, OM3, and OM4 Optical Fibers

Built on Corning''s reliability and award-winning quality, ClearCurve OM2, OM3, and OM4 fibers are designed to withstand tight bends and challenging cabling routes with substantially less signal loss

OM1 vs OM2 vs OM3 vs OM4 vs OM5 Multimode Fiber

In 2003, the OM3 fiber type was standardized and is closely linked to the IEEE 802.3 10GbE Ethernet standard. It has a core diameter of 50 µm and a

Multimode Optical Fiber Selection & Specification

OM3 laser-optimized fiber is the minimum recommended performance level for new LAN/DC installations today. Corning Cable Systems'' LANscape Pretium 300 is suitable for 10 Gbps data rates

Understanding OM3 Multimode Fiber: Advanced Guide

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

Single Mode vs Multimode Fibre: OM3, OM4 and OS2

This guide explains what multimode and single mode fibre are, what OM3, OM4, and OS2 mean in practical terms, and which you should be specifying for

OS1, OS2 vs OM1-OM5 Fiber Cables: Differences, Speeds, and

Explore the differences between OS1, OS2 (single-mode) and OM1, OM2, OM3, OM4, OM5 (multimode) fibers. Learn their speeds, distances, and ideal uses for data centers and telecom

Differences between OS1, OS2, & OM1, OM2, OM3,

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OM and OS are fiber optic cable categories used to describe multimode and singlemode cable performance. In practical selection, OM fiber is

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

OM1-OM5 vs Singlemode Fiber: Best for 2025 Data

Contact Vitex for a free, tailored fiber assessment — OM3, OM4, OM5, and single mode solutions in custom lengths, pre-terminated assemblies,

Mpo-mpo fiber jumper□8/12/24-core 10g standard□om3/om4 single

Who knows? the wiring in the computer room is as messy as a wool ball, the 10g switch alarms when plugged in, and the om4 optical cable degrades beyond the standard when bent... until i

OM3 Multi Mode Fiber Optic Cables |

Choose OM3 multi-mode fiber optic cables for high bandwidth needs. 20 years of industry experience and worldwide shipping.

5 Best Fiber Optic Cable | Under 10ms Latency Data Lines

How To Choose The Best Fiber Optic Cable Not all fiber cables are interchangeable. The wrong mode or connector type will either fail to link or introduce enough loss to cripple throughput. Focus on three

Multimode vs Single Mode Fiber Optic Cables: A Complete Guide to

Learn the differences between multimode (OM1-OM5) and single mode (OS1-OS2) fiber optic cables—speed, distance, applications, and how to choose the right one for data centers and

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Fiber Optic Cable: Single & Multimode Cables By The

We offer fiber optic cable by the foot in a variety of fiber types and strand counts to meet your network installation needs. Whether you''re building a new system or

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CommScope designs and manufactures a comprehensive line of fiber optic cables—from outside plant to indoor/outdoor and fire-rated indoor fiber cables.

LSZH™ Loose Tube, Gel-Free, Single-Jacket Cable 24 F, 50 µm multimode (OM3)

024TUZ-T4180D20 LSZH™ Loose Tube, Gel-Free, Single-Jacket Cable 24 F, 50 µm multimode (OM3) Typically ships in 42 day (s) Actual lead time confirmed upon receipt of order.

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