

Om3 fiber optic and om2



AI Overview

OM2 is a 50 μm multimode fiber optimized for LED sources and short-distance 1G/10G Ethernet, while OM3 is a laser-optimized 50 μm multimode fiber designed for higher-speed 10G, 40G, and 100G Ethernet over longer distances. OM2 Fiber OM2 is a multimode fiber standardized in 1998 with a 50 μm core diameter and an orange jacket. It typically uses LED light sources, which limits its bandwidth and distance capabilities compared to laser-optimized fibers. OM2 is commonly used for 1 Gigabit Ethernet over distances up to 550 meters, and can support 10 Gigabit Ethernet over shorter distances, around 33–82 meters depending on hardware and conditions. Its modal bandwidth is approximately 500 MHz·km, making it suitable for older or lower-speed network infrastructures. OM3 Fiber OM3 was standardized in 2003 and is a laser-optimized 50 μm multimode fiber with an aqua-colored jacket. Unlike OM2, OM3 is designed for VCSEL (Vertical-Cavity Surface-Emitting Laser) sources, which allow higher-speed data transmission. OM3 supports 10 Gigabit Ethernet up to 300 meters, and can also handle 40G and 100G Ethernet up to 100 meters. Its modal bandwidth is significantly higher at 2000 MHz·km, making it ideal for modern enterprise networks and data centers where higher-speed and longer-distance multimode transmission is required.

Key Differences Between OM2 and OM3		
Feature	OM2	OM3
Core Diameter	50 μm	50 μm
Jacket Color	Orange	Aqua
Optical Source	LED	VCSEL (laser-optimized)
Modal Bandwidth	500 MHz·km	2000 MHz·km
1G Ethernet Max Distance	550 m	300 m+
(depends on hardware)		
10G Ethernet Max Distance	33–82 m	300 m
40/100G Ethernet	Not supported	100 m
Typical Use	Older 1G networks, short-distance links	Modern 10G/40G/100G networks, data centers

Summary OM2 and OM3 are both 50 μm multimode fibers, but OM3 is laser-optimized for higher-speed applications and longer distances, while OM2 is LED-based and suitable for lower-speed, shorter-distance networks. Choosing between them depends on the required data rate, dist...

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

Fiber Optic Color Code: The Ultimate TIA-598-C Guide

Master the TIA-598-C fiber optic color code standard. Read our complete guide and use our free interactive calculator to easily identify 1-144 core cables.

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

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

The following figure shows the differences between OM2, OM3, OM4, and OM5 multimode fiber optic patch cables in core diameter, bandwidth,

Essential Fiber Optic Accessories |

Worldwide delivery is available for all our Fiber Optic Accessories and Consumables, strengthening your network infrastructure wherever you are. Fiber4u offers a broad range of Fiber Optic Accessories and

Produsen kabel patch fiber optik | Pemasok kabel patch fiber optik ...

Multimode Om1, Om2*, Om3 dan Om4 serta Single Mode tersedia dengan jumlah serat 4, 8, 12, 16 atau 24, hingga 1440 inti. Serat berlapis sekunder diakhiri dengan konektor MPO, APC, MTP SC, FC, ST

Understanding Fiber Optic Pigtails: Types and

Fiber Optic Pigtails are divided into single-mode and multimode types, which can be distinguished by color, wavelength, and transmission

RS PRO Patch cable 50 ST-ST OM3 DX 2m (2 m)

Connection A: ST Connection B: ST Length: 2m Fibre type: OM3 Mode: Multi mode
Communication channel: Duplex Core diameter: 50/125µm Jacket colour: Purple
Standards: IEC

Fiber Optic OTDR Launch Cable Box

Available in multiple fiber types including OS2, OM1, OM2, and OM3, as well as various lengths ranging from 100 meters to 2 kilometers, it supports short-, medium-, and long-distance fiber network testing

Fiber Optic Cable Types Explained

Our comprehensive guide to types of fiber optic cables. Learn all about the differences between single mode and multimode cables, as well as the various

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

All Kinds of Fiber Optic Patch Cords – SC, LC, FC, ST

Learn about SC, LC, FC, and ST fiber optic patch cords, their uses in FTTH, telecom, and data centers, and how to choose the right type.

ClearCurve® Multimode Fiber | High Data Rate Laser

ClearCurve multimode laser-optimized, bend resilient fibers are widely deployed to deliver high data rate, low latency transmission. As the inventor of bend

OM1 vs OM2 vs OM3 vs OM4 vs OM5 Fiber Guide

Learn the differences between OM1, OM2, OM3, OM4, and OM5 fiber. Compare bandwidth, distance, SWDM support, and choose the right MMF grade.

1000BASE-SX vs 1000BASE-LX, EX, ZX & BX SFP Guide

1000BASE-SX, 1000BASE-LX, 1000BASE-EX, 1000BASE-ZX and 1000BASE-BX are all Gigabit Ethernet fiber optic module terms, but they are not the same type of link. They differ in fiber

Complete Guide to Fiber Optic Cables for Data Centers

Everything you need to know about fiber optic cables for data center deployments. Covers OS2, OM3, OM4, OM5 cable types, LC/SC/MPO connectors, and

OM1 vs OM2 vs OM3 vs OM4 vs OM5: Understanding

With several types available—OM1, OM2, OM3, OM4, and OM5—each offering distinct performance characteristics, selecting the right fiber

Fiber Optic Patch Cord

Fiber Optic Patch Cord In this category, you will find various duplex and simplex LC/SC/FC/ST/Uniboot LC/MDC fiber optic patchcords, which are used to

Standard Fiber Patch Cables Datasheet

According to different transmission distances and bandwidth requirements, the products are divided into two categories: single-mode (OS2) and multi-mode (OM2, OM3, OM4, OM5),

Fiber Optic Connectors

Experience seamless connectivity with our OmniSplice™ fusion splice LC fiber optic connector. Designed for easy deployment, offering durability and performance for data center and enterprise

Fiber Optic Pigtail OM4 Multimode SC | Fiber4u Technologies |

Fiber Modes: Available in Single Mode (SM) and Multimode (OM1, OM2, OM3, OM4) fiber types to suit various application needs. Connector Types: A broad range of connectors including SC/APC,

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

Fiber Optic Cable Jacket Guide: OFNP vs OFNR, LSZH, PVC, PE,

Compare fiber optic cable jacket materials and fire ratings: OFNP vs OFNR, LSZH, PVC, PE, TPU. Selection guide for data center, FTTH, outdoor, and industrial use. Request samples.

Fiber Optic Cables | Fiber Patch Cables | Patch Cords,

Fiber Patch Cables, Multimode & Singlemode Duplex Fiber Optic Cables, Secure Order Fiber Patch Cords, Preferred Mil. Edu. Gov. Pricing, Same Day Shipping

OM1 vs OM2 vs OM3 vs OM4 vs OM5: What's the

Learn the multimode fiber differences, including OM3 vs OM4, OM2 vs OM3 and how to choose the right multimode fiber and modules for networks.

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

Understanding the differences between OM1, OM2, OM3, OM4, and OM5 is critical for network engineers, procurement managers, and system designers planning

Fiber Optic Cable Types – Multimode and Single Mode

Multimode Fibers – OM1, OM2, OM3, OM4 and OM5 Multimode fibers are identified by the OM (optical mode) designation and their specifications

Contact Us

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