

How many gigabits can an om4 fiber optic cable run



Overview

The maximum data rates supported by OM4 fiber include: 10 Gbps (Gigabits per second): OM4 fiber can support 10 Gbps over a distance of up to 550 meters. OM3, OM4, and OM5 are types of multi-mode optical fibres commonly used in data centres and enterprise environments to support various network speeds and transmission distances, including 10 gigabit Ethernet (10G), 40 gigabit Ethernet (40G), 100 gigabit Ethernet (100G) and 400 gigabit Ethernet. With OM4 fiber, you can transmit a 10G Ethernet signal up to 400 meters, a 25G Ethernet signal up to 100 meters, a 40G Ethernet signal up to 150 meters, and a 100G Ethernet signal up to 70m OM3 and 100m OM4. Two of the most widely deployed laser-optimized multimode fibers are OM3 and OM4, both designed to support high-speed data transmission. While single-mode fiber (SMF) dominates long-distance and carrier-grade infrastructure, multimode fiber remains the most cost-efficient and practical choice for enterprise buildings, campus networks, and modern data centers.



Article Content

Jan 26, 2026

Fiber Optic Patch Cable Directory

OM4 Patch Cables are made to provide bandwidth that will support transmission of 10 Gigabits, and can be used for applications up to 550 meters. The refractive index of OM4 fiber decreases towards the

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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

Mar 10, 2026

How Far Can OM4 Multimode Fiber Transmit? | TTI Fiber

At 10 Gbps, OM4 can transmit up to 550 meters. At 40 Gbps, it can cover around 150 meters. At 100 Gbps, OM4 works reliably up to 100 meters. This makes OM4 ideal for large-scale

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Different Fiber Optic Cable and supported distance

For best performance and longer distances, OM4 or OM5 fiber is recommended for speeds 16Gbps and above in FC environments.

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Fiber Optic Cable Price Per Foot Guide 2026

Typical cost range for a fiber optic project includes cable, hardware, and labor, with total project prices often expressed as a per-foot rate plus a lump sum for labor. For example, many

Nov 13, 2025

OM3 vs OM4 Fiber: Differences, Speeds, and Use Cases

OM4 fiber builds on OM3 technology, offering greater bandwidth and extended reach for the same core size. It's specifically designed to handle higher data rates like 40 Gbps and 100 Gbps over longer

Jan 21, 2026

Fiber Optic Cable OM3 vs. OM4: Speed, Distance, and Differences

In this guide, we will compare OM3 vs. OM4 fiber optic cables from both a technical and practical perspective, including: The core specifications and bandwidth differences

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Multimode Fiber Optic Cable Types: OM1 vs OM2 vs

OM3 supports distances of 1000m for 1 Gbps, 300m for 10 Gbps and 100m for 40/100 Gbps. OM4 supports distances of 1000m for 1 Gbps, 550m for 10

Jul 08, 2025

Fiber optic patch cable Uniboot, OM4, LC

KABELMEISTER SO-LW10-020 Fiber optic patch cable Uniboot, OM4, LC - LC The fiber optic (FO) uniboot patch cables from kabelmeister® are used wherever fast and reliable data transmission is

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Fibre Optic Distance Limits Explained – OM3, OM4 & OS2

In simple terms, how far can a fibre cable transmit a signal before it begins to degrade? The answer depends on several interrelated

Aug 03, 2025

Fiber Optic Cable vs Patch Cord vs Pigtail – Complete

When you build or upgrade a fiber network, the same four words pop up everywhere— fiber optic (bare fiber), pigtail, patch cord, optical cable. They're

May 31, 2026

Set Up a Fiber-Optic Network in Your Home or Office

Learn about the various fiber-optic components used for running fiber in your house, office, or between buildings. Find out how to use fiber optics for

Jun 06, 2026

10GB Multimode OM4 Fiber Optic Cables: A Comprehensive

This blog provides a detailed overview of 10GB multimode OM4 fiber optic cables, explaining their specifications, applications, and benefits. It highlights their use in data centers and enterprise

Aug 09, 2025

Understanding the 12 Strand Multimode Fiber Optic Cable: A ...

Multimode fiber optic cables can carry multiple light modes or signals, making them ideal for use in high-bandwidth, short-distance applications. The term “12 strand” refers to the number of

Dec 22, 2025

Fiber Optic Cables | Fiber Patch Cables | Patch Cords,

OM4 Bend Insensitive - TAA OM4 Bend Insensitive - TAA Compliant 50/125 40/100Gb Multimode Duplex Fiber Optic Cables.

May 29, 2026

OM4 multimode fiber optic cable MMF duplex 50µm/125µm LC/PC

15m length OM4 multimode (MMF) duplex fiber optic cable, 50µm/125µm LC/PC-LC/PC. OM4 optical fiber is laser-optimized, with high bandwidth, a 50µm core diameter, and a 125µm cladding diameter.

Mar 27, 2026

Fiber Optic Cable Distance: A Comprehensive Guide

What Factors affect the fiber optic cable distance? Many factors decide the fiber cable distance, but the key factors include the below six aspects.

Sep 25, 2025

TN_OM3, OM4, OM5 Distance and Speeds

OM3, OM4, and OM5 are types of multi-mode optical fibres commonly used in data centres and enterprise environments to support various network speeds and transmission distances, including 10

Dec 14, 2025

OM4 Multimode Fiber FAQ: High-Speed Connectivity

OM4: Supports 10 Gbps up to 550 meters. OM1 and OM2: Primarily designed for 1 Gbps data rates. OM3 and OM4: Designed to support 10 Gbps

Jun 06, 2026

Fiber Optics Fundamentals: Construction, Transmission, and

The performance of a fiber optic system depends heavily on the physical and optical properties of its components. To understand and design reliable optical links, engineers must consider the

Sep 27, 2025

10 Gigabit Ethernet

Optical fiber A Foundry Networks router with 10 Gigabit Ethernet optical interfaces (XFP transceiver). The yellow cables are single-mode duplex fiber optic

Nov 11, 2025

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

Contact Us

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