

OM1 Multimode Fiber Transmission Distance

Article Overview

OM1 multimode fiber supports up to 275 meters at 1 Gbps and 33 meters at 10 Gbps.

OM1 is the earliest standardized multimode fiber, featuring a 62.5 μm core diameter and an orange jacket for easy identification. It typically uses LED light sources and operates at 850 nm and 1300 nm wavelengths, making it suitable for short-distance, low-speed Ethernet applications within buildings or small LANs (EDGE Optical, Wolontek, Weunion) .

Transmission Distances by Data Rate

- 100 Megabit Ethernet (Fast Ethernet): OM1 can easily support standard distances up to 300 meters, making it suitable for legacy LAN setups .
- 1 Gigabit Ethernet (Gigabit Ethernet): Maximum distance is approximately 275 meters at 850 nm with LED sources .
- 10 Gigabit Ethernet (10GBASE-SR): OM1 is limited to 33 meters, due to modal dispersion and lower bandwidth (200 MHz·km) .

Key Characteristics

- Core Size: 62.5 μm
- Bandwidth: 200 MHz·km at 850 nm
- Light Source: LED
- Jacket Color: Orange...

Article Content

Jun 02, 2026

OM1 VS OM5 Fiber Guide: Bandwidth & Max Distance Charts (2025)

Match your fiber type to your distance needs and network speeds. The table below shows all critical distance specs across OM1

Nov 04, 2025

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,

Jan 19, 2026

Fiber Optic Cable Types: Transmission Distance by Data Rate (1GB to ...

The performance of fiber cables especially their transmission distance at different data rates varies significantly

Dec 03, 2025

Understanding OM1 Fiber Optic Cable: The Essential

A: OM1 multimode fiber optic cables are best suited for short distance data transmission

May 16, 2026

cablehub

Hier sollte eine Beschreibung angezeigt werden, diese Seite lässt dies jedoch nicht zu.

Nov 21, 2025

Multimode Fiber Grades: A Look at OM1 through OM5

Multimode fiber (MMF) is commonly used in local area networks (LANs) due to its ability to transmit multiple light signals

Jun 20, 2026

Understanding the Distance Limitations of Multimode

When designing data center networks, one of the key considerations is the type of fiber

Apr 27, 2026

Multimode Fiber: OM1 to OM5 Explained

Multimode fiber remains a popular choice for high-speed networking within enterprises and data centers. It enables

Aug 15, 2025

OM1 VS OM5 Fiber Guide: Bandwidth & Max Distance Charts (2025)

Compare OM1, OM2, OM3, OM4, and OM5 fiber types. Get the 2025 bandwidth specs, max distance charts for

Oct 03, 2025

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

When choosing the appropriate multimode fiber type, consider factors such as required data rates, transmission

Nov 24, 2025

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

So multimode fiber is suitable for short haul application, allowing transmission distances of up to about 550m at 10Gbit/s.

Sep 20, 2025

Multimode Fiber Types: OM1 vs OM2 vs OM3 vs OM4

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

Apr 05, 2026

Fiber Distance Guide: MMF & SMF Limits | Velocity Cabling

Learn verified distance limits for OM1 through OM5 and OS1/OS2 fiber types per IEEE 802.3 and TIA-568.2-D

Aug 12, 2025

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

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

Mar 27, 2026

Differences_between_OM1__OM2__OM3__OM4_ copy

Multimode fiber cable is prefixed with "OM" and Single mode fiber cable is prefixed with "OS". In ISO/IEC 11801 and EIA/TIA standards

Oct 15, 2025

Guide to Multimode Fiber: OM1, OM2, OM3, OM4, OM5

Multimode fiber is mainly used to transmit across comparatively shorter distances, for example, inside a building or for

Aug 05, 2025

OM1 Vs OM2 Vs OM3 Vs OM4 Vs OM5: Multimode Fibre Guide

Multimode optical fiber is the preferred choice for optical fiber communication systems due to its affordability and

Nov 02, 2025

Multimode Fiber Distance Limits in Data Centers

OM1 fiber has a core diameter of 62.5 micrometers and a bandwidth of 200 MHz·km, typically used for low-speed applications like

Aug 21, 2025

Exploring Multimode Fiber Distance Limits in Data Centers

OM1 fiber has a core diameter of 62.5 μm and comes with an orange jacket. It uses an LED light source and supports

Apr 09, 2026

Multimode Fiber OM1 vs OM2 vs OM3 vs OM4 vs OM5

OM1 vs OM2 vs OM3 vs OM4 vs OM5: What's the Difference? The prime distinction between multimode fibers rests

Nov 02, 2025

Guide To Multimode Fiber (62.5um & 50um, OM1 to OM5)

OM1 fiber can transmit data up to 33 meters at a data rate of 1 Gbps, while OM5 fiber can transmit data up

Oct 13, 2025

Different Fiber Optic Cable and supported distance

Multimode fiber (MMF) is commonly used for short-distance high-speed data transmission in storage area networks

Apr 10, 2026

OM1 OM2 OM3 OM4 OM5 Multimode Fibers Explained

Understand the differences between OM1, OM2, OM3, OM4, and OM5 multimode fibers, including bandwidth,

Mar 27, 2026

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

May 15, 2026

OM5 Fibre | Empowering Networks with Speed and Reach

Is OM5 Specified in Optical Transmission Standards such as Ethernet and Fibre Channel? There are no transmission

Jan 22, 2026

Multimode Fiber Types: OM1 vs OM2 vs OM3 vs OM4

The types of multimode fiber are distinguished by their core diameters, transmission performance, and

Jul 28, 2025

OM1 vs OM2 vs OM3 vs OM4 vs OM5 Multimode Fiber

We will discuss their speed, transmission distance, application scenarios in detail, and

Contact Us

For more information, pricing, or custom solutions, please contact us:

Website: <https://www.iiss.co.za>

Email: sales@iiss.co.za

Phone: +27 63 174 2895

Address: Unit 8, Innovation Park, 15 Rivonia Road, Sandton, Johannesburg,
2196, South Africa

This document is for informational purposes only. Specifications subject to
change without notice.

