

OM5 vs OM4 fiber optic



Article Overview

OM4 and OM5 are both 50 μm multimode fibers, but OM5 supports a wider wavelength range for SWDM applications, while OM4 is optimized for standard 850 nm transmission.

Core and Bandwidth

Both OM4 and OM5 fibers have a 50 μm core diameter and are designed for high-speed data transmission in data centers and enterprise networks. OM4 has a modal bandwidth of 4700 MHz·km at 850 nm, optimized for standard 10G, 40G, and 100G Ethernet links. OM5 maintains the same 850 nm bandwidth but adds support for 2470 MHz·km at 953 nm, enabling multiple wavelengths to be transmitted simultaneously using Short Wave Division Multiplexing (SWDM).

Wavelength and Multiplexing

- OM4: Optimized for a single wavelength, typically 850 nm, suitable for standard VCSEL-based transceivers.
- OM5: Known as Wideband Multimode Fiber (WBMMF), it supports a wavelength range from 850 nm to 953 nm, allowing four different wavelengths to travel simultaneously on the same fiber strand without interference, which is essential for SWDM applications [5[^]].

Transmission Distances

For standard Ethernet applications at 850 nm, OM4 and OM5 offer similar distances:...

Article Content

May 30, 2026

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

Identified by ISO 11801 standard, multimode fiber optic cables can be classified into OM1 fiber, OM2 fiber, OM3 fiber,

Feb 01, 2026

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

This comprehensive guide explores Multimode Fiber Cable Types, covering technical specifications, deployment

Apr 10, 2026

OM5 Fiber vs OM4 and OM3: Key Differences Explained

OM5 fiber guide. Learn differences between OM3, OM4, and OM5 fibers for networking and data center applications.

Jan 29, 2026

OM1 vs OM2 vs OM3 vs OM4 vs OM5 Multimode Fiber Guide | EDGE

Compare OM1, OM2, OM3, OM4, and OM5 multimode fiber specs, distances, bandwidth, and applications. Essential

Mar 14, 2026

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

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OM1, OM2, OM3, OM4, OM5 Fibers: Key Differences Explained

Compare OM1, OM2, OM3, OM4, and OM5 multimode fibers. Learn bandwidth capabilities, distance limits, and

Sep 15, 2025

Multimode Fiber Standards Guide: OM1 OM2 OM3 OM4 OM5

In today's information age, fiber-optic communication—known for high speed and large bandwidth—has become the

Dec 18, 2025

OM4 vs OM5 Fiber Patch Cable: Key Differences, Performance

Two popular multimode fiber types— OM4 and OM5 fiber patch cables —are often compared when designing high

Jun 08, 2026

Understanding the Differences Between OM4 and OM5 Multimode

We'll discuss the differences between OM4 and OM5 and clear up the misconceptions, discussing when OM5 is an appropriate

May 12, 2026

OM4 vs OM5 Fibre: What's the Difference and Which Should You

When OM5 was introduced in 2016 it generated considerable interest — a new multimode fibre grade promising wideband capability,

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

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

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

This doubles fiber utilization vs standard parallel optics. OM5 is specifically optimized for SWDM with reduced

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

Explore OM1, OM2, OM3, OM4 & OM5 multimode fibres. Compare features, bandwidth & distances to choose the

Oct 05, 2025

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

As a professional manufacturer and supplier of premium optical fiber products, Weunion develops and supplies

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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 Fiber By fiberlife. Posted

Feb 17, 2026

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.

May 08, 2026

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

Multimode fiber optic cable types OM1, OM2, OM3, OM4 and OM5 compared for core size, bandwidth, speed, distance

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OS1 vs OS2, OM3 vs OM4 vs OM5 – Fiber Optic Cable Differences

Discover the key differences between OS1 and OS2 singlemode fibers, and OM3, OM4, OM5 multimode cables. Learn

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OM1 OM2 OM3 OM4 OM5 Multimode Fibers Explained

Multimode optical fiber plays a crucial role in modern networking. Among its types, OM1 to OM5 fibers differ

Jan 02, 2026

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

Feb 11, 2026

OM4 vs OM5 Fiber: Comparison & Cost Analysis (2026 Guide)

Thinking of upgrading to OM5? Read this OM4 vs OM5 comparison first. We explain why OM5 offers NO distance gain for standard

Contact Us

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