

Multi-Mode Fiber Optic Cable — OM3 / OM4 / OM5

IEC 60793-2-10 | 50/125µm | Data Center Server-to-Switch & High-Speed LAN

PRODUCT OVERVIEW

Mirabel Energy USA multi-mode fiber cables deliver cost-effective, high-bandwidth performance for the server-to-switch, top-of-rack, and end-of-row connections that form the dense fabric of modern AI data centers and high-performance computing environments. OM4 remains the dominant choice for 100G/400G short-reach links, while OM5 (Wide Band Multi-Mode Fiber — WBMMF) extends capability into the 850–953nm wavelength range, enabling short-wave division multiplexing (SWDM) for 40G, 100G, and 400G over fewer fiber strands — reducing cable plant complexity and infrastructure cost. All grades are optimized for 850nm VCSEL-based transceivers and are fully compatible with MTP/MPO high-density connector systems.

4700 MHz-km OM4 Bandwidth	28000 MHz-km OM5 Bandwidth	400G Max Speed	50 / 125 µm Core Diameter
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APPLICATIONS

- Data center server-to-switch and top-of-rack (ToR) connections
- Storage area network (SAN) and NVMe fabric interconnects
- High-performance computing (HPC) and AI cluster short-reach links
- 40G / 100G / 400G parallel optic MTP/MPO installations (OM4/OM5)
- Campus LAN backbone and intra-building horizontal distribution
- SWDM4 and BiDi transceiver applications (OM5)

KEY SPECIFICATIONS

- OM3: 2000 MHz-km EMB — 100G up to 100m, 40G up to 150m
- OM4: 4700 MHz-km EMB — 100G up to 150m, 400G up to 100m
- OM5: 28000 MHz-km — SWDM capable, 850–953nm wavelength range
- 50/125µm laser-optimized graded-index core for VCSEL compatibility
- Aqua jacket (OM3/OM4) / Lime-green jacket (OM5) per TIA standards
- Compatible with MTP/MPO 12/24-core and LC duplex connector systems
- Available in tight-buffered, loose-tube, breakout, and distribution constructions
- LSZH, plenum (OFNP), riser (OFNR), and armored jacket options available

TECHNICAL SPECIFICATIONS

Parameter	OM4 (50/125µm)	OM5 (50/125µm)
Core / Cladding	50 / 125 µm	50 / 125 µm
Bandwidth (EMB)	4700 MHz-km	28000 MHz-km
Attenuation @ 850nm	≤3.0 dB/km	≤3.0 dB/km
Attenuation @ 1300nm	≤1.0 dB/km	≤1.5 dB/km
100G Reach (SR4)	Up to 150m	Up to 150m
400G Reach (SR4)	Up to 100m	Up to 150m (SWDM)
Wavelength Range	850nm	850–953nm

PART / ORDER INFO 12 · 24 · 48 · 144 strand counts OM3, OM4, OM5 grades stocked	STOCKING LOCATIONS Reno, NV · Houston, TX Project-phased delivery available	OEM REPRESENTATIVE GCP Energy LLC — Salt Lake City, UT portal.gcpenergy.us
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