

Optical Fiber Adapter

TECHNICAL DATA SHEET

**LC Adapter MM-OM4-DX-UPC 1.25mm
MMF**



LC Adapter MM-OM4-DX-UPC 1.25mm MMF

Product Description:

The LC Adapter MM-OM4-DX-UPC 1.25 mm Multimode Fiber (MMF) is a high-precision duplex fiber optic adapter designed to connect two LC/UPC OM4 multimode fiber connectors with ultra-low insertion loss and stable optical performance.



It uses precision zirconia ceramic alignment sleeves to ensure accurate fiber core alignment and consistent signal transmission. Designed for OM4 laser-optimized multimode fiber systems, this adapter is suitable for high-speed data communication in data centers, enterprise networks, cloud infrastructure, and telecom environments.

The duplex configuration supports simultaneous transmit and receive (Tx/Rx) communication, making it ideal for high-bandwidth optical networks such as 10G, 40G, and 100G Ethernet applications.

Features:

- LC/UPC duplex OM4 multimode adapter
- Precision zirconia ceramic alignment sleeves
- Duplex design for Tx/Rx simultaneous communication
- Ultra-low insertion loss for high-speed networks
- Snap-in installation for patch panels and ODF systems
- High durability with long mating lifecycle

Applications:

- Data centers and cloud computing infrastructure
- 10G / 40G / 100G Ethernet networks
- Storage Area Networks (SAN)
- Telecom and communication systems
- Fiber patch panels and ODF systems
- Enterprise structured cabling systems

Benefits:

- Ensures precise fiber alignment for minimal signal loss
- Supports ultra-high-speed Ethernet transmission (10G/40G/100G)
- Improves network reliability and stability
- Enables efficient high-density fiber management
- Easy installation and maintenance
- Long operational lifespan with consistent performance
- Suitable for demanding enterprise and cloud environments
- Reduces downtime and connection issues

Technical Specifications:

Parameter	Specification
Connector Type	LC Duplex (DX)
Fiber Type	Multimode OM4 (50/125 μm)
Ferrule Size	1.25 mm (LC Standard)
Polish Type	UPC (Ultra Physical Contact)
Insertion Loss	≤ 0.2 dB (Typical), ≤ 0.3 dB Max
Return Loss	≥ 35 dB
Alignment Sleeve	Zirconia Ceramic
Mating Durability	≥ 1000 Cycles
Repeatability	≤ 0.2 dB Variation
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°C
Humidity	Up to 95%
Compliance Standards	IEC 61754-20, TIA/EIA 604-10-A
RoHS Compliance	Yes
Color	Violet (OM4 Identification)

Environmental Specifications:

Parameter	Specification
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°C
Relative Humidity	Up to 95%
Flame Rating	UL94-V0 (Optional)
Vibration Resistance	Stable Optical Performance Under Vibration
Shock Resistance	High Mechanical Durability
Dust Protection	With Dust Caps
Corrosion Resistance	Resistant to Corrosion and Moisture
Indoor / Outdoor Use	Primarily Indoor Applications
RoHS Compliance	Yes