

Product Specification

MPO/MTP® Trunks Cables

IDEAL FOR DATA CENTER HIGH DENSITY CABLING SYSTEM



Features

- US Conec MTP® connector
- Corning SMF-28® Singlemode fiber
- Corning Clearcurve® multimode fiber
- 0.75dB Standard IL Singlemode
- 0.35dB ultra low IL Multimode
- Factory terminated and tested
- A unique offset keying feature is designed into the connector
- OFNR/LSZH (low smoke zero halogen) jacket
- Supports InfiniBand, Ethernet

Compliance

- RoHS, CE (EN 50575 CPR) and ISO9001 Compliant
- Qualified to TIA-568.3-D
- Standards Compliance TIA 604-18
- Standards Compliance IEC 61754-7-3; 61754-7-4

MPO/MTP® Trunk Cables Description

The MPO/MTP® trunk cables, available in 8-core, 12-core, and 16-core configurations, are designed to meet the evolving demands of high-speed data transmission in hyperscale data centers. The 8-core trunk cable is ideal for 400G QSFP-DD SR4 and DR4 optics, offering a compact and cost-effective solution for seamless migration to higher data rates. The 12-core trunk cable supports 100G SR4, 400G SR8, and 400G DR4 optics, providing versatility and reliability for high-density environments. Meanwhile, the 16-core trunk cable is engineered for next-generation 800G applications, such as 800G QSFP-DD/OSFP DR8 and XDR8 optics, as well as 400G QSFP-DD SR8 optics, ensuring future-proof performance. All configurations feature US Conec MTP® connectors and high-quality fiber, optimizing space efficiency, reducing cable management challenges, and enhancing airflow in data centers.

Technical Specification

1. Physical Characteristics

Parameter	Description
Fiber Count	8 Fibers, 12 Fibers, 16 Fibers, 24 Fibers
Fiber Mode	Single Mode: OS2 9/125μm
	Multimode: OM3/OM4/OM5 50/125μm
Glass Fiber	OS2: SMF-28® Ultra Fiber
	OM3/OM4/OM5: Corning ClearCurve® Multimode Fiber
Connector Type	MTP® Female, Male
	MTP® PRO Female, Male
Connector Brand	US Conec MTP®, US Conec MTP® PRO
Polarity	Type A, Type B, Type C
Cable Jacket	Plenum (OFNP)
	Low Smoke Zero Halogen (LSZH)
	OFNR (Riser)
Cable Type	Bunch, Ribbon

2. Color Characteristics

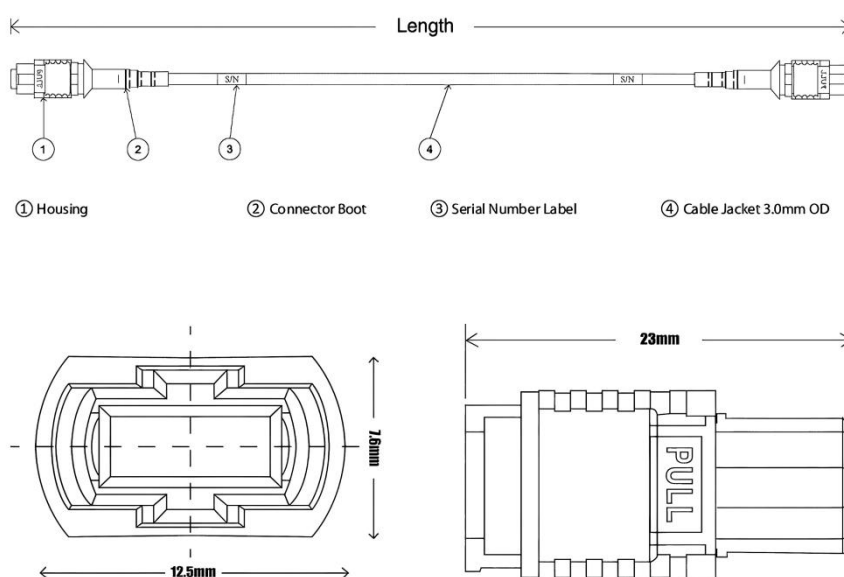
Parameter	MTP® Color
Cable Jacket	OS2: Yellow
	OM3: Aqua
	OM4: Magenta
	OM5: Lime Green
Housing	OS2: Green
	OM3: Aqua
	OM4: Aqua (UPC), Green (APC)
	OM5: Lime Green
Boot	8 Fibers: Grey
	12/16 Fibers: Black
	24 Fibers: Red

3. Optical Characteristics

Parameter	Description
Attenuation (dB/km)	Single Mode: ≤0.32 at 1310nm, ≤0.18 at 1550nm
	OM3 Multimode: ≤3.5 at 850nm, ≤1.5 at 1300nm

	OM4 Multimode: ≤ 2.3 at 850nm, ≤ 0.6 at 1300nm or ≤ 3.5 at 850nm, ≤ 1.5 at 1300nm
	OM5 Multimode: ≤ 2.3 at 850nm, ≤ 1.7 at 953nm, ≤ 0.6 at 1300nm
Insertion Loss (dB)	Single Mode: ≤ 0.75 (MTP®-16) or ≤ 0.35
	Multimode: ≤ 0.35 or ≤ 0.25
Return Loss (dB)	Single Mode: ≥ 60
	Multimode: ≥ 20
Wavelength (nm)	Single Mode: 1310/1550
	Multimode: 850/1300
Cable Diameter	3.0mm
Min. Bend Radius (Optical Fiber)	Single Mode: 10mm, Multimode: 7.5mm
Min. Bend Radius (Fiber Cable)	Single Mode: 10/5D (Dynamic/Static)
	Multimode: 20/10D (Dynamic/Static)
Operating Temperature	Plenum (OFNP): -10 to 60°C (14 to 140°F)
	OFNR (Riser)/LSZH: -10 to 70°C (14 to 158°F)
Storage Temperature	Plenum (OFNP): -10 to 70°C (14 to 158°F)
	OFNR (Riser)/LSZH: -20°C to +70°C (-4 to 158°F)

Technical Drawing

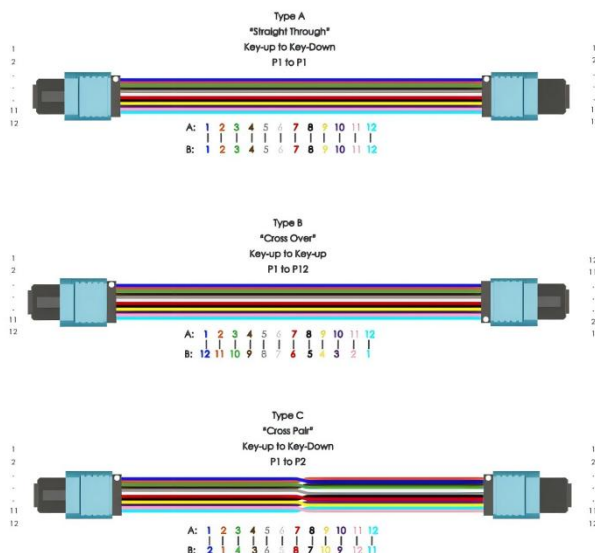


Note:

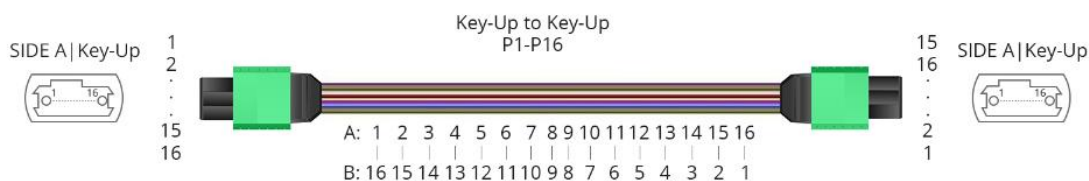
- $L \leq 1\text{m}$, tolerance $\pm 0.05\text{m}$; $1 < L < 20\text{m}$, tolerance $\pm 0.10\text{m}$; $L \geq 20\text{m}$, tolerance $\pm L * 1\%$.
- The connector types in the figure are for reference only. MTP/MPO® (Male/Female) are optional.
- In addition to the standard A/B/C polarities, we can also produce according to customer requirements.

Fiber Polarity Diagram

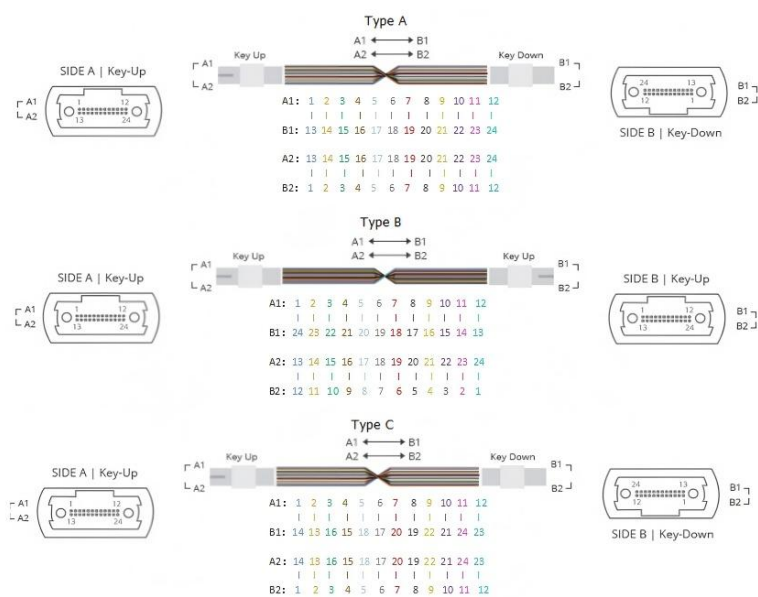
1. 12F Polarity



2. 16F Polarity



3. 24F Polarity



Production Center

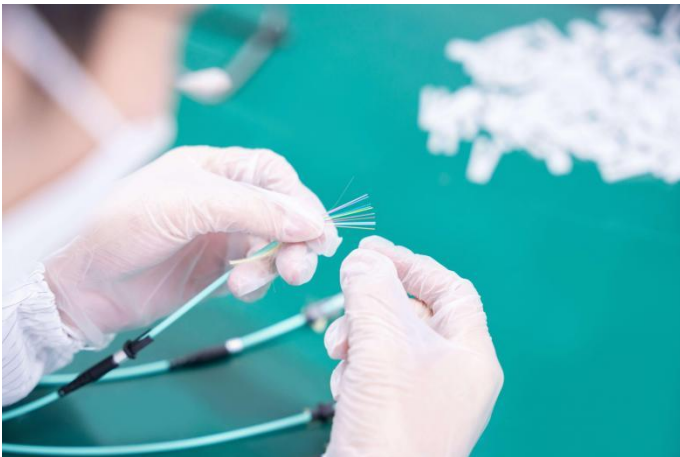
Each fiber is fully verified and tested under the LSOLINK Assurance Program, which features the world's most advanced analytical equipment to ensure our transceivers comply with international common protocol standards while still operating flawlessly in your facility.



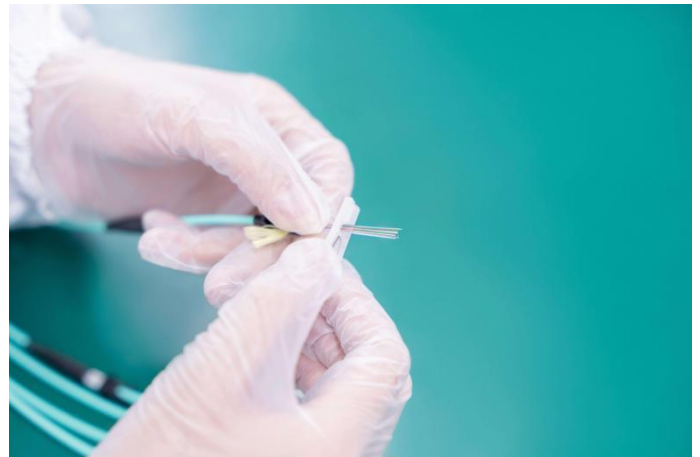
Optical Fiber Stripping



Optical Fiber Ferrule



Optical Fiber Paralleling



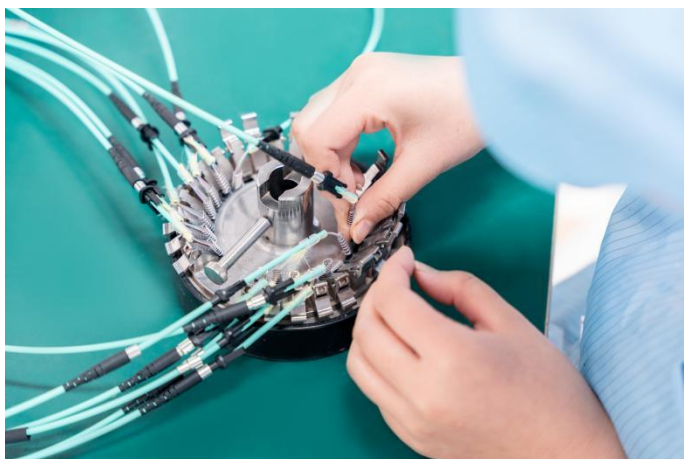
Optical Fiber Fixed



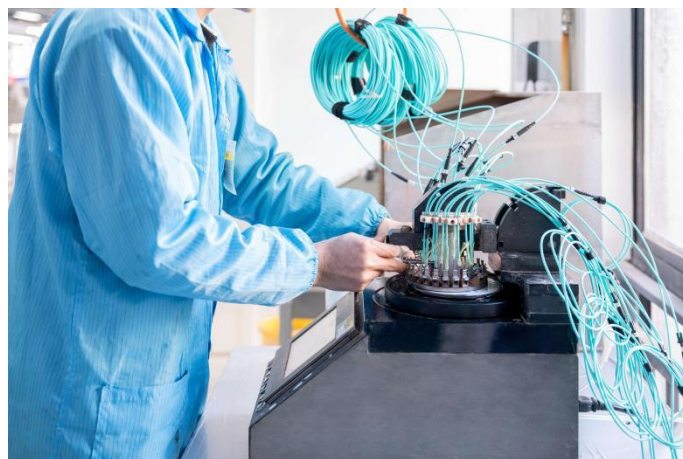
Glue Solidifies



Plug-in Installation



Installation Fixture



Optical Fiber Polishing



End Face Inspection



Crimp Connector



Polarity Detection



Install Label


Order Information

Part Number	Description
OS2-B-MPO8FA-MPO8FA	MPO-8 (Female APC) to MPO-8 (Female APC) OS2 Single Mode Elite Trunk Cable, 8 Fibers, Type B, Plenum (OFNP), Yellow
OM4-B-MPO8FU-MPO8FU	MPO-8 (Female UPC) to MPO-8 (Female UPC) OM4 Multimode Elite Trunk Cable, 8 Fibers, Type B, Plenum (OFNP), Magenta
OM4-B-MPO8FA-MPO8FA	MPO-8 (Female APC) to MPO-8 (Female APC) OM4 Multimode Elite Trunk Cable, 8 Fibers, Type B, Plenum (OFNP), Magenta
OM3-B-MPO8FU-MPO8FU	MPO-8 (Female UPC) to MPO-8 (Female UPC) OM3 Multimode Elite Trunk Cable, 8 Fibers, Type B, Plenum (OFNP), Aqua
OS2-B-MPO12FA-MPO12FA	MPO-12 (Female APC) to MPO-12 (Female APC) OS2 Single Mode Elite Trunk Cable, 12 Fibers, Type B, Plenum (OFNP), Yellow
OM4-B-MPO12FU-MPO12FU	MPO-12 (Female UPC) to MPO-12 (Female UPC) OM4 Multimode Elite Trunk Cable, 12 Fibers, Type B, Plenum (OFNP), Magenta
OM4-B-MPO12FA-MPO12FA	MPO-12 (Female APC) to MPO-12 (Female APC) OM4 Multimode Elite Trunk Cable, 12 Fibers, Type B, Plenum (OFNP), Magenta
OM4-G-MPO16FA-MPO16FA	MPO-16 (Female APC) to MPO-16 (Female APC) OM4 Multimode Elite Trunk Cable, 12 Fibers, Type B, Plenum (OFNP), Aqua

Further Information

 | Lighting the Path to Global Links

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