

MTP®/MPO Shuffle Cable



Description

MTP®/MPO Shuffle cables are pre-engineered assemblies designed with customized fiber mapping inside the cable to achieve specific channel reconfiguration requirements.

Unlike conventional straight-through trunk cables, Shuffle cables internally re-route fiber positions across connectors, enabling predefined polarity schemes, lane re-mapping, or non-standard connectivity without additional patching.

By embedding the routing logic within the cable structure, they simplify network architecture, reduce manual intervention, and improve deployment efficiency in high-density data center environments.

Features

- Factory-terminated and 100% tested for performance consistency
- Optional pulling eyes for protected and efficient installation
- Flexible customization (fiber count, length, connector type, and mapping configuration)

Applications

- Data Centers
- 40G/100G applications
- Storage area network-fiber channel
- Parallel optics
- InfiniBand
- The internal connector application in fiber equipment

Standards Compliance

- TIA-568.3-D
- TIA-604-5
- IEC 61754-7
- IEC 61753-1
- Telcordia GR-1435-CORE
- RoHS Compliant

General Specification

Constructions	Descriptions						
Fiber Count	8-432 Fibers						
Fiber Mode	Single-mode: G.652/G.657						
	Multimode: OM1/OM2/OM3/OM4						
Cable Jacket Material	Low Smoke Zero Halogen (LSZH)						
	PVC						
Cable Jacket Ratings	Riser (OFNR)						
	Plenum (OFNP)						
Cable Jacket Color	G.652/G.657: Yellow						
	OM1/OM2: Orange						
	OM3: Aqua						
	OM4: Aqua/Magenta						
	Customized						
Polarity	Customized						
Connector Ferrule	12F/16F/24F/32F/48F						
Connector Brand	US Conec MTP®, Senko MPO, Nissin MPO, Sanwa MPO, FURUKAWA MPO, TASLO MPO						
Connector Color	Ferrule	SM		MM			or Customized
		PC	APC	PC (OM3)	PC (OM4)	APC	
	Low Loss	Yellow	Yellow	Aqua	Magenta	Green	
Pulling Eye	Customized						
Operating Temperature	-10 °C to +60 °C						
Storage Temperature	-40 °C to +85 °C						

Notes:

SM Low Loss option is not available for 32F and 48F MTP/MPO connectors.

Technical Specification

Optical Properties	Single-mode	Multimode
Insertion Loss (dB)	Low Loss ≤ 0.35 (Typical: ≤ 0.15)	Low Loss ≤ 0.35 (Typical: ≤ 0.1)
Return Loss (dB)	PC ≥ 50 ; APC ≥ 60	PC ≥ 20 ; APC ≥ 40
Wavelength (nm)	1310/1550	850/1300
Durability	≤ 0.3 (dB) Typical change, 50 matings	