

# MTP®/MPO Trunk Cables Datasheet

## IDEAL FOR DATA CENTER HIGH DENSITY CABLING SYSTEM

Designed for data center applications requiring quick infrastructure deployment such as main, horizontal, and zone distribution areas.



## MTP®/MPO Trunk Cables

MTP®/MPO trunk multifiber cable assemblies facilitate rapid deployment of high density backbone cabling in data centers and other high fiber environments, reducing network installation or reconfiguration time and cost. They are used to interconnect cassettes, panels or ruggedized MTP®/MPO fanouts, spanning MDA, HDA and EDA zones.

## Standards Compliance

- RoHS, CE (EN 50575 CPR), ISO9001 and WEEE Compliant
- EIA/TIA, Telecordia GR-326-CORE Standards
- IEC61754-7
- TIA 605-4 (FOCIS 5)
- YD/T1272.5

## Features

- US Conec MTP® connector, Senko MPO Plus® premium connector
- SMF-28® Ultra optical fiber, Corning Clearcurve® OM3/OM4 fiber, YOFC Maxband® OM5 fiber
- OS2, OM3, OM4, OM5 available
- 0.35dB elite low loss connector
- Factory terminated and tested
- Allow easy migration from 10GbE to 40GbE or 100GbE
- Pulling eyes are provided as an option to protect the fiber ends during installation

## Technical Specification

Construction	Description
<b>Fiber Count</b>	8-144 Fibers
<b>Fiber Mode</b>	Single Mode: OS2 9/125µm Multimode: OM3/OM4/OM5 50/125µm
<b>Fiber Brand</b>	OS2: SMF-28® Ultra optical fiber OM3/OM4: Corning ClearCurve® fiber OM5: YOFC Maxband® fiber
<b>Connector Type</b>	MTP® Female, Male; MPO Female, Male
<b>Connector Brand</b>	US Conec MTP®, Senko MPO Plus®
<b>Polarity</b>	Type A, Type B, Type C
<b>Cable Jacket Ratings</b>	Plenum (OFNP) Low Smoke Zero Halogen (LSZH) Riser (PVC)
<b>Cable Type</b>	Bunch

Color Codes	MTP®	MPO
<b>Cable Jackets</b>	OS2: Yellow OM3: Aqua OM4: Magenta OM5: Lime Green	OS2: Yellow OM3: Aqua OM4: Magenta OM5: Lime Green
<b>Connectors</b>	OS2: Green OM3/OM4: Aqua OM5: Lime Green	OS2: Green OM3/OM4: Aqua OM5: Lime Green
<b>Boots</b>	8 Fibers: Grey 12 Fibers: Black 24 Fibers: Red	8/12/24 Fibers: Black

## Technical Specification

Physical Properties	Description
<b>Cable Diameter*</b>	3.0mm
<b>Breakout Length</b>	0.5/0.3m
<b>Minimum Bend Radius</b>	Single Mode: 10.0mm, Multimode: 7.5mm
<b>Operating Temperature</b>	-10°C to 70°C (14 to 158 °F)
<b>Storage Temperature</b>	-40°C to 85°C (-40 to 185 °F)

\* Please kindly note that the cable diameter of standard single MTP®/MPO cable is 3.0mm, and as for cables with different bundles, the trunk diameter is different, as shown below.

Bundle Count	MTP®/MPO-12	MTP®/MPO-24	Trunk Diameter
<b>2 Bundles*</b>	24 Fibers	48 Fibers	7.2mm
<b>3 Bundles</b>	36 Fibers	72 Fibers	9.3mm
<b>4 Bundles</b>	48 Fibers	96 Fibers	9.5mm
<b>6 Bundles</b>	72 Fibers	144 Fibers	11.7mm
<b>8 Bundles</b>	96 Fibers	/	12.01mm
<b>12 Bundles</b>	144 Fibers	/	17.3mm

\* The "bundle" means a combination of several fibers. For example, as for MTP®/MPO-12 cables, 2 bundles mean 24 Fibers (2x 12F); for MTP®/MPO-24 cables, 2 bundles mean 48 Fibers (2x 24F).

## Technical Specification

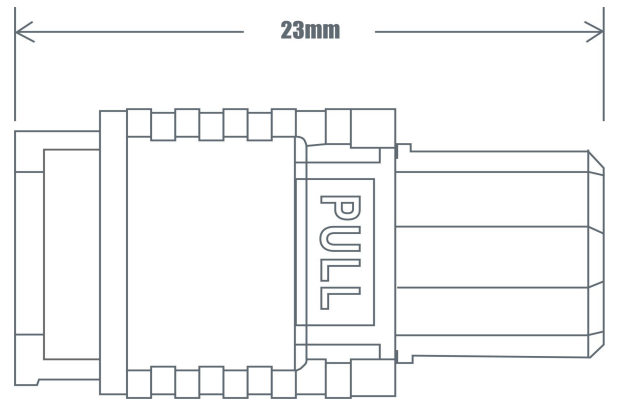
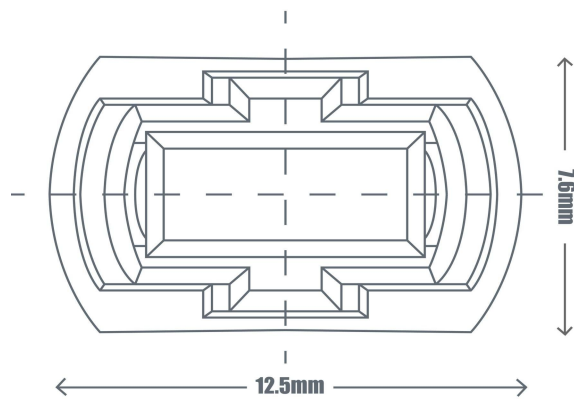
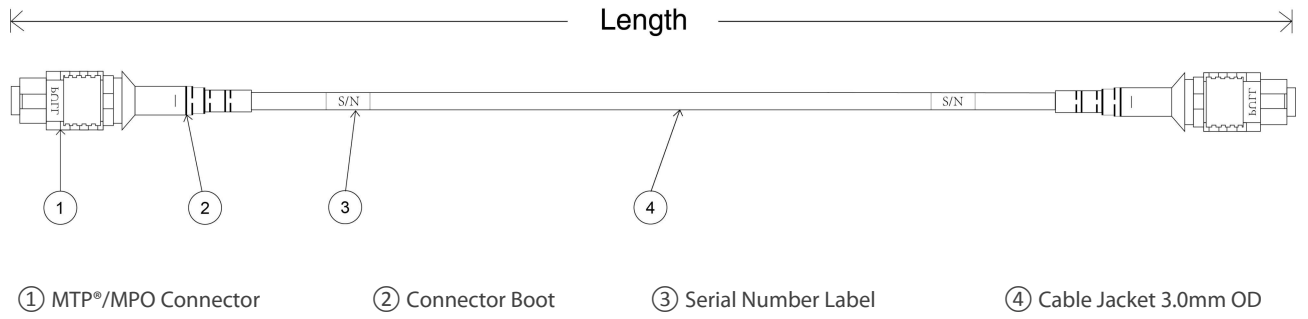
Optical Properties	Description
<b>Attenuation (dB/km)</b>	Single Mode: $\leq 0.32$ at 1310nm, $\leq 0.18$ at 1550nm OM3/OM4 Multimode: $\leq 2.3$ at 850nm, $\leq 0.6$ at 1300nm OM5 Multimode: $\leq 2.3$ at 850nm, $\leq 1.7$ at 953nm, $\leq 0.6$ at 1300nm
<b>Insertion Loss (dB)</b>	Single Mode: $\leq 0.35$ , Multimode: $\leq 0.35$
<b>Return Loss (dB)</b>	Single Mode: UPC Polish: $\geq 50$ , APC Polish: $\geq 60$ Multimode: $\geq 20$
<b>Wavelength (nm)</b>	Single Mode: 1310/1550, Multimode: 850/1300

## Transmission Distance

Multimode fiber backbone cabling distances for 10 Gbps, 40 Gbps, and 100 Gbps applications.

Backbone Application	Standard Specified Max. Distance		
	OM3	OM4	OM5
<b>10GBASE-SR (850nm)</b>	300m (984ft)	400m (1312ft)	400m (1312ft)
<b>40GBASE-SR4</b>	100m (328ft)	150m (492ft)	150m (492ft)
<b>40GBiDi</b>	100m (328ft)	150m (492ft)	200m (689ft)
<b>40GBASE-eSR4</b>	300m (984ft)	400m (1312ft)	400m (1312ft)
<b>40G SWDM4</b>	240m (787ft)	350m (1148ft)	440m (1444ft)
<b>100GBASE-SR10</b>	100m (328ft)	150m (492ft)	150m (492ft)
<b>100GBASE-SR4</b>	70m (230ft)	100m (328ft)	100m (328ft)
<b>100GBASE-eSR4</b>	200m (689ft)	300m (984ft)	300m (984ft)
<b>100G SWDM4</b>	75m (246ft)	100m (328ft)	150m (492ft)

## Technical Drawing



## Fiber Optic Cleaning

### US Conec IBC™ MPO Connectors Cleaner



#### Characteristics

- For cleaning ferrules pinned or non-pinned.
- Designed for cleaning the ferrule end-faces of MTP®/MPO connectors.
- Narrow design reaches tightly spaced MTP®/MPO adapters.
- Cost effective tool for cleaning fiber end-faces without the use of alcohol.

### NEOCLEAN®-R2 Fiber Optic Cassette Cleaner



#### Characteristics

- Effective on a variety of contaminants including dust and oils.
- Widely used in optical network maintenance, engineering or equipment
- Cassette tapes are available for replacement after 400+ cleaning operations to ensure low cleaning cost.

ID	Description
#106327	US Conec IBC™ Brand Cleaner MPO II, for 8/12/24 Fibers MPO Connectors (525+ Times)
#106397	US Conec IBC™ Brand Cleaner MTP®-16, for 16 Fibers MPO Connectors (525+ Times)
#91449	NEOCLEAN®-R2 Fiber Optic Cassette Cleaner for SC/FC/ST/LC/MPO Connectors (400+ Times)

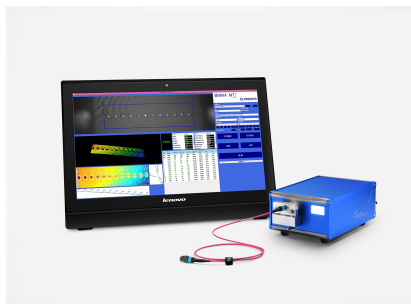
## Test Center

Comprehensive performance testing system ensures more secure operation and keeps more stable and reliable data connection. 3D interferometer provides verification of MTP®/MPO polishing process, and making all parameters of the polished MT ferrule complies and exceeds industry standards. Clean optical connectors are paramount in providing a reliable, high-performance fiber optic infrastructure.

## Professional Test Equipment



## Test Assured Program



3D Interferometer Test



End-Face Inspection

12F MTP-MTP Trunk Cable						
Serial	MTP-MTP Trunk Cable Type B					
Lot No.	000100000000					
PLN	00000000					
Manufacturer	FS					
Wavelength	1550nm					
Channel	Connector	MTP(M)C			MTP(M)C	
		Color	IL(dB)	RL(dB)	IL(dB)	RL(dB)
1	Blue	0.08	-27	-27.07	-28	-28
2	Orange	0.05	-27	-27.04	-28	-28
3	Green	0.10	-28	-27.97	-27	-27
4	Brown	0.03	-26	-27.94	-28	-28
5	Black	0.10	-27	-27.91	-28	-28
6	White	0.12	-28	-27.91	-28	-28
7	Red	0.07	-28	-27.91	-28	-28
8	Black	0.10	-25	-27.89	-28	-28
9	Yellow	0.09	-25	-27.78	-27	-27
10	Violet	0.06	-26	-27.71	-27	-27
11	Blue	0.08	-28	-27.64	-28	-28
12	Blue	0.10	-28	-27.61	-28	-28

Test Report of IL & RL

## Hot Products

ID	Description
#68017	1m (3ft) MTP® Female, 12F OM4, Type B, Elite, Plenum (OFNP)
#68041	1m (3ft) MTP® Female, 24F OM4, Type A, Elite, Plenum (OFNP)
#116390	1m (3ft) MTP® Female, 12F OM5, Type B, Elite, Plenum (OFNP)
#68018	1m (3ft) MTP® Female, 12F OS2, Type B, Elite, Plenum (OFNP)
#72421	1m (3ft) MTP® Female, 24F OS2, Type A, Elite, Plenum (OFNP)





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