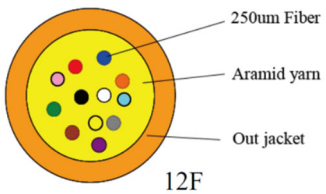
DATASHEET

12F MTP-MTP TRUNK CABLE

Ideal for Data Center High Density Cabling System



RoHS

OMC INDUSTRY CO.LIMTED

2018|En version1.0

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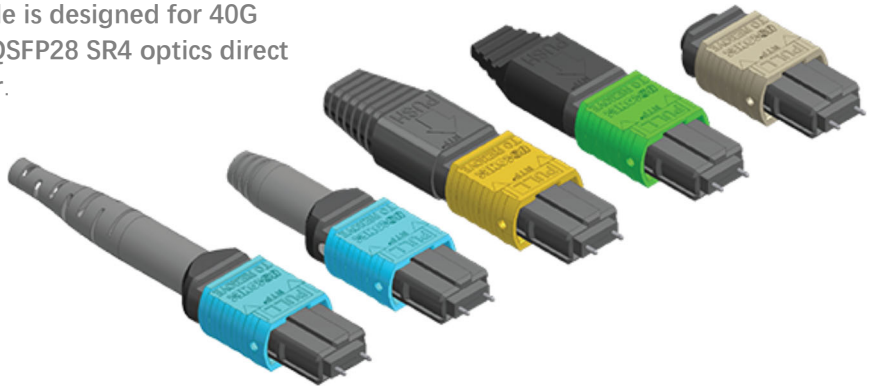
12F MTP-MTP TRUNK CABLE

Description

MTP Fiber Patch cable/trunk cable is terminated with MTP connector on both ends. MTP Patch cable/trunk cables connect MTP modules together as a permanent link. The Patch cable/trunk cables are available with 12, 24, 48,60,72 ,96,144fibers. Support speeds up to 10/40/100Gbps data center solutions. They are typically adopted to inter-connect cassettes, panels or ruggedized MTP fan-outs, and to facilitate rapid deployment of high-density backbone cabling in data centers and other high fiber environments. Besides, MTP also provides much flexibility and convenience once you have to change the connector style in the patch panels. Instead of changing the connector on the cable trunk, just installing a new cassette with the new connector style on the cross-connect side of the patch panel.

The 12F MTP-MTP Patch cable/trunk cable is designed for 40G QSFP+ SR4, 40G QSFP+ CSR4 and 100G QSFP28 SR4 optics direct connections and high-density data center.



Products Materials

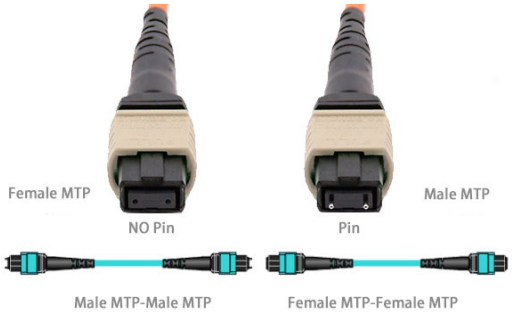
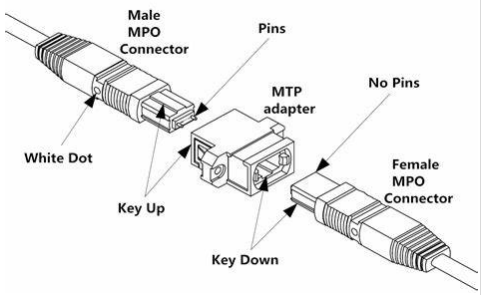
Connector	Reference	Housing Details
MTP Single mode	IEC 61754-7	SM APC: Green connectors+black boot (Standard Loss MTP) SM APC: Yellow connectors+black boot (Elite MTP)
MTP Multimode	IEC 61754-7	OM3&OM4 PC: Aqua connectors+black boot (Standard Loss&Elite MTP)

IEC Standard IEC-61754-7; IEC61755, Telcordia GR-1435-CORE, JIS C5982; TIA-604-5(FOCIS5) compliant

Structured cabling per TIA-568-C

10G Fiber Channel Compliant

40G and 100G IEEE 802.3

Connector	Fiber Channel
	
MTP Connectors	12 Fibers
Note: Female connector need to connect with male connector type.	

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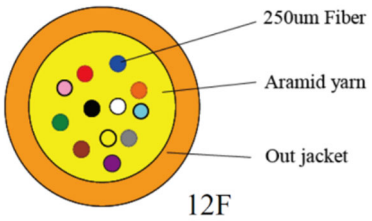
Cable Parameters-12F Microfiber cable



Fiber Count	OD(mm)	Minimum allowable Tensile Strength (N)	minimum allowable Crush Load(N/100mm)	Minimum Bending Radius(MM)
12	3.0±0.15	Short-term: 180; Long-term: 90	Short-term: 500; Long-term: 150	Static: 10D Dynamic: 20D

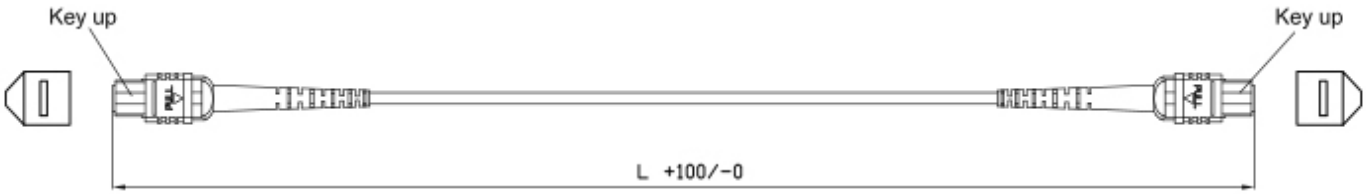
Optical Specifications

Spec items.	Single mode (APC 8-degree polished)	Multimode (PC Flat polish)
Insertion loss (MTP (IEC 61300-3-34)	Standard loss: ≤0.75dB(max), ≤0.50dB(Typical) Elite loss: ≤0.35dB(max), ≤0.20dB(Typical)	Standard loss: ≤0.6dB(max), ≤0.50(Typical) Elite Low loss: ≤0.35dB(max) , ≤0.20dB(Typical)
Return loss(MTP)	⩾60dB (8degree polishing)	⩾25dB
Durability	<0.3dBtypical change, 200 matings	
Interchangeability	≤0.2dB	
Tensile strength	>70N	
Operating Temperature	-40 to + 85°C	

MTP End-Face 3D Interference Index

Item (IEC-61300-3-30)			Minimum	Maximum
Radius of curvature (mm)	ROC-X(ABS)		2000	\
	ROC-Y(ABS)		50mm	\
Angle	Angle-X		-0.2°	-0.2°
	Angle-Y	APC	7.85°	8.15°
		PC	-0.2°	-0.2°
Fiber height (nm)			1000nm	3500nm
Max.DH.All Fiber:			-300nm	300nm
DH.Adj:			-300nm	300nm
DH.Ave Fiber:			-300nm	300nm
Core Dip:	SM		N/A	N/A
	MM		-200nm	300nm

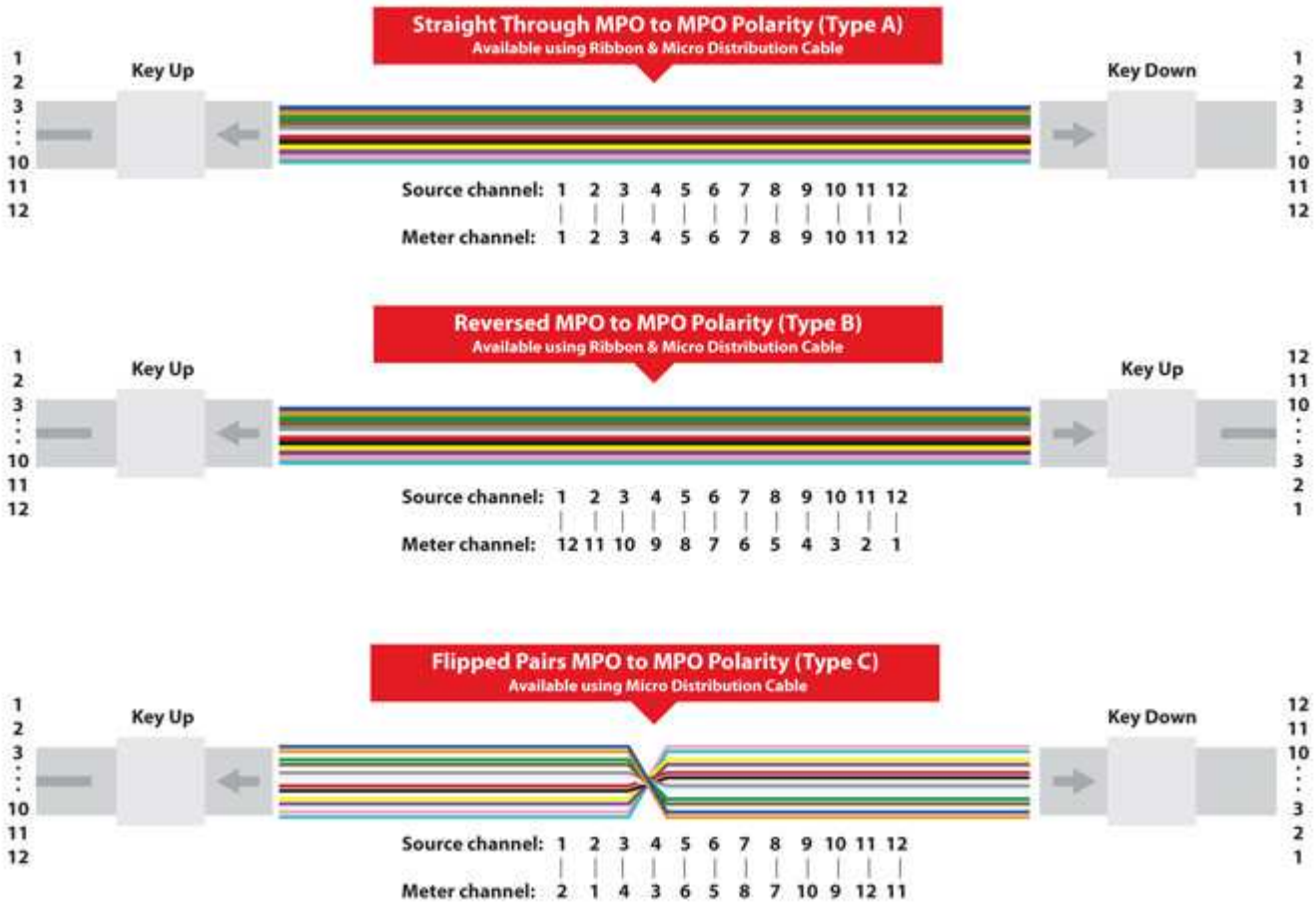
MTP-MTP 12F Trunk cable drawing.



Overall Length(L)(m)	length of tolerance(cm)
0<L<1	+5/-0
1<L<10	+10/-0
10<L<40	+15/-0
40<L	+0.5% x L/-0

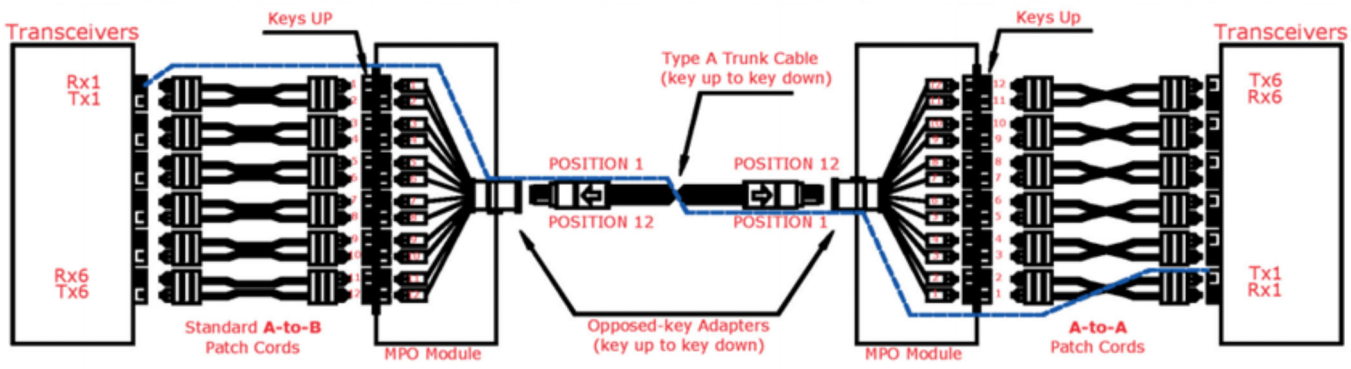
12F MTP-MTP TRUNK CABLE

Three Connection Methods Help Keep the Right MTP/MPO Polarity



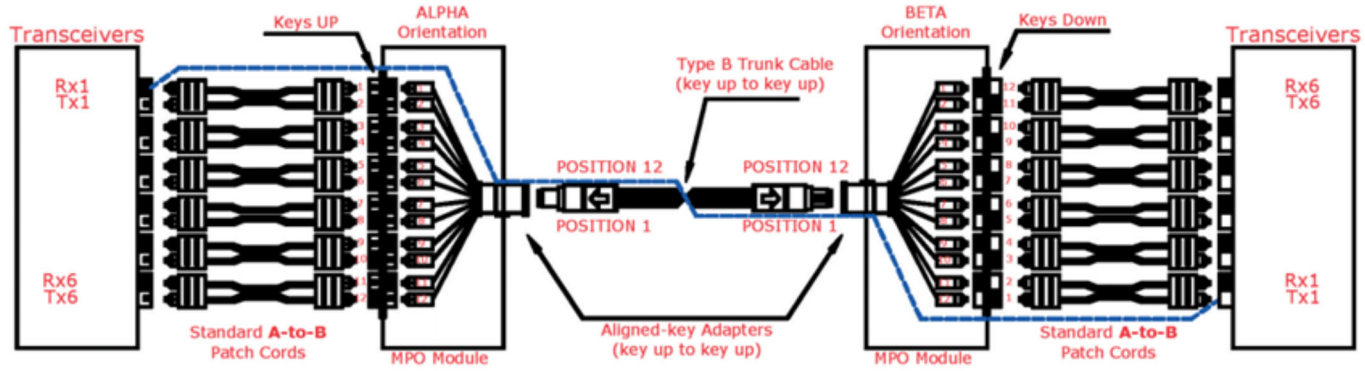
1. Polarity A connection

Polarity A MTP cables use a key up, key down design. Therefore, as shown in the figure below, the position 1 of one connector is corresponding to the position 1 of another connector. There is no polarity flip. Therefore, when we use polarity A MTP cable for connection, we must use A-B duplex patch cables on one end and A-A duplex patch cables on the other end. Since in this link, Rx1 must connect to Tx1. If we don't use A-A duplex patch cable, according to the design principle of polarity A MTP cable, fiber 1 may transmit to fiber 1, that is to say Rx1 may transmit to Rx1, which may cause errors.



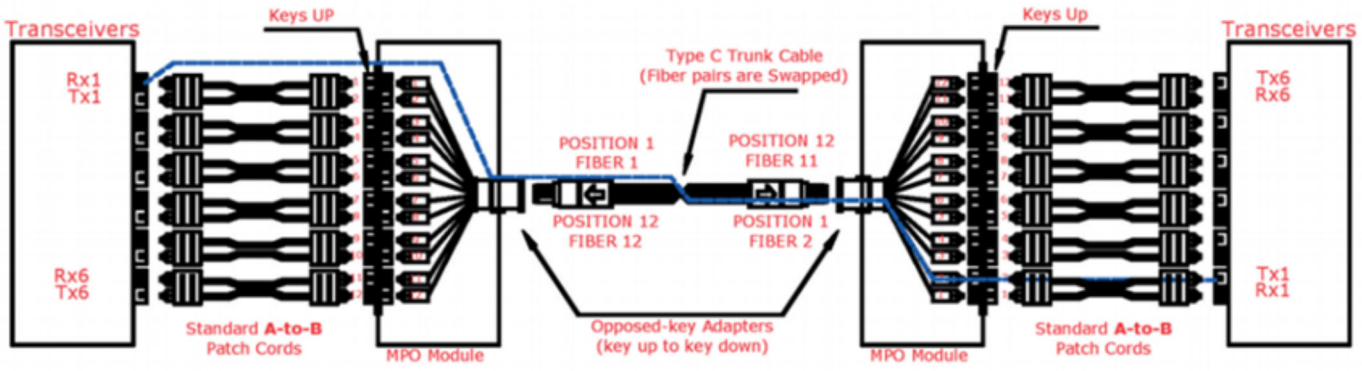
2. Polarity B connection

Polarity B MTP cables use a key up, key up design. Therefore, as shown in the figure below, the position 1 of one connector is corresponding to the position 12 of another connector. Therefore, when we use polarity B MTP cable for connection, we should use a A-B duplex patch cables on both ends. Since the key up to key up design help to flip the polarity, which makes fiber 1 transmit to fiber 12, that is the Rx1 transmits to Tx1.



3. Polarity C connection

Like the polarity A MTP cables, polarity C MTP cables also use a key up, key down design. However, within in the cable, there is a fiber cross design, which makes the position 1 of one connector is corresponding to the position 2 of another connector. As shown in the figure below, when we use polarity C MTP cable for connection, we should use a A-B duplex patch cables on both ends. Since the cross fiber design help to flip the polarity, which makes fiber 1 transmit to fiber 2, that is the Rx1 transmits to Tx1.



AVAILABILITY:

Ribbon and bundle cable available;
Patch cord, pigtail cable assemblies available.
MT-MT ribbon patch cord is available.
MTP Loopback Cable available

Push Pull Tab For USCONEC MTP

12F MTP-MTP TRUNK CABLE

The merits of MTP/MPO Patch cable/trunk cable generally include:

High quality—MTP/MPO Patch cable/trunk cables are factory pre-terminated, tested and packaged along with the test reports. These reports serve as long-term documentation and quality control.
Decreasing cable volume—MTP/MPO Patch cable/trunk cables have very small diameters, which decrease the cable volume and improve the air-conditioning conditions in data centers.
Time saving—With the special plug and play design, MTP/MPO Patch cable/trunk cables can be incorporated and immediately plugged in. It greatly helps reduce the installation time.

Features:

Low insertion loss, high return loss
MT based Multi-fiber Connector, 4,8,12 and 24 fiber connector terminations and assemblies
Economical solution for mass-termination of fiber
Designed for low loss and standard loss SM and MM applications
Ruggedized round cable, oval cable and bare ribbon options available
Color coded housings available to differentiate fiber type, polish type and/or connector grade
Good in repeatability and exchangeability

Application

All of OMC's MTP Connectors are from **USCONEC**. MTP Patch cable/trunk cable is a kind of high density cable assemblies which is generally use in three areas.

1, The Data Center application with high dense degree environment

2, The optical fiber to the building

3, The internal connector application in fiber equipment.

Packaging

This easily taken and well-protected fiber patch cable package has been labelled and marked by OMC as default .Standard carton size : 34*22*15 cm; 44*34*24 cm ; 54*39*34 cm . Which carton to be used depends on goods Qty . Packing can be customized.

1,Self-seal PE Bag

2 Bubble Bag

3, Paper Carton

4,fumig-free Pallet

OME service

1, Cable color, printing word, material of cable jacket, connector's color

2, OEM Label, Identify ring, cable's label, box, shipping marks

3. Different quality Level.

12F MPO-MPO TRUNK CABLE

Order Index

Products	-	Fiber&cable	-	Fiber	-	Quality	-	Pin	-	Cable Jacket	-	Cable Color	-	Polarity	-	length
M1 -Senko MPO without tab		1– 8F round cable		1-G652D		1-Standard loss		1-F to F		H-LSZH		A-Blue		A-Polarity A		1-1m
M2-MTP without tab		2-12F round cable		2-G657A1		2-Super low loss		2-F to M		C-PVC		B-Orange		B-Polarity B		1.5-1.5m
M3-China MPO		3-16F round cable		3-G657A2/ B2				3-M to M		F-OFNR		C-Green		C-Polarity C		2-2m
M4-Senko MPO with		4-20F round cable		4-G657B3						P-OFNP		D-Brown				..
M5-MTP with tab		5-24F round cable		5-BIF om1						U-PU		E-Grey				
		6-8F ribbon cable		6-BIF om2						...		F-Whtie				
		7-12F ribbon cable		7-BIF om3						….		G-Red				
		8-8F ribbon bare fiber		8-BIF om4								H-Black				
		9-12F ribbon bare fiber		9-BIF om5								I-Yellow				
												J-Purple				
												K-Pink				
												L-Aqua				
												M-Magenta				