

DATASHEET

24-144F MPO/MTP TRUNK CABLE

Ideal for Data Center High Density Cabling System



OMC INDUSTRY CO.LIMITED

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Description

24F-144F MPO/MTP TRUNK CABLE is terminated with MPO/MTP connector on both ends. MPO/MTP Patch cable/trunk cables connect MPO/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 interconnect cassettes, panels or ruggedized MPO/MTP fan-outs, and to facilitate rapid deployment of high-density backbone cabling in data centers and other high fiber environments. Besides, MPO/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.

Products Materials-Connector



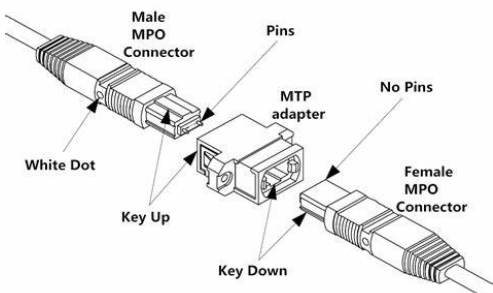
All of OMC's MPO Connectors are from Senko/Nissin/Sumitomo.

Connector	Reference	Housing Details
MPO Singlemode	IEC 61754-7	SM APC: Green connectors+black boot (Standard Loss MPO) SM APC: Yellow connectors+black boot (Super low loss MPO)
MPO Multimode	IEC 61754-7	OM1&OM2 PC: Beige connectors+black boot (Standard Loss MPO) OM3&OM4 PC: Aqua connectors+black boot (Standard&Super low loss MPO) OM3&OM4 PC: Heather Violet connectors+black boot (Standard loss MPO)

All of OMC's MTP Connectors are from Usconec USA.

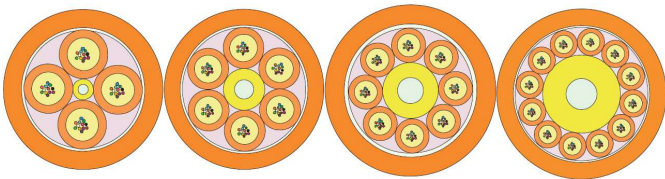
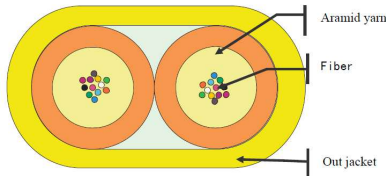
Connector	Reference	Housing Details
MTP Singlemode	IEC 61754-7	SM APC: Green connectors+black boot (Standard Loss MTP) SM APC: Yellow connectors+black boot (Elite MTP)
MTP Multimode	IEC 61754-7	OM3&OM4 PC: Aqua connectors+black boot (Standard Loss&Elite MTP)

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
 <p>Key-Up</p> <p>MPO (Male) - Pins</p> <p>MPO (Female) - No Pins</p>	 <p>12 or 24 Fibers</p>
<p>MPO/MTP Connectors</p>	
<p>Note: Female connector need to connect with male connector type.</p> 	

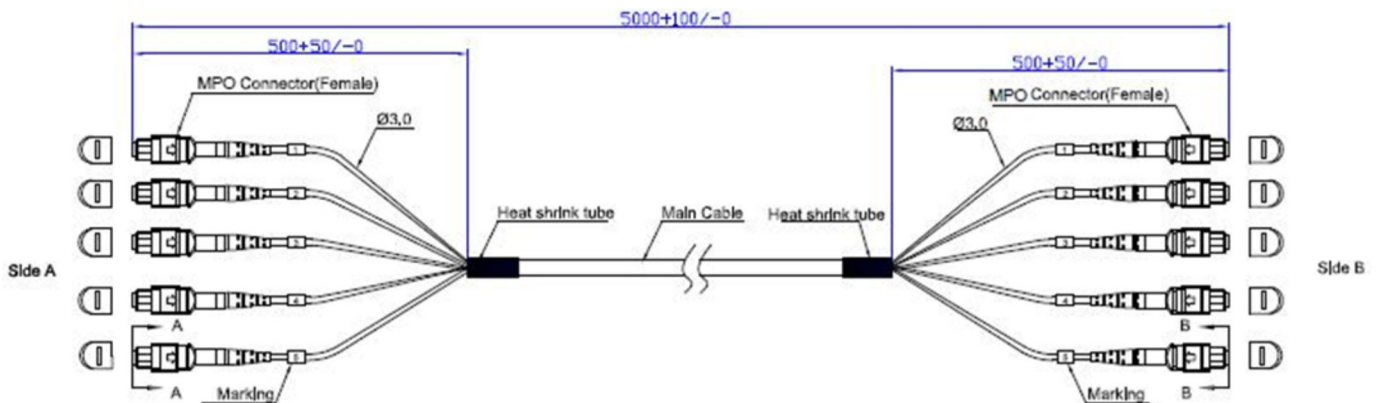
Products Materials-Cable

The cable for 24F-144F is a kind of 2.0mm/3.0mm multi-tubes Micro-fiber cable. Each Tube's hold 12F. See Below.



Fiber number	Flat 24	36 & 48	72F	96F	144F
Subunit diameter (mm)	2.9±0.1	2.9±0.1	2.9±0.1	2.9±0.1	2.9±0.1
Cable diameter(mm)	(4.2±0.3)×(7.6±0.4)	9.0±0.3	11.2±0.3	13.5±0.3	17.5±0.3
Cable weight(kg/km)	(LSZH 52)/ (PVC 44)	(LSZH 93) (PVC 86)	(LSZH106)/ (PVC 96)	(LSZH146)/ (PVC 135)	(LSZH260)/ (PVC 224)
Max.loading(IEC794-1) Installation/Operation	200/80	1000N/300N			
Temperature rating Op- eration&Storage	-20°C ~70°C				

MPO-MPO 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

Optical Specifications

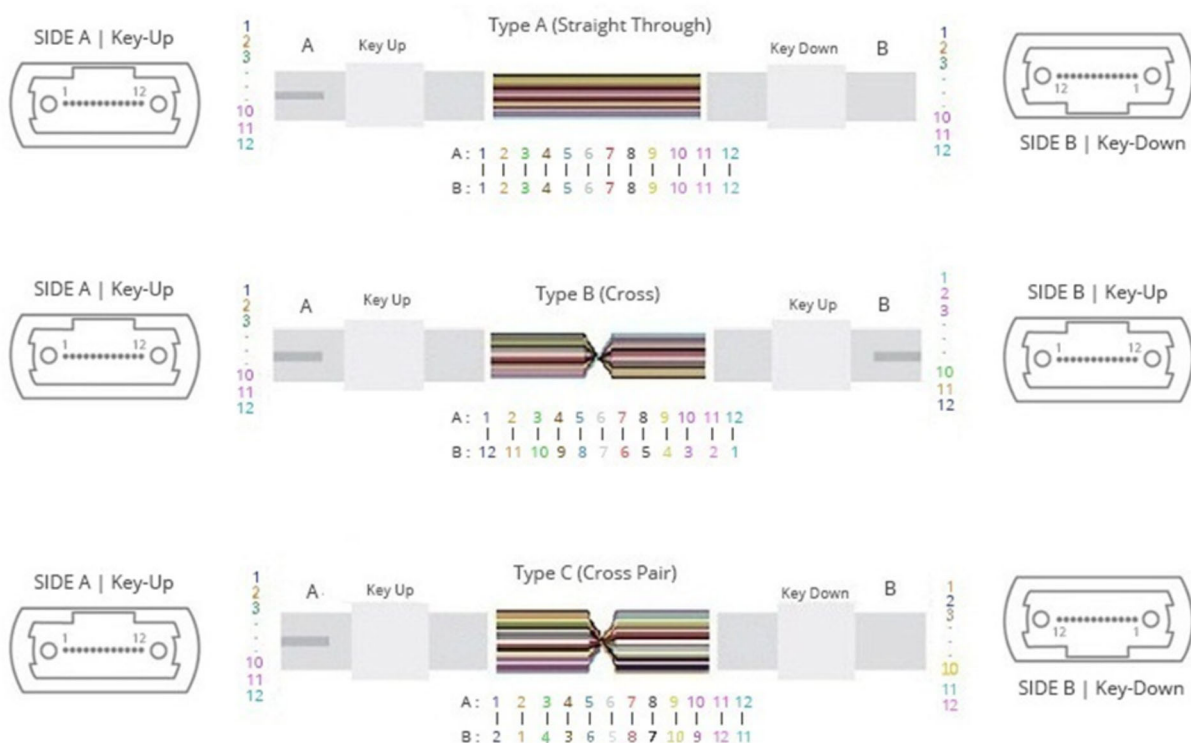
Spec items.	Single mode (APC 8-degree polished)	Multimode (PC Flat polish)
Insertion loss (MPO) (IEC 61300-3-34)	Standard loss: $\leq 0.75\text{dB}(\text{max}), \leq 0.50\text{dB}(\text{Typical})$ Super Low loss: $\leq 0.35\text{dB}(\text{max}), \leq 0.20\text{dB}(\text{Typical})$	Standard loss: $\leq 0.6\text{dB}(\text{max}), \leq 0.50(\text{Typical})$ Super Low loss: $\leq 0.35\text{dB}(\text{max}), \leq 0.20\text{dB}(\text{Typical})$
Return loss(MPO)	$\geq 60\text{dB}$ (8degree polishing)	$\geq 25\text{dB}$
Durability	$< 0.3\text{dB}$ typical change, 200 matings	
Interchangeability	$\leq 0.2\text{dB}$	
Tensile strength	$> 70\text{N}$	
Operating Temperature	-40 to $+ 85^{\circ}\text{C}$	

MPO/MTP End-Face 3D Interference

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°
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

Three Connection Methods Help Keep the Right MTP/MPO Polarity

Because 24F-144F MPO/MTP trunk cable's unit connector is 12F MPO/MTP, So it have same polarity as single 12F MPO/MTP trunk cable.



Push Pull Tab For Senko MPO



Push Pull Tab For Usconec MTP



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.

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 MPO Connectors are from Senko/Nissin/Sumitomo. MPO 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.

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.

The 24F MTP-MTP Patch cable/trunk cable is designed for 100GBASE-SR10 CXP/CFP Interconnect Solution,100GBASE-LR4 and high-density data center.



24F-144F MPO/MTP TRUNK CABLE

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, PE Wrapped



2, Paper Carton



3, fumig-free Pallet

Order Index

Products	Fiber&cable	Fiber	Quality	Pin	Cable Jacket	Cable Color	Polarity	length
M1 -Senko MPO without tab	A- 2x12F round cable	1-G652D	1-Standard loss	1-F to F	H-LSZH	A-Blue	A-Polarity A	1-1m
M2-MTP without tab	B- 2x12F Flat 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	C-4x12F round cable	3-G657A2/ B2		3-M to M	F-OFNR	C-Green	C-Polarity C	2-2m
M4-Senko MPO with tab	D-5x12F round cable	4-G657B3			P-OFNP	D-Brown		..
M5-MTP with tab	E-6x12F round cable	5-BIF om1			U-PU	E-Grey		
	F-8x12F round cable	6-BIF om2			...	F-Whitie		
	G-12x12F round cable	7-BIF om3			...	G-Red		
	H-2x24F round cable	8-BIF om4				H-Black		
	I-2x24F Flat cable	9-BIF om5				I-Yellow		
	J-3x24F round cable					J-Purple		
	K-4x24F round cable					K-Pink		
	L-5x24F round cable					L-Aqua		
M-6x24F round cable					M-Magenta			
N-8x24F round								
O-12x24F								