

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, 144 fibers. 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)

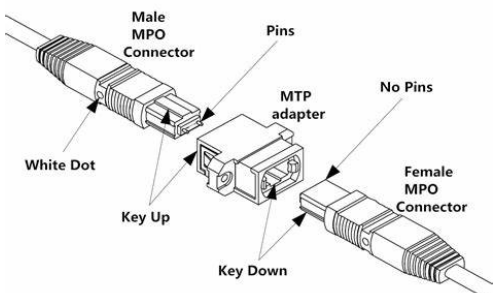
All of OMC's MTP Connectors are from Usconec USA.

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

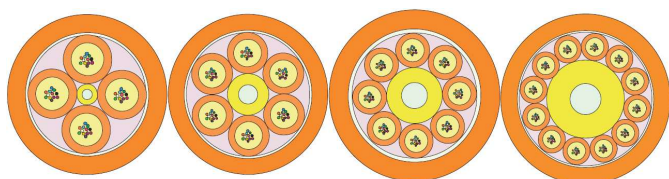
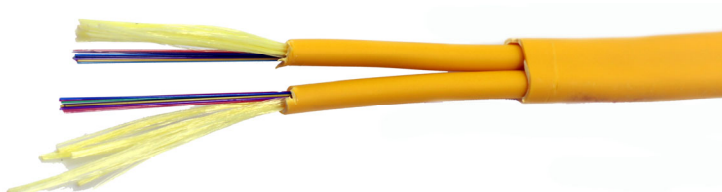
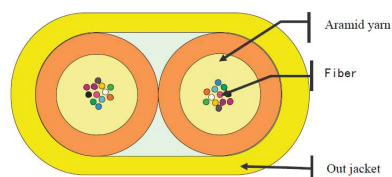
Connector	Fiber Channel
 MPO (Male) - Pins MPO (Female) – No Pins	
MPO/MTP Connectors	12 or 24 Fibers

Note: Female connector need to connect with male connector type.



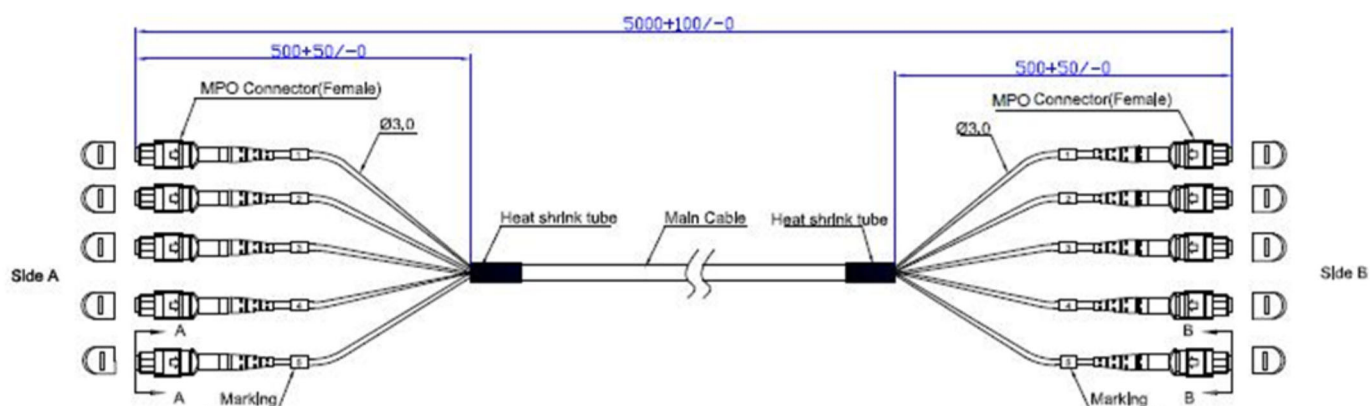
Products Materials-Cable

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℃ ~70℃				

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

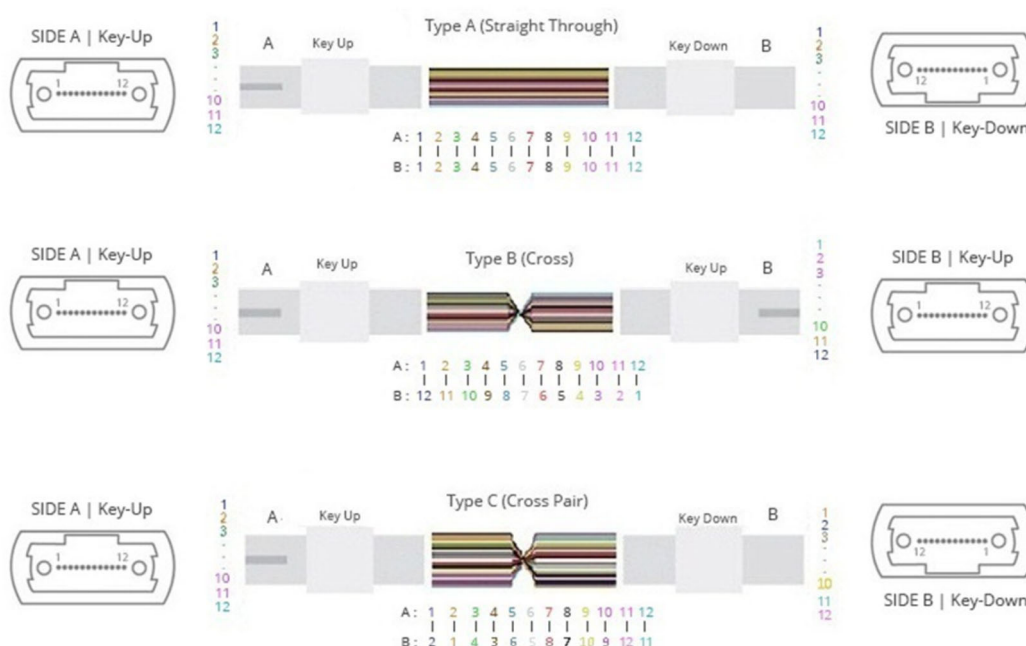
Spec items.	Single mode (APC 8-degree polished)	Multimode (PC Flat polish)
Insertion loss (MPO) (IEC 61300-3-34)	Standard loss: $\leq 0.75\text{dB}(\text{max})$, $\leq 0.50\text{dB}(\text{Typical})$ Super Low loss: $\leq 0.35\text{dB}(\text{max})$, $\leq 0.20\text{dB}(\text{Typical})$	Standard loss: $\leq 0.6\text{dB}(\text{max})$, $\leq 0.50(\text{Typical})$ Super Low loss: $\leq 0.35\text{dB}(\text{max})$, $\leq 0.20\text{dB}(\text{Typical})$
Insertion loss (LC/SC/FC/ST)(IEC 61300-3-6)	$\leq 0.3\text{dB}$	$\leq 0.3\text{dB}$
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°	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

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.





24F-144F 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.

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					J-Purple		
	K-4x24F round					K-Pink		
	L-5x24F round					L-Aqua		
	M-6x24F round cable					M-Magenta		
	N-8x24F round cable							
	O-12x24F round cable							