

MPO-MPO MULTIMODE OM2 CABLE DATASHEET

Brief Introduction

Round cable (also called bundle cable or trunk cable) MPO-MPO jumpers can be 4 to 24 core fibers. The OM2 cable is orange color and the material is LSZH. The outer diameter is ϕ 3.0mm. For the polarity, there are three types: Type-A, Type-B, and Type-C. For the connection between 40G optical modules, which is usually Type-B(Key up – Key up). MPO connector can be male or female. MPO to MPO Pre-Terminated cable is designed for 40G QSFP+ SR4, 40G QSFP+ CSR4 and 100G QSFP28 SR4 fiber optical module direct connection and high density data center.

Features

1. High quality ferrule and accurate alignment PIN and PIN hole.
2. Standard Loss ($IL \leq 0.7\text{dB}$) and Low loss ($IL \leq 0.35\text{dB}$) are available.
3. The Connector end-face meets the interference index.
4. Connector compliant with IEC 61754-7(Type MPO connector family).

Applications

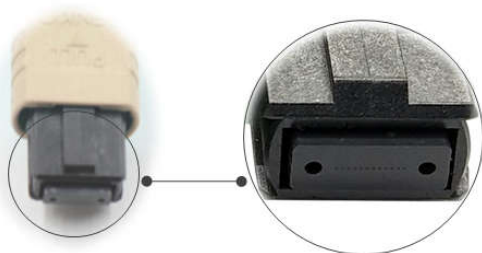
1. High density cabling data center.
2. Cabling in communication base station and distribution case.
3. Jumper connection.
4. 40G and 100G optics system, QSFP module.
5. Optical fiber communication system, CATV, LANs and WANs, FTTx

Specifications

Connector A	MPO Male or Female	Connector B	MPO Male or Female
I.L. (Standard Loss)	$\leq 0.70\text{dB}(0.40\text{dB Typ.})$	Return Loss	$\geq 25\text{dB}$
I.L. (Low Loss)	$\leq 0.35\text{dB}(0.20\text{dB Typ.})$	Return Loss	$\geq 25\text{dB}$
Polish Type	PC to PC	Minimum Bend Radius	10mm
Repeatability	$\leq 0.10\text{dB}$	Interchangeability	$\leq 0.20\text{dB}$
Durability	$\leq 0.20\text{dB}$ typical change, 500 mating		
Core number	4, 6, 8, 10, 12, 24cores, customized		
Fiber Mode	OM2	Test Wavelength	850/1300nm
Attenuation at 850nm	$\leq 2.3\text{dB/km}$	Attenuation at 1300nm	$\leq 0.6\text{dB/km}$
Cable Jacket	LSZH	Cable Jacket O.D	3.0mm
Installation Tensile Load	120N	Long-Term Tensile Load	50N
Operating Temperature	-20°C to +70°C	Storage Temperature	-40°C to +85°C

Note: MTP Connector is available.

It is necessary to confirm whether MPO connector is male or female before production.



MPO Connector: Female (Without Guide Pin)



MPO Connector: Male (With Guide Pin)

According to ANSI-TIA-568-C.3-2008 specifications, there are three types about polarity: type-A, type-B and type-C, show as the figure. This should be confirm before production.

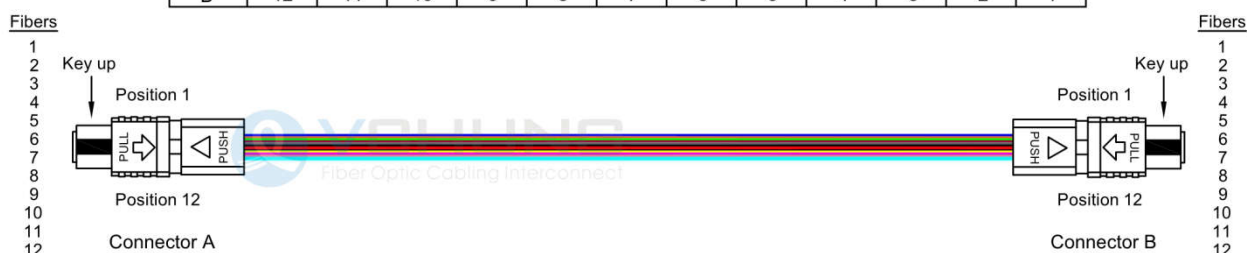
Type-A array patch cord fiber sequence

End	Fiber Sequence (Viewing the end face of the connector with key up)											
A	1	2	3	4	5	6	7	8	9	10	11	12
B	1	2	3	4	5	6	7	8	9	10	11	12



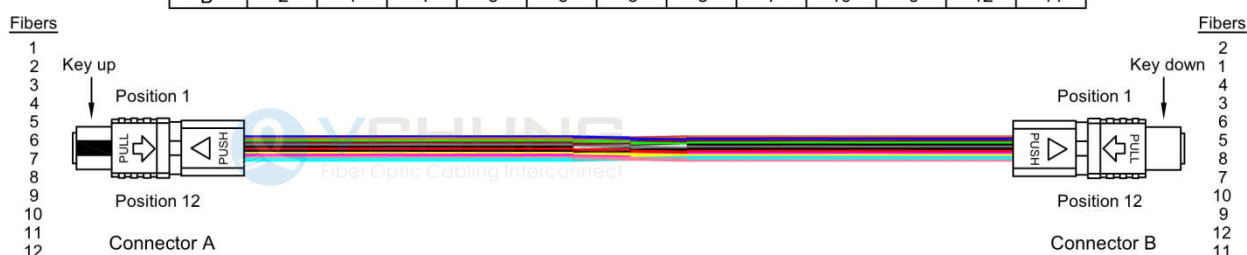
Type-B array patch cord fiber sequence

End	Fiber Sequence (Viewing the end face of the connector with key up)											
A	1	2	3	4	5	6	7	8	9	10	11	12
B	12	11	10	9	8	7	6	5	4	3	2	1

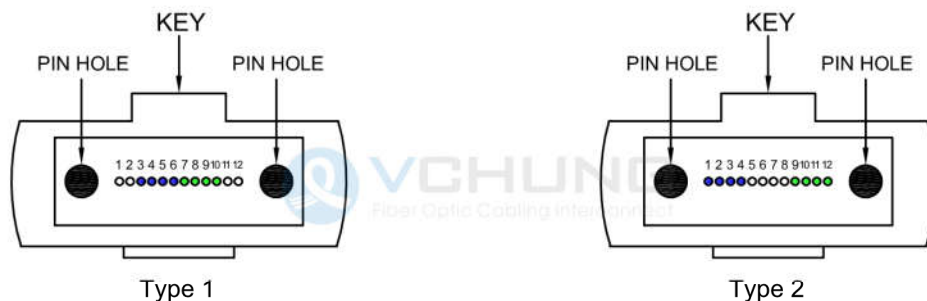


Type-C array patch cord fiber sequence

End	Fiber Sequence (Viewing the end face of the connector with key up)											
A	1	2	3	4	5	6	7	8	9	10	11	12
B	2	1	4	3	6	5	8	7	10	9	12	11



The 8 fiber cable is generally produced by 12 channels MT ferrule. So there are four channels of MT ferrule are unused, the location of the fiber and MT ferrule channels must be confirmed. Generally speaking, Type 2 is used for QSFP-40G-SR4 optic modules.

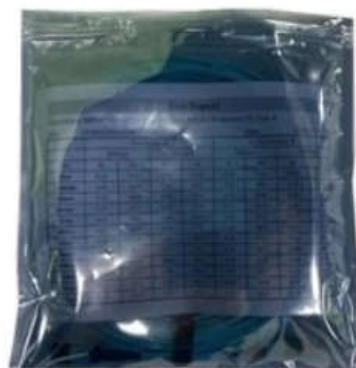


Type 1	Fiber#	1	2	3	4	5	6	7	8	9	10	11	12
	Channel#	Tx1	Tx2	Tx3	Tx4	Unused	Unused	Unused	Unused	Rx4	Rx3	Rx2	Rx1
Type 2	Fiber#	1	2	3	4	5	6	7	8	9	10	11	12
	Channel#	Unused	Unused	Tx1	Tx2	Tx3	Tx4	Rx4	Rx3	Rx2	Rx1	Unused	Unused

Our Packing



Black Velcro Tape twine cable



Anti-static ziplock bag



Put ziplock bag neatly in cartons



Good cartons for transport

Order information

connector1	Male or Female	connector2	Male or Female	Cores	Fiber Type	Core/Cladding	Module	Cable Type	Type A,B,C	I.L. Grade	Cable Material	Color	Length
MPO	Male	MPO	Male	4	OS2	9/125	Single Mode	trunk	Type A	I.L.<0.70dB	PVC	Purple	1m(3ft)
MTP	Female	MTP	Female	6	OM5	50/125	Multimode	ribbon	Type B	I.L.<0.35dB	LSZH	Aqua	2m(7ft)
				8	OM4	62.5/125		breakout	Type C		OFNP(Plenum)	Orange	3m(10ft)
				12	OM3							Blue	4m(13ft)
				24	OM2							Yellow	5m(16ft)
				48	OM1							Lime Green	6m(20ft)
				72	G.657A2								7m(23ft)
				96	G.657A1								8m(26ft)
					G.652D								9m(30ft)
													10m(33ft)
													others