

## Description

12cores MTP Armored Trunk Cable is specifically designed for Harsh environment applications. Its rugged shell with steel and aramid yar is 10 times stronger than regular Fiber Optic Cable and has a 40% higher rated range of operating temperature. The application place are in the floor corner. Those products could protect the fiber bite from mouse and ant.

Although armored MTP trunk cables are strong, they are actually as flexible as standard fiber optic patch cords; they can be bending randomly without being broken. The rugged armored cables allow optical fiber to be installed in the most hazardous areas, including environments with excessive dust, oil, gas, moisture, or even damage-causing rodents.



## Optical Specifications

Spec items.	Single mode (APC 8-degree polished)	Multimode (PC Flat polish)
Insertion loss (MTP) (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(MTP)	$\geq 60\text{dB}$ (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 $+ 85^{\circ}\text{C}$	

## MT Ferrule's 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

## MPO Connectors

All of OMC's MPO Connectors are from Senko / Nissin / China domestic brands

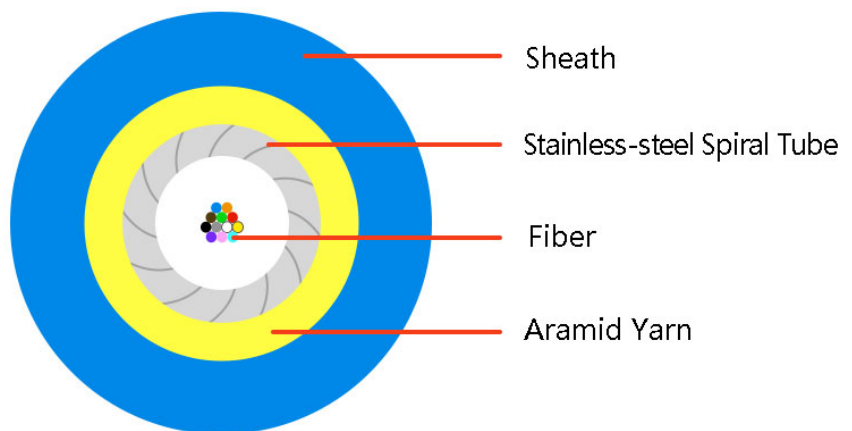
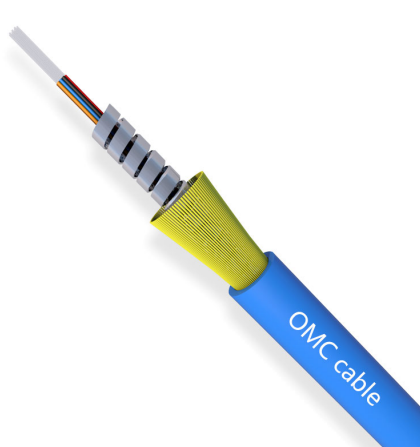
Connector	Reference	Housing Details
MPO Singlemode	IEC 61754-7	SM APC: Green connectors+black boot (Standard Loss MPO) SM APC: Yellow connectors+black boot (Super low loss MPO)
MPO Multimode	IEC 61754-7	OM1&OM2 PC: Beige connectors+black boot (Standard Loss MPO) OM3&OM4 PC: Aqua connectors+black boot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

All of OMC's MTP Connectors are from US Conec

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)

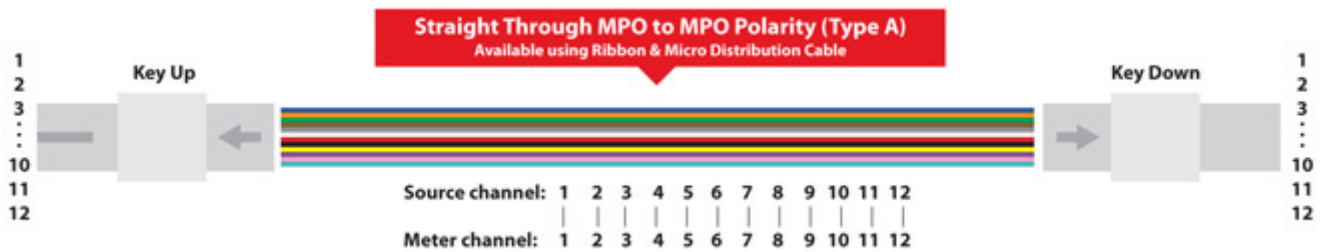
\*Different size boot, Different colors housing kit are available too.

## 12cores Armored Micro-fiber cable-1

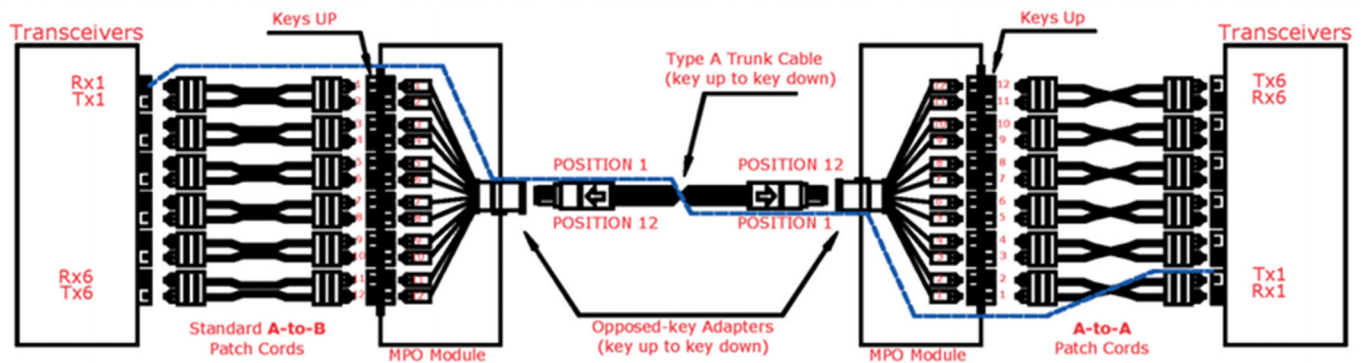


Item	Contents	Unit	Data
Fiber type	/	/	SM G652D;OM2,OM3,OM4
Cable diameter	±0.3	mm	3.0±0.2
Subunit fiber	Material	/	PVC,LSZH(CRP certification)
	Fiber count	12x250um	Blue,Orange,Green,Brown,Grey,White, Red,Black,yellow,purple,pink,aqua.....
Armored unit	Material	/	SUS204 Stainless-steel Spiral Tube
	Diameter	mm	1.8±0.05
Strength member	Material	/	Aramid Yarn
Outer sheath	material	/	LSZH(CRP certification),PE,PVC,TPU,OFNP
	Color	/	Blue,Yellow,Black, Orange,Grey,Aqua.....
Cable weight	±5%	kg/km	15
Max. tensile load	/	N	Short term:600N,Long term:300N
Max. crush resistance	/	N/100mm	Short term:3000N,Long term:1500N

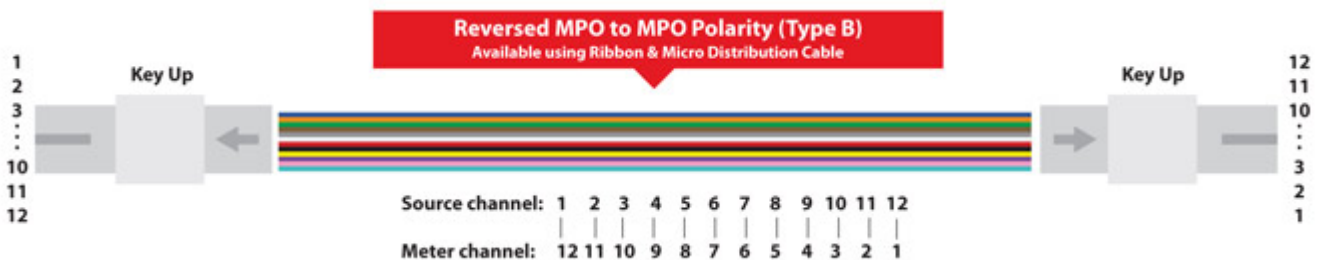
## Polarity A MPO&MTP trunk cables



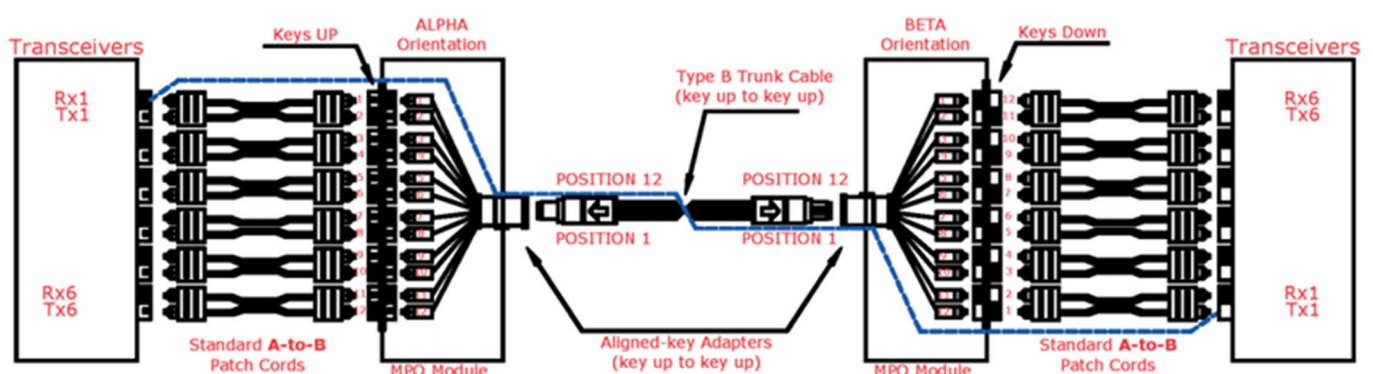
Polarity A MPO cables use a key up, key down design. Therefore, as shown in the figure below, the position 1 of one connector is corresponding to the position 1 of another connector. There is no polarity flip. Therefore, when we use polarity A MTP cable for connection, we must use A-B duplex patch cables 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.



## Polarity B MPO&MTP trunk cables



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.



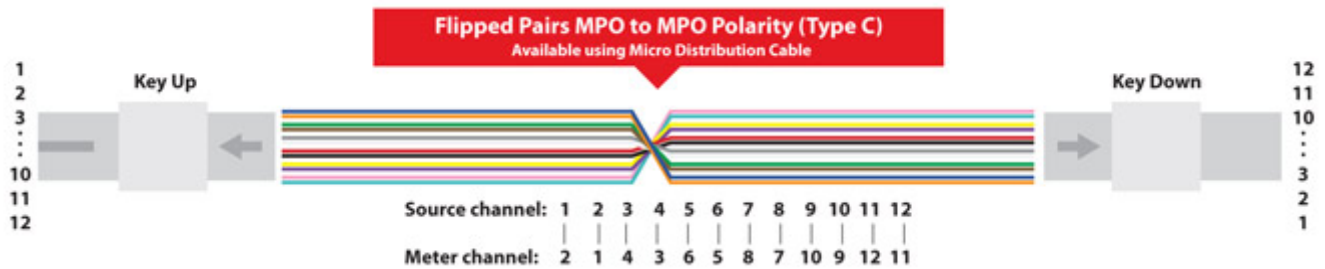


# ARMORED MTP&MPO TRUNK CABLE

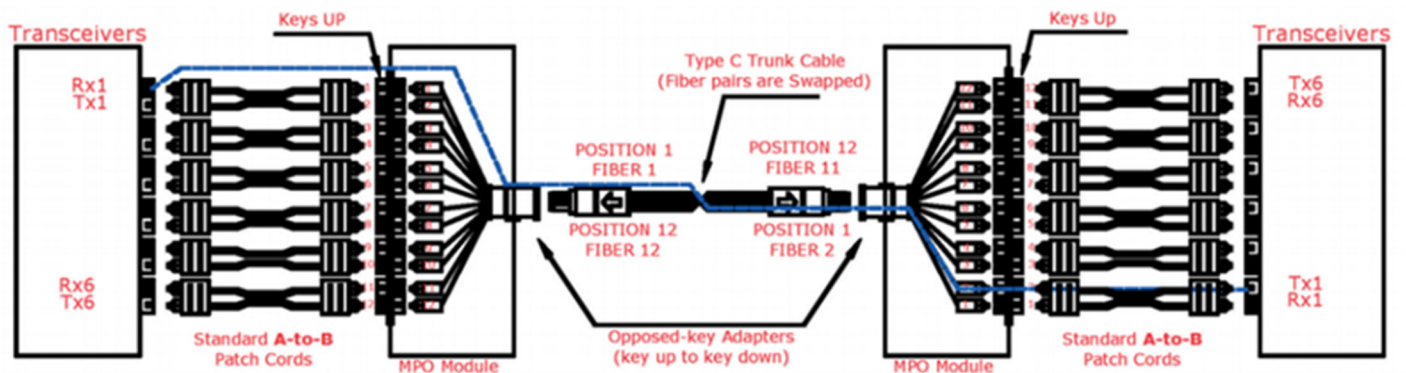
12CORES



## Polarity C MPO&MTP trunk cables



Like the polarity A MPO cables, polarity C MPO 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.



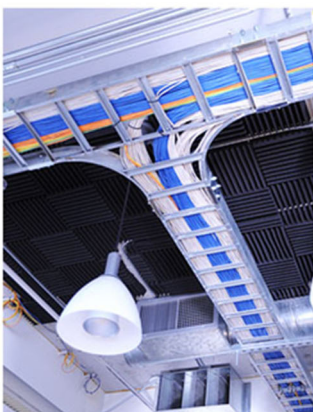
## Application

MPO/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.

The 12F MTMPO/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.

Ideal for harsh installation conditions that require exceptional durability. It is used as interconnection or cross connection in data center. It is also used in ceiling, corridor and other harsh environment.



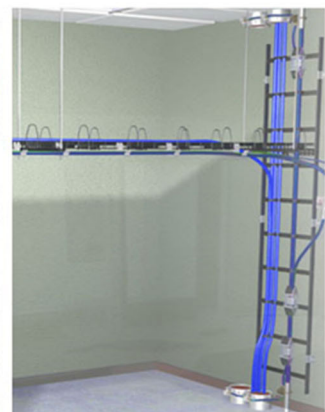
Ceiling Application



Data Center Application



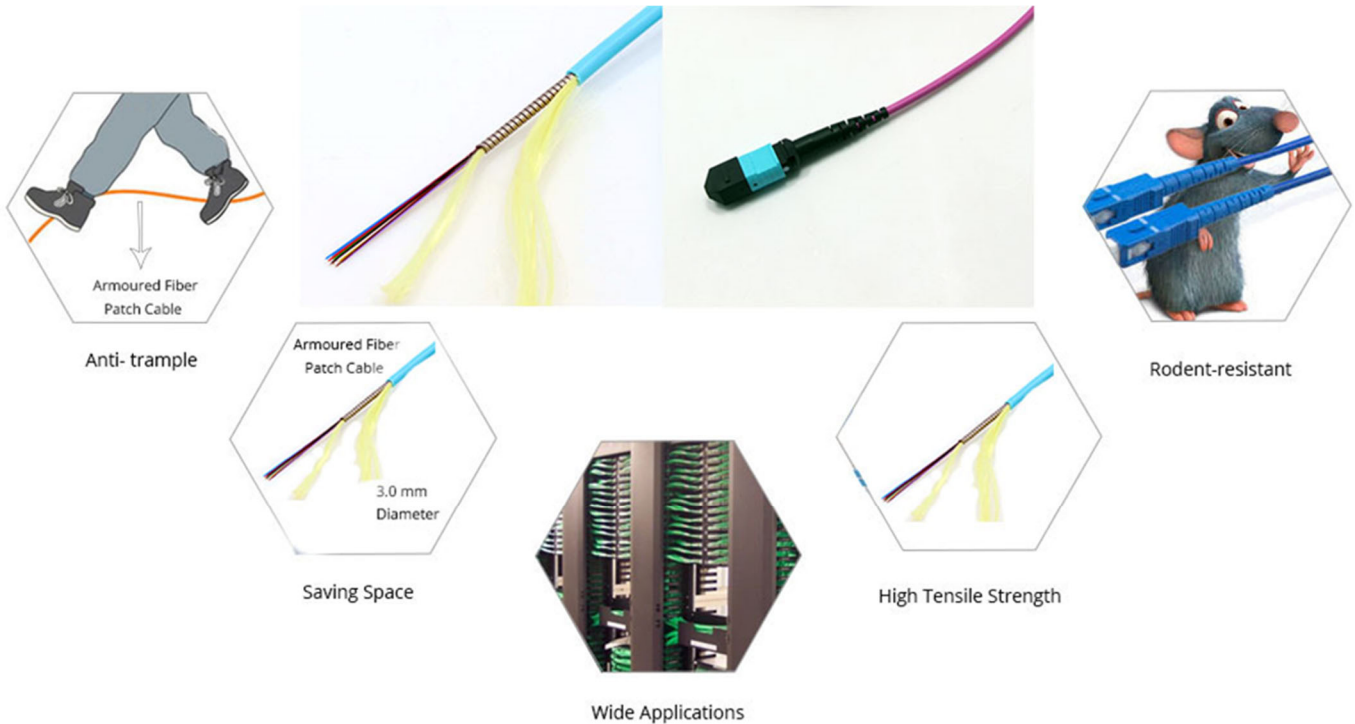
Floor Application



Corridor Application

## Benefits of Armored Fiber Patch Cable

Common fiber optic cable is fragile, which needs to be protected, especially when in harsh applications where cables could be compromised by rodents, constant wear and tear or weather damage. Armored fiber patch cable retains all the features of standard fiber cable but is much stronger due to its extra layers of armor. With the protection of flexible and durable steel tube, armored fiber patch cable will ensure the excellent operation of your network.



## 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.



## Order Index

Products	Fiber&cable	Fiber	Quality	Pin	Cable Jacket	Cable Color	Polarity	length
M1 -Senko MPO without	A- 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	B-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	C-16F round cable	3-G657A2/B2		3-M to M	F-OFNR	C-Green	C-Polarity C	2-2m
M4-Senko MPO with	D-20F round cable	4-G657B3			P-OFNP	D-Brown		..
M5-MTP with tab	E-24F round cable	5-BIF om1			U-TPU	E-Grey		
		6-BIF om2			...	F-Whitie		
		7-BIF om3			...	G-Red		
		8-BIF om4				H-Black		
		9-BIF om5				I-Yellow		
						J-Purple		
						K-Pink		
						L-Aqua		
						M-Magenta		