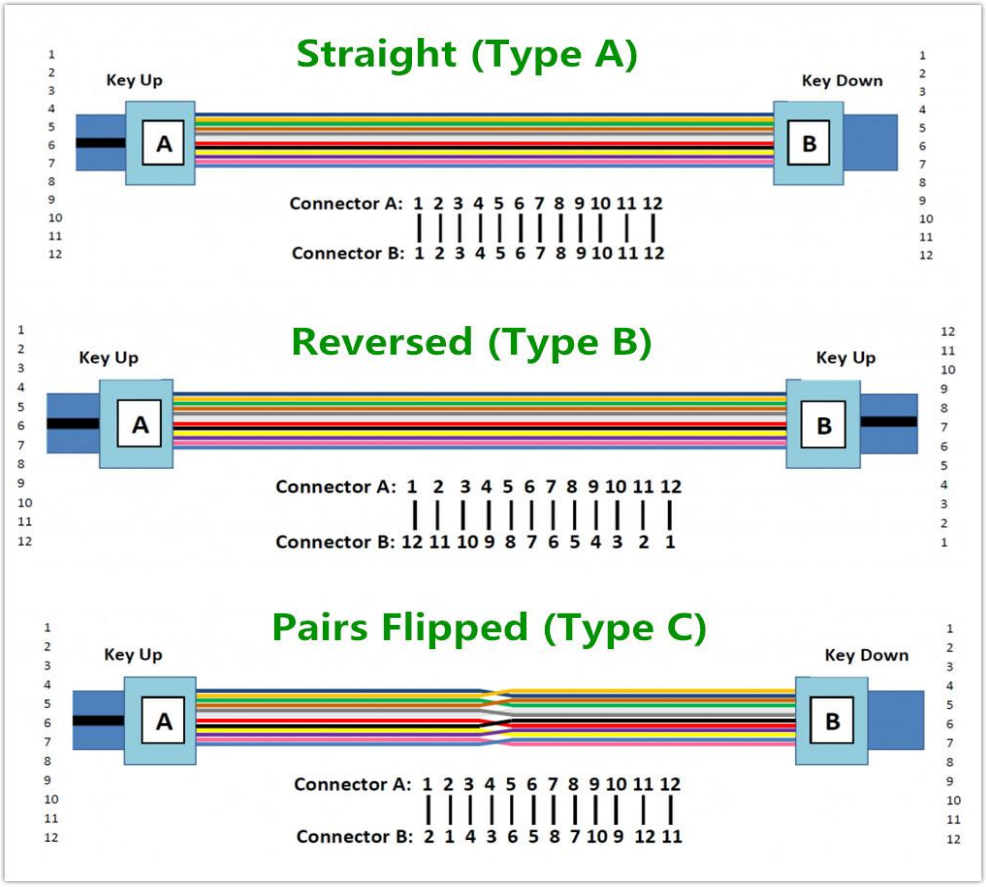
12 Cores MPO APC to MPO APC Fiber Optic Patch Cord Male Female SM G657A1 3.0mm Yellow

MTP/MPO Fiber Optic Patchcord

UnitekFiber specializes in manufacturing high quality MPO/MTP fiber optic patch cords, which are widely deployed in structured cabling systems and fiber patch panel connections. We offer a full range of fiber options including singlemode OS2 and multimode OM1/OM2/OM3/OM4/OM5 to satisfy diverse network deployment needs.
Our MPO/MTP fiber optic patchcords are available in 8core, 12core, and 24core configurations, and feature premium cable jackets in LSZH, OFNR, and OFNP grades to comply with stringent safety and installation requirements. Specifically engineered for high density data center applications to ensure efficient, space saving, and reliable optical connectivity.

Drawings：

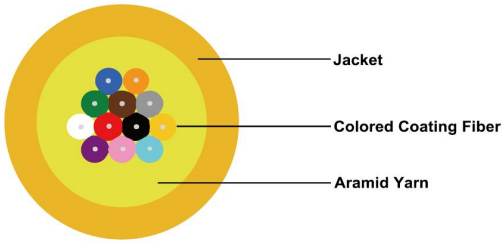
MPO Cable Polarity Type:



Connector Technical Parameter

Model		MM
Connector A : MPO		
Insertion Loss	Standard	≤0.70dB
	Elite Low Loss	≤0.35dB
Return Loss		APC≥60dB
Test Wavelength		1310nm&1550nm
Connector B: MPO		
Insertion Loss	Standard	≤0.70dB
	Elite Low Loss	≤0.35dB
Return Loss		APC≥60dB
Test Wavelength		1310nm&1550nm

Cable Structure Diagram



Cable Dimensions and Constructions

Items		Descriptions
Optical Fiber	Fiber count	12
	Color	Optical Fiber Chromatography
	Diameter	250±50μm
Strength Member	Material	Aramid yarn
Sheath	Material	LSZH
	Color	Yellow
	Diameter	3.0mm

Mechanical and Environmental Characteristics

Items	Descriptions	
Crush Resistance	Short-term	500N/100mm
	Long-term	200N/100mm
Tension	Short-term	200N
	Long-term	100N
Min.Bend Radius（Dynamic）	mm	20D
Min.Bend Radius（Static）	mm	10D
Operating Temperature	- 2 0 C-+ 6 0 C	
Temperature Range	- 2 0 C-+ 6 0 C	

Fiber Attenuation

The properties of single mode optical fiber (ITU-T Rec. G.657A1)

Characteristic	condition	data	unit
Optical properties			
Attenuation	1310nm 1383nm 1490nm 1550nm 1625nm	≤0.35 ≤0.35 ≤0.23 ≤0.22 ≤0.23	dB/km dB/km dB/km dB/km dB/km
Relative wavelength attenuation @1310nm @1550nm	1285～1330nm 1525～1575nm	≤0.05 ≤0.05	dB/km dB/km
Dispersion in the wavelength range of	1285～1340nm 1550nm	≤3.5 ≤18	ps/(nm.km) ps/(nm.km)
Zero dispersion wavelength		1300～1324	nm
A zero-dispersion slope		≤0.092	ps/(nm^2.km)
Polarization Mode Dispersion Coefficient PMD Single fiber maximum Fiber link value (M=20, Q=0.01%) Typical value		 ≤0.2 ≤0.1 0.04	ps/ ps/ ps/
Cable cut-off wavelength（λcc）		≤1260	nm
Mode field diameter （MFD）	1310nm 1550nm	8.8±0.4 9.8±0.5	μm μm
Attenuation discontinuities	1310nm 1550nm	≤0.05 ≤0.05	dB dB
Geometric characteristics			
Core diameter		125±0.7	μm
Cladding roundness		≤0.7	%
Coating diameter		245±5	μm
Coating / package concentricity error		≤12.0	μm
Core / package concentricity error		≤0.5	μm
The warpage (radius)		≥4	m
Environmental characteristics（1310nm、1550nm、1625nm）			
Temperature additional attenuation	-60℃ ～+85℃	≤0.05	dB/km
Temperature-humidity cycle additional attenuation	-10℃ ～+85℃，98% Relative humidity	≤0.05	dB/km
Flooding additional attenuation	23℃，30 days	≤0.05	dB/km
Hot and humid additional attenuation	85℃&85% Relative humidity，30 days	≤0.05	dB/km
Dry heat aging	85℃	≤0.05	dB/km

Mechanical properties			
Screening tension		≥9.0	N
The macro bend Additional attenuation 10 CircleΦ30mm 10 CircleΦ30mm 1 CircleΦ20mm 1 CircleΦ20mm	 1550nm 1625nm 1550nm 1625nm	 ≤0.025 ≤1.0 ≤0.75 ≤1.5	 dB dB dB dB
Coating peeling force	Typical average	1.5	N
Dynamic fatigue parameters		≥20	