

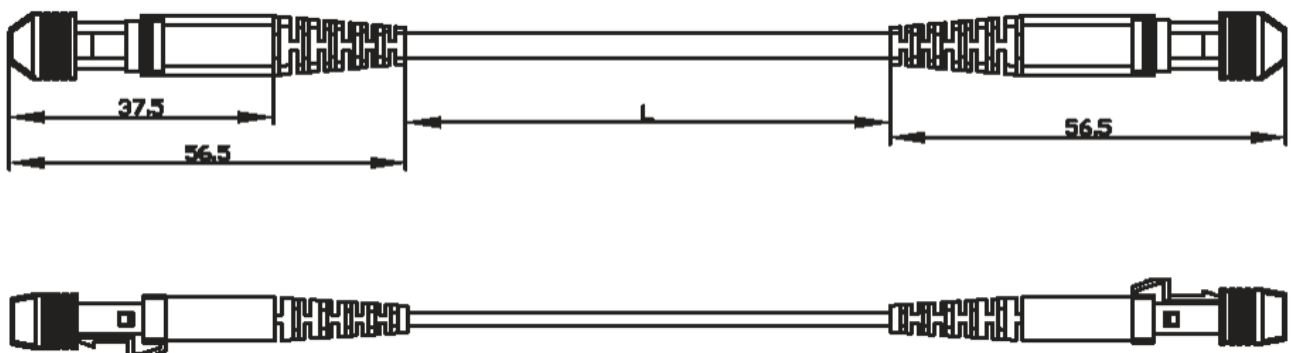
Fiber Optic Patch Cord MTRJ-MTRJ Fiber Optical Jumper Single Mode G657A1 Duplex 2.0mm PVC-OFNP

MTRJ-MTRJ Cable

UnitekFiber provide patch cord. Patch cord means that the terminations are connect at both ends of the optical cable to realize the optical path active connection. Optical Fiber Patch cord is similar to coaxial cable except that there is no mesh shield. The light-transmitting glass core is in the central. The fiber core has a diameter of $9/125\mu\text{m}$ $50/125\mu\text{m}$ and $65/125\mu\text{m}$ for SM and multi mode fiber path cord, which is roughly equivalent to the thickness of a human hair. The diameter for single mode fiber core is $8\mu\text{m}$ to $10\mu\text{m}$. The fiber core is wrapped by a glass which is having a lower index of refraction than the core to maintain the fiber within the core.



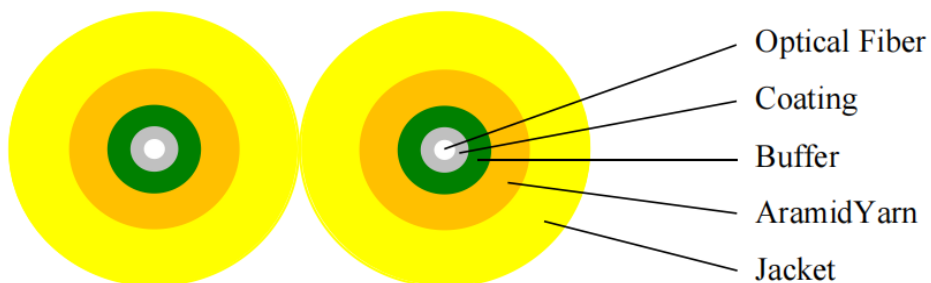
Drawings:



Connector Technical Parameter

Model		SM
Connector A :MTRJ		
Insertion Loss	Standard	0.30dB
Return Loss		UPC \geq 50dB APC \geq 60dB
Durability(500 Matings)		\leq 0.2dB
Test Wavelength		1310nm&1550nm
Connector B:MTRJ		
Insertion Loss	Standard	0.30dB
Return Loss		UPC \geq 50dB APC \geq 60dB
Durability(500 Matings)		\leq 0.2dB
Test Wavelength		1310nm&1550nm

Cable Structure Diagram



Cable Dimensions and Constructions

Items		Descriptions
Optical Fiber	Fiber count	2
	Color	Optical Fiber Chromatography
Strength Member	Material	Aramid yarn
Sheath	Material	OFNP
	Color	Yellow
	Diameter	2.0±0.10mm

Mechanical and Environmental Characteristics

Items		Descriptions
Crush Resistance		short-term 1000N/100mm
		long-term 200N/100mm
Min. Bend Radius (Dynamic)	mm	50
Min. Bend Radius (Static)	mm	30
Operating Temperature	°C	- 2 0 C-+ 7 0 C
Storage Temperature	°C	- 2 0 C-+ 7 0 C

Fiber Attenuation

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

Characteristic	Condition	Data	Unit
Attenuation	1310nm	≤0.35	dB/km
	1383nm(氢老化后)	≤0.35	dB/km
	1490nm	≤0.23	dB/km
	1550nm	≤0.22	dB/km
	1625nm	≤0.23	dB/km
Relative wavelength attenuation @1310nm @1550nm	1285~1330nm	≤0.05	dB/km
	1525~1575nm	≤0.05	dB/km
Dispersion in the wavelength range of	1285~1340nm	≤3.5	ps/(nm.km)
	1550nm	≤18	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	ps/
		≤0.1	ps/
		0.04	ps/
Cable cut-off wavelength (λ _{cc})		≤1260	nm
Mode field diameter (MFD)	1310nm	8.8±0.4	μm
	1550nm	9.8±0.5	μm
Attenuation discontinuities	1310nm	≤0.05	dB
	1550nm	≤0.05	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℃ 和 85% Relative humidity, 30 days	≤0.05	dB/km
Dry heat aging	85℃	≤0.05	dB/km
Screening tension		≥9.0	N
The macro bend Additional attenuation			
10 CircleΦ30mm	1550nm	≤0.025	dB
10 CircleΦ30mm	1625nm	≤1.0	dB
1 CircleΦ20mm	1550nm	≤0.75	dB
1 CircleΦ20mm	1625nm	≤1.5	dB
Coating peeling force	Typical average	1.5	N
Dynamic fatigue parameters		≥20	

Packing

According to customer request.

Delivery Length

Standard Reel Length:0.5-2.0 km. ; According to customer request.

Marking

Cable Marker every Meter by

- Year of manufacture
- Type of Cable
- Number of fiber
- Cable length
- Etc

According to customer or our company request .