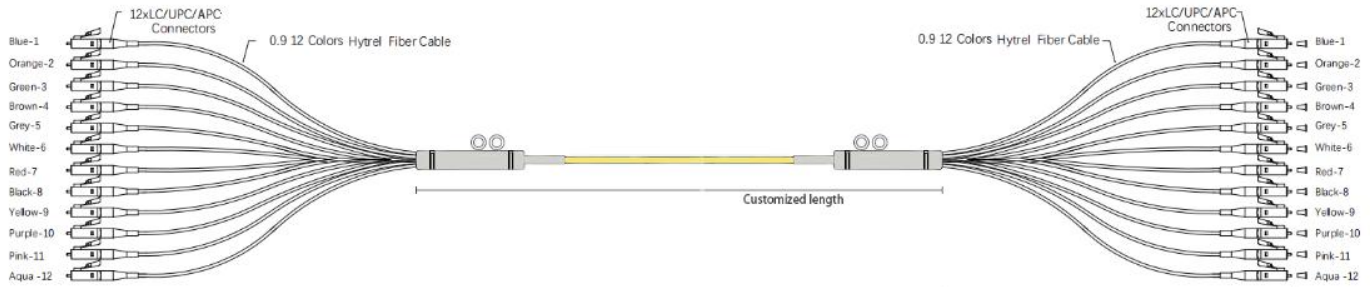


Fiber Optic Patch Cord|High Quality 12 fibers LC/APC-LC/APC Fanout Ribbon Bare Fiber Optic Jumper SM G657A1

Unitek Fiber 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 9/125um 50/125 μ m and 65/125 μ 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 μ m to 10 μ 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:



Model		SM
Connector A : LC		
Insertion Loss	Standard	≤0.3dB
Return Loss		APC≥60dB UPC≥50dB
Durability(500 Matings)		≤0.2dB
Test Wavelength		1310nm& 1550nm
Connector B: LC		
Insertion Loss	Standard	≤0.3dB
Return Loss		APC≥60dB UPC≥50dB
Durability(500 Matings)		≤0.2dB
Test Wavelength		1310nm& 1550nm

Cable Structure Diagram



12-fiber ribbon fiber cable

Cable Dimensions and Constructions

Items		Descriptions
Optical Fiber	Fiber count	12
	Color	Optical Fiber Chromatography

Sheath	Material	PVC
	Color	Orange
	Diameter	2.2*5.0mm

Mechanical and Environmental Characteristics

Items	Descriptions	
Tensile strength	short-term	200N
	long-term	80N
Crush Resistance	short-term	500N/100mm
	long-term	200N/100mm
Min.BendRadius (Dynamic)	mm	50
Min.BendRadius (Static)	mm	30
OperatingTemperature	- 2 0 C--+ 60 C	
Temperature Range	- 2 0 C--+ 60 C	

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

Characteristic	condition	data	unit
Optical properties			
Attenuation	1310nm	≤0.35	dB/km
	1383nm	≤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	$-60^{\circ}\text{C} \sim +85^{\circ}\text{C}$	≤ 0.05	dB/km
Temperature-humidity cycle additional attenuation	$-10^{\circ}\text{C} \sim +85^{\circ}\text{C}$, 98% Relative humidity	≤ 0.05	dB/km
Flooding additional attenuation	23°C , 30 days	≤ 0.05	dB/km
Hot and humid additional attenuation	85°C 和 85% Relative humidity, 30 days	≤ 0.05	dB/km
Dry heat aging	85°C	≤ 0.05	dB/km
Mechanical properties			
Screening tension		≥ 9.0	N
The macro bend Additional attenuation	10 Circle $\Phi 30\text{mm}$		
	10 Circle $\Phi 30\text{mm}$	1550nm	≤ 0.025 dB
	1 Circle $\Phi 20\text{mm}$	1625nm	≤ 1.0 dB
	1 Circle $\Phi 20\text{mm}$	1550nm	≤ 0.75 dB
		1625nm	≤ 1.5 dB
Coating peeling force	Typical average	1.5	N
Dynamic fatigue parameters		≥ 20	