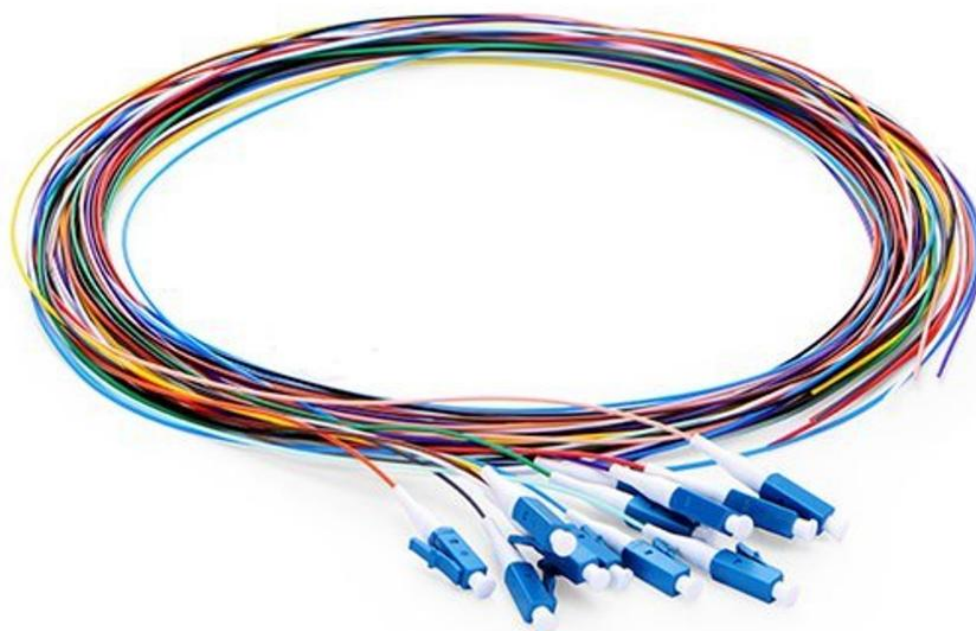


1m LC UPC 12Color Single Mode 0.9mm Fiber Optic Pigtail G652D G657A1 LSZH

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 50/125µm and 65/125 µm 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 8µm to 10µm. 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.



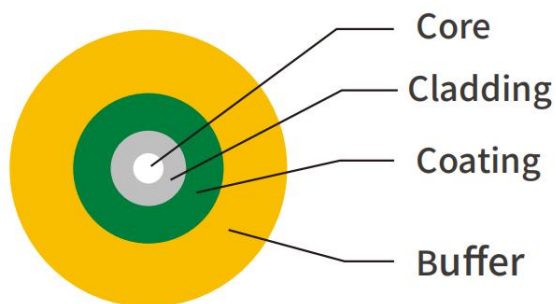
Drawings:



Connector Technical Parameter

Model		SM
Insertion Loss	Standard	0.3dB
Return Loss		UPC≥50dB
Test Wavelength		1310nm& 1550nm

Cable Structure Diagram



Cable Dimensions and Constructions

Items		Descriptions
Optical Fiber	Fiber count	12
	Color	Optical Fiber Chromatography
Sheath	Material	LSZH
	Color	Blue、Orange、Green 、Brown、Gray、White、Red、Black、Yellow、Purple、Pink 、Aqua
	Diameter	0.9±0.05mm

Mechanical and Environmental Characteristics

Items	Descriptions	
Tensile	short-term	6N
	long-term	2N
Min.Bend Radius (Dynamic)	mm	50
Min.Bend Radius (Static)	mm	30
Operating Temperature	- 2 0 C-+ 7 0 C	
Temperature Range	-2 0 C-+ 7 0 C	

Fiber Attenuation

The properties of single mode optical fiber (ITU-T Rec. G.652.D)

Item	Specification
Fiber type	Single mode
Fiber material	Doped silica

Attenuation coefficient	
@ 1310 nm	≤ 0.36 dB/km
@ 1383 nm	≤ 0.32 dB/km
@ 1550 nm	≤ 0.22 dB/km
@ 1625 nm	≤ 0.30 dB/km
Point discontinuity	≤ 0.05 dB
Cable cut-off wavelength	≤ 1260 nm
Zero-dispersion wavelength	1300 ~ 1324 nm
Zero-dispersion slope	≤ 0.092 ps/(nm ² .km)
PMD _Q (Quadrature average*)	≤ 0.2 ps/km ^{1/2}
Mode field diameter @ 1310 nm	9.2±0.4 μm
Core / Clad concentricity error	≤ 0.5 μm
Cladding diameter	125.0 ± 0.7 μm
Cladding non-circularity	$\leq 1.0\%$
Primary coating diameter	245 ± 10 μm
Proof test level	100 kpsi (=0.69 Gpa), 1%
Temperature dependence 0oC~ +70oC @ 1310 & 1550nm	≤ 0.1 dB/km

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		≤ 0.2	ps/
Single fiber maximum		≤ 0.1	ps/
Fiber link value (M=20, Q=0.01%)		0.04	ps/

Typical value			
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 & 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 $\Phi 30\text{mm}$	1550nm	≤ 0.025 dB
	10 Circle $\Phi 30\text{mm}$	1625nm	≤ 1.0 dB
	1 Circle $\Phi 20\text{mm}$	1550nm	≤ 0.75 dB

1 CircleΦ20mm	1625nm	≤1.5	dB
Coating peeling force	Typical average	1.5	N
Dynamic fatigue parameters		≥20	