

## Fiber Optic Patch Cord|LC/PC - LC/PC Fiber Jumper Multimode 50/125 $\mu$ m OM2 Duplex 3.0mm LSZH

### LC-LC 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 $\mu$ m 50/125 $\mu$ m and 65/125 $\mu$ 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 $\mu$ m to 10 $\mu$ 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.



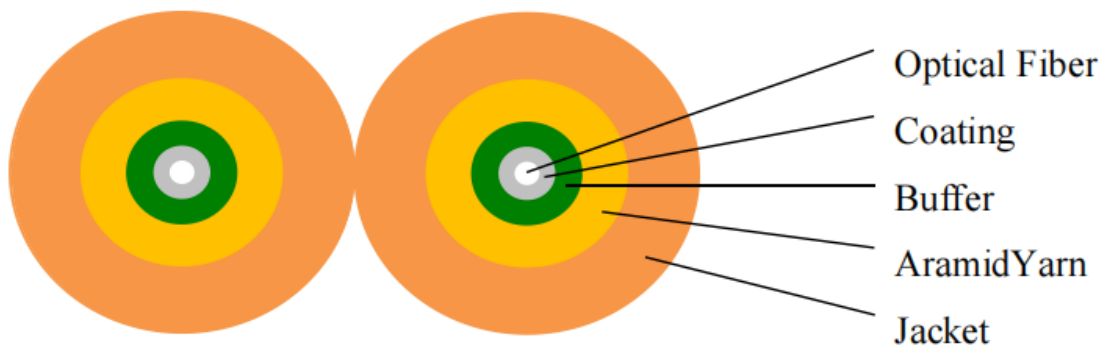
### Drawings:



## Connector Technical Parameter

Model		MM
Connector A :LC		
Insertion Loss	Standard	0.30dB
Return Loss		PC≥35dB
Durability(500 Matings)		≤0.2dB
Test Wavelength		850nm&1300nm
Connector B:LC		
Insertion Loss	Standard	0.30dB
Return Loss		PC≥35dB
Durability(500 Matings)		≤0.2dB
Test Wavelength		850nm&1300nm

## 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	LSZH
	Color	Orange
	Diameter	3.0±0.10mm

## Mechanical and Environmental Characteristics

Items		Descriptions
Tensile		short-term 300N
		long-term 160N
Crush Resistance		short-term 1000N/100mm
		long-term 200N/100mm
Min. Bend Radius ( Dynamic )	mm	60
Min. Bend Radius ( Static )	mm	30
Operating Temperature	°C	- 2 0 C-+ 7 0 C
Storage Temperature	°C	- 2 0 C-+ 7 0 C

## The properties of multimode optical fiber (ITU-T Rec. OM2)

Characteristic	Condition	Data	Unit
<b>Optical properties</b>			
Attenuation	850nm	≤2.3	dB/km
	1300nm	≤0.6	dB/km
Full injection bandwidth	850nm	≥500	MHz•Km
	1300nm	≥500	MHz•Km
Numerical aperture		0.200±0.015	
Zero dispersion wavelength		1295-1340	nm
A zero-dispersion slope	1295-1310	≤0.105	ps/(nm <sup>2</sup> .km)
	1310-1340	≤0.000375	ps/(nm <sup>2</sup> .km)
Group refractive index	850nm	1.482	
	1300nm	1.477	
The macro bend additional attenuation 100 CircleΦ75mm 4 CircleΦ30mm	850nm	≤0.5	dB
	1300nm	≤0.5	dB
	850nm	≤1.0	dB
	1300nm	≤1.0	dB
<b>Geometric characteristics</b>			
Core diameter		50±2.5	μm
Core roundness		≤5.0	
Cladding roundness		≤1.0	%
Cladding diameter		125.0±1.0	μm
Coating diameter		245±7	μm
Coating / package concentricity error		≤10.0	μm
Coating roundness		≤6.0	%
Core / package concentricity error		≤1.5	μm
Fiber length		≤17.6	Km/axis
<b>Backscatter characteristics(1300nm)</b>			
Steps( Mean value of two-way measurement)		≤0.1	dB
The irregularity of the length direction and the discontinuity of the point		≤0.1	dB
Attenuation inhomogeneity		≤0.08	dB/km
<b>Environmental characteristics (850nm、1300nm)</b>			
Temperature additional attenuation	-60℃ ~+85℃	≤0.1	dB/km
Temperature-humidity cycle additional attenuation	-10℃ ~+85℃, 4%~98% Relative humidity	≤0.1	dB/km
Flooding additional attenuation	23℃, 30 days	≤0.1	dB/km
Dry heat additional attenuation	85℃, 30 days	≤0.1	dB/km
Hot and humid additional attenuation	85℃ and 85% Relative humidity, 30 days	≤0.1	dB/km
<b>Mechanical properties</b>			
Screening tension		≥9.0	N
		≥1.0	%
		≥100	kpsi
Coating peeling force	Typical average Peak value	1.5	N
		≥1.3 ≤8.9	N
Dynamic fatigue parameters( Nd,Typical value)		27	