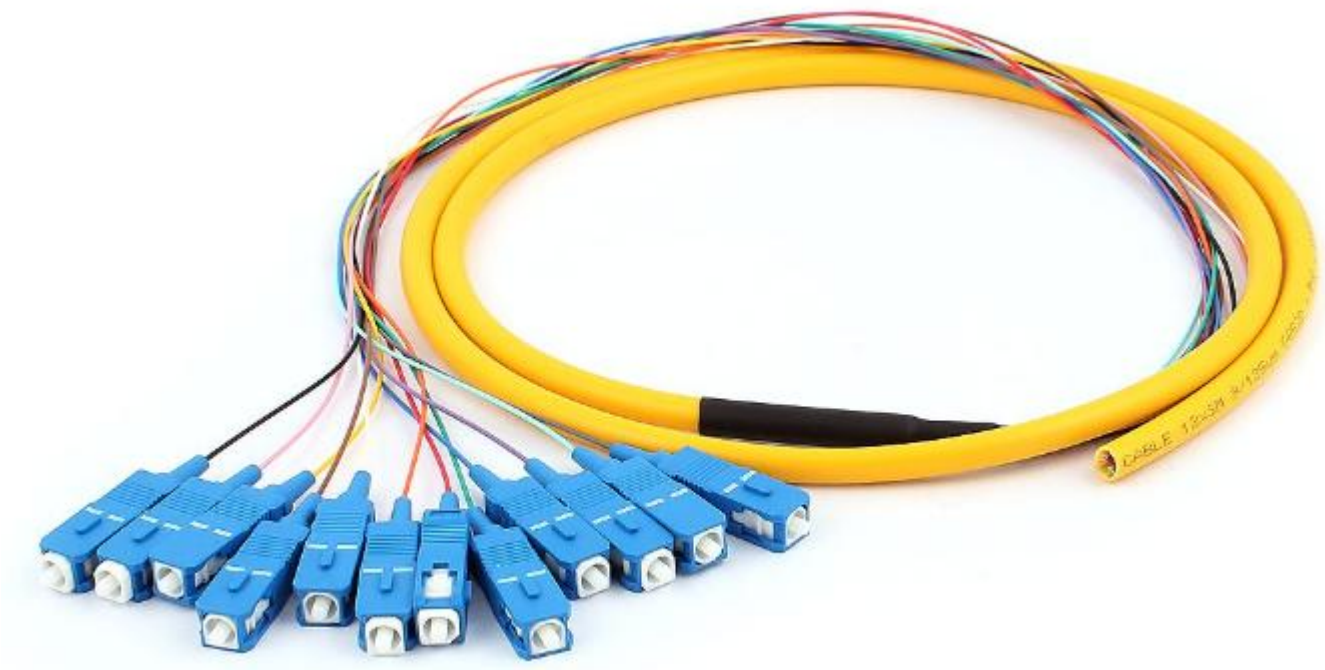
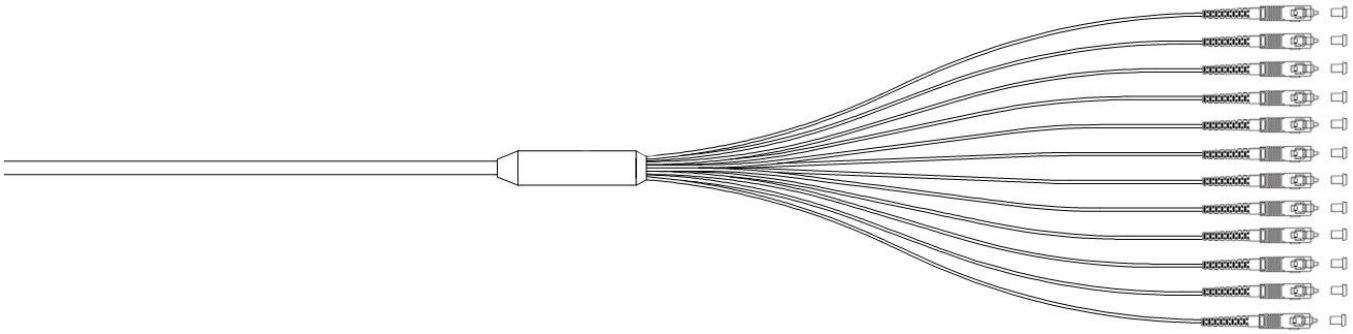
12 Colors SC Bulk Fiber Optical Pigtail G652D G657A1 LSZH/PVC

SC Pigtail Cable

SC Pigtail Cable 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 50/125μm to 65/125μm for multi mode fiber patch cords, 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



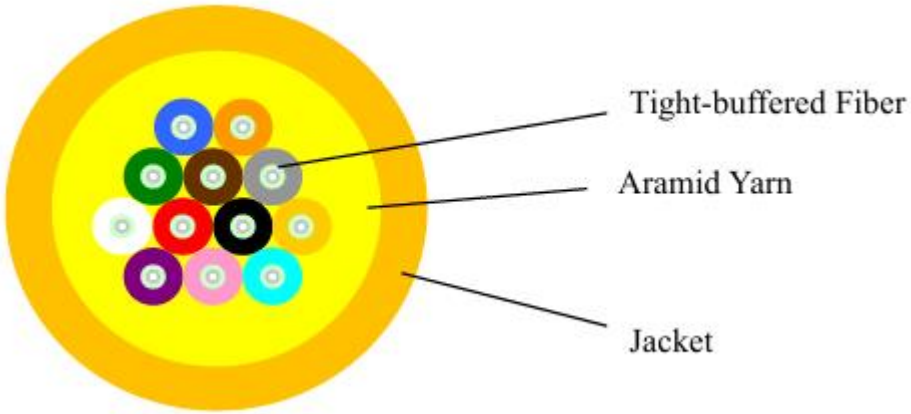
Drawings：



Connector Technical Parameter

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

Cable Structure Diagram



Cable Dimensions and Constructions

Items		Descriptions
Tight-buffered Fiber	Dimension	850±50μm
	Fiber Count	12
	Material	PVC
	Color	Blue、Orange、Green、Brown、Gray、White、Red、Black、Yellow、Purple、Pink、Aqua
Strength Member	Material	Aramid Yarn
Sheath	Material	LSZH/PVC
	Color	Orange
	Diameter	6.2mm

Mechanical and Environmental Characteristics

Items	Descriptions	
Tensile	short-term	600N
	long-term	300N
Crush	short-term	1000 N/10cm
	long-term	200 N/10cm
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.652.D)

Item	Specification
Fiber type	Single mode
Fiber material	Doped silica
Attenuation coefficient @ 1310 nm @ 1383 nm @ 1550 nm @ 1625 nm	 ≤ 0.36 dB/km ≤ 0.32 dB/km ≤ 0.22 dB/km ≤ 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)
Chromatic dispersion @ 1288 ~ 1339 nm @ 1271 ~ 1360 nm @ 1550 nm @ 1625 nm	 ≤3.5 ps/(nm. km) ≤5.3 ps/(nm. km) ≤18 ps/(nm. km) ≤22 ps/(nm. km)
PMD_Q (Quadrature average*)	≤0.2 ps/km$^{1/2}$
Mode field diameter @ 1310 nm	9.2±0.4 um
Core / Clad concentricity error	≤ 0.5 um
Cladding diameter	125.0 ± 0.7 um
Cladding non-circularity	≤1.0%
Primary coating diameter	245 ± 10 um
Proof test level	100 kpsi (=0.69 Gpa), 1%
Temperature dependence 0℃~ +70℃ @ 1310 & 1550nm	≤ 0.1 dB/km

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

Characteristic	condition	data	unit
Optical properties			
Attenuation	1310nm	≤0.35 ≤0.35	dB/km dB/km

	1383nm(氢老化后) 1490nm 1550nm 1625nm	≤0.23 ≤0.22 ≤0.23	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/(nm2.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℃和 85% Relative	≤0.05	dB/km

	humidity，30 days		
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	