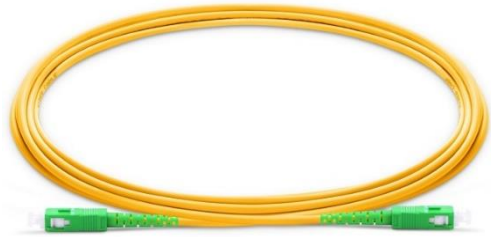
SC, LC Fiber Optic Patch Cord Specification

Application



1.Optical fiber communication systems engineering
2.Fiber optic data communication network
3.Fiber CATV engineering
4.Other optical technology tests

Features

1.The style is diverse, the interface is complete
2.Low insertion loss and added loss
3.Height of attenuation
4.High back loss, small volume, light weight
5.End-face geometry and quality superior than IEC and Telcordia standards.
6.LSZH, OFNP, OFNR cable jacket.
7.Mechanical performance: IEC 61754-4 standard.
8.RoHS and REACH materials compliant.

Connector Types

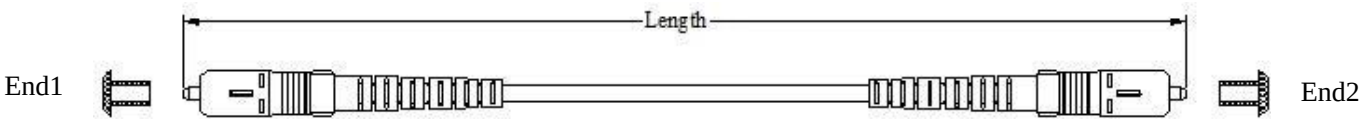
Type	Reference	Note	
SC	TIA/EIA-604-3	Single mode simplex	APC: Green connectors, Green boots UPC: Blue connectors, Blue boots
		Single mode duplex	APC: Green connectors, Green boots UPC: Blue connectors, Blue boots
		Multimode simplex	UPC: Grey Connectors, Grey boots
		Multimode duplex	UPC: Grey Connectors, Grey boots
LC	TIA/EIA-604-10	Single mode simplex	APC: Green connectors , Green boots (for 0.9mm) APC: Green connectors ,White boots (for 2.0/3.0mm) UPC: Blue connectors , White boots
		Single mode duplex	APC: Green connectors , Green boots (for 0.9mm) APC: Green connectors ,White boots (for 2.0/3.0mm) UPC: Blue connectors , White boots
		Multimode simplex	UPC: Grey Connectors , White boots
		Multimode duplex	UPC: Grey Connectors , White boots

Note: If FC connector is required, the standard TIA/EIA-604-4 for FC will be applied instead

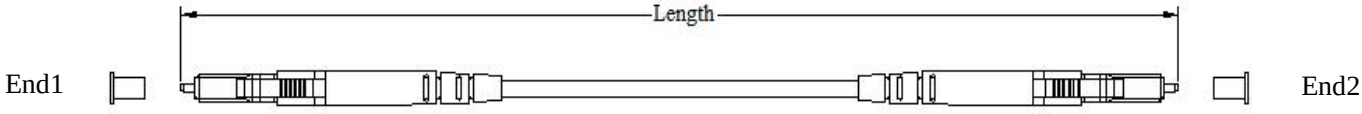
Dimensional Diagrams

1) SC-LC simplex patch cord

2) SC-SC simplex patch cord



3) LC-LC simplex patchcord



Patch cord specifications

Item	Specification	Item	Specification
Standard	Singlemode 9/125 μm G.652D	Min. Bending Radius	10 x cable diameter
Attenuation	@1310nm: ≤ 0.4 dB/km @1550nm: ≤ 0.25 dB/km	Tensile	≥220N
Length	1m~50m	Operating/Storage Temperature	-40°C to 80°C
Diameter	2.0mm ±5%	Max Crush	550N/cm

Optical Characteristics

Item	Parameter		Reference
	Single mode	Multimode	
Insertion loss	Typical value≤0.15dB; Maximum≤0.20	Typical value≤0.15dB; Maximum≤0.30	IEC 61300-3-34
Return loss	≥ 60dB (APC); ≥ 50dB (UPC)	≥30dB (UPC)	IEC 61300-3-6

End-Face Geometry

Item	UPC (Ref: IEC 61755-3-1)	APC (Ref: IEC 61755-3-2)
Radius of curvature (mm)	10 to 25	5 to 12
Fiber height (nm)	-100 to 100	-100 to 100
Apex offset (μm)	0 to 50	0 to 50
APC angle (°)	/	8° ±0.2°
Key error (°)	/	0.2° max

End-Face Quality (SM)

Zone	Range (μm)	Scratches	Defects	Reference
A: Core	0 to 25	None	None	IEC 61300-3-35:2015
B: Cladding	25 to 115	None	None	
C: Adhesive	115 to 135	None	None	
D: Contact	135 to 250	None	None	
E: Rest of ferrule		None	None	

End-Face Quality (MM)

Zone	Range (μm)	Scratches	Defects	Reference
A: Core	0 to 65	None	None	IEC 61300-3-35:2015
B: Cladding	65 to 115	None	None	
C: Adhesive	115 to 135	None	None	
D: Contact	135 to 250	None	None	
E: Rest of ferrule		None	None	

Mechanical Characteristics

Test	Conditions	Reference
Endurance	1000 matings	IEC 61300-2-2
Vibration	Frequency: 10 to 55Hz, Amplitude: 0.75mm	IEC 61300-2-1
Cable retention	100N (patch cable); 5N (pigtail)	IEC 61300-2-4
Strength of coupling mechanism	80N for 2 to 3mm cable	IEC 61300-2-6
Cable torsion	15N for 2 to 3mm cable	IEC 61300-2-5
Fall	10 drops, 1m drop height	IEC 61300-2-12
Static lateral load	1N for 1h (patch cable); 0.2N for 5min (pigtail)	IEC 61300-2-42
Cold	-25°C, 96h duration	IEC 61300-2-17
Dry heat	+70°C, 96h duration	IEC 61300-2-18
Change of temperature	-25°C to +70°C, 12 cycles	IEC 61300-2-22
Humidity	+40°C at 93%, 96h duration	IEC 61300-2-19

Ordering Information & Part Number

V-FOPC-LU(1)LU(2)-20(3)SM2(4)-S(5)L(6)10(7)

(1,2) (LA, SU, SA, FU, FA, ST)

(3) (12=1.2, 16=1.6, 30=3.0)

(4) (SM2=G652, OM1, OM2, OM3, OM4..)

(5) (S=Simplex, D=Duplex)

(6) (L=LSZH, P=PVC)

(7) (10=10m, 15=15m, 20=20m…)