

FIBER OPTIC ACCESSORIES

PIGTAIL FC , SM/MM



FEATURES

- The style is diverse, the interface is complete
- Low insertion loss and added loss
- Height of attenuation
- High back loss, small volume, light weight
- End-face geometry and quality superior than IEC and Telcordia standards.
- LSZH, OFNP, OFNR cable jacket.
- Mechanical performance: IEC 61754-13 standard.
- RoHS and REACH materials compliant.

APPLICATION

- Optical fiber communication systems engineering
- Fiber optic data communication network
- Fiber CATV engineering
- Other optical technology tests

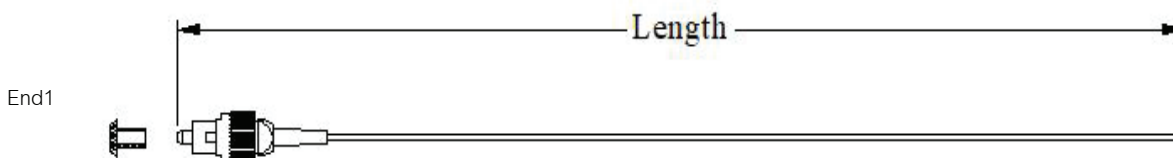


CONNECTOR TYPES

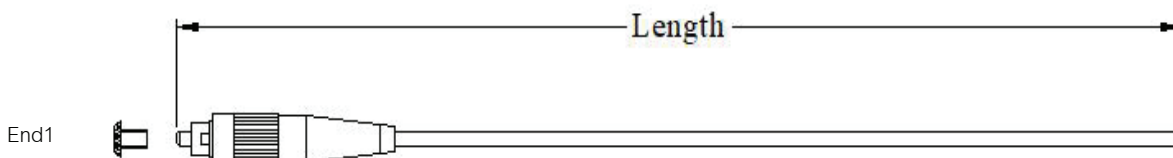
Type	Reference	Type	Note
		Single mode simplex	APC: Green boots UPC: Black boots
FC	IEC 61754-13	Single mode duplex	APC: Green boots UPC: Black boots
		Multimode simplex	UPC: Black boots
		Multimode duplex	UPC: Black boots

DIMENSIONAL DIAGRAMS

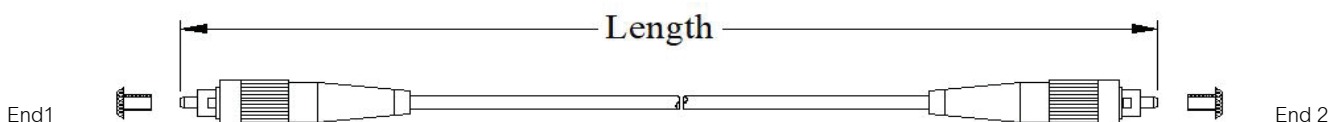
FC 0.9mm simplex pigtail



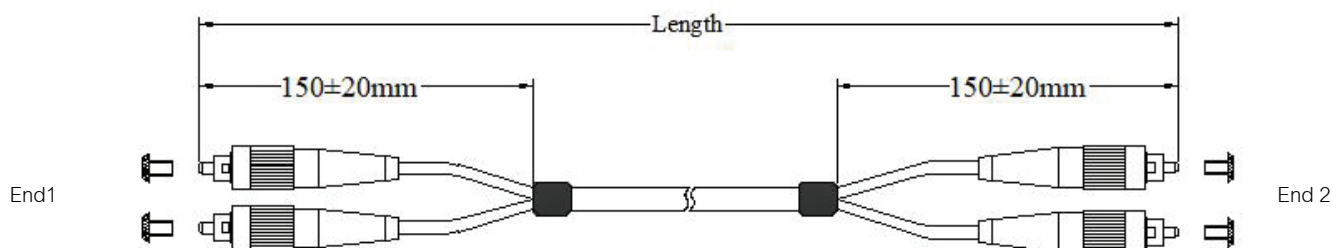
FC 2.0mm&3.0mm simplex pigtail



FC 2.0mm&3.0mm simplex patchcord



FC 2.0mm&3.0mm duplex patchcord



PATCH CORD VERSIONS

Jumper tolerance requirement	
Overall length (L)(M)	length of tolerance (CM)
$0 < L \leq 20$	+10/-0
$20 < L \leq 40$	+15/-0
$L > 40$	+0.5%L/-0

PRODUCT PARAMETERS

Mode	Single mode		Multimode
Polish	UPC	APC	PC
Insertion Loss	$\leq 0.30 \text{ dB}$	$\leq 0.20 \text{ dB}$	$\leq 0.20 \text{ dB}$
Return Loss	$\geq 50 \text{ dB}$	$\geq 60 \text{ dB}$	$\geq 30 \text{ dB}$
Test Wavelength	1310/1550nm		850/1310nm
Durability(500 Matings)	$\leq 0.2 \text{ dB}$		
Operating Temperature	$-40^{\circ}\text{C} \sim +60^{\circ}\text{C}$		
Storage Temperature	$-45^{\circ}\text{C} \sim +85^{\circ}\text{C}$		
Fire Resistant	IEC 60794-2-30		
Standards-Compliant	ROHS,IEC and GR-326		

OPTICAL CHARACTERISTICS

Item	Single mode	Multimode	Reference
Insertion loss	Typical value $\leq 0.15 \text{ dB}$; Maximum ≤ 0.30	Typical value $\leq 0.15 \text{ dB}$; Maximum ≤ 0.30	IEC 61300-3-34
Return loss	$\geq 60 \text{ dB}$ (APC); $\geq 50 \text{ dB}$ (UPC)	$\geq 30 \text{ dB}$ (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 ($^{\circ}$)	/	$8^{\circ} \pm 0.2^{\circ}$
Key error ($^{\circ}$)	/	0.2° max

END-FACE QUALTY (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 QUALTY (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	500 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

ORDER INFOMATION

PRODUCT	PART NUMBER
Pigtail FC, SM 9/125um (900um Jacket)/ (2mm Jacket)	F-PT-FC9-0.9mm/2mm
Pigtail FC, MM 50/125um (900um Jacket)/ (2mm Jacket)	F-PT-FC5-0.9mm/2mm