

# 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

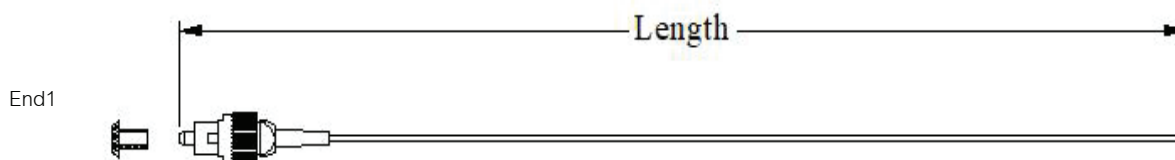


## CONNECTOR TYPES

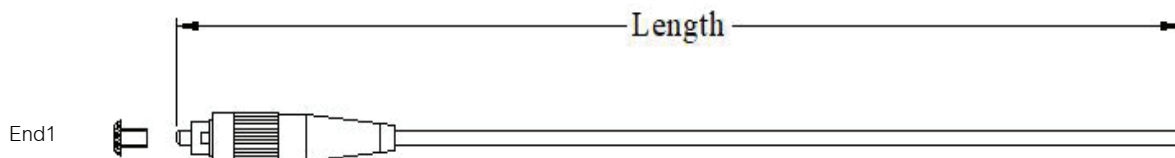
Type	Reference	Type	Note
		Single mode simplex	APC: Green boots UPC: Black boots
FC	IEC 61754-13	Single mode duplex	APC: Green boots UPC: Black boots
		Multimode simplex	UPC: Black boots
		Multimode duplex	UPC: Black boots

## DIMENSIONAL DIAGRAMS

FC 0.9mm simplex pigtail



FC 2.0mm&3.0mm simplex pigtail



## PATCH CORD VERSIONS

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

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## PRODUCT PARAMETERS

Mode	Single mode		Multimode
Polish	UPC	APC	PC
Insertion Loss	≤0.30dB	≤0.20dB	≤0.20dB
Return Loss	≥50dB	≥60dB	≥30dB
Test Wavelength	1310/1550nm		850/1310nm
Durability(500 Matings)	≤0.2dB		
Operating Temperature	-40°C~+60°C		
Storage Temperature	-45°C~+85°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≤0.15dB;Maximum≤0.30	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	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 INFORMATION

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