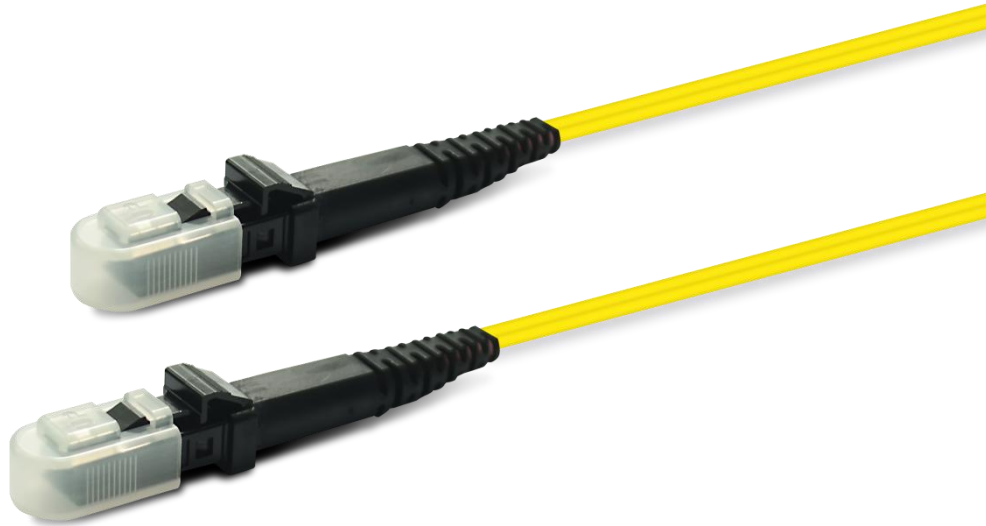


MTRJ Fiber Optic Patch Cord Specification



Application

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

Features

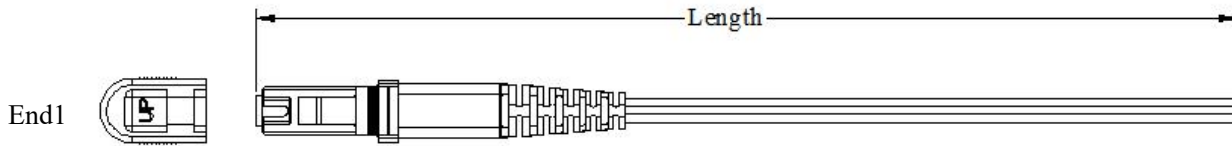
- 1.The style is diverse, the interface is complete
- 2.Low insertion loss and added loss
- 3.Height of attenuation
- 4.High back loss, small volume, light weight
- 5.End-face geometry and quality superior than IEC and Telcordia standards.
- 6.LSZH, OFNP, OFNR cable jacket.
- 7.Mechanical performance: IEC 61754-18 standard.
- 8.RoHS and REACH materials compliant.

Connector Types

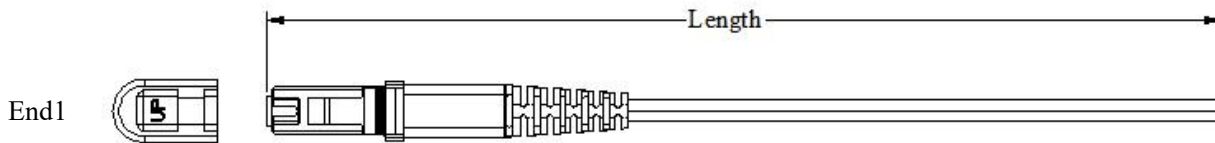
Type	Reference	Note	
MTRJ	IEC 61754-18	Single mode duplex	PC: Black connectors, Black boots APC: Black connectors, Black boots
		Multimode duplex	PC: Black Connectors, Black boots

Dimensional Diagrams

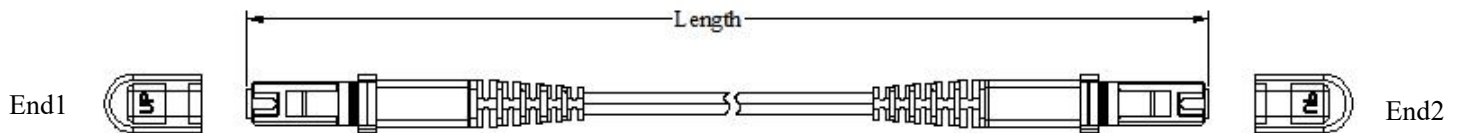
1.MTRJ 0.9mm duplex pigtail



2.MTRJ 2.0mm duplex pigtail



3.MTRJ 2.0mm 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

Optical Characteristics

Item	Parameter		Reference
	Single mode	Multimode	
Insertion loss	Typical value ≤ 0.25 dB; Maximum ≤ 0.50	Typical value ≤ 0.25 dB; Maximum ≤ 0.50	IEC 61300-3-34
Return loss	≥ 50 dB (PC) ≥ 60 dB (APC)	≥ 30 dB (PC)	IEC 61300-3-6

End-Face Geometry

Ferrule parameter		IEC-61300--3-30	
		Minimum	Maximum
ROC	ROC-X:	2000mm	∞
	ROC-Y:	50mm	∞
Angle	Angle-X:	-0.2°	0.2°
	Angle-Y:	PC	0.2°
		APC	7.85°
Fiber Hight:		1000nm	3500nm
Max.DH.All:		-300nm	300nm
DH.Adj:		-300nm	300nm
DH.Ave Fiber:		-300nm	300nm
Core Dip:	MM	-200nm	300nm
	SM	N/A	N/A
Ferrule height		7.9mm	8.05mm

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