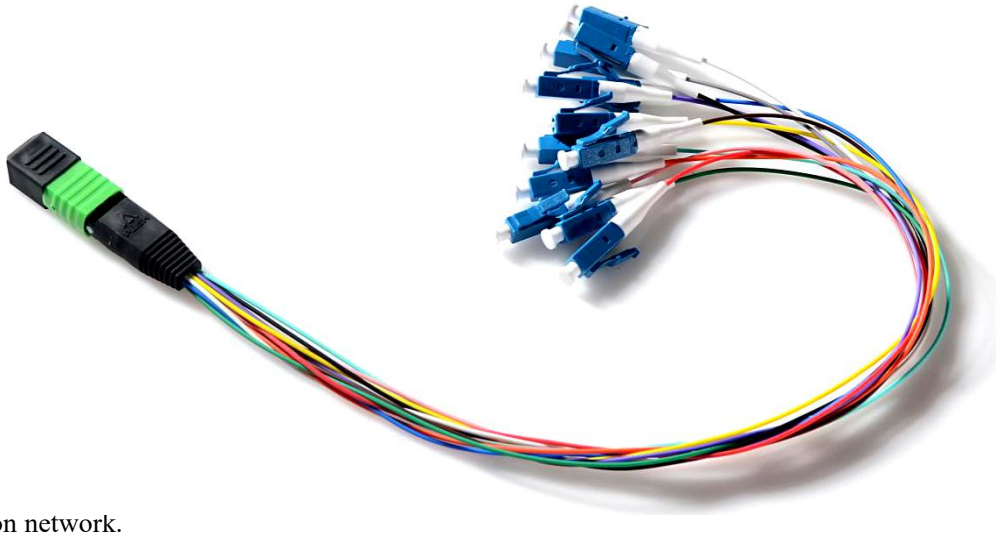
MPO/MTP Fan out 0.9mm Patch Cords Specification



Application

1.Data communicatıon network.

2.Optical System Access network.

3.Storage area networking fiber channel.

4.High density architectures.

Features

1.100% pre-terminated and tested in factory to ensure transfer performance.

2.Cable Jacket material: LSZH, OFNR, OFNP available.

3.Economical solution for mass-termination of fiber

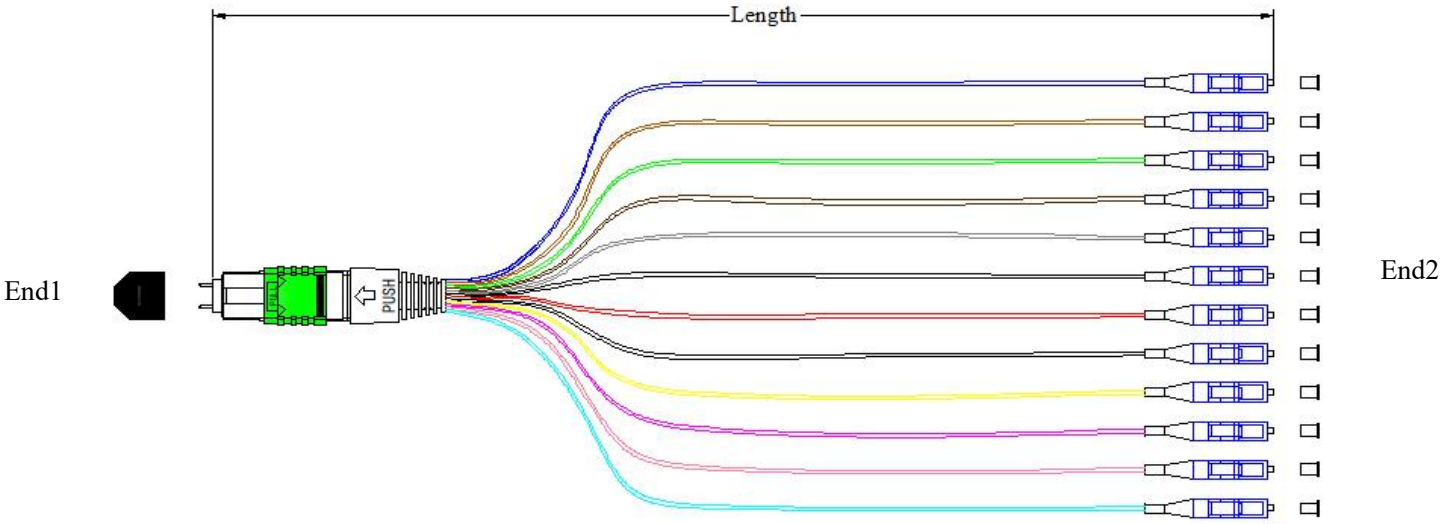
4.Designed for low loss and standard loss SM and MM applications

5.Ruggedized round cable, oval cable and bare ribbon options available

6.Good in repeatability and exchangeability

Dimensional Diagrams

1. MPO/MTP Harnesses Cables



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

MPO&MTP Optical Characteristics

Item	Parameter				Reference
	Single mode		Multimode		
	Standard	Elite	Standard	Elite	
Insertion loss	Typical≤0.30dB Max≤0.75dB	Typical≤0.15dB Max≤0.35dB	Typical≤0.50dB Max≤0.25dB	Typical≤0.10dB Max≤0.35dB	IEC 61300-3-34
Return loss	≥ 50dB (PC) ≥ 60dB (APC)	≥ 55dB (PC) ≥ 65dB (APC)	≥30dB(PC)	≥30dB(PC)	IEC 61300-3-6

LC/SC/FC/ST Optical Characteristics

Item	Parameter		Reference
	Single mode	Multimode	
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

LC/SC/FC/ST 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

MPO&MTP 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°	0.2°
		APC	7.85°	8.15°
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 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	400N (main cable); 50N (connector part)	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 (main cable); 0.2N for 5min (ranch part)	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