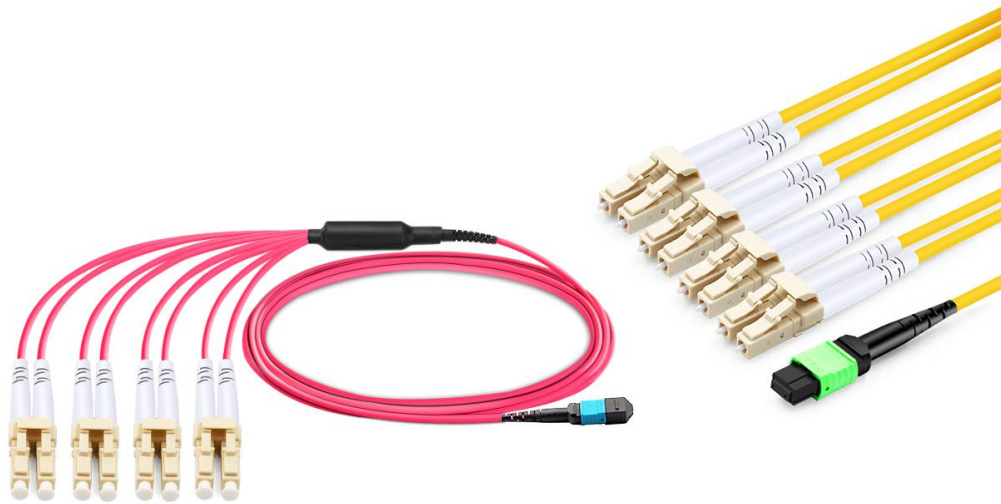


MTP/MPO-LC/FC/SC Patch Cord

MTP/MPO-LC/FC/SC Patch Cord



Instructions:

Apply to the following standards: MTP/MPO-LC/FC/SC, PC/APC SM/MM, Connector

Operating & Storage Temperature

Parameters	Min	Max	Unit
Operating Temperature	-10	70	°C
Storage Temperature	-40	85	°C

Optical Performance

Optical Performance					
Item		Parameters			
MTP/MPO Connector		SM (1310nm/1550nm)		MM (850nm)	
		Standard	Low Loss	Standard	Low Loss
Insertion Loss	Typical	0.35dB	0.15dB	0.35dB	0.15dB
	Maximum	0.75dB	0.35dB	0.75dB	0.35dB
Return Loss		≥60dB for APC		≥20dB for PC	
		≥40dB for PC		--	
Male/Female		Male: with Pins, Female: without Pins			

LC/SC/FC Connector				
Item	SM		MM	
	1310nm/1550nm IL (dB)	1310nm/1550nm RL (dB)	850nm IL (dB)	850nm RL (dB)
PC	≤0.2	≥50	≤0.30	≥25
APC	≤0.30	≥60	N/A	N/A

Geometry Parameters

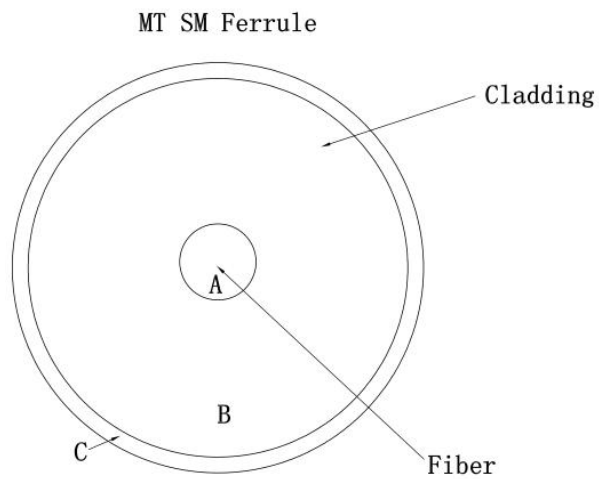
MT			
Measurement		Pass/Fail Limits	
Parameters		Min	Max
Radius of Curvature	Long Axel	2000mm	∞
	Short Axel	50mm	∞
Angle	Long Axel	-0.2°	0.2°
	Short Axel	APC	7.8°
		PC	-0.2°
Fiber Height		1000nm	3000nm
Different Fiber Height		N/A	500nm
Adjacent Fiber Height		N/A	300nm
Ferrule Length		7.9mm	N/A

FC/LC/SC UPC			
Item		Pass/Fail	
Parameters		Min	Max
FC ROC		10.00mm	25.00mm
LC ROC		7mm	25.00mm
Fiber Height		-100.0nm	50.0nm
Apex Offset		0.00um	50.00um

FC/SC/LC APC		
Item	Pass/Fail	
Parameters	Min	Max
ROC	5.00mm	12.00mm
Fiber Height	-100.0nm	50.0nm
Apex Offset	0.00um	50.00um
APC Angle	7.700deg	8.300deg
Key Error	-0.500deg	0.500deg

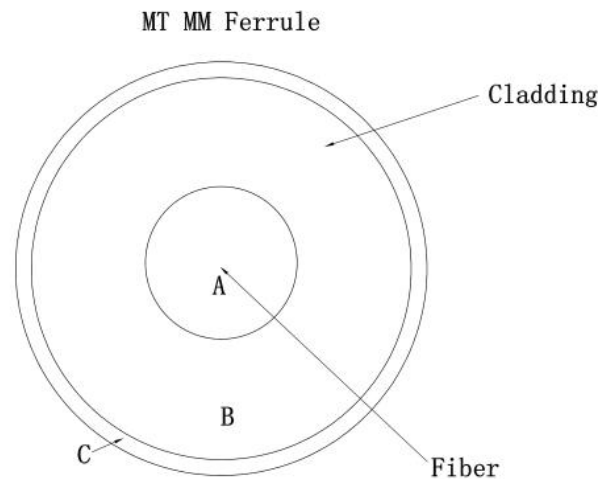
Endface Inspection Standard

Figure: Inspection Zones for Single-mode fiber



The endface inspection requirement are designation:

Zone Diameter (μm)		
Zone	Zone Size	Allowable Defects
Zone A	0um to 25um	Zero scratch, defect or contamination
Zone B	25um to 120um	Black/White Point \leq 3um, number \leq 5 White Scratch Width \leq 2um, number \leq 5 Black Scratch and Clip are not allowed.
Zone C	120um to 130um	Black/White Point $>$ 10um are not allowed

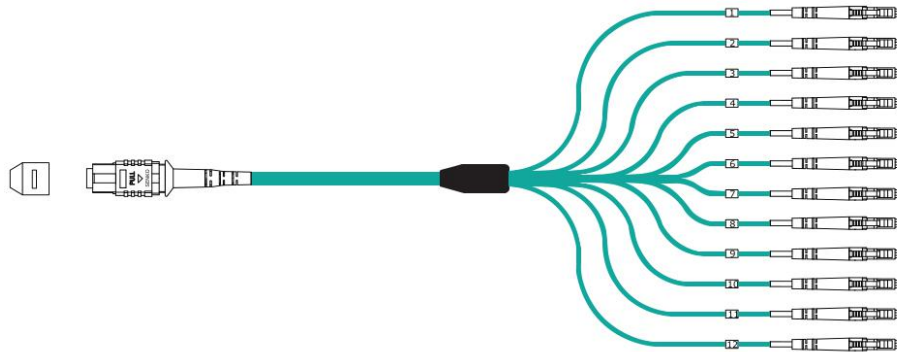


The endface inspection requirement are designation:

Zone Diameter (μm)		
Zone	Zone Size	Allowable Defects
Zone A	0um to 65um	Zero scratch, defect or contamination
Zone B	65um to 120um	Black/White Point \leq 3um, number \leq 5 White Scratch Width \leq 2um, number \leq 5 Black Scratch and Clip are not allowed.
Zone C	120um to 130um	Black/White Point $>$ 10um are not allowed

1. Observe the endface under the illuminated 400X magnifier.
2. Clean connector endface before viewing inspection. If a contamination can be removed with additional cleaning , it is no longer considered as a defect.
3. No film, streaks, grease or loose particles are allowed on the fiber endface.
4. Polished ferrule endface must meet the criteria listed in table.

Drawing



Length Tolerance

Length	Tolerance
<1M	+150mm/-0mm
≥1M<10M	+ 150mm/-0mm
≥10M<30M	+150mm/-0mm
≥30 M	+1%/-0