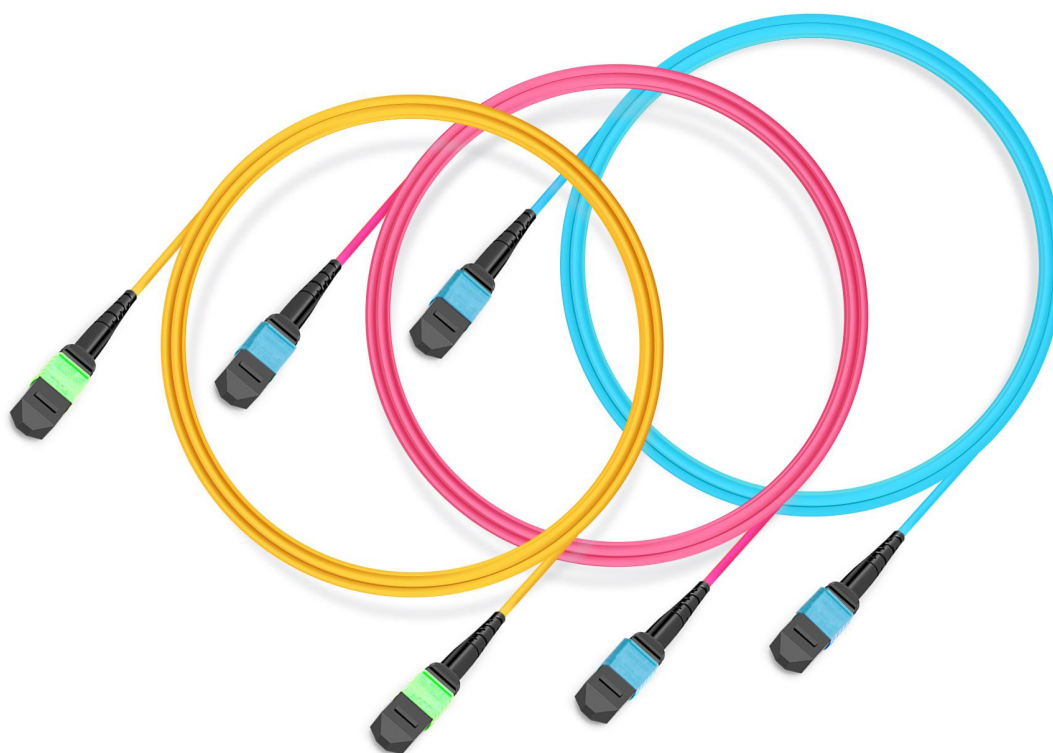


# MTP/MPO Trunk Cables

MTP/MPO Patch Cord



## Instructions:

Apply to the following standards: MTP/MPO, PC/APC SM/MM, Connector

## Operating & Storage Temperature

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

## Optical Performance

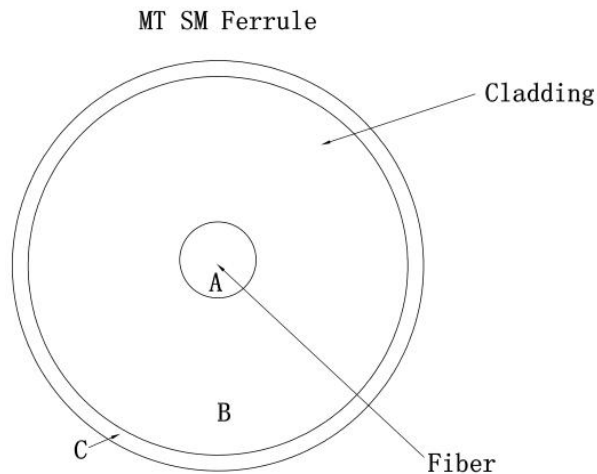
Item		Parameters			
MTP/MPO Connector		SM (1310nm/1550nm)		MM (850nm)	
		Standard	Low Loss	Standard	Low Loss
Insertion Loss	Typical	0.35dB	0.15dB	0.35dB	0.15dB
	Maximum	0.75dB	0.35dB	0.75dB	0.35dB
Return Loss		≥60dB for APC		≥20dB for PC	
		≥40dB for PC		--	
Male/Female		Male: with Pins, Female: without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

## Geometry Parameters

Measurement		Pass/Fail Limits		
Parameters		Min	Max	
Radius of Curvature	Long Axel	2000mm	$\infty$	
	Short Axel	50mm	$\infty$	
Angle	Long Axel	-0.2°	0.2°	
	Short Axel	APC	7.8°	8.2°
		PC	-0.2°	0.2°
Fiber Height		1000nm	3000nm	
Different Fiber Height		N/A	500nm	
Adjacent Fiber Height		N/A	300nm	
Ferrule Length		7.9mm	N/A	

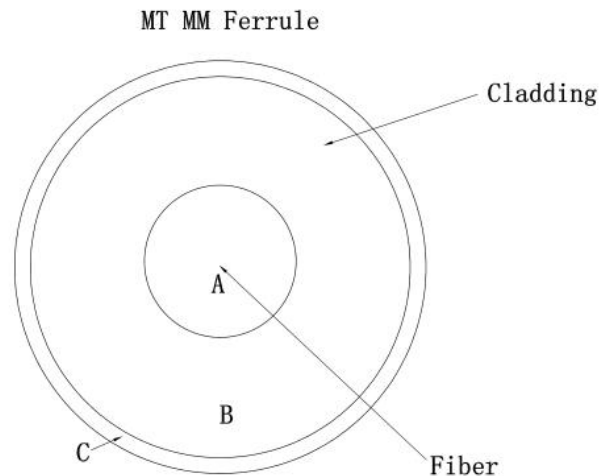
## Endface Inspection Standard

Figure: Inspection Zones for Single-mode fiber



The endface inspection requirement are designation:

Zone Diameter ( $\mu\text{m}$ )		
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, numbers $\leq$ 5 White Scratch Width $\leq$ 2um, numbers $\leq$ 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 ( $\mu\text{m}$ )		
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, numbers $\leq$ 5 White Scratch Width $\leq$ 2um, numbers $\leq$ 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	+0.08M/-0
≥1M<10M	+0.10M/-0
≥10M	+1%/-0