

Mini IP MPO Specification



Application

1. Multi-purpose Outdoor.
2. For connection between distribution box and RRH.
3. Deployment in Remote Radio Head cell tower applications.

Features

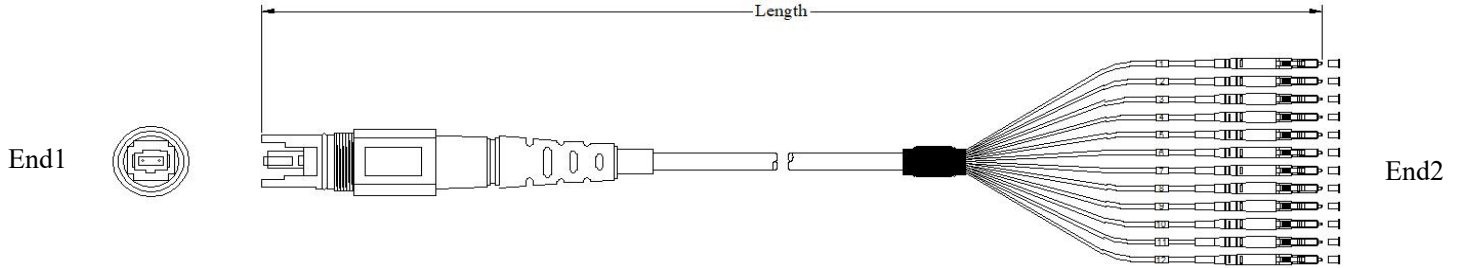
1. Cost effective solution for in house termination.
2. Low insertion loss and added loss.
3. Height of attenuation.
4. Water proof, dust proof and corrosion resistant
5. The material in the jumpel cable are all-weather and UV-resistant.
6. IP68 water and dust protection.
7. Mechanical performance: IEC 61754-7 standard.
8. RoHS and REACH materials compliant.

Connector Types

Type	Reference	Note	
MPO	IEC 61754-7	Single mode	APC: Black connectors APC: Black connectors
		Multimode	PC: Black Connectors
MTP	IEC 61754-7	Single mode	APC: Black connectors APC: Black connectors
		Multimode	PC: Black Connectors

Dimensional Diagrams

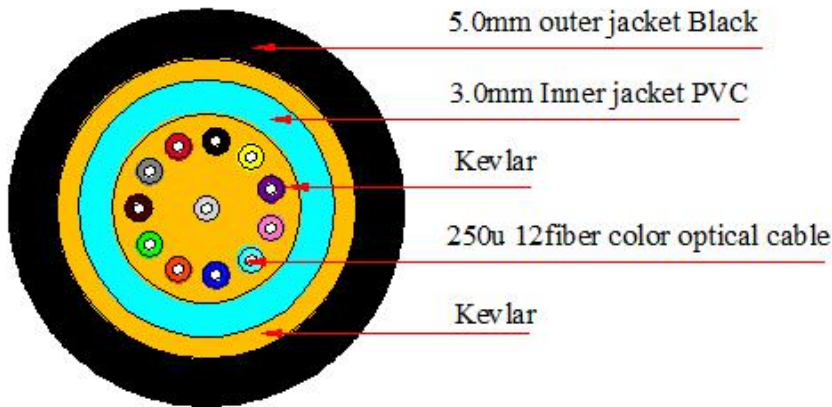
1. Mini IP MPO Outdoor Cable Assemblies



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

Cable Structure



Cable Parameters

Cable Count	Out sheath Diameter (MM)	Weight (KG)	Minimum allowable Tensile Strength (N)		minimum allowable Crush Load (N/100mm)		Minimum Bending Radius (MM)		Storage temperature (°C)
			short term	long term	short term	long term	short term	long term	
8/12/24	5.0±0.3	32	500	250	750	300	20D	10D	-20 ~ +70

Optical Characteristics

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