



Optec's MTP / MPO series of trunk cable solutions provide an efficient way to install a large amount of cables quickly, yet provide high flexibility on unplug and re-use. It is especially suitable for the areas that require high density, rapid deployment and high performance.

These high performance factory tested assemblies are pre-terminated with 12-fiber MTP / MPO connectors and offered in customer-specified lengths and configurations. Options of 12-, 16-, 24-, 32-, 36-, 48-, 72-, 96- and 144-fiber, terminated with round Mini-core cable to fit for each installation needs.

Features and Applications

Distribute some or all of the fibers in a trunk cable to other areas

Applicable in backbone installation

Fiber counts available in 12 / 16 / 24 / 32 / 36 / 48 / 72 / 96 / 144-fibers

Support different applications and field requirements

Round & mini-core cable structure

Eliminates bend sensitivity

Pulling eye design

Fits for different installation environments

Options for pinned (Male type) non pinned (Female type) on connector ends

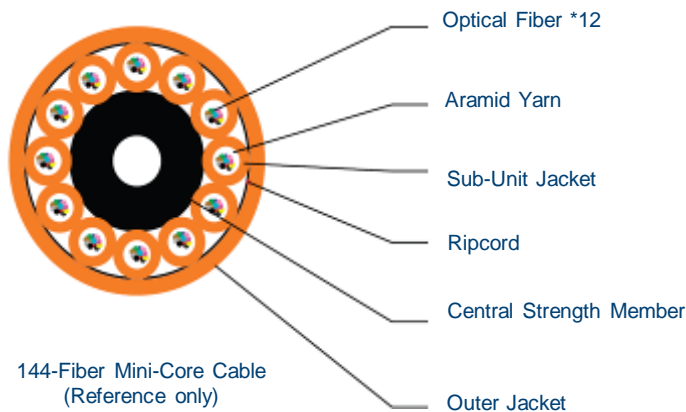
High flexibility for different equipment

Available in singlemode (9/125µm), multimode (50 or 62.5/125µm) up to 100Gig

Satisfies client's needs in different industries

Cable Structure Illustration

Example



Primary Coded Fiber (250µm)

Blue		White	
Orange		Black	
Green		Yellow	
Brown		Purple	
Grey		Pink	
Red		Aqua	

Fiber Count

12-Fiber
16-Fiber
24-Fiber
32-Fiber
36-Fiber
48-Fiber
72-Fiber
96-Fiber
144-Fiber

Cable Jacket

SM- OS2	-Yellow	
MM- OM1 & OM2	- Orange	
OM3	- Aqua	
OM4	- Violet	

Cable Mechanical Specifications

	FIBER	ADVENTUM		MINI-CORE		
		OFNP	OFNR	OFNP	OFNR	LSZH
Minimum Bend Radius (Installation)	12	9.9 cm	9.7 cm	6.0 cm	6.0 cm	6.0 cm
	24 Round	n/a	n/a	12.0 cm	12.0 cm	12.0 cm
	24 Zip	18.9 cm	18.9 cm	15.2 cm	15.2 cm	15.2 cm
	36	14.1 cm	15.1 cm	18.0 cm	18.0 cm	18.0 cm
	48	14.1 cm	15.1 cm	18.0 cm	18.0 cm	18.0 cm
	72	17.5 cm	17.8 cm	22.4 cm	22.4 cm	22.4 cm
	96	20.0 cm	20.6 cm	27.0 cm	27.0 cm	27.0 cm
	144	26.4 cm	27.2 cm	35.0 cm	35.0 cm	35.0 cm
Minimum Bend Radius (Long Term)	12	6.6 cm	6.5 cm	3.0 cm	3.0 cm	3.0 cm
	24 Round	n/a	n/a	6.0 cm	6.0 cm	6.0 cm
	24 Zip	12.6 cm	12.6 cm	7.6 cm	7.6 cm	7.6 cm
	36	9.4 cm	10.1 cm	9.0 cm	9.0 cm	9.0 cm
	48	9.4 cm	10.1 cm	9.0 cm	9.0 cm	9.0 cm
	72	11.7 cm	11.9 cm	11.2 cm	11.2 cm	11.2 cm
	96	13.4 cm	13.7 cm	13.5 cm	13.5 cm	13.5 cm
	144	17.6 cm	18.1 cm	17.5 cm	17.5 cm	17.5 cm
Maximum Tensile (Installation)	12	1335N	1335N	150N	150N	150N
	24 Round	n/a	n/a	160N	160N	160N
	24 Zip	1335N	1335N	300N	300N	300N
	36	2670N	2670N	1000N	1000N	1000N
	48	2670N	2670N	1000N	1000N	1000N
	72	2670N	2670N	1000N	1000N	1000N
	96	2670N	2670N	1000N	1000N	1000N
	144	2670N	2670N	1000N	1000N	1000N
Maximum Tensile (Long Term)	12	400N	400N	80N	80N	80N
	24 Round	n/a	n/a	80N	80N	80N
	24 Zip	400N	400N	160N	160N	160N
	36	890N	890N	300N	300N	300N
	48	890N	890N	300N	300N	300N
	72	890N	890N	300N	300N	300N
	96	890N	890N	300N	300N	300N
	144	890N	890N	300N	300N	300N

Cable Physical Specifications

	FIBER	ADVENTUM		MINI-CORE		
		OFNP	OFNR	OFNP	OFNR	LSZH
Cable Outer Diameter	12	6.6 mm	6.5 mm	3.0 mm	3.0 mm	3.0 mm
	24 Round	n/a	n/a	6.0 mm	6.0 mm	6.0 mm
	24 Zip	6.2 mm x 12.6 mm	6.2 mm x 12.6 mm	4.2 mm x 7.6 mm	4.2 mm x 7.6 mm	4.2 mm x 7.6 mm
	36	9.4 mm	10.1 mm	9.0 mm	9.0 mm	9.0 mm
	48	9.4 mm	10.1 mm	9.0 mm	9.0 mm	9.0 mm
	72	11.7 mm	11.9 mm	11.2 mm	11.2 mm	11.2 mm
	96	13.4 mm	13.7 mm	13.5 mm	13.5 mm	13.5 mm
	144	17.6 mm	18.1 mm	17.5 mm	17.5 mm	17.5 mm
Weight	12	48.0 kg / km	45.0 kg / km	14.0 kg / km	14.0 kg / km	14.0 kg / km
	24 Round	n/a	n/a	30.0 kg / km	30.0 kg / km	30.0 kg / km
	24 Zip	80.0 kg / km	80.0 kg / km	31.0 kg / km	31.0 kg / km	31.0 kg / km
	36	82.0 kg / km	82.0 kg / km	70.0 kg / km	70.0 kg / km	70.0 kg / km
	48	82.0 kg / km	82.0 kg / km	70.0 kg / km	70.0 kg / km	70.0 kg / km
	72	101.0 kg / km	132.0 kg / km	98.0 kg / km	98.0 kg / km	98.0 kg / km
	96	229.0 kg / km	205.0 kg / km	130.0 kg / km	130.0 kg / km	130.0 kg / km
	144	315.0 kg / km	336.0 kg / km	190.0 kg / km	190.0 kg / km	190.0 kg / km
Operating Temperature	12~144	-40°C to +75°C	-40°C to +75°C	-20°C to +70°C	-20°C to +70°C	-20°C to +70°C

Fiber Performance Specifications

	ADVENTUM				MINI-CORE			
	OS1 Singlemode (9/125mm)	OM1 Multimode (62.5/125mm)	OM2 Multimode (50/125mm)	*OM3 Multimode (50/125mm 10 Gig)	OS1 Singlemode (9/125mm)	OM1 Multimode (62.5/125mm)	OM2 Multimode (50/125mm)	*OM3 Multimode (50/125mm 10 Gig)
Wavelength (nm)	1310/1550	850/1300	850/1300	850/1300	1310/1550	850/1300	850/1300	850/1300
Attenuation (db/km)	0.5/0.4	3.5/1.0	3.0/1.0	3.0/1.0	0.4/0.3	3.5/1.5	3.5/1.5	3.5/1.5
Bandwidth (MHz*km)	N/A	200/500	950/500	2000/500	N/A	≥ 300 / ≥ 300	≥ 200 / ≥ 300	≥ 1500 / ≥ 500

* OM3 10 Gig transmission distance at 850/1300 is 300 meters

Cable Assemblies Technical Information

Polarity

All Optec's MTP (MPO) cable assemblies in this document are having **Straight Polarity** (A-to-A, B-to-B). Cross Polarity (A-to-B, B-to-A) or Pair Flip polarity is available, please contact our sales team for details.

Performance of Assemblies

MTP / MPO Termination



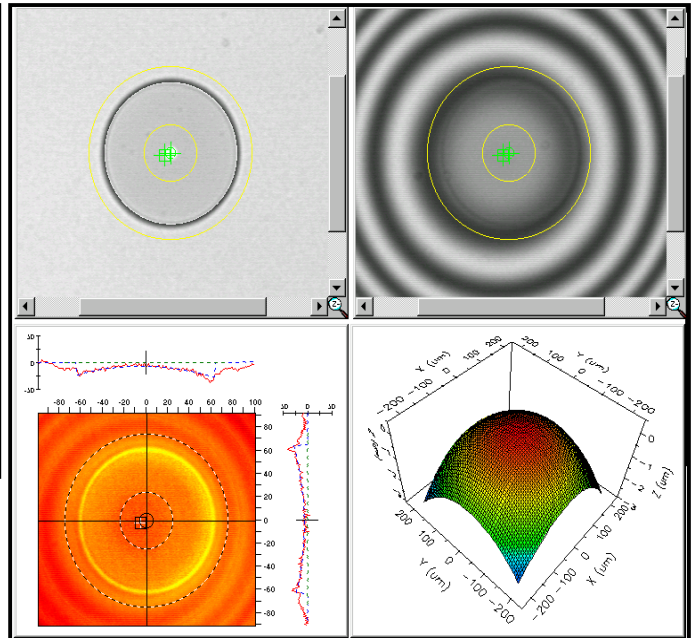
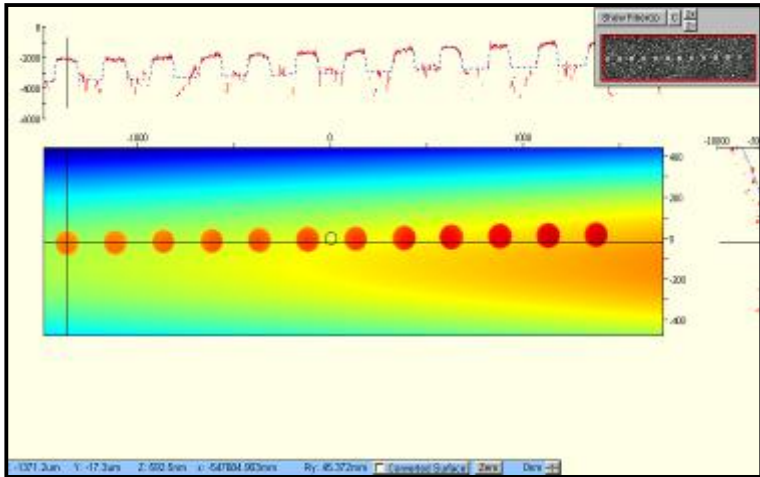
Optical Performance **				
Type	Singlemode (APC polish)		Multimode (PC / Flat Polish)	
	Standard	Elite Low Loss	Standard	Elite Low Loss
Maximum Insertion Loss	≤ 0.75dB	≤ 0.35dB	≤ 0.60dB	≤ 0.35dB
Return Loss	≥ 50dB		N/A	
Operating Temperature	-40°C to 80°C		-40°C to 80°C	
Test Wavelength	1310nm		850nm	

Generic Connector Termination



Optical Performance **			
Type	Singlemode		Multimode
	UPC	APC	PC
Maximum Insertion Loss	≤ 0.3 dB	≤ 0.3 dB	≤ 0.3 dB
Typical Insertion Loss	0.2 dB	0.2 dB	0.2 dB
Return Loss	≥ 55 dB	≥ 65 dB	≥ 25 dB
Operating Temperature	-40°C to 80°C		-40°C to 80°C
Test Wavelength	1310nm		850nm
Geometric performance			
Manufactured to Telcordia standard GR-326-CORE			

** Above performance refers to Optec standard grade performance, flexible specification is available to fit for different installation needs, please contact our professional sales team for details



Ordering Information



- 1 Fiber Count**
 12 = 12-Fiber
 16 = 16-Fiber
 24 = 24-Fiber
 32 = 32-Fiber
 36 = 36-Fiber
 48 = 48-Fiber
 72 = 72-Fiber
 96 = 96-Fiber
 H4 = 144-Fiber
- 2 A-End & B-End Connector**
 A = 1x12F MTP Male (with pins)
 B = 1x12F MTP Female (no pins)
 C = 1x12F MPO Male (with pins)
 D = 1x12F MPO Female (no pins)
 E = 1x16F MTP Male (with pins)
 F = 1x16F MTP Female (no pins)
 G = 1x16F MPO Male (with pins)
 H = 1x16F MPO Female (no pins)
 I = 1x24F MTP Male (with pins)
 J = 1x24F MTP Female (no pins)
 K = 1x24F MPO Male (with pins)
 L = 1x24F MPO Female (no pins)
- 3 Fiber Type**
 SM = OS2 Singlemode
 M1 = OM1 (62.5/125)
 M2 = OM2 (50/125)
 M3 = OM3 (50/125)
 M4 = OM4 (50/125)
 See notes (1) & (2)
- 4 Cable Type**
 MP = Mini-Core Plenum (OFNP)
 MR = Mini-Core Riser (OFNR)
 ML = Mini-Core Low Smoke Zero Halogen (LSZH)
 AP = Adventum Plenum (OFNP)
 AR = Adventum Riser (OFNR)
 AL = Adventum Low Smoke Zero Halogen (LSZH)
 See note (3)

- 5 Furcation Length on A-End**
 0600 = 600 (standard)
 1000 = 1000mm
 xxxx = Customized Length
 See notes (4) & (5)
- 6 Furcation Length on B-End**
 0600 = 600 (standard)
 1000 = 1000mm
 xxxx = Customized Length
 See notes (4) & (5)
- 7 Overall Cable Length**
 xxx = 001~999
 (please specify)
- 8 Unit of Measure**
 F = Feet
 M = Meter
- 9 Pulling Eye**
 1 = On A-End
 2 = On B-End
 3 = On Both Ends
 4 = None

NOTES

- (1) If Singlemode is chosen, MTP endface polishing will be APC
- (2) If Multimode is chosen, MTP endface polishing will be Flat
- (3) Cables of other structures are available, please contact our sales team for more information
- (4) Furcation length tolerance: +50/-0mm

Assembly Structure Illustration

Example:

Ordering code : NT-H4-B-SM-MR-0600-0600-005-M-4
Item Description: Trunk Assembly, 144-Fiber, MTP Female (no pin) , Singlemode, Mini-Core Riser (OFNR), A-End Furcation Length 600mm, B-End Furcation Length 600mm, Overall Length 5 Meters, No Pulling Eye

