MTP® Cable Assemblies

12F and 24F SM/OM4 Single Element MTP®

144F SM Sub-unitised MTP®

12F OM4 Single Element MTP® Fanout

AFL's MTP® Micro Cable assemblies provide a high-performance plug and play solution for any multi-fibre installation. Utilising several Micro Cable construction types, our assemblies cater to any network requirement, from:

- 12 or 24 fibres in a 3 mm single element or 4.8/4.5 mm ruggedised (double jacket).
- 24 up to 144 fibres in a sub-unitised cable, featuring 2 mm sub-units with 12 fibre per sub.

All MTP®-MTP® trunk (backbone) assemblies are pre-terminated with Low loss MTP Elite® Connectors, offering reliable and consistent performance. MTP® to discrete connector (LC,SC) harnesses (fanouts) are also available on all Micro Cable types and fibre counts.

AFL's Micro Cables provide space saving and higher fibre density within cable trays, raceways and internal conduits. All Micro Cable outer and inner jackets are made from LSZH materials.

Used in conjunction with AFL's MTP® fibre management systems, our pre-terminated MTP® Micro Cable assemblies provide a compact high fibre count solution that is scalable for future network requirements.

Features

- Available in a range of Micro Cable constructions and colours
- Low loss MTP Elite® Connectors featuring push/pull tabs
- High quality, machine polished connectors for consistent low loss performance
- Configurable options to suit connector gender, network polarity and fibre count requirements, and more

Applications

- Data Centres
- Structured Cabling Networks
- 10G/40G/100G backbone cables
- Direct patch cables
- Extension cables

MTP® Cable Assembly Configurations

Single Element (12F, 24F)

Single Element MTP® Micro Cable assemblies feature 12 or 24 (SM or OM4) fibres in a single element, allowing for the smallest possible cable diameter while not compromising strength and fibre protection.

Single Element cable assemblies are configurable with 12F or 24F MTP® Connectors on both ends (trunk) or with discrete connectors on one end (harness) via a breakout module.

MTP is a registered trademark of US Conec Ltd.

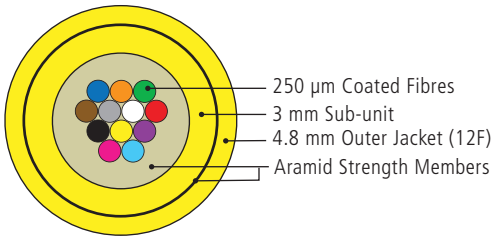
© 2002-2023, AFL, all rights reserved. 2115, Revision 00, 01.03.23
Specifications are subject to change without notice.

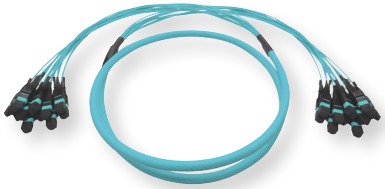
MTP® Cable Assemblies

Ruggedised (12F, 24F)

Ruggedised MTP® Micro Cable Assemblies feature 12 or 24 (SM or OM4) fibres in a single element, protected by a second 4.5 mm or 4.8 mm jacket (12F 4.8 mm, 24F 4.5 mm) and extra Aramid strength members. These assemblies provide extra protection while maintaining a small footprint.

Ruggedised Cable Assemblies are configurable with 12F or 24F MTP® Connectors on both ends (trunk) or with discrete connectors on one end (harness) via a breakout module.

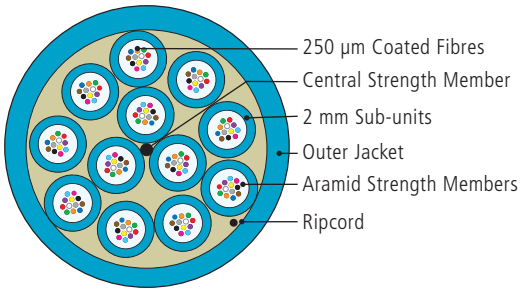




Sub-unitised (24F to 144F)

AFL's Sub-unitised MTP® Cable Assemblies provide a high density/small footprint backbone cabling solution. These cables feature 2 mm sub-units, with 12 fibres per sub. Fibre core counts are available from 24-144F in both SM and OM4.

Sub-unitised Cable Assemblies are configurable with 12F MTP® Connectors on both ends (trunk) or with discrete connectors on one end (harness) via a breakout module.

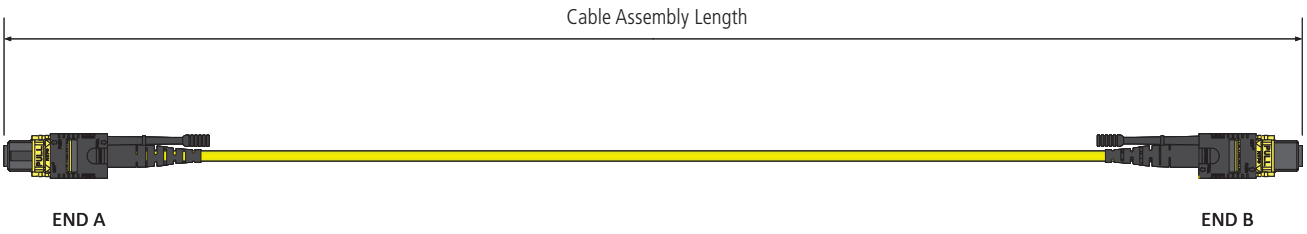


Specifications

Assembly Dimensions

Total cable assembly length is measured from connector ferrule to connector ferrule.
Breakout length is measured from the breakout point to the connector ferrule.

Single Element Cable Assemblies (12F, 24F)

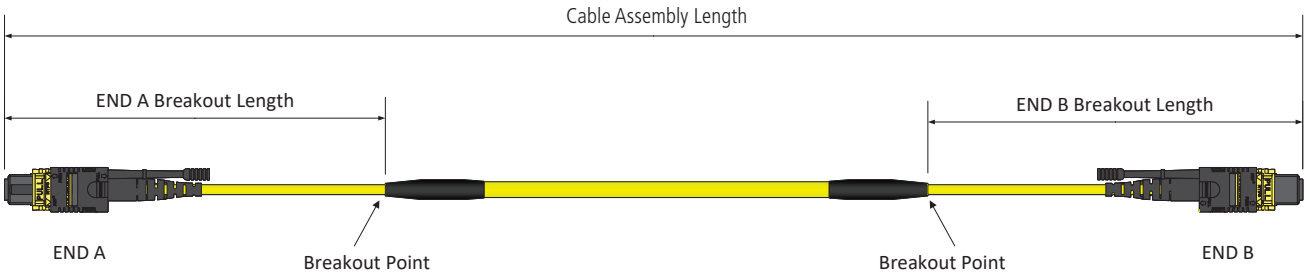


© 2002-2023, AFL, all rights reserved. 2115, Revision 00, 01.03.23
Specifications are subject to change without notice.

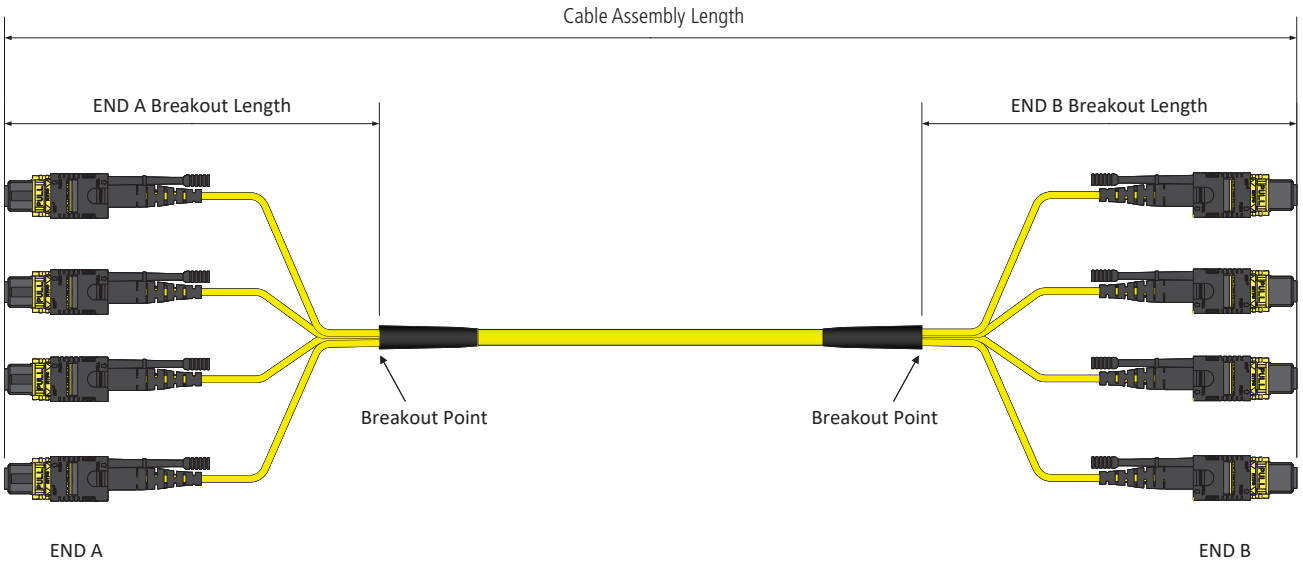
MTP® Cable Assemblies

Specifications

Ruggedised Cable Assemblies (12F, 24F)



Sub-unitised Cable Assemblies (48F assembly shown)



Connector Specifications

MTP Elite®

OPTICAL PERFORMANCE	MULTIMODE 850 nm (PC POLISH)	SINGLE-MODE 1310 nm (APC POLISH)	TEST METHOD
Insertion Loss (Max.)	≤ 0.35 dB	≤ 0.35 dB	IEC 61300-3-4
Return Loss (Max.)	≥ 20 dB	≥ 60 dB	IEC 61300-3-6

Discrete Connectors (SC, LC)

OPTICAL PERFORMANCE	VALUE	TEST METHOD
Insertion Loss (Max.)	≤ 0.25 dB	IEC 61300-3-4
Return Loss (SM, UPC)	≥ 55 dB	IEC 61300-3-6
Return Loss (SM, APC)	≥ 65 dB	IEC 61300-3-6

Note: For cable, see the Indoor Premise Micro Cable datasheet for details.

© 2002-2023, AFL, all rights reserved. 2115, Revision 00, 01.03.23
Specifications are subject to change without notice.

MTP® Cable Assemblies

Ordering Information

MC	U	1	YL	144	MTF	F	C	33112	K	999M

Product Type:
MC = Micro Cable Pre-Terminated Assemblies

Cable Type:
S = Single Element 3 mm, LSZH
R = Ruggedised, 4.8/4.5 mm, LSZH
U = Sub-unitised, LSZH

Fibre Type:
1 = SM, G657.A1
4 = OM4, Bend Tolerant

Cable Jacket Colour:
YL = Yellow*
AQ = Aqua#

** Standard cable jacket colour for SM assemblies is Yellow*
 # Standard cable jacket colour for OM4 assemblies is Aqua
See Cable Jacket Colour Options below for more colours

Fibre Count

Single Element & Ruggedised
8 - 8F (Fanout Only)
12 - 12F
24F - 24F

Sub-unitised
24 - 24F
36 - 36F
48 - 48F
72 - 72F
96 - 96F
144 - 144F

Connector End A:
MTF = 12F MTP® Female
M2F = 24F MTP® Female%
MTM = 12F MTP® Male
M2M = 24F MTP® Male%

Connector End B:
F = MTP® Female^
M = MTP® Male^
LD = LC/UPC Duplex
LC = LC/UPC Simplex
LA = LC/APC Duplex
LS = LC/APC Simplex
LB = LC/UPC Uniboot
SC = SC/UPC Simplex
SA = SC/APC Simplex
X = Blunt (Pigtail)

Method:
A = Method A
B = Method B
C = Method C
F = Method F (Fanout Only)

3		3		1		1		2	
Breakout Length& End A		Breakout Length& End B		Oversleeving$ End B		Installation Aids		Shipping Reel@	
0	N/A	0	N/A	1	N/A	1	Not Required	1	N/A
1	300 mm	1	300 mm	2	2 mm	4	Protective Mesh End A	2	Shipping Reel
2	400 mm	2	400 mm			5	Protective Mesh End A&B		
3	500 mm	3	500 mm						
4	600 mm	4	600 mm						
5	700 mm	5	700 mm						
6	800 mm	6	800 mm						
7	900 mm	7	900 mm						
8	1000 mm	8	1000 mm						
9	2000 mm	9	2000 mm						

Internal Use

Length:
2M = 2 Metres
2.5M = 2.5 Metres
100M = 100 Metres

%24F MTP® connectors available on MCS and MCR cable assemblies only. 24F MTP® Method C configurations use custom polarity. Please contact AFL for more details.
^ End B MTP® connector to match fibre count of End A connector

& Recommended breakout for Ruggedised (MCR), Sub-unitised (MCU) and MTP®-Fanout assemblies is 500 mm when used with AFL's static and sliding MTP® FMS products.
$ Oversleeving only required on fanout assemblies e.g. MTP®-LC. Overlseeving colour matches cable jacket colour.
@ Shipping Reel requirement dictated by assembly length, cable type and fibre count. Contact AFL for more details.

Cable Jacket Colour Options

BU - Blue	RD - Red
OR - Orange	BK - Black
GN - Green	YL - Yellow
BR - Brown	PK - Pink
GY - Grey	EV - Erika Violet
WH - White	

Note: Single-mode MTP® connectors are APC polished. Multimode MTP® connectors are UPC polished.

© 2002-2023, AFL, all rights reserved. 2115, Revision 00, 01.03.23
Specifications are subject to change without notice.