

MTP® Cable Assemblies

FOS MTP® cabling system offers a convenient, high density cabling solution for enterprise cabling networks. The multi-fibre connectors and compact cabling structure inherent in the MTP® cabling system facilitate rapid deployment and simplifies ongoing adds, moves and changes in high density installations.

FOS manufactures MTP® connectivity in a range of styles including backbone leads, equipment patch leads, 40 & 100G connectivity and a range of fanout options.

Cable assemblies can be constructed to TIA-568-C compliant methods, or to custom configurations to meet any network requirement.

Applications

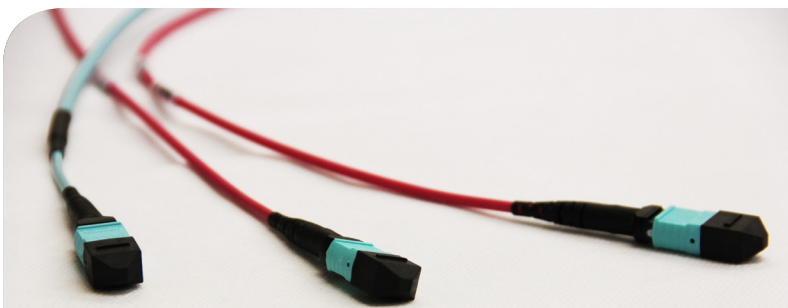
- Data centre and enterprise networks
- Storage area networks - fibre channel
- Parallel optics including 40G and 100G
- Local area network backbone links
- Optical switching interframe connections



Features & Benefits

- All FOS supplied MTP® cable assemblies utilise US CONEC MTP® Elite* connectors for market leading low loss performance
- Method A, B & C configured assemblies, as defined in TIA-568-C, available to suit any MTP® or MPO network
- Range of cable constructions available including high density 2mm micro cable, 3mm micro cable, double sheath/subgrouped micro cable, ribbon & 900um
- Rapid deployment and flexibility for adds, moves and changes due to true plug and play design
- All cable assemblies are 100% tested and test results supplied with every order
- Tailored to suit your configuration and breakout construction requirements
- Scalable and future proof for 40 & 100G circuits
- Fully compatible with existing MPO networks

OM1 available in Standard MTP® only
MTP® is a Registered Trademark of US CONEC

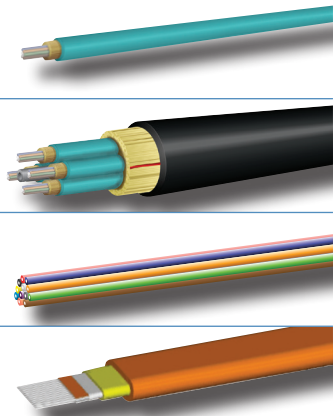


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For further information:
www.fibreoptic.com.au
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Manufacturing Options - Cable

Cable Type	Description	Fibre Counts	Oversleeving Sizes (mm)	Jacket Options
Micro cable (MC)	250um multicore micro cable	12	1.6, 2.0	LSZH
Subgroup micro cable (SMC)	Double sheath/sub-grouped 250um multicore micro cable	12 - 144	1.6 (12 - 144f) 2.0 (12 - 96f)	LSZH
900um bare fibre (HY)	900um bundled fibre cable	12	N/A	PVC
Ribbon (RB)	250um ribbonised fibre cable	4, 8, 12	1.6, 2.0	LSZH



Manufacturing Options - Terminations

Connector Type	Description	Fibre Counts	Ferrule Angle (°)	Colour Options
OM1 MTP®	OM1 multimode array connector	12	0	Beige
OM3/4 MTP® Elite	Low loss OM3/4 multimode array connector	12 or 24	0	Aqua (OM3/4), Violet (OM4)
SM MTP® Elite	Low loss OS1/2 multimode array connector	12 or 24	8	Mustard, Green



MTP fanouts available with a range of connectivity options including:

- SC / SCA
- LC / LCA
- FC / FCA
- ST
- Wide range of legacy connectors

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Technical Specifications - MTP® Connectors

Applicable connectors	Multimode OM1 US CONEC MTP® 12F Multimode OM3/4 US CONEC MTP® Elite 12F & MTP® Elite 24F Singlemode US CONEC MTP® Elite 12F & MTP® Elite 24F ⁵			
Fibre mode	OM1	OM3	OM4	OS1/2
Maximum insertion loss (dB) single fibre	0.60	0.35 ^{2,3}	0.35 ^{2,3}	0.35 ^{1,4,5}
Typical insertion loss (dB) all fibres	0.20	0.10	0.10	0.10 ⁵
Return Loss (dB)	N/A	>20	>20	>60

1 As tested per ANSI/EIA-455-171 Method D3

2 As tested per ANSI/EIA-455-171 Method D1

3 As tested with encircled flux launch condition on 50um fiber and 850nm per IEC 61280-4-1

4 Compliant with proposed IEC 61755-3-31/GRADE B

5 Additional losses apply to singlemode US CONEC MTP® Elite 24F, contact FOS for details

Technical Specifications - General

Applicable Connectors	SC, SCA, LC, LCA, ST, FC ⁶			
Fibre Mode	OM1	OM3	OM4	OS1/2
Core/Cladding (um)	62.5/125	50/125	50/125	9/125
Fibre Conformance	TIA/EIA 492AAAA	ITU G651.1	ITU G651.1	ITU G652.D ⁷
Insertion Loss (max dB)	0.30	0.30	0.30	0.25
Insertion Loss (avg dB)	0.15	0.15	0.15	0.18
Insertion Loss (random)	0.20	0.20	0.20	0.18
Return Loss (dB)	N/A	N/A	N/A	APC: >60 PC: >50

6 Contact FOS for non standard connector specifications

7 G657.A1/2 available by request, conditions may apply

Applicable Standards

MTP Conformance	All MTP® connectors comply with IEC standard 61754-7 & TIA/EIA 604-5 type MPO
Insertion Loss	All SC, SCA, LC, LCA, ST, FC fanout assemblies comply with the loss requirements of ISO/IEC 61300-3-4, ISO/IEC 61300-3-34 & AS/NZS ISO/IEC 14763.3
Return Loss	All singlemode assemblies comply with the return loss requirements set out in ISO/IEC 61300-3-6
Cable Attenuation	Cable attenuation falls below levels specified in AS/NZS 3080
Testing	All testing is completed with reference grade patch leads and precision zirconia sleeve adapters and meet all requirements for testing in AS/NZS ISO/IEC 14763.3
Fibre Standards	Singlemode cabling meet ITU 652.D & TIA/EIA 492 CAAA requirements OM3 & OM4 cabling meet ITU 651.1 & TIA/EIA 492 AAAB requirements OM1 multimode cabling meet requirements set out in TIA/EIA 492 AAAA
Low Smoke Zero Halogen	All LSZH patch leads meet the requirements for flame and fire retardant properties, low smoke opacity and nil halogens as set out in IEC 60332-1, IEC 60332-3, IEC 1034 1/2, & IEC 60754-1/2

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Ordering Information - MTP® Trunk Assemblies

MC M4 - MTPF 10 - 12 - A

Cable Style	Cable Mode	Connectors - End 1 & 2		Length (m)	Fibre Count	Method
MC: Micro Cable	S: OS1/2	MTPF:	12f MTP® Female			A: Method A
SMC: Subgrouped Micro Cable	M1: OM1	MTPM:	12f MTP® Male			B: Method B
	M3: OM3	MTPFM:	12f MTP® Female to Male			C: Method C
HY: 900um	M4: OM4	M24F:	24f MTP® Female			N: Non-standard (please specify)
RB: Ribbon		M24M:	24f MTP® Male			
		M24FM:	24f MTP® Female to Male			

Ordering Information - MTP® Fanouts

MC M4 - MTPM LC 10 - 12 - A (- N)

Cable Style	Cable Mode	Connectors - End 1 & 2		Length (m)	Fibre Count	Method	Options
MC: Micro Cable	S: OS1/2	Array	End 1			A: Method A	N: Non-standard (specify)
SMC: Subgrouped Micro Cable	M1: OM1	MTPF:	12f MTP® Female			B: Method B	
	M3: OM3	MTPM:	12f MTP® Male			C: Method C	
HY: 900um	M4: OM4	M24F:	24f MTP® Female			N: Non-standard (please specify)	
RB: Ribbon		M24M:	24f MTP® Male				
		Fanout	End 2				Note: For any non-standard configuration options including: oversleeving, custom breakout lengths, hauling sleeves & connector staggering please contact FOS.
		SC:	SC/UPC				
		SCA:	SC/APC				
		LC:	LC/UPC				
		LCA:	LC/APC				
		ST:	ST/UPC				
		FC:	FC/UPC				
		FCA:	FC/APC				

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