



# MPO / MTP® Solutions

Catalogue 2017

# Empowering businesses through innovative network solutions.

We have been pushing boundaries and providing innovative products and solutions to clients around the world for nearly two decades. Our experience has taught us, that innovation can be achieved when people collaborate. The process and results are overly rewarding when creative minds are put together, that is why we work with clients throughout the entire design and engineering process to bring their innovations to life. Our high-quality manufacturing process, means that we enable our engineers to bring their visions to life, with the speed and scale that our clients demand.

We use the most advanced manufacturing innovations available, reducing lead time and making us more responsive. Our advantage system for manufacturing that we use, allows for global breakthroughs, and drives a culture of continuous improvement, which involves all processes in between.

Datatronix believes that achieving product excellence requires rising above industry standards; being better than our competitors by developing superior designs and manufacturing them with excellent processes, tight controls, and first-rate materials. Indeed, higher levels of quality and reliability are symbols of all Datatronix products.



## Commitment.

Delivering world-class client service and technical innovation are not just goals: they are imbedded in to Datatronix's DNA.



## Trust.

We strive to under promise and over deliver. Datatronix earns the trust of clients, partners, and employees through actions every day.



## Reliability.

Clients and business partners depend on Datatronix because of our uncompromising focus on quality.



## ISO 9001:2008 Certified.

Products bearing the Datatronix name have been certified to meet the highest industry quality standards.



## Fast Deployment.

We use the most advanced manufacturing innovations available, reducing lead time and making us more responsive.



## Value.

Value is the combination of quality, efficacy, and a fair price. Datatronix supply superior products, affordably.

INDEX OF CONTENTS

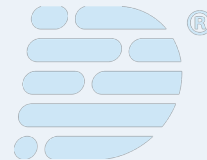
# MPO / MTP® Solutions

MTP® 24 Fibres Ferrule Cable Assemblies	1
MTP® Loose Tube Trunk Assemblies	5
MTP® MicroCable Trunk Assemblies	10
MTP® MicroCable Patch Assemblies	14
MTP® Nano Ruggedised Trunk Cable Assemblies	18
MTP® MicroCable Fan-Out Assembly	22
40G QSFP+ (MPO/MTP®) to QSFP+ Assemblies	27
MTP® Ruggedised Pigtailed	31
MTP® (40G QSFP+) to 4 x Duplex LC (4x10G SFP+) Assemblies	35
HDCi® MLX3 MPO/MTP® Cassette Module	41



“Our clients and business partners can safely depend on Datatronix products because of our uncompromising focus on quality.”

*MTP® is a registered trademark of US Conec Ltd*



## MTP® 24 Fibres Ferrule Cable Assemblies

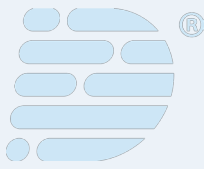
MTP/MPO 24 fibre cable assemblies designed and manufactured for 40/100G parallel optics network infrastructure. These assemblies can be used directly with CFP/CXP 100G transceivers or they can be combined with transition LC modules and provide 100G compatibility for 40G QSFP+ transceivers. They are offered with 3mm (patch lead) or 4.5mm cable (micro cable) options. Due to their small and compact size, they offer improved cable management and they are an ideal solution for high density applications.

### Applications

- Data Centres
- Parallel optics (40 and 100G) applications
- InfiniBand
- Storage Area Network - Fibre Channel

### Features

- Available with OS1/2, OM3 or OM4 fibre
- 24 Cores MicroCable Trunks (Double Jacket 4.5mm OD) and Patchleads (Single Jacket 3mm OD)
- Option for LSZH, OFNR, OFNP cable jackets
- Female/Un-Pinned and Male/ Pinned MTP® connectors
- Options for A, B or C polarity
- Universal internal/external Loose Tube and MicroCable Available
- 100% Factory terminated and tested
- 40/100G Parallel Optics compatible
- Compact ruggedised assembly ideal for high density applications
- Saves installation and reconfiguration time



## Specifications

ELEMENT	CHARACTERISTIC
Fibre	OS1/OS2, G657A1, OM1, OM2, OM3, OM4
MTP Terminations	MTP® 24 Fibre Ferrule US Conec <b>Boot Colour:</b> Black <b>Body Sleeve Colour:</b> MM (Beige), MM Elite (Aqua), SM (Green)
Cable Diameter	Micro Cable Trunk Max OD 24 cores 4.5 ± 0.3mm Patchlead Max OD 24 cores 2.9 ± 0.1mm
Crush Resistance	Double Jacket Micro Cable: 1000N/100mm Single Jacket Micro Cable: 500N/100mm
Cable Tensile Strength	Double Jacket Micro Cable (24 Core) (Short/Long) 400N/150N Single Jacket Micro Cable (24 Core) (Short/Long) 200N/60N
Cable Strength Member	Aramid
Storage Temperature	-20 ~ +60°C
Installation Temperature	-5 ~ +50°C
Operating Temperature	-20 ~ +60°C
Pulling Element	Rope Attached to Aramid

## Connector Performance

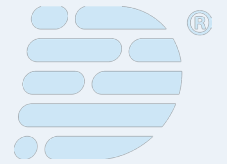
CONNECTOR MATING	IL AVERAGE	IL MAX	RETURN LOSS
MTP® Elite (MM)	0.10dB	0.35dB	N/A
MTP® (MM)	0.20dB	0.35dB	N/A
MTP® Elite (SM)	0.10dB	0.35dB	>60dB
MTP® (SM)	0.25dB	0.75dB	>60dB

## Cable Performance

FIBRETYPE (ISO/IEC 11801)	OS1/OS2	OM3	OM4
Attenuation Coefficient [dB/km]	≤ 0.38 Max (1310nm) ≤ 0.25 Max (1550nm) ≤ 0.34 Typ (1310nm) ≤ 0.19 Typ (1550nm)	≤ 3.5 Max (850nm) ≤ 1.5 Max (1300nm) ≤ 2.7 Typ (850nm) ≤ 0.9 Typ (1300nm)	≤ 3.5 Max (850nm) ≤ 1.5 Max (1300nm) ≤ 2.7 Typ (850nm) ≤ 0.9 Typ (1300nm)
Minimum Bandwidth: Overfilled Launch [Mhz-km]	N/A	≥ 1500 (850nm) ≥ 500 (1300nm)	≥ 3500 (850nm) ≥ 500 (1300nm)
Minimum Bandwidth: Laser Effective Modal Bandwidth [Mhz-km]	N/A	≥ 2000 (850nm)	≥ 4700 (850nm)

## Standards Compliance

- TIA/EIA-568-C.3 and ISO/IEC 11801
- IEC-61754-7 & EIA/TIA-604-5
- NFPA 262 (OFNP) or IEC 60332 (LSZH)
- IEC-60793



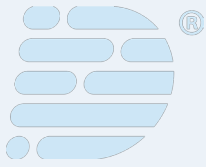
## Ordering Information

TM	
MTP® to MTP® trunk assembly	

Connector A		Connector B		Fibre Type		Cable Type		Fibre Count		Length		Polarity and Extra Options	
32	MTP® Male 24F	32	MTP® Male 24F	9	G.652.D	1	24 cores trunk 4.5mm OD	24	24	01	1m	A	Polarity A
34	MTP® Female 24F	34	MTP® Female 24F	3	OM3	2	24 cores patch 3mm OD			02	2m	B	Polarity B
28	MTP® Male 24F Elite	28	MTP® Male 24F Elite	4	OM4					03	3m	C	Polarity C
30	MTP® Female 24F Elite	30	MTP® Female 24F Elite							05	5m	-	LSZH
										10	10m	R	OFNR
										...	...	P	OFNP
										xx	Specify	O	MPO Option

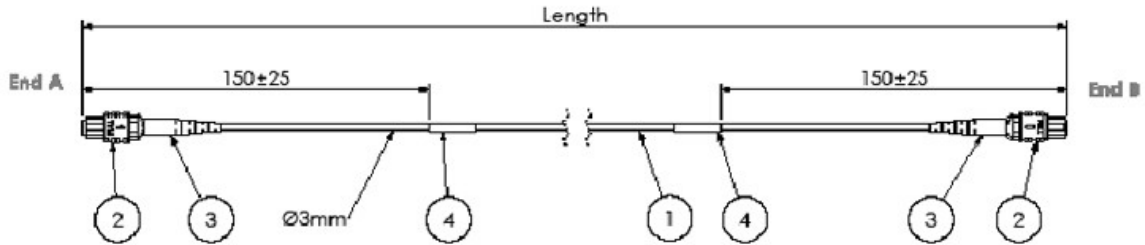
### Example:

**TM-28283124-70-A-** MTP® male Elite to MTP® male Elite with 24 fibre ferrule trunk 4.5mm OD OM3 70m polarity A



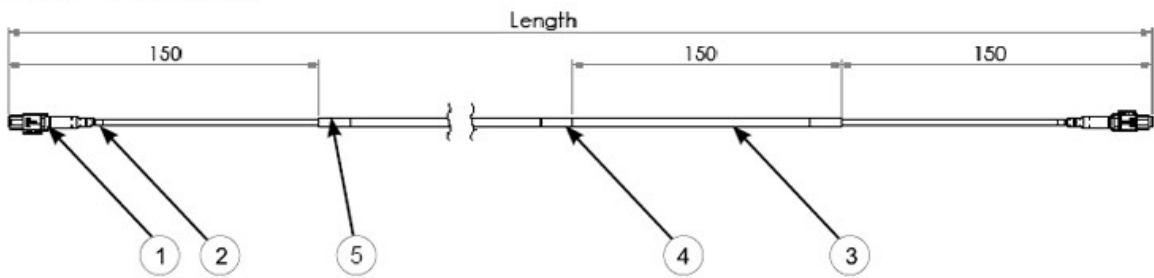
## Technical Drawing

MPO/MTP® Patch Cord Assembly

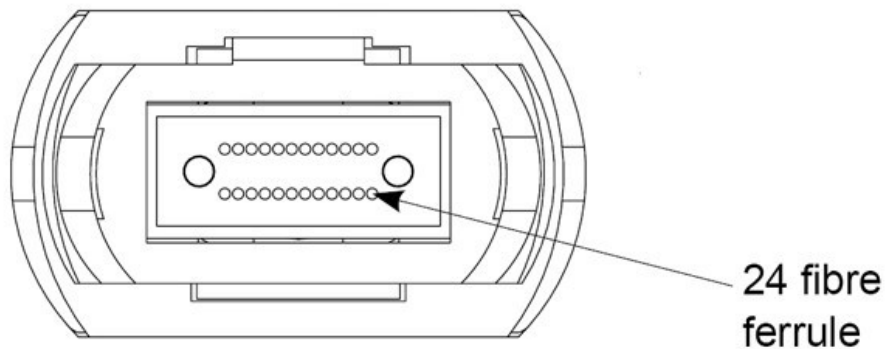


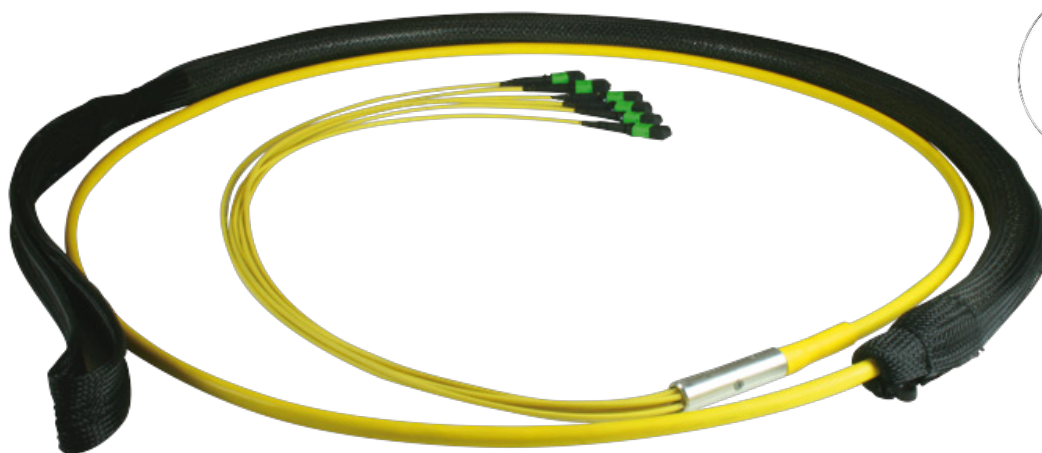
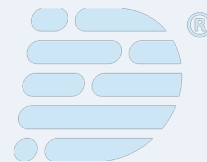
1. 24 fibre Micro Cable single jacket 3mm OD
2. 24 fibre ferrule MPO/MTP®
3. 3mm MPO/MTP® connector boot
4. Serial number label

MPO/MTP® Trunk Assembly



1. 24 fibre ferrule MPO/MTP®
2. MPO/MTP® connector boot
3. 24 fibre Micro Cable double jacket 4.5mm OD
4. Serial number label
5. Heatshrink





## MTP® Loose Tube Trunk Assemblies

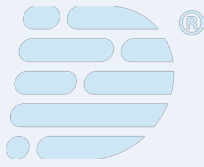
Up to 144 fibre loose tube optical cable assemblies designed and manufactured for high density applications that require MTP® interface. They are available in singlemode (G.652.D, G.657) or multimode (OM1, OM2, OM3, OM4) fibre grades while there is an option for LSZH, PE, OFNR or OFNP outer jacket.

### Applications

- Data Centres
- Telecommunication applications
- Internal and Backbone Applications

### Features

- Up to 144 fibres – ideal for high density applications
- Low loss performance
- Available in OS1/2, G.657A1, OM1, OM2, OM3, OM4 fibre grades
- Available with Multifibre MTP/MPO and standard optical connectors
- Suitable for internal/external applications using LSZH or PE cable jacket
- Option for OFNP or OFNR jacket types
- 100% factory terminated and tested
- Option for loose Tube, dry loose tube or Loose Tube Armoured cable
- Available as MTP® or MTP® to discrete connector fanout assembly
- Saves installation and reconfiguration time
- Compact Size

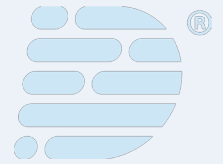


## Specifications

ELEMENT	CHARACTERISTIC
Fibre	OS1/OS2, G.657A1, OM1, OM2, OM3, OM4 (IEC 60793)
Tail Dimensions	3mm Simplex Staggered Configuration (MPO/MTP)
MTP Connectors	MTP® 12 Fibre Ferrules US Conec, <b>Boot Colour:</b> Black, <b>Body Sleeve Colour:</b> MM (Beige), MM Elite (Aqua), SM (Green), SM Elite (Yellow)
Other Terminations	SC, LC, ST, FC, E2000
Cable Construction	Single Loose Tube (LT) 2-24 Cores (IEC 60794), Multi Loose Tube up to 48 Cores, Single Loose Tube STA Armoured up to 48 Cores, Multi Loose Tube STA Armoured up to 48 Cores, Jacket Material: LSZH, PE; OFNP, OFNR
Cable Diameter	Single LT (Up to 12 Cores) OD MAX: 6.5 ± 0.3mm, Single LT (Up to 24 Cores) OD MAX: 6.7 ± 0.3mm, Multi LT (Up to 48 Cores) OD MAX: 9.7 ± 0.3mm
Crush Resistance	Single LT 1000N/100mm, Multi LT 3000N/100mm
Cable Tensile Strength	Single LT (Short/Long) 1000N/500N, Multi LT (Short/Long) 1500N/500N
Cable Strength Member	Single LT - E-Glass, Multi LT - FRP/E-Glass
Storage Temperature	-20 ~ +60°C
Installation Temperature	-20 ~ +60°C
Operating Temperature	-20 ~ +60°C
Tail Protection	Crush Resistance Tube - OD MAX 25mm (up to 4x3mm Tails)
Pulling Element	RPS Reusable Sock
Gland	PG 13.5 End A/B (up to 4x3mm Tails)
Packaging	Length ≤ 100 - Heavy Duty PE bag / Length > 100m - Drum (up to 24xFibres)

## Connector Performance

CONNECTOR MATING	IL AVERAGE	IL MAX	RETURN LOSS
MTP® Elite (MM)	0.10dB	0.35dB	N/A
MTP® (MM)	0.20dB	0.60dB	N/A
MTP® Elite (SM)	0.10dB	0.35dB	>60dB
MTP® (SM)	0.25dB	0.75dB	>60dB



OPTICAL PERFORMANCE*	MM PREMIUM	MM STANDARD	SM PREMIUM	SM STANDARD	CONFORMANCE
IL Max/Master (Acceptance)	0.15dB	0.25dB	0.15dB	0.25dB	IEC 61300-3-4
Ave/Master	0.08dB	0.15dB	0.12dB	0.18dB	IEC 61300-3-4
Ave/Random	0.10dB	0.20dB	0.12dB	0.18dB	IEC61300-3-34
RL (Min Acceptance)	NA	NA	55/65**	55/65**	IEC61300-3-6

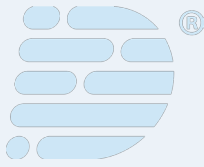
\* Connector Performance table does not refer to E2A terminations \*\* UPC/APC

## Cable Performance

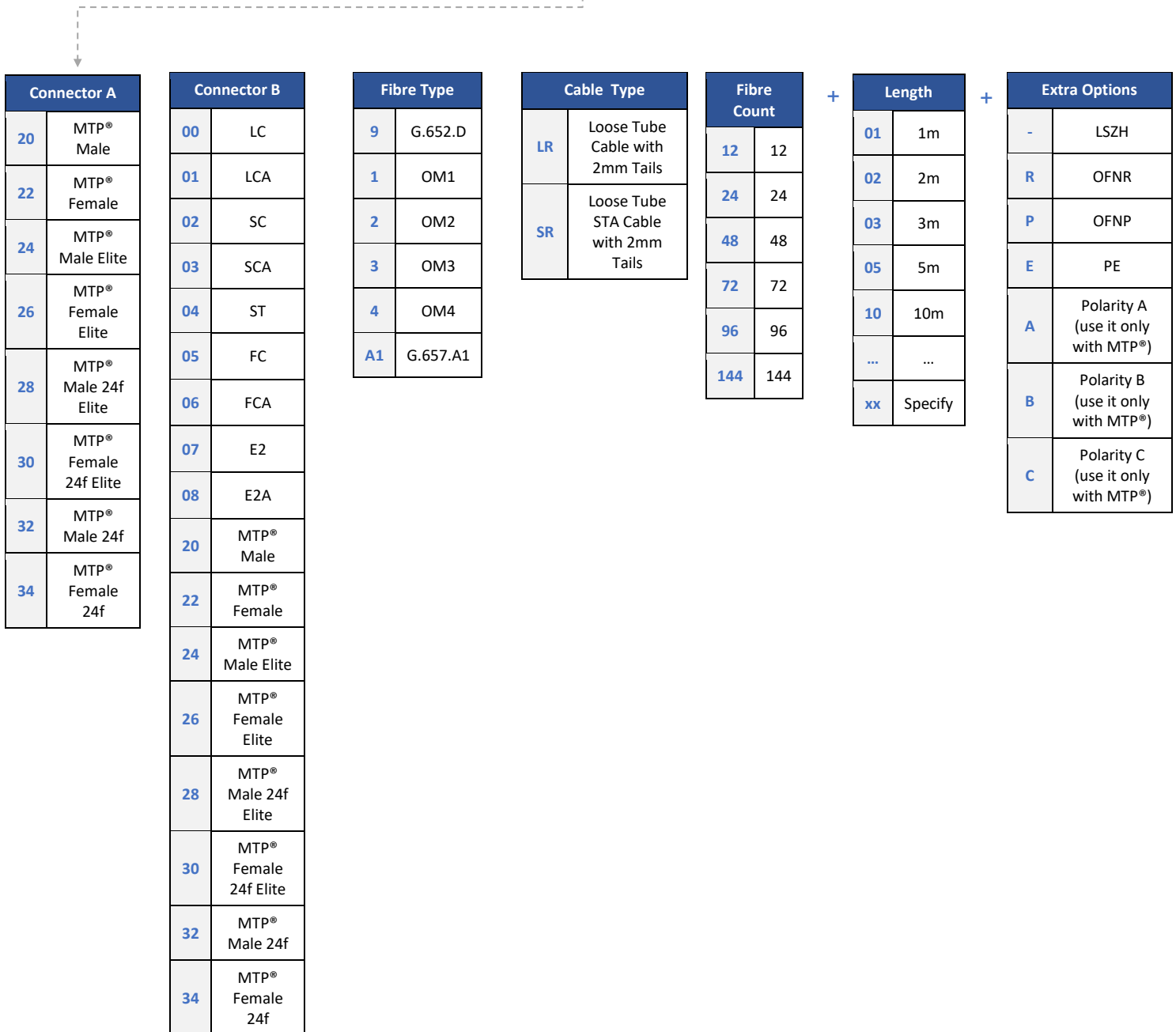
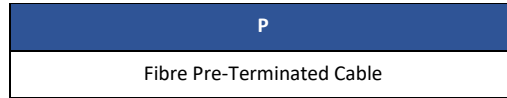
FIBRETYPE (ISO/IEC 11801)	OS1/OS2	OM1	OM2	OM3	OM4
Attenuation Coefficient [dB/km]	≤ 0.38 Max (1310nm)	≤ 3.5 Max (850nm)	≤ 3.5 Max (850nm)	≤ 3.5 Max (850nm)	≤ 3.5 Max (850nm)
	≤ 0.25 Max (1550nm)	≤ 1.5 Max (1300nm)	≤ 1.5 Max (1300nm)	≤ 1.5 Max (1300nm)	≤ 1.5 Max (1300nm)
	≤ 0.34 Typ (1310nm)	≤ 2.9 Typ (850nm)	≤ 2.7 Typ (850nm)	≤ 2.7 Typ (850nm)	≤ 2.7 Typ (850nm)
	≤ 0.19 Typ (1550nm)	≤ 1.2 Typ (1300nm)	≤ 0.9 Typ (1300nm)	≤ 0.9 Typ (1300nm)	≤ 0.9 Typ (1300nm)
Minimum Bandwidth: Overfilled Launch [Mhz-km]	N/A	≥ 200 (850nm)	≥ 500 (850nm)	≥ 1500 (850nm)	≥ 3500 (850nm)
		≥ 500 (1300nm)	≥ 500 (1300nm)	≥ 500 (1300nm)	≥ 500 (1300nm)
Minimum Bandwidth: Laser Effective Modal Bandwidth [Mhz-km]	N/A	N/A	N/A	≥ 2000 (850nm)	≥ 4700 (850nm)

## Standards Compliance

- TIA/EIA-568-C.3 and IEC 11801
- ISO/IEC 60793 and ISO/IEC 60794
- ISO/IEC 61753, IEC 61754 and IEC 61755
- ISO/IEC 60332-1, IEC 61034-1/2 and IEC 61754-1/2
- Compliant to Directive 2002/95/EC (RoHS) and REACH SVHC

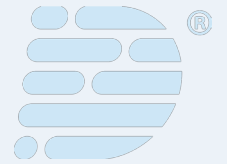


## Ordering Information

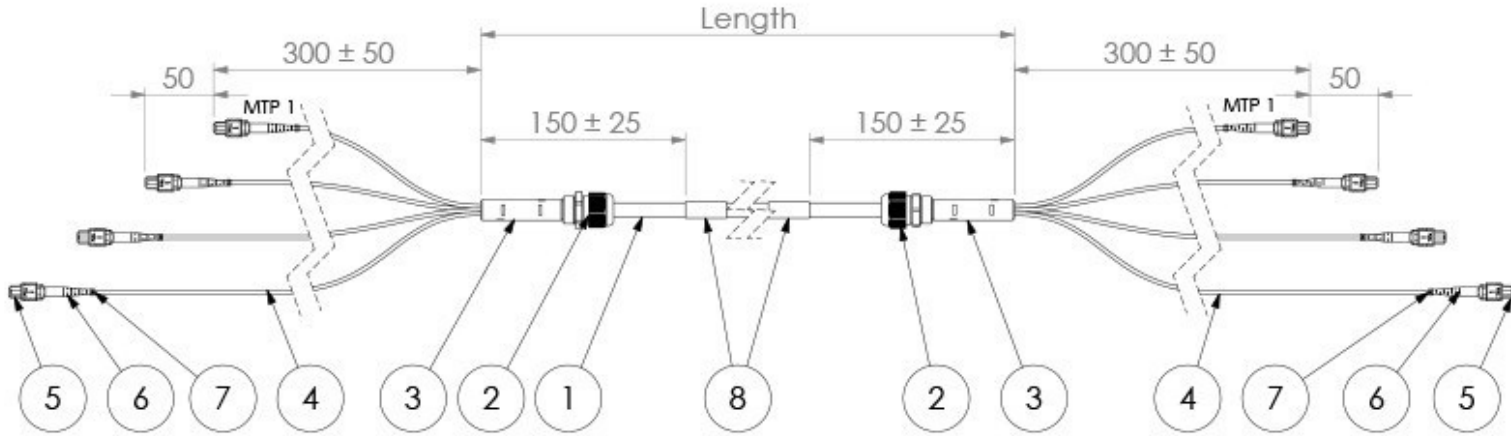


### Example:

P-20203LT12-70 – MTP® Male – MTP® Male 12 Core Pre-terminated Loose Tube Cable LSZH OM3 with 2mm Tails 70m

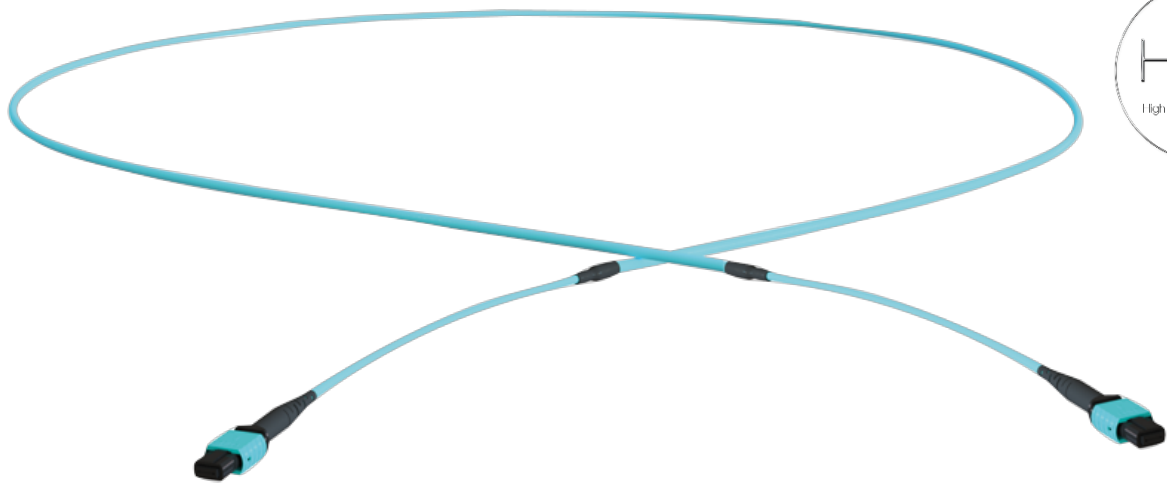
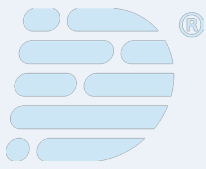


Technical Drawing



No.	Description	Qty.
1	Loose Tube Cable	1
2	Compression Gland without Nut **	2
3	Breakout Module *	2
4	3mm Furcation Tubing (See Options)	-
5	MTP Connector	-
6	MTP Round Connector Boot (Black)	-
7	Tail Identification Marker (C-Clip)	-
8	Serial Number Label (Wrap Around)	2

MTP® is a registered trademark of US Conec Ltd.



## MTP® MicroCable Trunk Assemblies

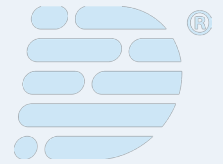
MTP® micro cable trunks designed and manufactured for high demand network applications. They feature standard or Elite MTP® connectors and a ruggedised micro cable structure. Due to their compact size and up to 144 fibre count they are an ideal solution for high density data centre infrastructure.

### Applications

- Data Centres
- 40/100G applications
- Storage Area Network- Fibre Channel
- Parallel Optics
- InfiniBand

### Features

- 12 fibre male or female MTP® connector
- Low loss performance
- Up to 144 fibres – ideal for high density applications
- Available in OS1/2 G652D, G.657A1, OM3, OM4 Fibre Grades - OM1 and OM2 available upon request
- Option for LSZH, OFNP or OFNR cable Jacket
- Option for A, B or C polarity
- 100% factory terminated and tested
- Optional Pulling Element
- Saves installation and reconfiguration time



## Specifications

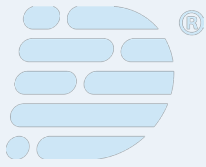
ELEMENT	CHARACTERISTIC
Fibre	OS1/OS2, G.657A1, OM1, OM2, OM3, OM4
Tail Dimensions	3mm Tails
MTP® Terminations	MTP® 12 Fibre Ferrules US Conec, <b>Boot Colour:</b> Black, <b>Body Sleeve Colour:</b> MM (Beige), MM Elite (Aqua), SM (Green), SM Elite (Yellow)
Cable Diameter	12 Core MicroCable Double Jacket OD Max 4.5 ± 0.3mm, 24 Core MicroCable Double Jacket Flat (4.2 ± 0.3 x 7.6 ± 0.4mm), 48 Core MicroCable Double Jacket OD Max 9.0 ± 0.3mm
Crush Resistance	1000N/100mm
Cable Tensile Strength	Double Jacket Microcable (up to 12 Cores) (Short/Long) 400N/150N, Double Jacket Microcable Flat (up to 24 Cores) (Short/Long) 300N/160N, Double Jacket Microcable (up to 48 Cores) (Short/Long) 1000N/300N
Cable Strength Member	(12/24 Core) Aramid, (48 Core) FRP/Aramid
Storage Temperature	-20 ~ +60°C
Installation Temperature	-5 ~ +50°C
Operating Temperature	-20 ~ +60°C
Tail Protection	No- Standard, High Crush Resistant Tubing when pulling element
Pulling Element	12 Core Microcable - Rope attached to Aramid, 48 Core Multi Sub unit - Pulling Eye Bonded to FRP Rod

## Connector Performance

CONNECTOR MATING	IL AVERAGE	IL MAX	RETURN LOSS
MTP® Elite (MM)	0.10dB	0.35dB	N/A
MTP® (MM)	0.20dB	0.60dB	N/A
MTP® Elite (SM)	0.10dB	0.35dB	>60dB
MTP® (SM)	0.25dB	0.75dB	>60dB

## Cable Performance

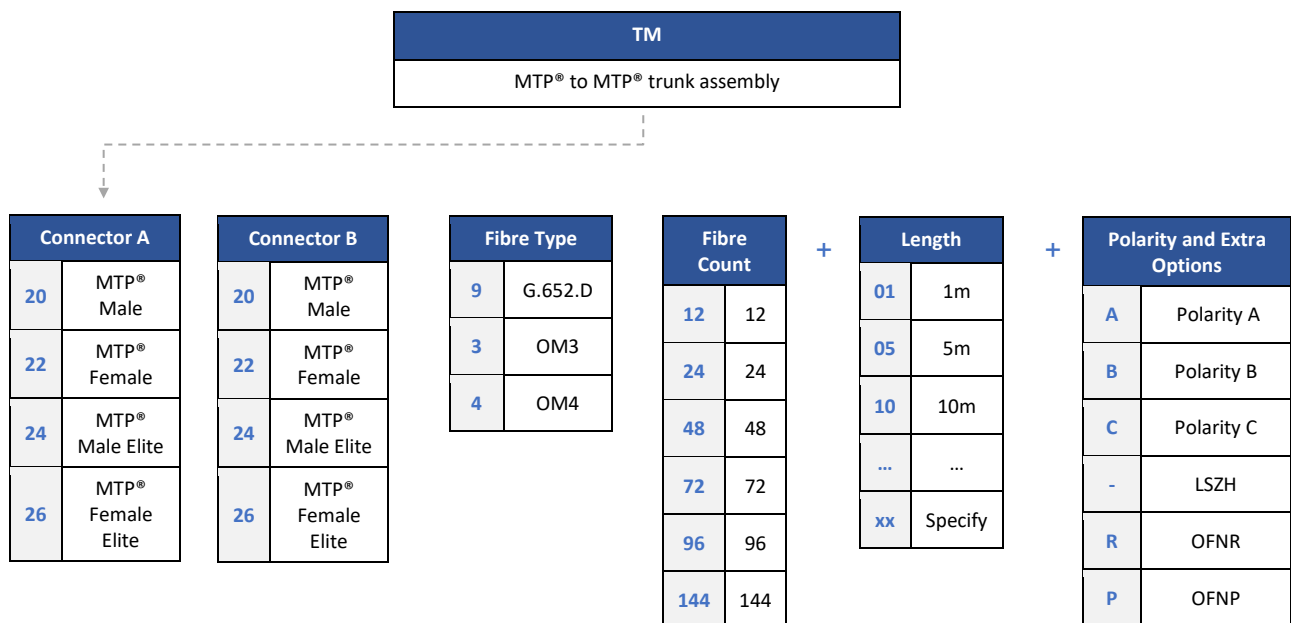
FIBRE TYPE (ISO/IEC 11801)	OS1/OS2	OM1	OM2	OM3	OM4
Attenuation Coefficient [dB/km]	≤ 0.38 Max (1300nm)	≤ 3.5 Max (850nm)	≤ 3.5 Max (850nm)	≤ 3.5 Max (850nm)	≤ 3.5 Max (850nm)
	≤ 0.25 Max (1300nm)	≤ 1.5 Max (1300nm)	≤ 1.5 Max (1300nm)	≤ 1.5 Max (1300nm)	≤ 1.5 Max (1300nm)
	≤ 0.34 Typ (1550nm)	≤ 2.9 Typ (850nm)	≤ 2.7 Typ (850nm)	≤ 2.7 Typ (850nm)	≤ 2.7 Typ (850nm)
	≤ 0.19 Typ (1550nm)	≤ 1.2 Typ (1300nm)	≤ 0.9 Typ (1300nm)	≤ 0.9 Typ (1300nm)	≤ 0.9 Typ (1300nm)
Minimum Bandwidth: Overfilled Launch [Mhz-km]	N/A	≥ 200 (850nm) ≥ 500 (1300nm)	≥ 500 (850nm) ≥ 500 (1300nm)	≥ 1500 (850nm) ≥ 500 (1300nm)	≥ 3500 (850nm) ≥ 500 (1300nm)
Minimum Bandwidth: Laser Effective Modal Bandwidth [Mhz-km]	N/A	N/A	N/A	≥ 2000 (850nm)	≥ 4700 (850nm)



## Standards Compliance

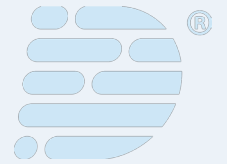
- TIA/EIA-568-C.3 and ISO/IEC 11801
- IEC-61754-7 & EIA/TIA-604-5
- NFPA 262 or IEC 60332
- Compliant to Directive 2002/95/EC (RoHS) and REACH SvHC
- IEC-60793

## Ordering Information



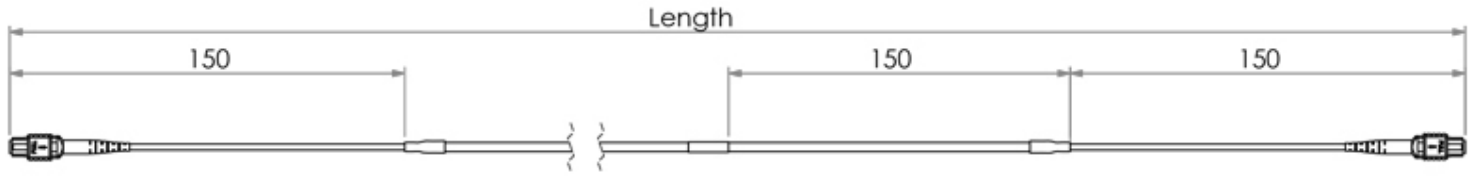
### Example:

**TM-2020312-70-A**– MTP® male to MTP® male with 12 fibre ferrule trunk 4 OM3 70m polarity A

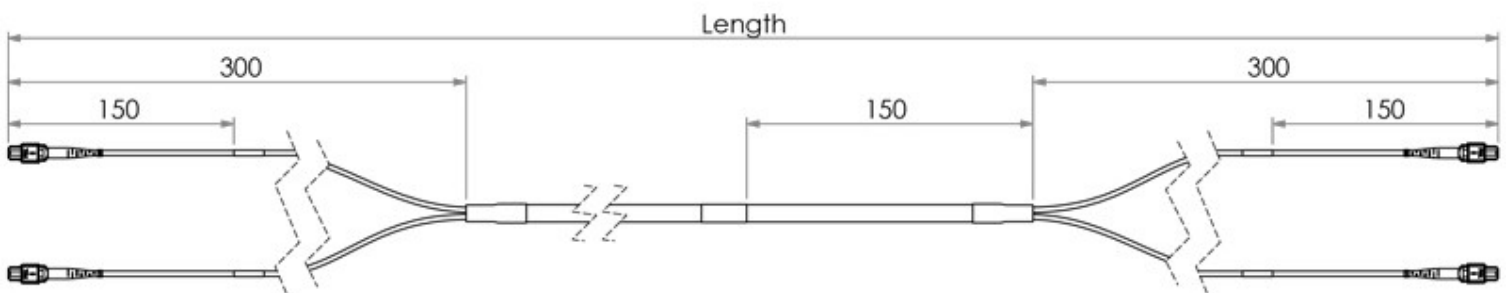


## Technical Drawing

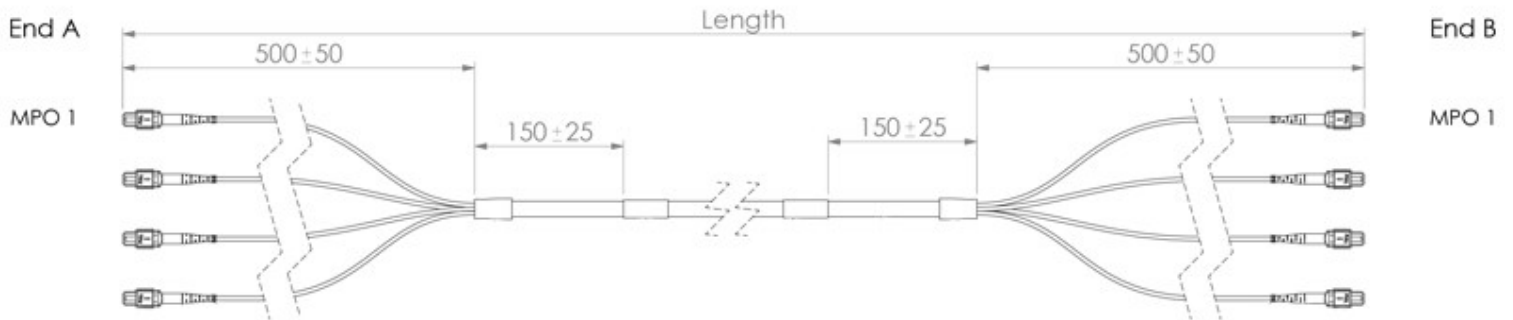
12 Fibre Trunk Double jacket 4.5mm OD



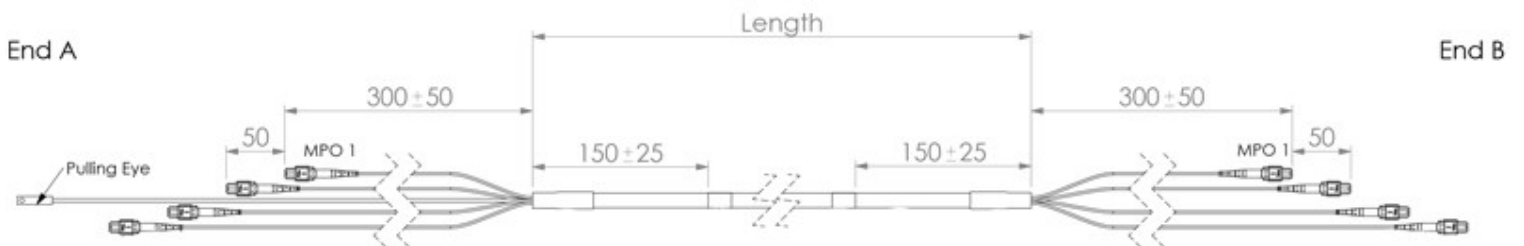
24 Fibre Trunk 2 x Sub Units Flat

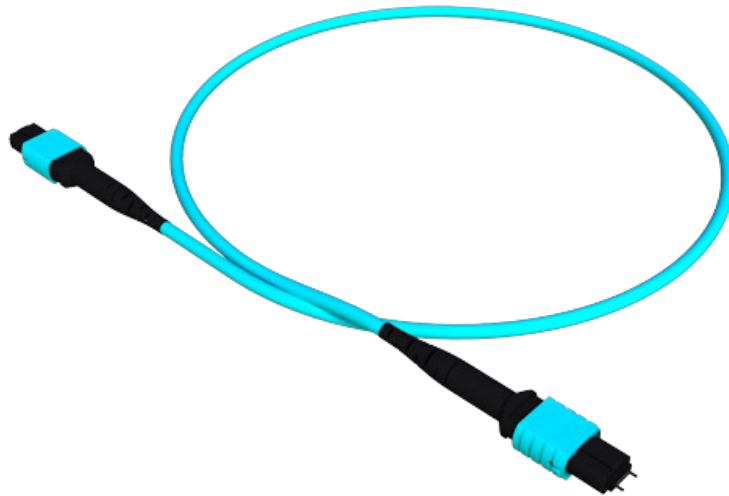
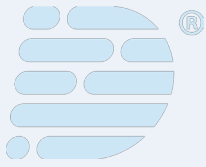


High Core Count Trunk Multi Subunits – Fanout



High Core Count Trunk Multi Subunits – Stagger with Pulling System





## MTP® MicroCable Patch Assemblies

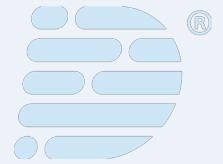
12 fibre MTP® micro cable assemblies designed and manufactured with low loss performance high demand network applications. They are available with standard or low loss Elite MTP® terminated on a 3mm ruggedised single jacket micro cable. These trunks are typically used in the main distribution area or the interconnection of active equipment with backbone cabling infrastructure. Their small and compact size makes them an ideal solution for high density applications with high demands for advanced cable management and optimized airflow.

### Applications

- Data Centres
- Parallel optics applications
- 40 and 100G applications
- InfiniBand
- Storage Area Network - Fibre Channel

### Features

- 12 fibre male/female MTP® connectors
- Low loss performance
- Available with LSZH, OFNP or OFNR jacket
- Option for A, B or C polarity
- 100% Factory terminated and tested
- Compact ruggedised assembly, ideal for high density applications
- Saves installation and reconfiguration time



## Specifications

ELEMENT	CHARACTERISTIC
Fibre	OS1/OS2, G.652D, G657A1, OM3, OM4
Tail Dimensions	3mm Tails
MTP Terminations	MTP® 12 Fibre ~ Ferrule US Conec <b>Boot Colour:</b> Black <b>Body Sleeve Colour:</b> MM (Beige), MM Elite (Aqua), SM (Green), SM Elite (Yellow)
Cable Diameter	12 Core MicroCable Single Jacket OD Max 2.9 ± 0.1mm
Crush Resistance	500N/100mm
Cable Tensile Strength	(Short/Long) 200N/60N
Cable Strength Member	Aramid
Storage Temperature	-20 ~ +60°C
Installation Temperature	-5 ~ +50°C
Operating Temperature	-20 ~ +60°C

## Connector Performance

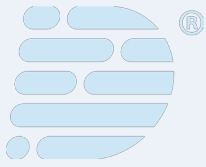
CONNECTOR MATING	IL AVERAGE	IL MAX	RETURN LOSS
MTP® Elite (MM)	0.10dB	0.35dB	N/A
MTP® (MM)	0.20dB	0.60dB	N/A
MTP® Elite (SM)	0.10dB	0.35dB	>60dB
MTP® (SM)	0.25dB	0.75dB	>60dB

## Cable Performance

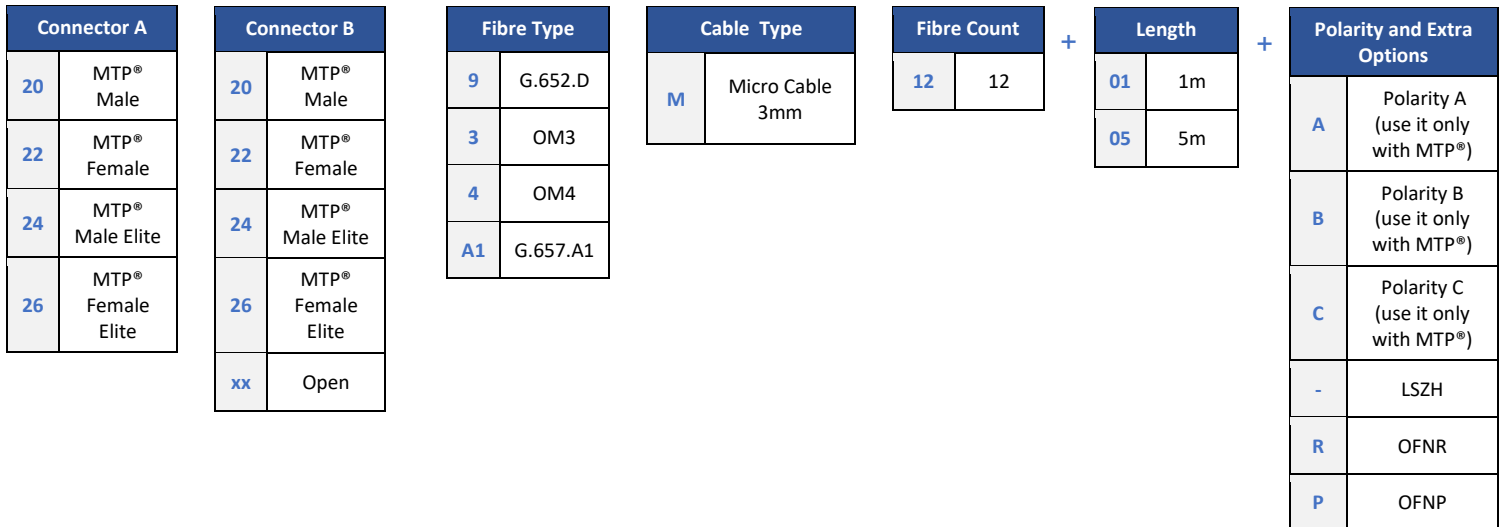
FIBRETYPE (ISO/IEC 11801)	OS1/OS2	OM3	OM4
Attenuation Coefficient [dB/km]	≤ 0.38 Max (1300nm) ≤ 0.25 Max (1300nm) ≤ 0.34 Typ (1550nm) ≤ 0.19 Typ (1550nm)	≤ 3.5 Max (850nm) ≤ 1.5 Max (1300nm) ≤ 2.7 Typ (850nm) ≤ 0.9 Typ (1300nm)	≤ 3.5 Max (850nm) ≤ 1.5 Max (1300nm) ≤ 2.7 Typ (850nm) ≤ 0.9 Typ (1300nm)
Minimum Bandwidth: Overfilled Launch [Mhz-km]	N/A	≥ 1500 (850nm) ≥ 500 (1300nm)	≥ 3500 (850nm) ≥ 500 (1300nm)
Minimum Bandwidth: Laser Effective Modal Bandwidth [Mhz-km]	N/A	≥ 2000 (850nm)	≥ 4700 (850nm)

## Standards Compliance

- TIA/EIA-568-C.3 and ISO/IEC 11801
- IEC-61754-7 & EIA/TIA-604-5
- NFPA 262 or IEC 60332
- Compliant to Directive 2002/95/EC (RoHS) and REACH SvHC
- IEC-60793

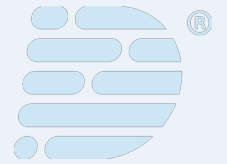


## Ordering Information



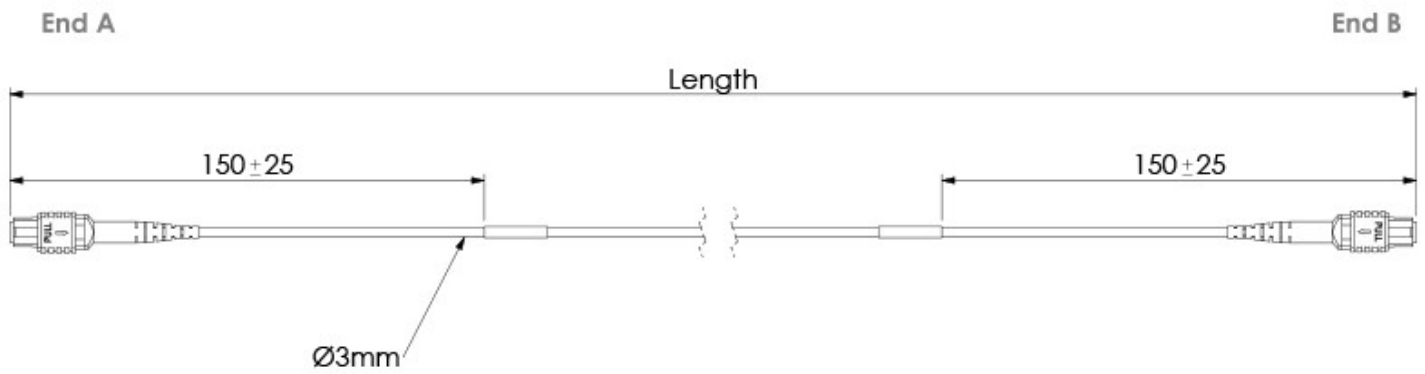
### Example:

TM-20203M12-05-A- MTP® male to MTP® male with fibre microcable patch assembly LSZH 12 fibres 5m polarity A

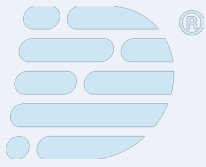


## Technical Drawing

12 Fibre Trunk Double jacket 3mm OD



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## MTP® Nano Ruggedised Trunk Cable Assemblies

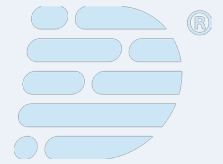
Nano MTP® trunk ruggedised assemblies featuring the small, compact size and low loss performance of nano cable and standard or high performance and low loss Elite MTP® connectors. These assemblies are an ideal solution for high density applications in main/horizontal/equipment distribution area of data centre infrastructure.

### Applications

- Data Centres
- 40/100G applications
- Storage Area Network- Fibre Channel
- Parallel Optics
- InfiniBand

### Features

- 12 or 24 fibre count
- Low loss performance
- Available in OS1/2, OM3, OM4 fibre grades
- Option for LSZH or OFNP cable jacket
- Option for male or female MTP® connectors
- Option for A, B or C polarity
- 100% factory terminated and tested
- Compact size – ideal for high density applications
- Saves installation and reconfiguration time



## Specifications

ELEMENT	CHARACTERISTIC
Fibre	OS1/OS2, OM3, OM4 (ISO/IEC 60793)
Cable	Nanocable: 12, 24 cores MAX OD: 12 cores 3mm / 24 cores 5mm Material: PA12 (LSZH) Colour: Black, Yellow, Aqua
Connectors	MTP® US Conec (IEC-61754-7 & EIA/TIA-604-5) <b>Boot Colour:</b> Black / <b>Body Sleeve Colour:</b> MM (Beige), MM Elite (Aqua), SM (Green), SM Elite (Yellow)
Installation Temperature	-10 ~ +70°C
Operating Temperature	-40 ~ +80°C

## Connector Performance

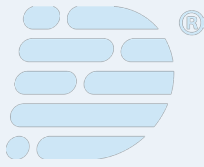
CONNECTOR MATING	IL AVERAGE	IL MAX	RETURN LOSS
MTP® Elite (MM)	0.10dB	0.35dB	N/A
MTP® (MM)	0.20dB	0.60dB	N/A
MTP® Elite (SM)	0.10dB	0.35dB	>60dB
MTP® (SM)	0.25dB	0.75dB	>60dB

## Cable Performance

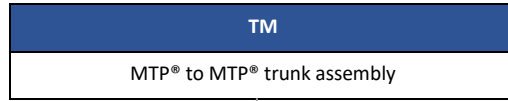
FIBRETYPE (ISO/IEC 11801)	OS1/OS2	OM1	OM2	OM3	OM4
Attenuation Coefficient [dB/km]	≤ 0.38 Max (1310nm) ≤ 0.25 Max (1550nm) ≤ 0.34 Typ (1310nm) ≤ 0.19 Typ (1550nm)	≤ 3.5 Max (850nm) ≤ 1.5 Max (1300nm) ≤ 2.9 Typ (850nm) ≤ 1.2 Typ (1300nm)	≤ 3.5 Max (850nm) ≤ 1.5 Max (1300nm) ≤ 2.7 Typ (850nm) ≤ 0.9 Typ (1300nm)	≤ 3.5 Max (850nm) ≤ 1.5 Max (1300nm) ≤ 2.7 Typ (850nm) ≤ 0.9 Typ (1300nm)	≤ 3.5 Max (850nm) ≤ 1.5 Max (1300nm) ≤ 2.7 Typ (850nm) ≤ 0.9 Typ (1300nm)
Minimum Bandwidth: Overfilled Launch [Mhz-km]	N/A	≥ 200 (850nm) ≥ 500 (1300nm)	≥ 500 (850nm) ≥ 500 (1300nm)	≥ 1500 (850nm) ≥ 500 (1300nm)	≥ 3500 (850nm) ≥ 500 (1300nm)
Minimum Bandwidth: Laser Effective Modal Bandwidth [Mhz-km]	N/A	N/A	N/A	≥ 2000 (850nm)	≥ 4700 (850nm)

## Standards Compliance

- TIA/EIA-568-C.3 and IEC 11801
- IEC-61754-7 & EIA/TIA-604-5
- NFPA 262 or IEC 60332
- IEC-61754-20 & IEC-61754-14
- Compliant to Directive 2002/95/EC (RoHS) and REACH SvHC
- IEC-60793



## Ordering Information



Connector A	
20	MTP® Male
22	MTP® Female
24	MTP® Male Elite
26	MTP® Female Elite
28	MTP® Male Elite 24F
30	MTP® Female Elite 24F
32	MTP® Male 24F
34	MTP® Female 24F

Connector B	
20	MTP® Male
22	MTP® Female
24	MTP® Male Elite
26	MTP® Female Elite
28	MTP® Male Elite 24F
30	MTP® Female Elite 24F
32	MTP® Male 24F
34	MTP® Female 24F

Fibre Type	
3	OM3
4	OM4
A2	G.657.A2

Cable Type	
N	Nano Cable ruggedised

Fibre Count	
12	12
24	24

+

Length	
01	1m
05	5m
10	10m
...	...
xx	Specify

+

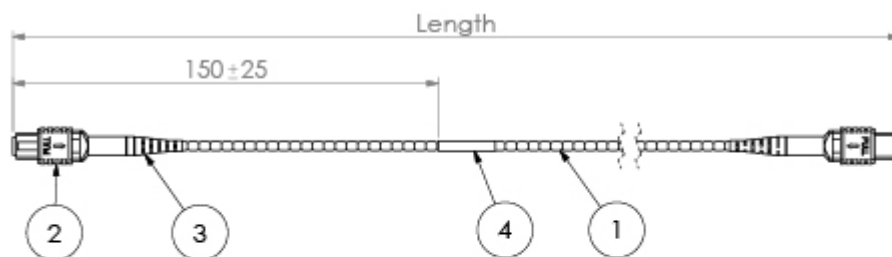
Polarity and Extra Options	
A	Polarity A
B	Polarity B
C	Polarity C
-	LSZH
P	OFNP

### Example:

TM-20203N12-05-A– MTP® male to MTP® male with fibre nano cable rugged assembly LSZH 12 fibres 5m polarity A

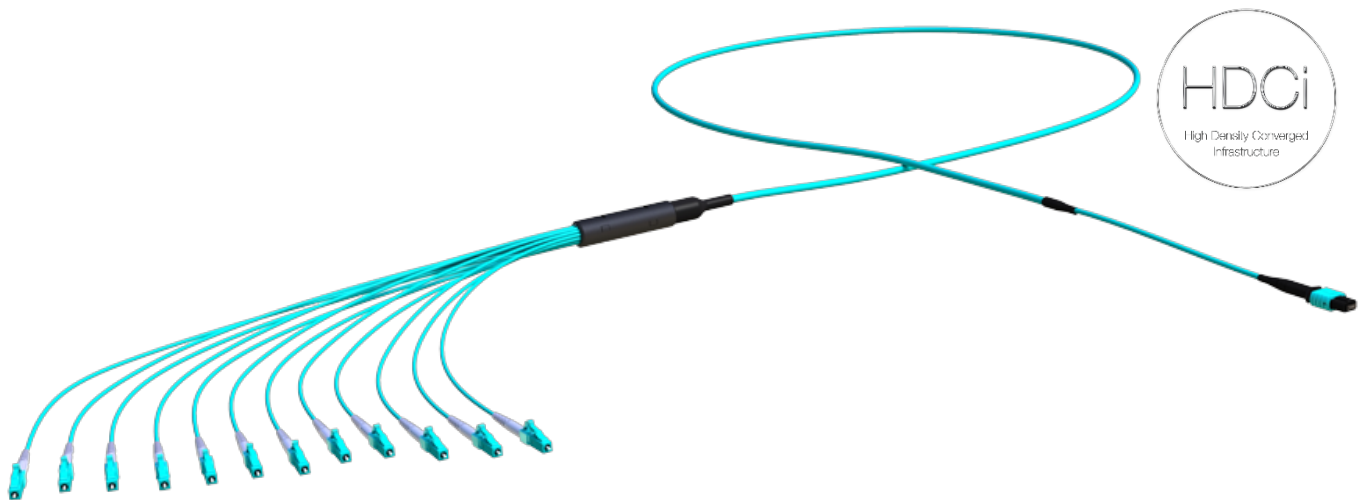
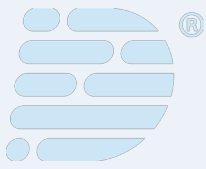


### Technical Drawing



No.	Description	Qty.
1	3mm 12 Fibre Nano Cable	1
2	12 Fibre MTP Connector	2
3	MTP 3mm Connector Boot (Black)	2
4	Serial Number Label (Wrap Around)	1

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## MTP® MicroCable Fan-Out Assemblies

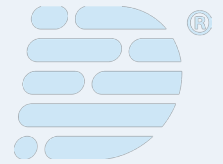
12 to 144 fibre MTP® to LC or SC fan-out assemblies designed and manufactured for the interconnection of MTP® cassettes and panels with active equipment ports. They are manufactured using a compact ruggedised micro cable and they are an ideal solution for high density applications with high demands for advanced cable management and optimized airflow.

### Applications

- Data Centres
- Storage Area Network - Fibre Channel

### Features

- 12 fibre MTP® connector in male or female version
- Available with OS1/2, OM3, OM4 fibres – OM1/OM2 available upon request
- 12 x Cores single jacket Micro Cable 3mm OD Patch/ double jacket Micro Cable 4.5mm OD Trunk version
- Multi subunit 24, 48, 72, 96, 144 cores Micro Cable versions are available
- Available with LSZH, OFNP or OFNR jacket
- Available with LC or SC tails
- 100% factory terminated and tested
- Low loss performance using MTP® elite and high quality LC or SC connectors
- Ideal for high density applications
- Saves installation and reconfiguration time



## Specifications

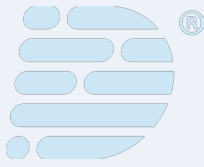
ELEMENT	CHARACTERISTIC
Fibre	OS1/OS2, G.657A1, OM3, OM4
Tail Dimensions	2mm Simplex Tails Fanout, 2mm Duplex Tails Fanout
MTP® Connectors	MTP® 12 Fibre Ferrules US Conec, <b>Boot Colour:</b> Black, <b>Body Sleeve Colour:</b> MM (Beige), MM Elite (Aqua), SM (Green), SM Elite (Yellow)
Other Terminations	LC, SC, LC/APC, SC/APC
Cable Diameter	12 Core Trunk Double Jacket OD MAX: 4.5 ± 0.3mm, 24 Core OD MAX: 4.5 ± 0.3mm, 48 cores OD MAX: 9.7 ± 0.3mm
Crush Resistance	1000N/100mm
Cable Tensile Strength	Up to 24 Core (Short/Long) 400N/160N, Up to 48 Core (Short/Long) 1000N/300N
Cable Strength Member	Aramid
Storage Temperature	-20 ~ +60°C
Installation Temperature	-5 ~ +50°C
Operating Temperature	-20 ~ +60°C

## Connector Performance

CONNECTOR MATING	IL AVERAGE	IL MAX	RETURN LOSS
MTP® Elite (MM)	0.10dB	0.35dB	N/A
MTP® (MM)	0.20dB	0.60dB	N/A
MTP® Elite (SM)	0.10dB	0.35dB	>60dB
MTP® (SM)	0.25dB	0.75dB	>60dB

OPTICAL PERFORMANCE*	MM PREMIUM	MM STANDARD	SM PREMIUM	SM STANDARD	CONFORMANCE
IL Max/Master (Acceptance)	0.15dB	0.25dB	0.15dB	0.25dB	IEC 61300-3-4
Ave/Master	0.08dB	0.15dB	0.12dB	0.18dB	IEC 61300-3-4
Ave/Random	0.10dB	0.20dB	0.12dB	0.18dB	IEC61300-3-34
RL (Min Acceptance)	NA	NA	55/65**	55/65**	IEC61300-3-6

\* Connector Performance table does not refer to E2A terminations \*\* UPC/APC

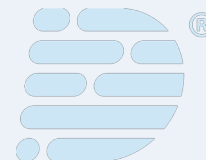


## Cable Performance

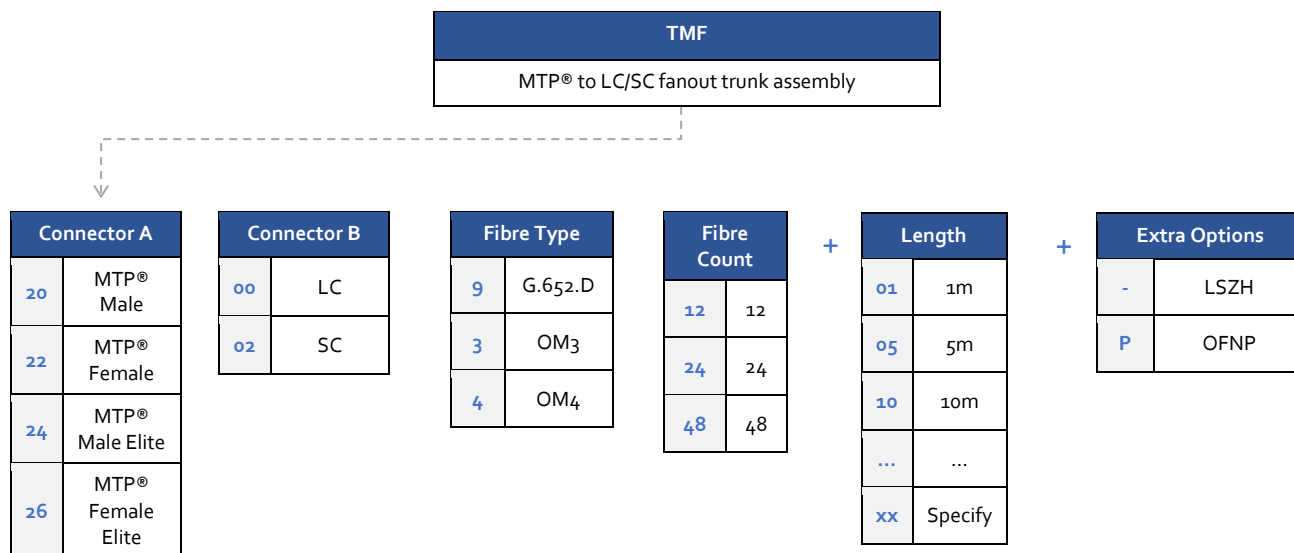
FIBRETYPE (ISO/IEC 11801)	OS1/OS2	OM1	OM2	OM3	OM4
Attenuation Coefficient [dB/km]	≤ 0.38 Max (1300nm)	≤ 3.5 Max (850nm)	≤ 3.5 Max (850nm)	≤ 3.5 Max (850nm)	≤ 3.5 Max (850nm)
	≤ 0.25 Max (1300nm)	≤ 1.5 Max (1300nm)	≤ 1.5 Max (1300nm)	≤ 1.5 Max (1300nm)	≤ 1.5 Max (1300nm)
	≤ 0.34 Typ (1550nm)	≤ 2.9 Typ (850nm)	≤ 2.7 Typ (850nm)	≤ 2.7 Typ (850nm)	≤ 2.7 Typ (850nm)
	≤ 0.19 Typ (1550nm)	≤ 1.2 Typ (1300nm)	≤ 0.9 Typ (1300nm)	≤ 0.9 Typ (1300nm)	≤ 0.9 Typ (1300nm)
Minimum Bandwidth: Overfilled Launch [Mhz-km]	N/A	≥ 200 (850nm)	≥ 500 (850nm)	≥ 1500 (850nm)	≥ 3500 (850nm)
		≥ 500 (1300nm)	≥ 500 (1300nm)	≥ 500 (1300nm)	≥ 500 (1300nm)
Minimum Bandwidth: Laser Effective Modal Bandwidth [Mhz-km]	N/A	N/A	N/A	≥ 2000 (850nm)	≥ 4700 (850nm)

## Standards Compliance

- TIA/EIA-568-C.3 and ISO/IEC 11801
- IEC-61754-7 & EIA/TIA-604-5
- NFPA 262 or IEC 60332
- IEC-61754-20 & IEC-61754-14
- Compliant to Directive 2002/95/EC (RoHS) & REACH SvHC
- IEC-60793

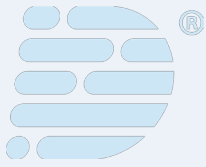


## Ordering Information



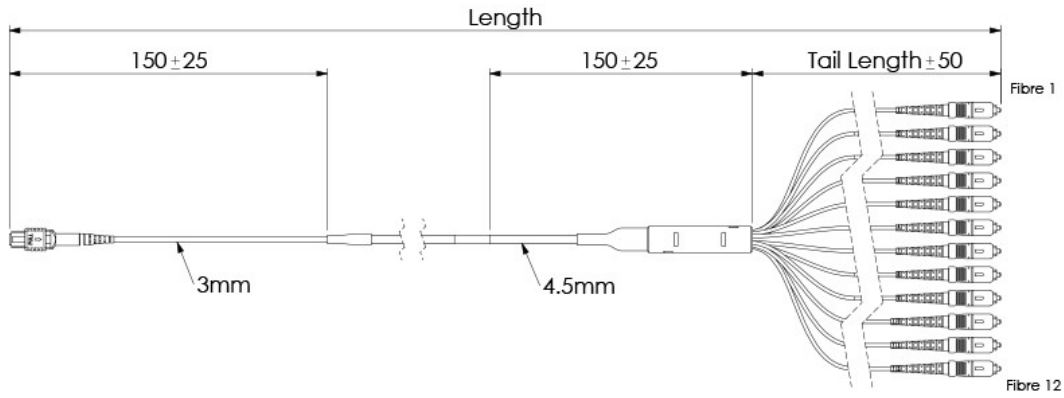
### Example:

**TMF-2000312-70**– MTP® male to 12 LC/UPC fanout 1 trunk OM3 70m

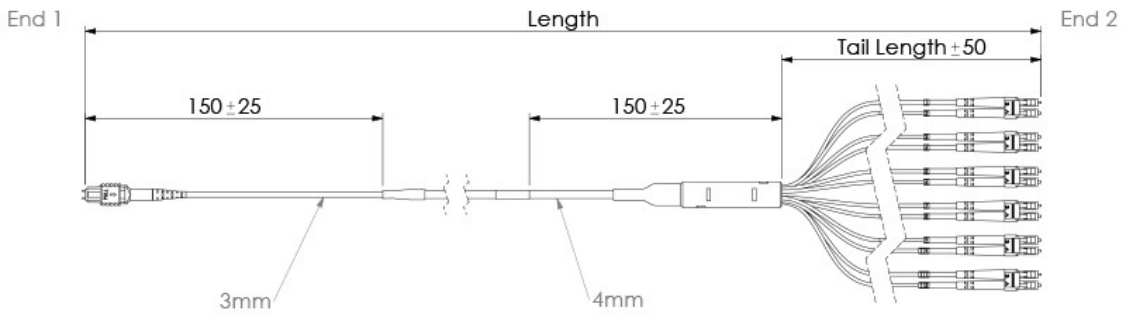


## Technical Drawing

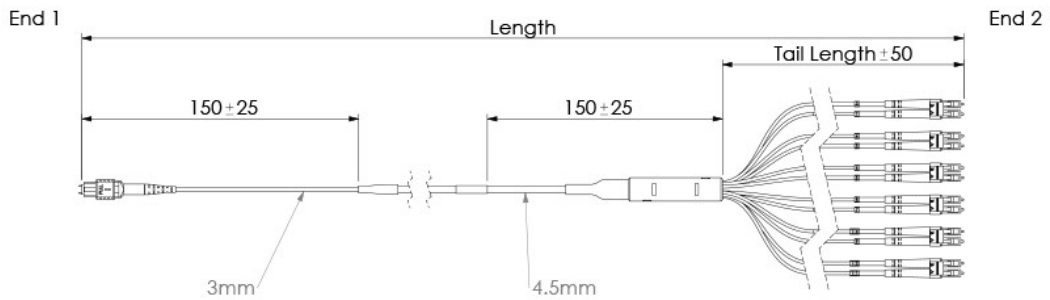
MicroCable MTP Fanout 4.5mm OD Trunk Double Jacket Simplex Tails



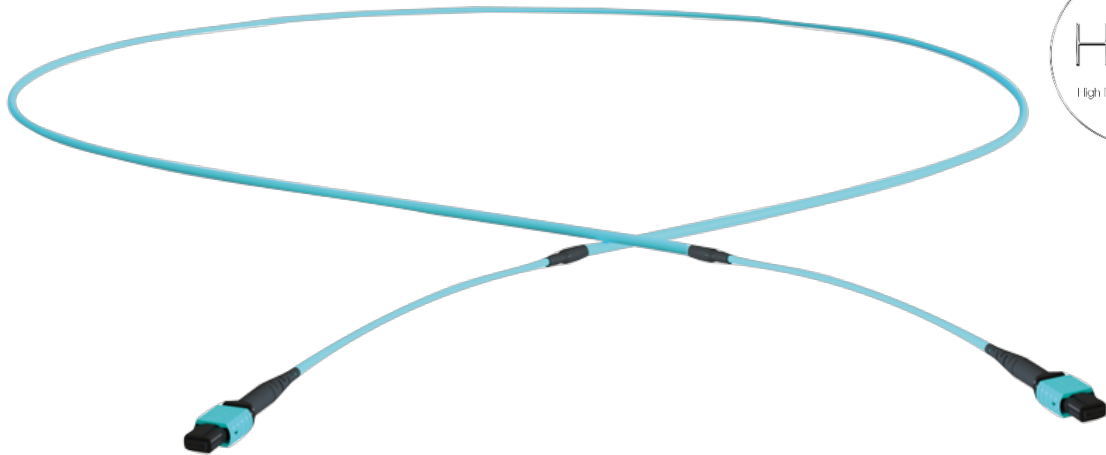
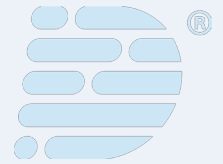
MicroCable MTP Fanout 4.5mm OD Trunk Double Jacket Duplex Tails 1 to B



MicroCable MTP Fanout 4.5mm OD Trunk Double Jacket Duplex Tails 1 to A



MTP® is a registered trademark of US Conec Ltd



## 40G QSFP+ (MPO/MTP®) to QSFP+ Assemblies

MTP® QSFP+ cable assemblies designed for the interconnection of 40G (40GBASE-SR) QSFP+ transceivers in parallel optics networks using 4x10G channels (4 TX and 4 RX fibres). These assemblies are offered as trunks with 8 Fibre OM3 or OM4 ruggedised double jacket micro cable or patch cords using a compact single jacket micro cable. The use of Standard or Elite MTP® connectors ensures low loss, high speed performance, while the compact sized cable assures optimal airflow in high density data centre applications.

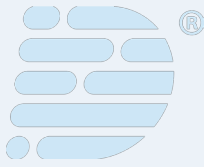
For direct connections between QSFP+ transceivers both MTP® connectors should be un-pinned female type, while for the connection with other MTP/MPO connectors, male pinned or female un-pinned should be chosen accordingly.

### Applications

- Data Centres
- Parallel network applications
- Assemblies for 40GBase-SR QSFP+ transceivers
- InfiniBand

### Features

- Low loss performance using MTP® connectors
- Available in OS1/2, OM3, OM4 Fibre Grades
- Option for Loose Tube, Loose Tube Armoured and Universal Micro Cable Selection
- Polarity B
- Female/Un-Pinned and Male/ Pinned MTP® connectors
- 8x Fibre Micro cable 4.5mm OD Trunk & 3mm OD Patch Lead Options
- Available with LSZH, OFNPor OFNR Cable Jacket
- MTP® Interface - QSFP+ 40Gbase-SR transceivers are using MTP® interface
- 100% Factory terminated and tested
- Saves installation and re-configuration time



## Specifications

ELEMENT	CHARACTERISTIC
Fibre	OS1/OS2, OM3, OM4
Cable Type	Microcable Max OD Trunks 8 cores 4.5 ± 0.3mm Max OD Patchlead 8 cores 2.9 ± 0.1mm <b>Jacket material:</b> LSZH, OFNP, OFNR <b>Jacket colour:</b> Aqua (OM3, OM4), Erica Violet (OM4)
Connectors	MTP® 12xFibre Ferrules US Conec, <b>Boot Colour:</b> Black, <b>Body Sleeve Colour:</b> MM (Beige), MM Elite (Aqua) Male/ Pinned or Female/ Un-Pinned
Storage Temperature	-20 ~ +60°C
Installation Temperature	-5 ~ +50°C
Operating Temperature	-20 ~ +60°C

## Connector Performance

CONNECTOR MATING	IL AVERAGE	IL MAX	RETURN LOSS
MTP® Elite (MM)*	0.10dB	0.35dB	N/A
MTP® (MM)*	0.20dB	0.60dB	N/A
MTP® Elite (SM)**	0.10dB	0.35dB	>60dB
MTP® (SM)***	0.25dB	0.75dB	>60dB

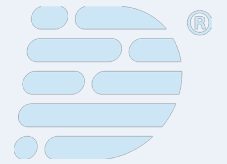
\* ANSI/EIA-455-171 Method D1; MM MTP \*\* ANSI/EIA-455-171 Method D3 SM MTP  
\*\*\* ANSI/EIA-455-171 Method D3 SM MTP; Compliant with proposed IEC 61755-3-31/GRADE B

## Cable Performance

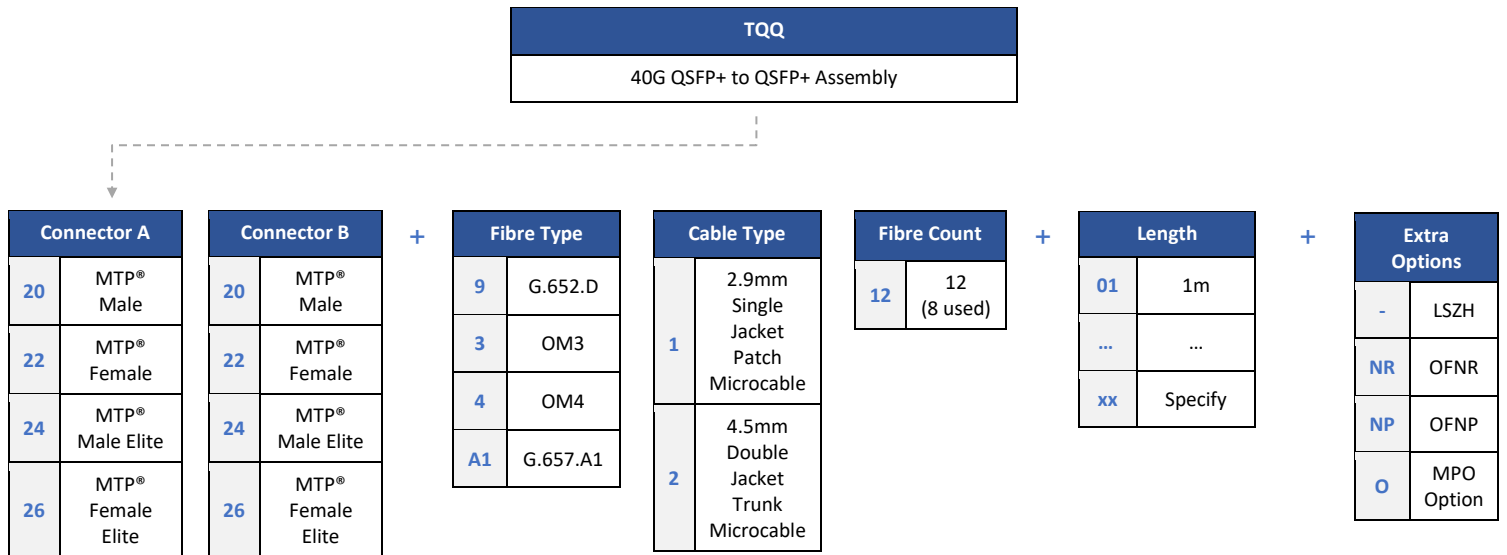
FIBRETYPE (ISO/IEC 11801)	OS1/OS2	OM3	OM4
Attenuation Coefficient [dB/km]	≤ 0.38 Max (1310nm) ≤ 0.25 Max (1550nm) ≤ 0.34 Typ (1310nm) ≤ 0.19 Typ (1550nm)	≤ 3.5 Max (850nm) ≤ 1.5 Max (1300nm) ≤ 2.7 Typ (850nm) ≤ 0.9 Typ (1300nm)	≤ 3.5 Max (850nm) ≤ 1.5 Max (1300nm) ≤ 2.7 Typ (850nm) ≤ 0.9 Typ (1300nm)
Minimum Bandwidth: Overfilled Launch [Mhz-km]	N/A	≥ 1500 (850nm) ≥ 500 (1300nm)	≥ 3500 (850nm) ≥ 500 (1300nm)
Minimum Bandwidth: Laser Effective Modal Bandwidth [Mhz-km]	N/A	≥ 2000 (850nm)	≥ 4700 (850nm)

## Standards Compliance

- TIA/EIA-568-C.3 and ISO/IEC 11801
- IEC-61754-7 & EIA/TIA-604-5
- NFPA 262 (OFNP) or IEC 60332 (LSZH)
- IEC-61754-20 (LC) & IEC-61754-14 (SC)
- Compliant to Directive 2002/95/EC (RoHS) and REACH SvHC
- IEC-60793

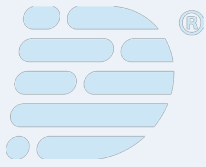


## Ordering Information

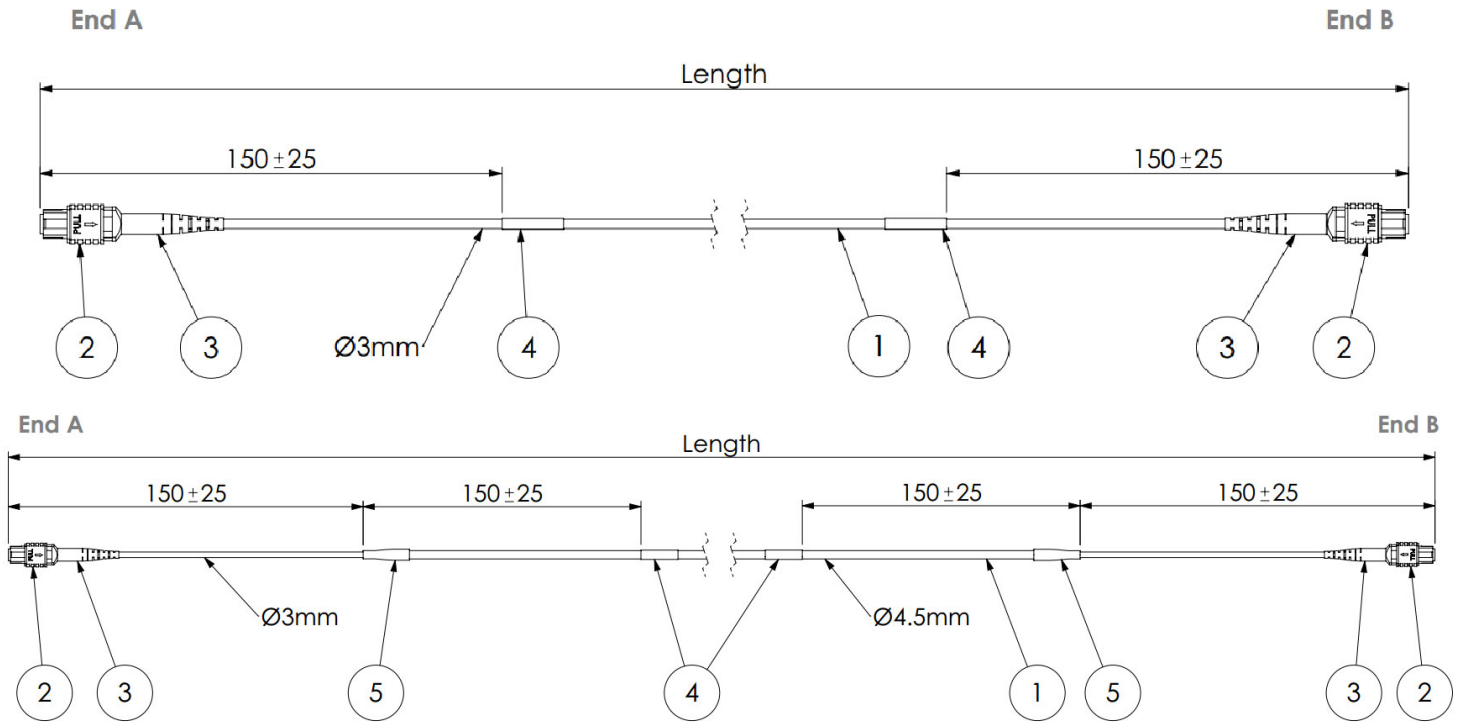


### Example:

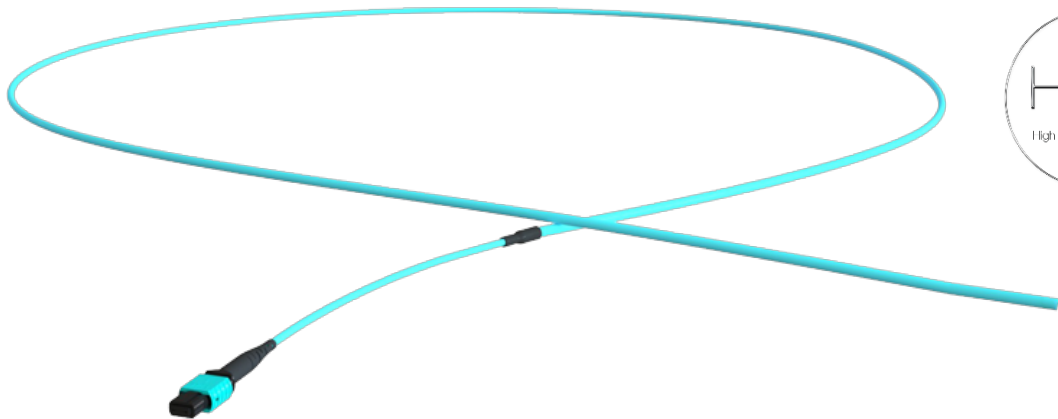
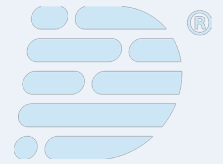
TQQ-2220-4112-10 - QSFP+ to QSFP+ 8 Fibres MTP® male to MTP® female OM4 2.9mm Patch MicroCable LSZH 10m



## Technical Drawing



1. Assembly MPO/MTP - MPO/MTP 8 Fibre MicroCable 2.9mm OD Patchlead - Single Jacket
2. Assembly MPO/MTP - MPO/MTP 8 Fibre MicroCable 4.5mm OD Trunk - Double Jacket



## MTP® Ruggedised Pigtails

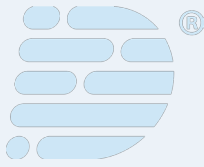
MTP® pigtails with ruggedised 3/5mm cable construction that allows long pigtail lengths enabling the splice management to be located outside the patch panels. They feature colour coded fibres for easy identification. They are compatible with parallel optics protocols.

### Applications

- Multi-fibre MTP® connector
- Available in OS1/2, OM1, OM2, OM3, OM4 fibre grades
- 100% Factory terminated and tested
- MPO/MTP interface reduces front panel adaptor space
- Reduced installation time
- Ruggedised cable construction with 250µm fibres
- Next generation networks proof
- Option for LSZH, OFNP, or OFNR buffer
- Colour coded fibre per IEC 60304 MPO/MTP interface

### Features

- Multifibre MTP® connector interface
- Factory terminated and tested
- MTP® interface reduces front panel adaptor space
- Increased speed of installation
- Ruggedised pigtails allow for splicing to be done remotely from adaptor patch panel
- Next generation networks proof
- OS1/2, OM1, OM2, OM3, OM4 fibre grades available
- LSZH, OFNP, OFNR buffer
- Fibres are color coded as per IEC 60304 MTP® interface
- Ruggedised 5/3mm Micro Cable pigtail construction with 250µm fibres in 3mm tube



## Specifications

ELEMENT	CHARACTERISTIC
Fibre	OS1/OS2, G.657A1, OM1, OM2, OM3, OM4 (IEC 60793)
MTP® Termination	MTP® 12 Fibre Ferrules US Conec, <b>Boot Colour:</b> Black, <b>Body Sleeve Colour:</b> MM (Beige), MM Elite (Aqua), SM (Green), SM Elite (Yellow)
Cable Diameter	12 Core Double Jacket MicroCable Max OD 12 Core 4.5 ± 0.3mm, 12 Core Single Jacket MicroCable Max OD 12 Core 2.9 ± 0.1mm
Cable Tensile Strength	Double Jacket MicroCable (12 Core) (Short/Long) 400N/150N, Single Jacket Micro Cable (12 Core) (Short/Long) 200N/60N
Cable Strength Member	Aramid
Storage Temperature	-40 ~ +70°C
Installation Temperature	-5 ~ +50°C
Operating Temperature	-20 ~ +60°C

## Connector Performance

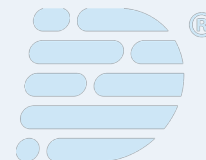
CONNECTOR MATING	IL AVERAGE	IL MAX	RETURN LOSS
MTP® Elite (MM)	0.10dB	0.35dB	N/A
MTP® (MM)	0.20dB	0.60dB	N/A
MTP® Elite (SM)	0.10dB	0.35dB	>60dB
MTP® (SM)	0.25dB	0.75dB	>60dB

## Cable Performance

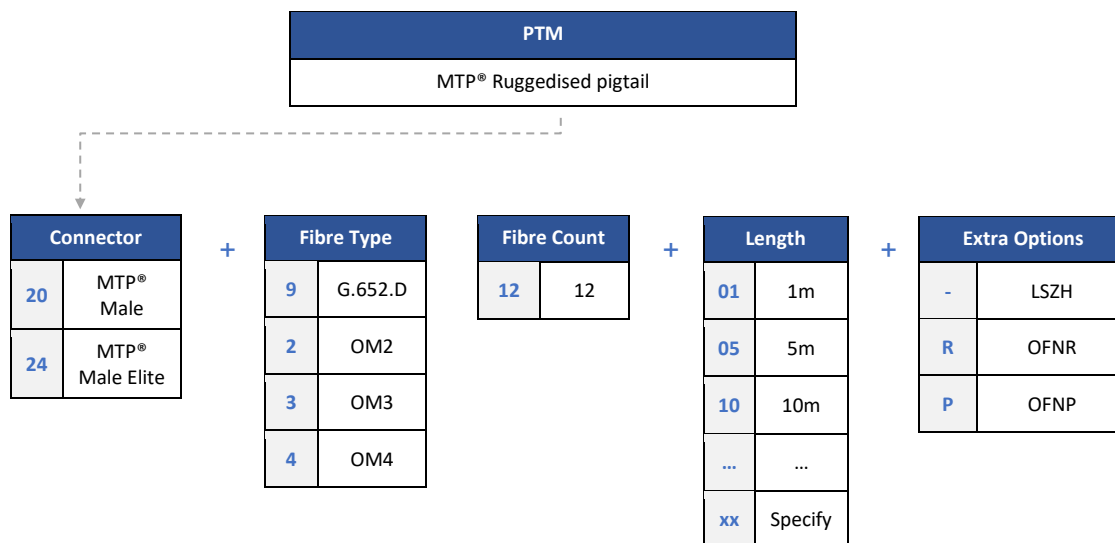
FIBRETYPE (ISO/IEC 11801)	OS1/OS2	OM1	OM2	OM3	OM4
Attenuation Coefficient [dB/km]	≤ 0.38 Max (1310nm)	≤ 3.5 Max (850nm)	≤ 3.5 Max (850nm)	≤ 3.5 Max (850nm)	≤ 3.5 Max (850nm)
	≤ 0.25 Max (1550nm)	≤ 1.5 Max (1300nm)	≤ 1.5 Max (1300nm)	≤ 1.5 Max (1300nm)	≤ 1.5 Max (1300nm)
	≤ 0.34 Typ (1310nm)	≤ 2.9 Typ (850nm)	≤ 2.7 Typ (850nm)	≤ 2.7 Typ (850nm)	≤ 2.7 Typ (850nm)
	≤ 0.19 Typ (1550nm)	≤ 1.2 Typ (1300nm)	≤ 0.9 Typ (1300nm)	≤ 0.9 Typ (1300nm)	≤ 0.9 Typ (1300nm)
Minimum Bandwidth: Overfilled Launch [Mhz-km]	N/A	≥ 200 (850nm) ≥ 500 (1300nm)	≥ 500 (850nm) ≥ 500 (1300nm)	≥ 1500 (850nm) ≥ 500 (1300nm)	≥ 3500 (850nm) ≥ 500 (1300nm)
	N/A	N/A	N/A	≥ 2000 (850nm)	≥ 4700 (850nm)

## Standards Compliance

- TIA/EIA-568-C.3 and ISO/IEC 11801
- IEC-61754-7 & EIA/TIA-604-5
- IEC 60332
- Compliant to Directive 2002/95/EC (RoHS) and REACH SvHC
- IEC-60793

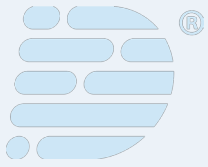


## Ordering Information

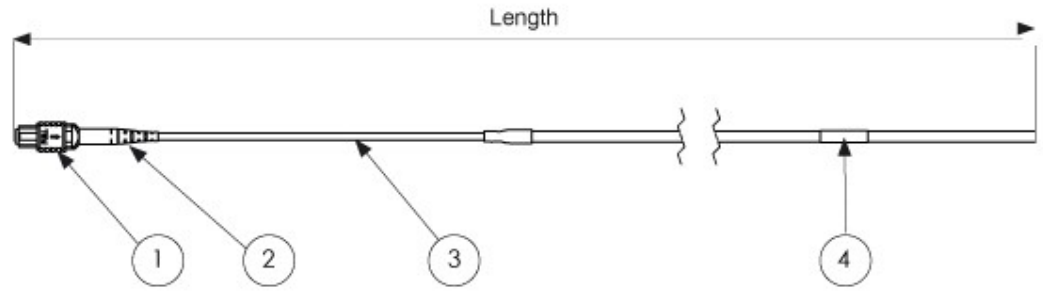
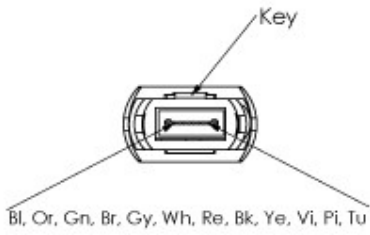


### Example:

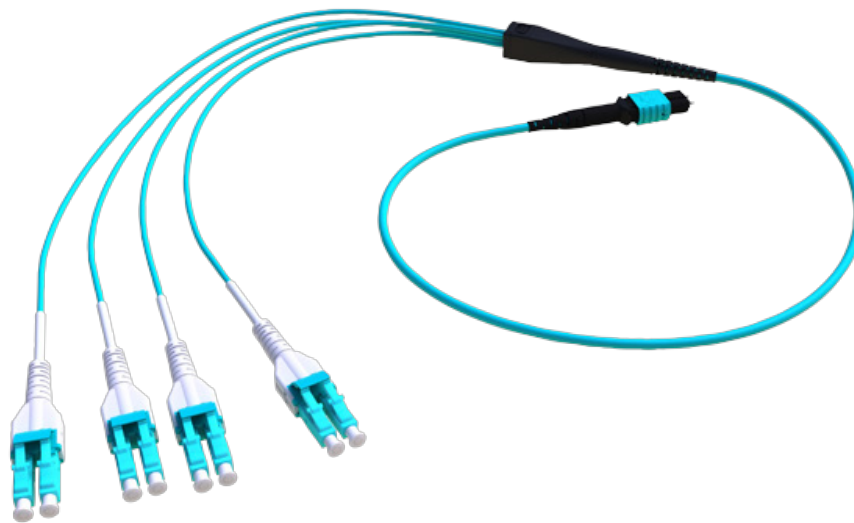
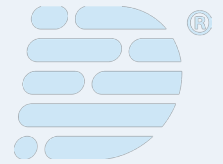
**PTM-20312-05**– MTP® male pigtail OM3 LSZH 3m



## Technical Drawing



1. MTP® Connector
2. MTP® Connector Boot
3. Fibre Optic Cable
4. Serial Number Label



## MTP® (40G QSFP+) to 4 x Duplex LC (4x10G SFP+) Assemblies

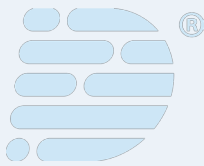
40G ruggedised MTP® (QSFP+) to 4 x 10G duplex LC (SFP+) fanout assemblies, designed and manufactured for use with 40G parallel optics transceivers (40GBASE-SR4). The existing parallel transceivers use 8 out of the 12 MTP® fibres, transmitting to 4 duplex LC terminated fibres.

### Applications

- 40GBASE-SR4 to 4x10GBASE-SR
- Data Centres
- Parallel Optics applications
- Storage Area Networks (SAN)

### Features

- Low loss performance using premium connectors and high quality cable
- Compact breakout module
- Available with OM3, OM4, OS1/2, fibres
- Available with LSZH, OFNP, OFNR cable jacket types
- Female MTP® connectors for direct connection into QSFP+ transceiver
- 100 % Factory terminated and tested
- Saves installation and reconfiguration time
- 4 x 2mm Tails Uniboot duplex version option for improved cable management
- Option for 3mm OD Patch/ 4.5mm OD Trunk Micro Cables
- Reliability 100% tested - combination of high quality components and manufacturing quality control guarantees product to the highest standards



## Specifications

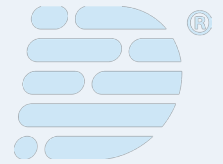
ELEMENT	CHARACTERISTIC
Fibre	OM3, OM4, OS1/OS2 G.657A1
Cable	MicroCable- 8 cores <b>MAX OD:</b> Max OD 8 cores Trunk Double Jacket 4.5 ± 0.3mm Max OD 8 cores Patch Single Jacket 2.95 ± 0.1mm <b>Jacket Material:</b> LSZH, OFNP, OFNR <b>Jacket Color:</b> Aqua (OM3, OM4), Erica Violet (OM4), Yellow (OS1/OS2, G.657A1)
Connectors	MTP® US Conec 12Fibre Ferrule <b>Body Sleeve Color:</b> MM (Beige), MM Elite (Aqua), SM (Green), SM Elite (Yellow), <b>Boot Color:</b> Black LC (DX), LC (DX) Uniboot <b>Housing Color:</b> Beige (MM Standard), AQUA (MM Low Loss Premium), Blue (SM), Green (SM/APC)
Storage Temperature	-20 ~ +60°C
Installation Temperature	-5 ~ +50°C
Operation Temperature	-20 ~ +60°C

## Connector Performance

CONNECTOR MATING	IL AVERAGE	IL MAX	RETURN LOSS
MTP® Elite (MM)	0.10dB	0.35dB	N/A
MTP® (MM)	0.20dB	0.60dB	N/A
MTP® ELITE (SM)	0.10dB	0.35dB	N/A
LC, SC (MM)	0.15dB**	0.30dB**	N/A
LC, SC Premium (MM)	0.08dB**	0.15dB**	N/A
MTP® Low Loss Elite (SM)	0.10dB	0.35dB	>60dB
MTP® (SM)	0.25dB	0.75dB	>60dB
LC, SC (SM)	0.18dB**	0.30dB**	>55/65dB*
LC, SC Low Loss Premium (SM)	0.12dB**	0.15dB**	>55/65dB*

\* UPC/APC \*\* Tested as per IEC 61300-3-4 Cable Performance

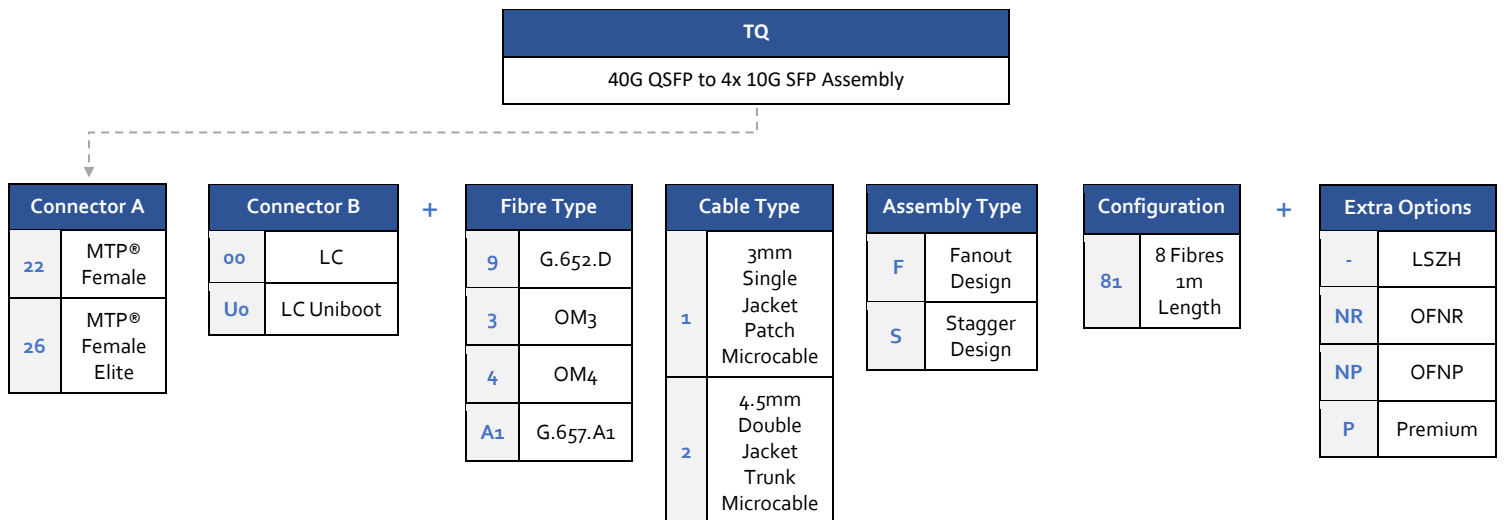
FIBRETYPE (ISO/IEC 11801)	OS1/OS2	OM3	OM4
Attenuation Coefficient [dB/km]	≤ 0.38 Max (1300nm) ≤ 0.25 Max (1300nm) ≤ 0.34 Typ (1550nm) ≤ 0.19 Typ (1550nm)	≤ 0.35 Max (850nm) ≤ 0.25 Max (1300nm) ≤ 2.7 Typ (850nm) ≤ 0.9 Typ (1300nm)	≤ 0.35 Max (850nm) ≤ 0.25 Max (1300nm) ≤ 2.7 Typ (850nm) ≤ 0.9 Typ (1300nm)
Minimum Bandwidth: Overfilled Launch [Mhz-km]	N/A	≥ 1500 (850nm) ≥ 500 (1300nm)	≥ 3500 (850nm) ≥ 500 (1300nm)
Minimum Bandwidth: Laser Effective Modal Bandwidth [Mhz-km]	N/A	≥ 2000 (850nm)	≥ 4700 (850nm)



## Standards Compliance

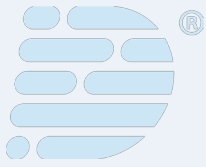
- TIA/EIA-568-C.3 and ISO/IEC 11801
- IEC-61754-7 & EIA/TIA-604-5
- NFPA 262 or IEC 60332
- IEC-61754-20 & IEC-61754-14
- Compliant to Directive 2002/95/EC (RoHS) & REACH SvHC
- IEC-60793

## Ordering Information



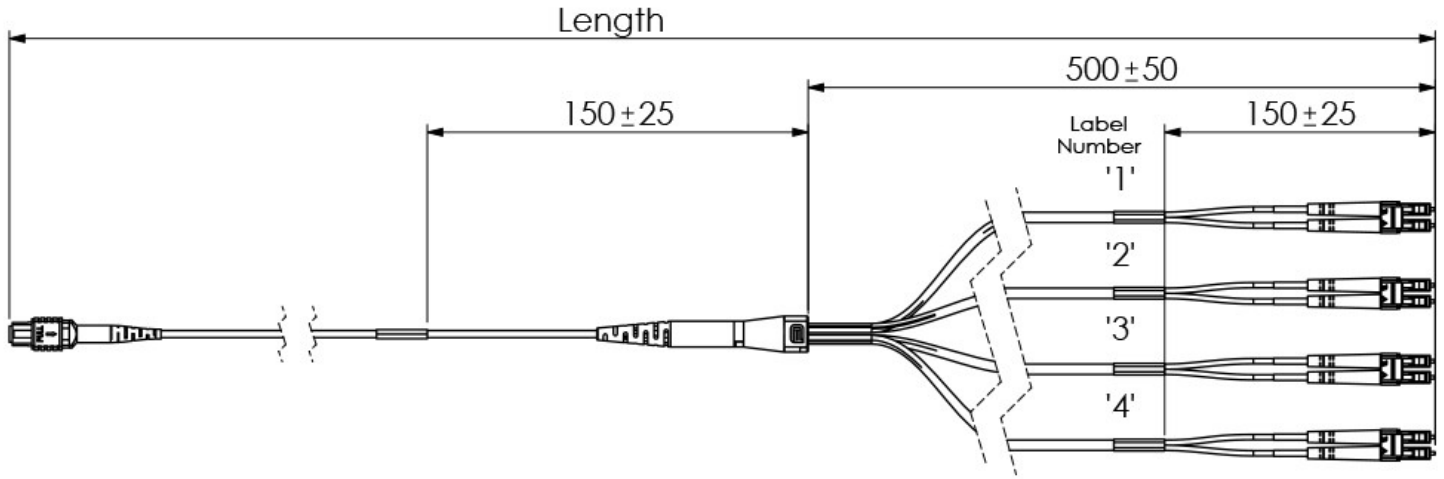
## Example:

**TQ-22U0-41F81** - Assembly 8 Fibres MTP female to LC/UPC Uniboot OM4 3mm Patch MicroCable LSZH Fanout design 1m

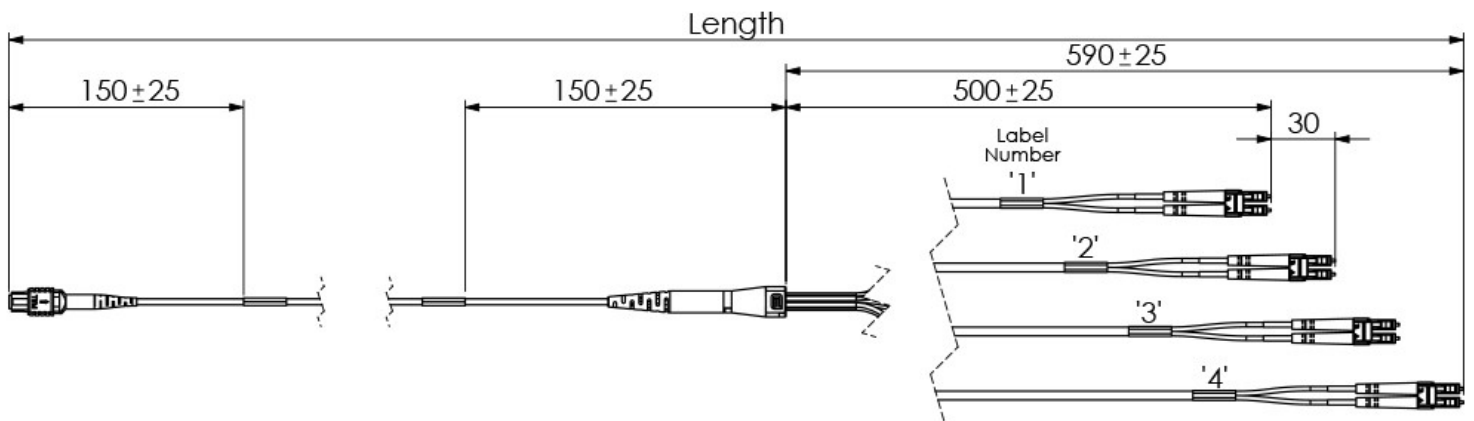


## Technical Drawing

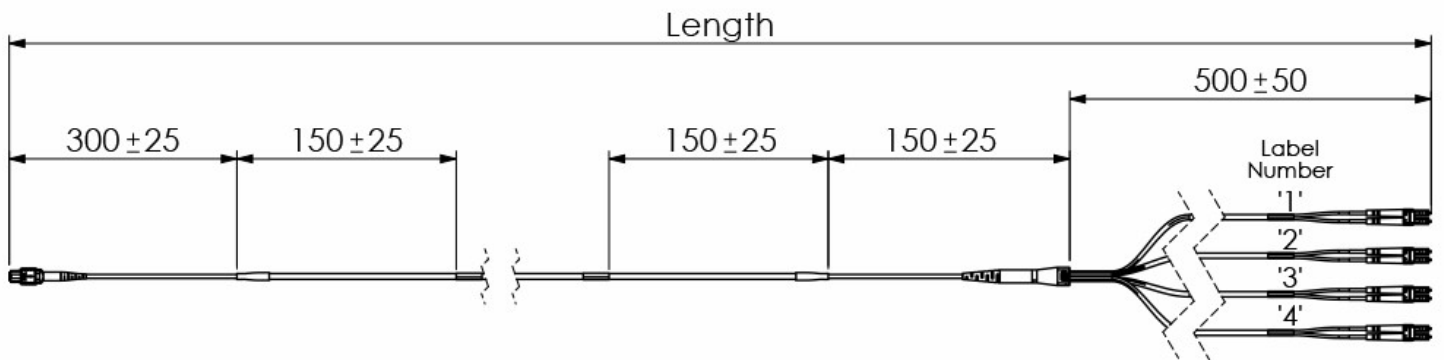
QSFP+ to SFP+ MTP to LC (DX) Patch 3mm OD Fanout

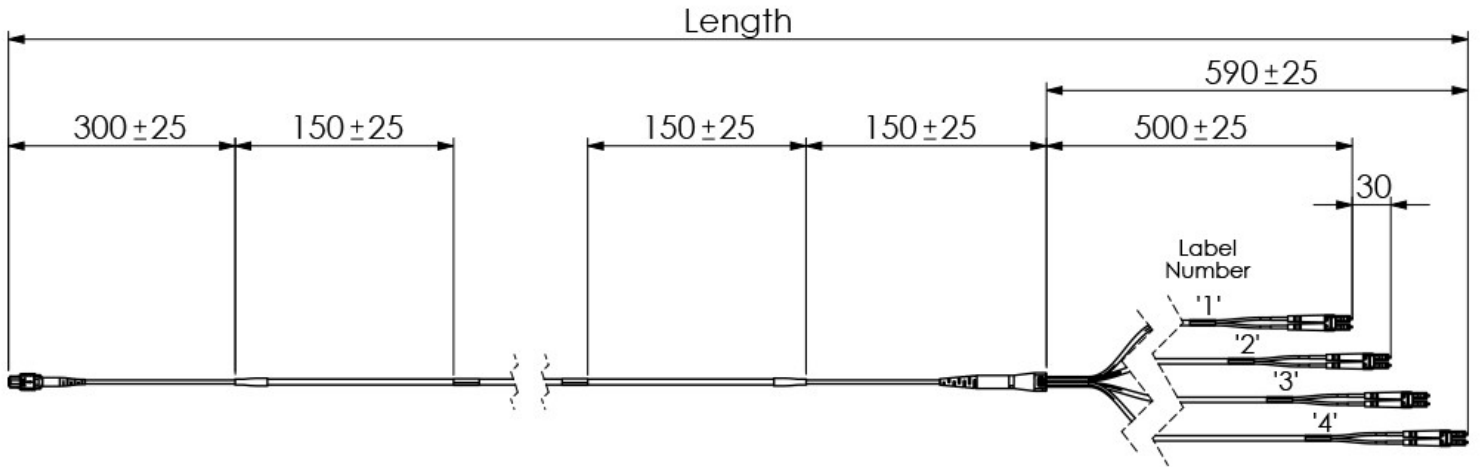
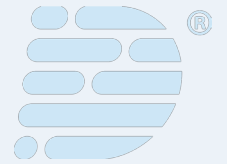


QSFP+ to SFP+ MTP to LC (DX) Patch 3mm OD Stagger

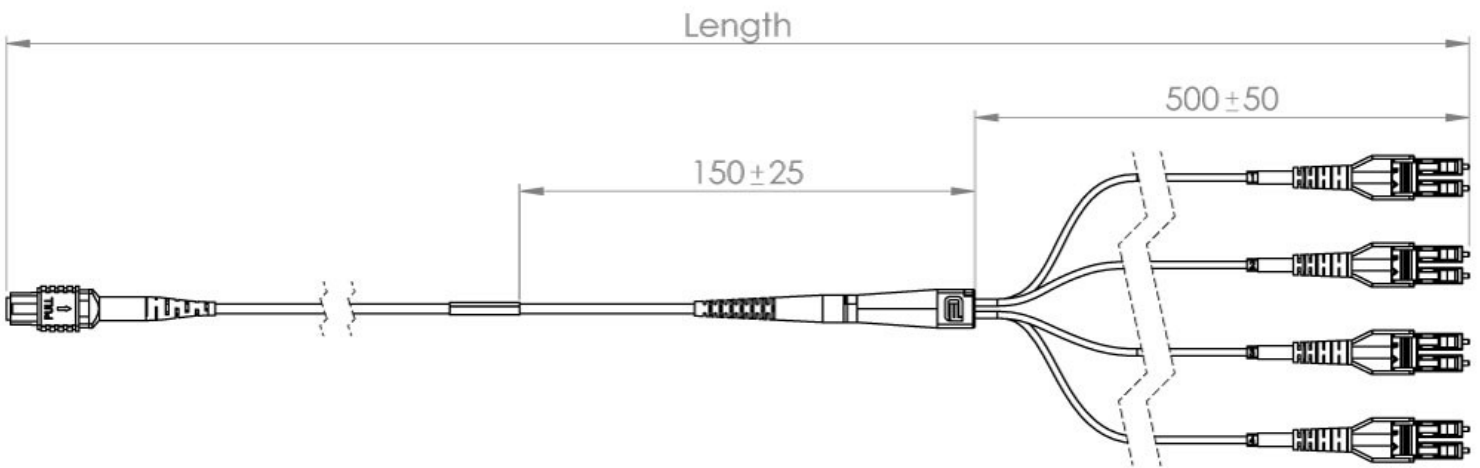


QSFP+ to SFP+ MTP to LC (DX) Trunk 4.5mm OD Fanout

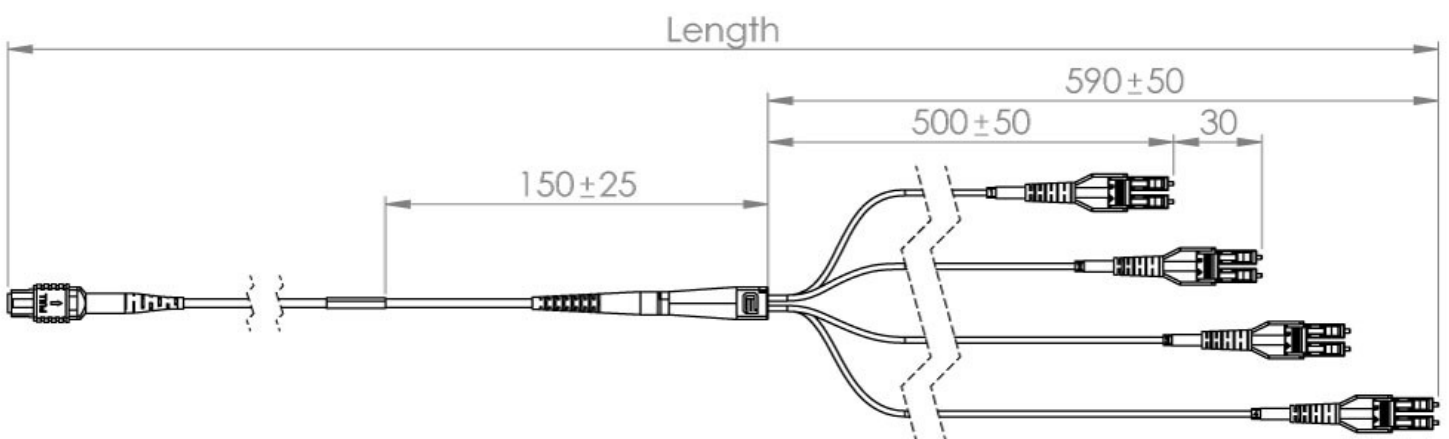




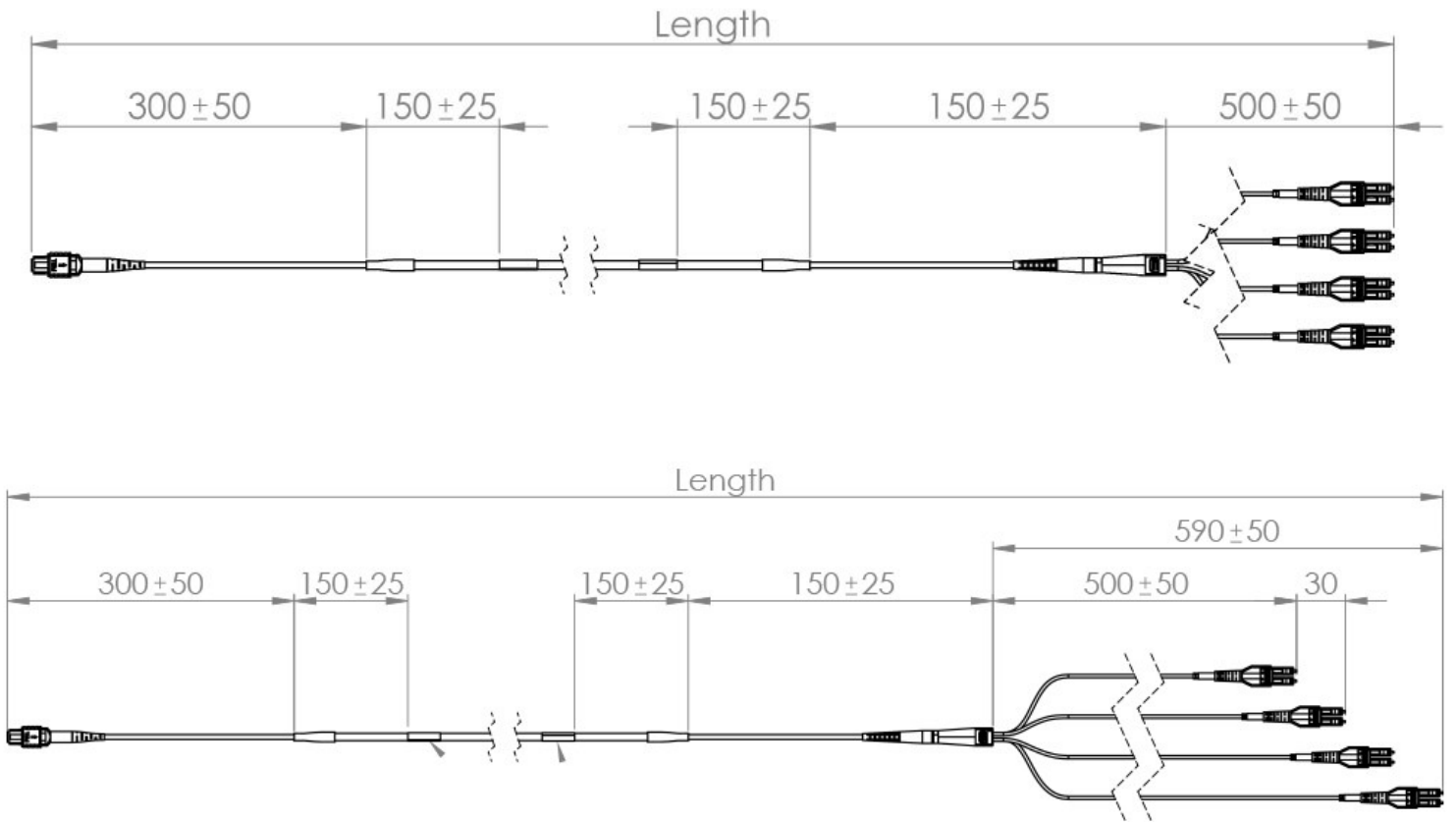
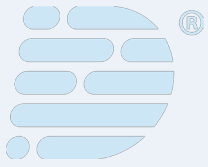
QSFP+ to SFP+ MTP to LC (UNI) Patch 3mm OD Fanout



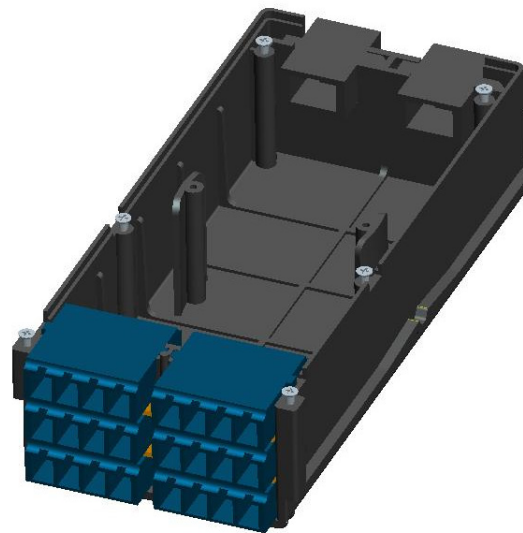
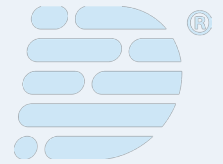
QSFP+ to SFP+ MTP to LC (UNI) Patch 3mm OD Stagger



QSFP+ to SFP+ MTP to LC (UNI) Trunk 4.5mm OD Fanout



MTP® is a registered trademark of US Conec Ltd.



### HDCi MLX3 MPO/MTP® Cassette Module

HDCi MPO/MTP® cassette modules designed and manufactured for the transition between MPO/MTP® and standard LC or SC connectors. They can be mounted on 1U, 2U, 3U or 4U 19” rack mounted chassis. These cassette modules are used to interconnect MTPMPO backbone cabling with LC or SC patching. They contain factory tested and terminated MPO/MTP® to LC fanouts with low loss and reliable results. The HDCi MLX3 MPO/MTP® modules which are compatible with LX3 panel are designed for the transition between MPO/MTP® and standard LC connectors. They have a small form factor design. They come with 6 low loss LC quad or SC Duplex flangeless adaptors on the front and 2 MTP® on the back side. They contain 100% factory terminated and tested LC or SC to MTP® fanouts.

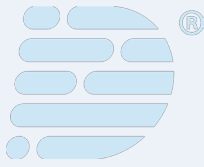
The combination of LX3 panel and MLX3 cassette modules is an ideal solution for high density applications. Their plug and play design meets all requirements for rapid deployment in high demand data centre environments.

#### Applications

- Data Centers
- Parallel optics applications
- Storage Area Network - Fibre Channel

#### Features

- MPO/MTP® multi-fibre connector
- Low loss zirconia sleeve LC or SC adaptors
- Available with OM3, OM4, OS1/OS2 fibre types
- 12 and 24 fibre versions with 6 low loss LC Quad or SC Duplex
- Option for A, B or C polarity
- 100% factory terminated and tested
- High density solution – Up to 576 LC connectors in 4U chassis  
Saves installation and reconfiguration time



## Specifications

ELEMENT	CHARACTERISTIC
Fibre	OS1/OS2, OM3, OM4 (ISO/IEC 60793)
Fibre Count	12, 24
Polarity	A (default), B or C
MTP Adaptors	US Conec (IEC-61754 & EIA/TIA-604-5) <b>Body Colour:</b> Black <b>Polarity:</b> A/C - Keyway up - Key way down <b>Body Colour:</b> Grey <b>Polarity:</b> B - Keyway up- Keyway up
LC Adapter	<b>Body Colour:</b> Aqua (MM)(OM3/OM4), Blue (SM/UPC), Green (SM/APC) <b>Sleeve Material:</b> Zirconia
Terminations	MTP® Standard (12 Fibre Ferrule) MTP® Low Loss Elite (12 Fibre Ferrule) LC Standard LC Low Loss Premium
Storage Temperature	-20 ~ +60°C
Installation Temperature	-20 ~ +60°C
Operating Temperature	-20 ~ +60°C
Size	136*61*36mm

## MTP® Connector Performance

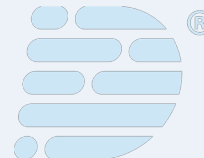
CONNECTOR MATING	IL AVERAGE	IL MAX	RETURN LOSS
MTP® Elite (MM)	0.10dB	0.35dB	N/A
MTP® (MM)	0.20dB	0.60dB	N/A
MTP® Elite (SM)	0.10dB	0.35dB	>60dB
MTP® (SM)	0.25dB	0.75dB	>60dB

## LC Connector Performance

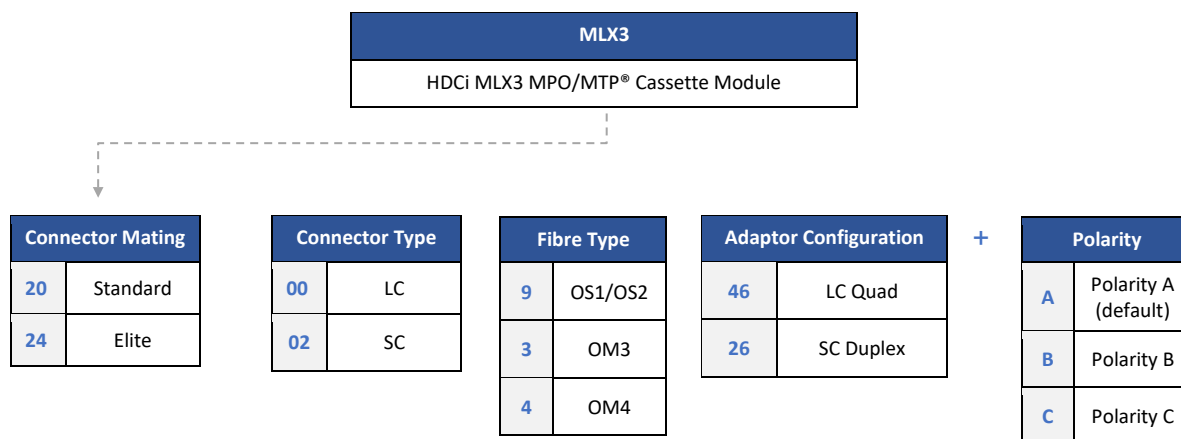
OPTICAL PERFORMANCE*	MULTIMODE	SINGLEMODE	CONFORMANCE
Insertion Loss	≤0.20dB	≤0.20dB	IEC 61300-3-4
Return Loss	-	≥50dB	IEC 61300-3-4

## Standards Compliance

- TIA/EIA-568-C.3 and ISO/IEC 11801 - cable
- IEC-61754-7 & EIA/TIA-604-5 - MPO/MTP®
- Compliant to Directive 2002/95/EC (RoHS) and REACH SvHC
- IEC-61754-20 (LC) & IEC-61754-14 (SC)
- IEC-60793

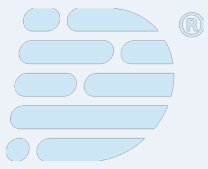


## Ordering Information

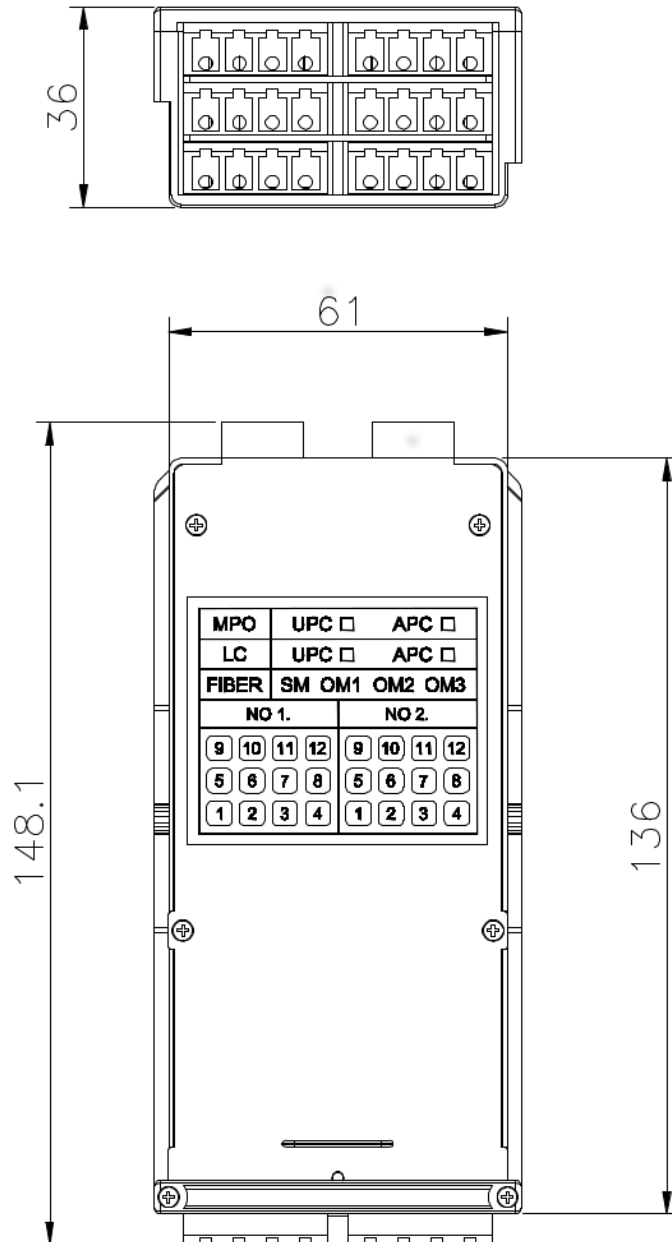


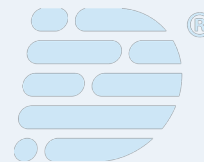
### Example:

**MLX3-2000346-A** – LC to MTP® Male MLX3 HDCi Cassette Module with 6 LC Quad OM3 Aqua Adaptors Polarity A

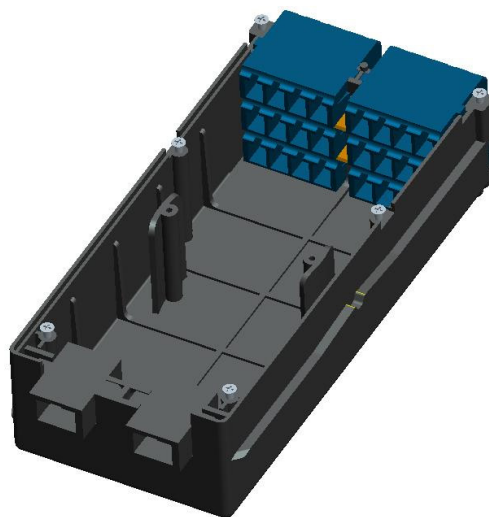


## Technical Drawing





## Additional Images



*MTP® is a registered trademark of US Conec Ltd.*



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