

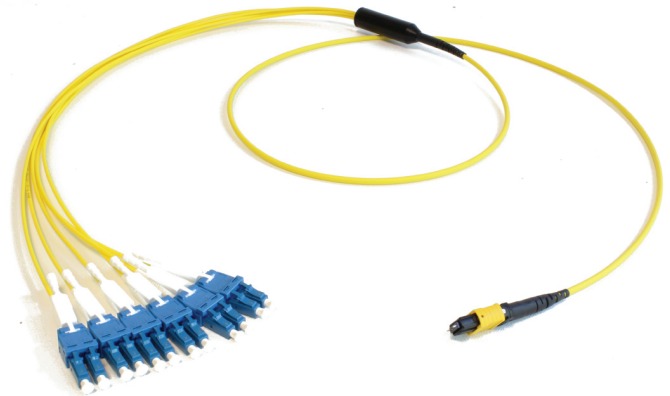
# Pre-Terminated MTP® Harness Assembly

Ruggedised Harnesses or Fan-outs, as they're sometimes known, allow the direct connection between MTP® adapters and other connector types.

Typical use for these assemblies is for QSFP 40G SR4 connectivity where the break-out units split into 8x fibres or 4x 10G channels and are interoperable between differing QFSP manufacturers. Other configurations are MTP® 12/24f into 12/24 sub-unit tails. The harnesses can even be made with up to 24x LC connectors at both ends of the assembly. They enable direct patching from the MTP® port on the switch to MTP® Cassettes and are readily available to custom length at short notice.

LC simplex and duplex are the most popular though mini-LC (mSFP) with its 5.25 pitch, plus other conventional connector types such as SC, ST or FC/PC are also available. There are also a choice of strain relief boots; flexi-boot, short or standard options. The Flexi-boot not only provides the smallest bend radius it also reduces the need for cable management as the boot is simply positioned into the desired direction and is retained. The LC HD Uni-Boot is our most compact solution which provides two fibres into a single tube with the added benefit of a switchable LC pull tab enabling removal of the connector without disturbing neighbouring ports. The switchable function allows for changing of polarity of the LC connector post manufacture.

MTP® harnesses are manufactured in the UK using the highest quality components.



## Features & Benefits

- Direct connection from active equipment to backbone cabling via modular cassettes
- Easy deployment plus factory terminated confidence saving installation and network configuration time
- High grade and quality components used in the manufacturing process guaranteeing the product to the highest standard and uniformity
- Testing exceeds industry standards with 100% Visual, 100% ILM and 100% interferometer testing for complete confidence
- Manufactured in the UK providing rapid lead times
- Suitable for QSFP-40G-SR4 With 8f (4x channel). 12f and 24f variants also available
- Multimode OM3, enhanced OM4 and OS2 fibre grades with a LSZH jacket
- MTP® patented elliptical guide pins are key to accurate mating alignment and determine the gender or the connector; male or female
- High Spring Force (HSF) MTP® connectors ensuring uniform alignment across 24x lanes and optimising the physical contact
- Choosing MTP® Elite provides performance for the most stringent of optical loss budget environments
- Removable MTP® housing for field change of polarity and gender (separate tool required for removal purposes)
- Switchable LC HD elite grade connectors (separate tool required for switching purposes)

## Specification

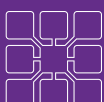
ELEMENT	CHARACTERISTIC
Fibre (ISO/IEC 60793)	OS2 = Yellow, OM3 + OM4 = Aqua
Cable (LSZH)	12F - 3.2mm OD Trunk + 2mm OD Tails 24F - 3.8mm OD Trunk + 2mm OD Tails
Housing (US Conec)	Multimode Elite = Aqua Single-mode Elite = Mustard
Polarity	A, B or C
Operation Temperature	-40 ~ +80°C
Installation Temperature	-10 ~ +70°C

## Industry Standards Compliance

- Colour coding compliant to TIA/EIA-568-C.3 & ISO/IEC11801
- Connector specification to IEC-61754-7 & EIA/TIA-604-5
- LSZH jacket materials to IEC 60332 Parts 1 & 3
- Compliant to Directive 2002/95/EC (RoHS) and REACH SvHC
- The geometrical characteristics compliant to IEC-60793
- End Face Cleanliness compliant to IEC 61300-3-35

## Application

- Data Centre Infrastructure
- Storage Area Network – Fibre Channel
- Parallel Optics
- 40Gbps, 100Gbps and emerging 400Gbps Protocols



## Optical Fibre Specifications

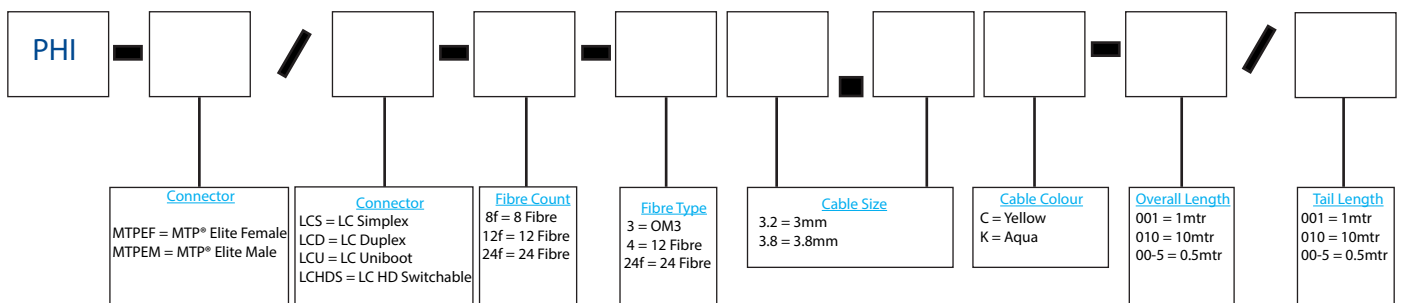
### Multimode Fibres

Multimode Fibres  IEC 60793-2 ISO/IEC 11801 EN 50173 -1&2  50/125 µm	Overall Bandwidth (MHz x km)		Max. Link Length for 1 GBit/s (m)		Max. Link Length for 10 GBit/s (m)		Fibre Attenuation (dB/km)	
	850nm 1300nm		850nm (1000Base-SX)	1300nm (1000Base-LX)	850nm (10GBase-SR) (10GBase-SW)	1300nm (10GBase-LX4)	850nm 1300nm	
OM3	≥1500	≥500	1000	600	300	300	≤2.7	≤0.7
OM4 Laser Optimised	≥3500	≥500	1000	600	550	300	≤2.7	≤0.7

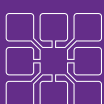
### Single-mode Fibres

Single-mode Fibres  IEC 60793-2 ISO/IEC 11801 EN 50173 -1&2  9/125 µm	Chromatic Dispersion		Cut-off-Wave Length (cabled) (nm)	Point Discontinuity (dB)	Fibre Attenuation (dB/km)			Fibre Geometrical Properties (µm)			
	1310nm	1550nm			1310nm	1380-1386nm	1550nm	Mode-field	Cladding	Coating	
	OS2(ITU-T G.652.D)	≥3.5	≥18.0	≥1260	≤0.1	≤0.34	≤0.31	≤0.22	9.2 ±0.4	125 ±1	245 ±5
	OS2 (G.657.A2)	≥3.7	≥18.5	≥1260	≤0.1	≤0.38	≤0.35	≤0.25	8.8 ±0.4	125 ±1	245 ±5

### Part Numbering Format



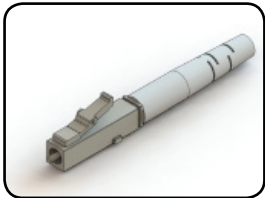
E.G - Harness-2mtr MTP(F)-LC(Dx)-8 Fibre OM4 Aqua - 1mtr Tails = PHI-MTPF/LCD-8F-43.2K-002/001



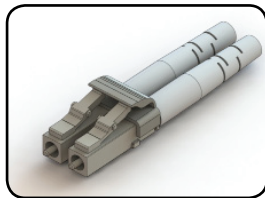
## Connector Performance

CONNECTOR MATING	IL TYPICAL	IL MAX	RETURN LOSS
MTP® Multimode Elite	0.10dB	0.35dB	N/A
MTP® Single-mode Elite	0.10dB	0.35dB	>60dB
LC Low Loss Multimode	0.08dB	0.15dB	N/A
LC Low Loss Single-mode	0.10dB	0.15dB	>55dB

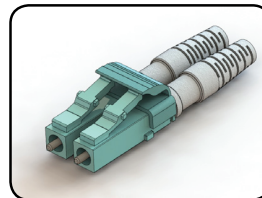
## LC Connector/Boot Options



LC Duplex Connector



LC Short Boots



LC High Density Switchable

## Certificates



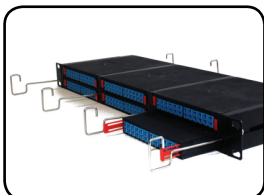
Certified & Trained



MTP® is a Registered Trademark of  
US Conec

Kevlar® is a Registered Trademark  
of Dupont™

## Available Accessories



MTP® 1U CHASSIS



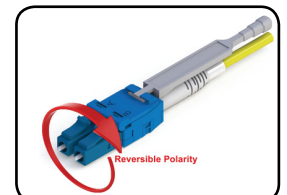
MTP® Modular Cassette



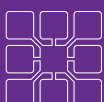
MTP® 3U CHASSIS



MTP® Cleaning Solutions



LC HD Switchable Uniboot



info@gemcable.co.uk  
www.gemcable.co.uk  
GEM Cable Solutions Ltd.

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## Technical Drawings

