

## MTP® Elite Solutions

## MTP® Lite Trunk Cable Assemblies

MTP® Lite Trunk Cable Assemblies are of a lightweight single jacket construction, designed to optimise space saving of trunk patching. The 12f cable and the 24f cable are both at 3mm. These compact cables are packed with Kevlar® which provides the necessary endurance for routing and patching purposes, though best used within a Comms Room or Data Suite environment.





Only genuine US Conec branded MTP® PRO connectors are fitted to our cables with Elite MT ferrule for those applications requiring the highest performance. These connectors provide exceptional benefits over the conventional MPO connectors, including patented floating ferrule design, patented elliptical, high precision guide pins, allowing rapid gender change and reversing polarity out in the field. Tuff Trunk assemblies are manufactured in our state-of-the-art facility utilising equipment recommended by and personnel trained by US Conec.

The MTP® Lite Trunk assemblies facilitate rapid deployment of high density backbone cabling in data centres and other high fibre count environments, reducing network installation or reconfiguration time and cost. They are used to interconnect cassettes, panels or ruggedised MTP® Harness links.

#### Features & Benefits

- Exceptionally High Density Connectors Up to 24f in a traditional SC Simplex adapter footprint
- Higher Density Population reduces the overall cost of 1U Spacing
- Rapid deployment modular system saving overall installation and maintenance time
- Multimode OM3, enhanced OM4 and OS2 fibre grades with a LSZH jacket
- Removable housing for field change of polarity and gender (seperate tool required)
- MTP® patented elliptical guide pins are key to accurate mating alignment and determine the gender or the connector; male or female
- The oval spring provides greater fibre clearance and seats into the connector body eliminating possible trapping/breakages of bare fibre
- High Spring Force (HSF) MTP® PRO 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
- 100% interferometric testing for all MTP® PRO Connectors to verify end-face geometry conformity and subsequent low losses
- Fully compatible with all MPO connectivity and QSFP+ mated interface solutions with the same fibre count

## MTP® PRO Enhancements

- · Field Polarity change
- Debris Reduction
- · Field friendly gender configuration

| Specification            |  |
|--------------------------|--|
| ELEMENT                  | CHARACTERISTIC   |
| Fibre<br>(ISO/IEC 60793) | OS2 = Yellow OM3 = Aqua OM4 =<br>Heather Violet        |
| Cable<br>(LSZH)          | 12F - 3mm Outer Jacket<br>24F - 3mm Outer Jacket       |
| Housing<br>(MTP® PRO)    | OM3= Aqua, OM4 = Heather Violet<br>Single-mode = Green |
| Polarity                 | A, B or C / Straight or Crossed                        |
| 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



# MTP® Elite Solutions

## **Optical Fibre Specifications**

## **Multimode Fibres**

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

## Single-mode Fibres

| Single-mode Fibres  IEC 60793-2 ISO/IEC 11801 EN 50173 -1&2 | Chromatic<br>Dispersion<br>———————————————————————————————————— | Cut-off-Wave<br>Length (cabled)<br>(nm) | Point Discontinuity (dB) | Fibre Attenuation (dB/km) 1310nm 1380-1386nm 1550nm |                       | Fibre Geometrical Properties (um)  Mode-field Cladding Coating |        |        |
|---|---|---|--------------------------|---|-----------------------|--|--------|--------|
| 9/125 um  |   |   |                          |   |                       |  |        |        |
| OS2(ITU-T G.652.D)  | <u>≥</u> 3.5 <u>≥</u> 18.0                                      | <u>≥</u> 1260                           | <u>&lt;</u> 0.1          | <u>≤</u> 0.34 <u>≤</u> 0                            | ).31 <u>&lt;</u> 0.22 | 9.2 ±0.4   | 125 ±1 | 245 ±5 |
| OS2 (G.657.A2)  | <u>≥</u> 3.7 <u>≥</u> 18.5                                      | <u>≥</u> 1260                           | <u>&lt;</u> 0.1          | <u>≤</u> 0.38 <u>≤</u> 0                            | ).35 <u>&lt;</u> 0.25 | 8.8 ±0.4   | 125 ±1 | 245 ±5 |

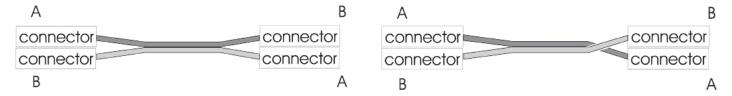


## TP® Elite Solutions

## **Connectivity Methods**

All the connectivity methods shown here have the same purpose: to ensure that the transmit port of one device is connected to the receive port on another device. Each method requires a specific combination for components to maintain the system polarity. These are outlined in the below table.

| Method | od Connector Type Adapter Type |                       | Patch Cord Type           |  |
|--------|--------------------------------|-----------------------|---------------------------|--|
| Α      | MTP® PRO                       | Key Up - A - Key Down | One A-to-B and One A-to-A |  |
| В      | MTP® PRO                       | Key Up - B - Key Up   | A-to-B                    |  |
| С      | MTP® PRO                       | Key Up - A - Key Down | A-to-B                    |  |



<sup>\*</sup>Retro Polarity change from A-B or B-A is only applicable for MTP® Pro multimode connector due to MTP® PRO Single-mode connectors are Angle Polished.

## MTP® PRO Connector Performance

| CONNECTOR MATING           | INSERTION LOSS TYPICAL | INSERTION LOSS MAX | RETURN LOSS |
|----------------------------|------------------------|--------------------|-------------|
| MTP® PRO Multimode Elite   | 0.10dB                 | 0.35dB             | N/A         |
| MTP® PRO Single-mode Elite | 0.10dB                 | 0.35dB             | >60dB       |

### Certificates







Certificate Number 3927



MTP® is a Registered Trademark of US Conec

Kevlar® is a Registered Trademark of Dupont™

#### **Available Accessories**



MTP® Harness Assemblies



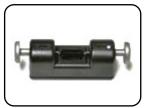
MTP® Containment Solutions



MTP® Cleaning Solutions



MTP® Testing Assemblies

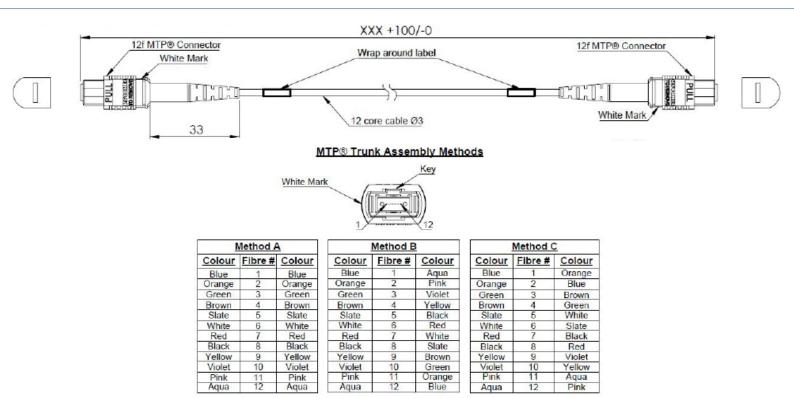


MTP® Housing Removal Tool



## MTP® Elite Solutions

### MTP® Lite Trunk 12f Methods



## MTP® Lite Trunk 12f Methods

