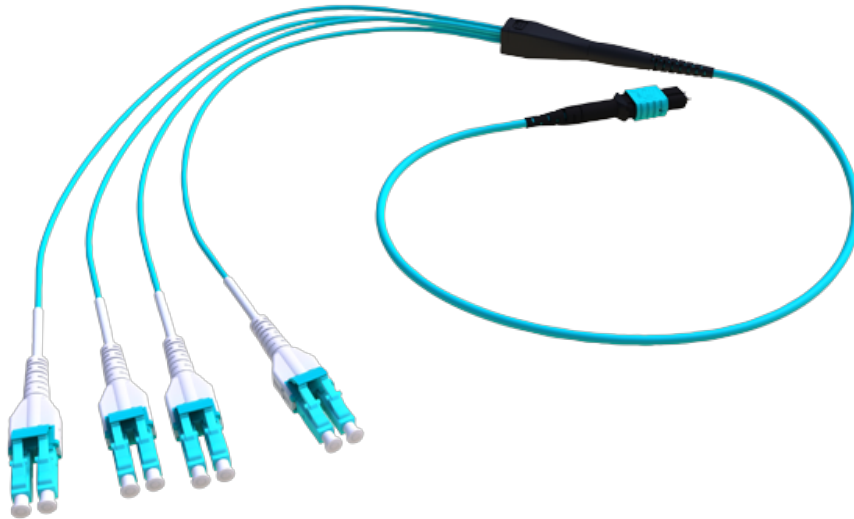




### 40G QSFP+ (MPO/MTP) to 4x10G SFP+ (8xLC) Assembly



40G parallel optics transceivers (40GBASE-SR4) can support 4x10G modes- this feature allow new parallel optics active equipment being compatible with existing 10G transceivers. MPO/MTP QSFP+ to SFP+ Fan-out Assemblies provide connections between single QSFP+ (40G transceiver with MPO/MTP interface) and 4 x SFP+ (10G transceivers with LC(DX) Interface). Parallel optics 40GBASE-XR4 uses 8 out of 12 MPO/MTP interface fibers transmitting 4 x Duplex (DX) channels (4 x Transmit and 4 x Receive). QSFP+ to SFP+ Fanout is 8 x Fibres MTP to LC(DX) Ruggedized Fan-out assembly. Assembly utilizes new miniature version of breakout module saving fibre management space and providing secure transition between cable and tails.

#### FEATURES

- New miniature Breakout Module - saving space within patching management area the same time providing robust and safe transition between cable and tails
- Female MTP/MPO connectors for direct connection into QSFP+ transceiver
- 4 x 2mm Tails Uniboot DX version available improving rack patching management
- OM3, OM4, OS1/2, fibre versions
- 3mm OD Patch/ 4.5mm OD Trunk MicroCable Versions
- LSZH, OFNP, OFNR cable jacket types selection
- Factory terminated and tested
- Optimized performance - Low loss MPO/MTP Elite and discrete LC Premium connectors and OM4 fibre assures low insertion losses and power penalties in tight power budget high speed network environment
- Rapid deployment Factory terminated modular system saves installation and reconfiguration time during moves, ads and changes
- Reliability 100% tested - combination of high quality components and manufacturing quality control guarantees product to the highest standards

#### APPLICATIONS

- Data Center Infrastructure
- Parallel Optics
- Storage Area Networks (SAN)
- 40GBASE-SR4 to 4x10GBASE-SR links

#### SPECIFICATION

|                          |  |
|--------------------------|--|
| Fibre                    | OM3, OM4, OS1/OS2 G.657A1  |
| Cable                    | MicroCable- 8 cores <b>MAX OD:</b> Max OD 8 cores Trunk Double Jacket 4.5 ± 0.3mmMax OD 8 cores Patch Single Jacket 2.95 ± 0.1mm<br><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> BlackLC(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 (MM)               | 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) | ≤ 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
- IEC-61754-20 & IEC-61754-14
- Compliant to Directive 2002/95/EC (RoHS) & REACH SvHC
- IEC-60793

## ORDERING INFORMATION

| Connector END A |                           | Fibre Count | Connector End B |      | Fibre Type |     | Cable Type    |      | Length                                  | Assembly Type | Jacket Colour |   | Jacket Type                  |  | Premium      |               |      |               |          |
|-----------------|---------------------------|-------------|-----------------|------|------------|-----|---------------|------|---|---------------|---------------|---|------------------------------|--|--------------|---------------|------|---------------|----------|
| MF              | MTP Female                | 8           | 8               | LC   | LC         | OM3 | OM3           | QSP  | 3.0mm OD Patch MicroCable Single Jacket | 1             | 1 Metre       | A | QSFP Assembly Fanout Design  | [Leave Blank] (Applicable for OM3 and OM4)   | Aqua         | [Leave Blank] | LSZH | [Leave Blank] | Standard |
| MEF             | MTP Low Loss ELITE Female |             |                 | LCSB | LC Uniboot | OM4 | OM4           | QST  | 4.5mm OD Trunk MicroCable Double Jacket |               |               | B | QSFP Assembly-Stagger Design | EV (Applicable for OM4)                      | Erica Violet | PL            | OFNP | /P            | Premium  |
|                 |                           |             |                 |      |            | 09  | OS1-OS2 G652D | QSTU | 4.5mm OD Trunk MicroCable Universal     |               |               |   |                              | [Leave Blank] (Applicable for OS1/2 G.657A1) | Yellow       | RI            | OFNR |               |          |
|                 |                           |             |                 |      |            | 7A1 | G.657A1       |      |   |               |               |   |                              |  |              |               |      |               |          |

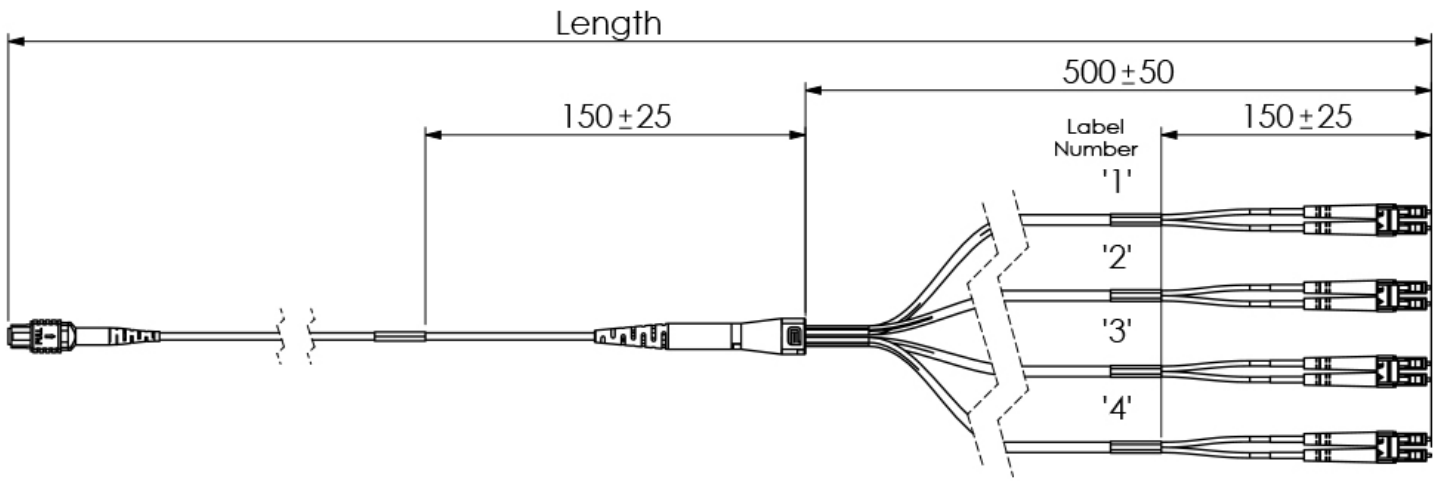
## EXAMPLE PART NUMBER

|     |   |      |     |     |   |   |    |
|-----|---|------|-----|-----|---|---|----|
| MEF | 8 | LCSB | OM4 | QSP | 5 | A | /P |
|-----|---|------|-----|-----|---|---|----|

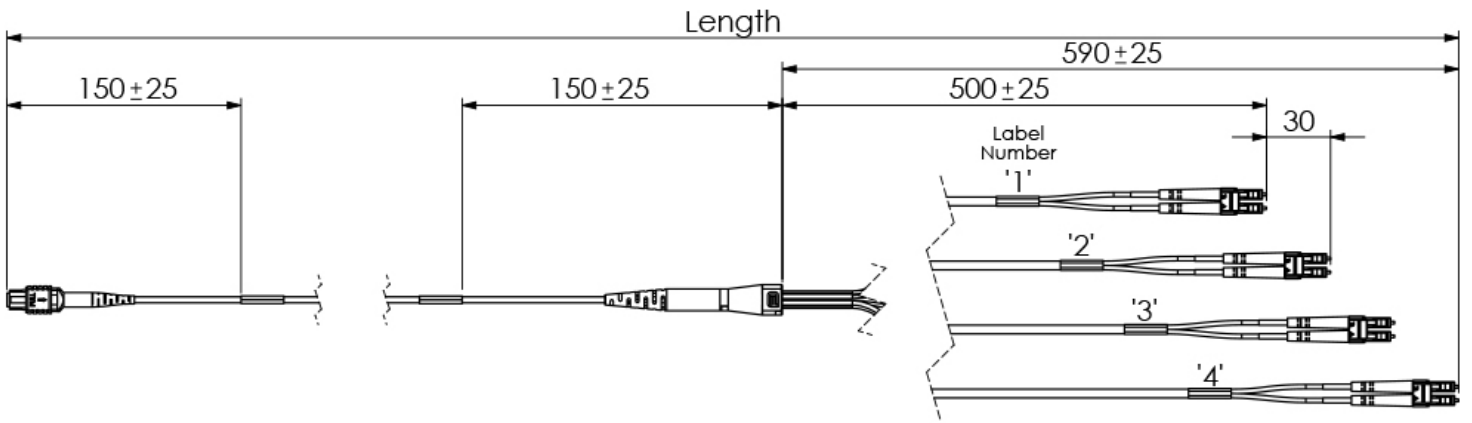
MEF8LCOM4QSP5A/P - Assembly 8xFibres MTP(Elite) Female-LC Premium OM4 Aqua 3mm OD Patch MicroCable 5mtr QSFP Fanout LSZH Double Jacket  
 Example MF8LCOM3QST1A - Assembly 8xFibres MTP Female - LC OM3 Aqua 4.5mm OD Double Jacket MicroCable 1mtr QSFP Fanout LSZH SM  
 Example MF8LCSB09QST1B - Assembly 8xFibres MTP Female - LC OS1/2 Yellow 4.5mm OD Double Jacket MicroCable 1mtr QSFP Fanout LSZH Staggered Configuration  
 Example MEF8LCSB09QSP2B/P - Assembly 8xFibre MTP (Elite) Female - LC (Uni boot) Premium OS1/2 Yellow 3mm OD Double Jacket MicroCable 2mtr QSFP Staggered LSZH

## TECHNICAL DRAWING

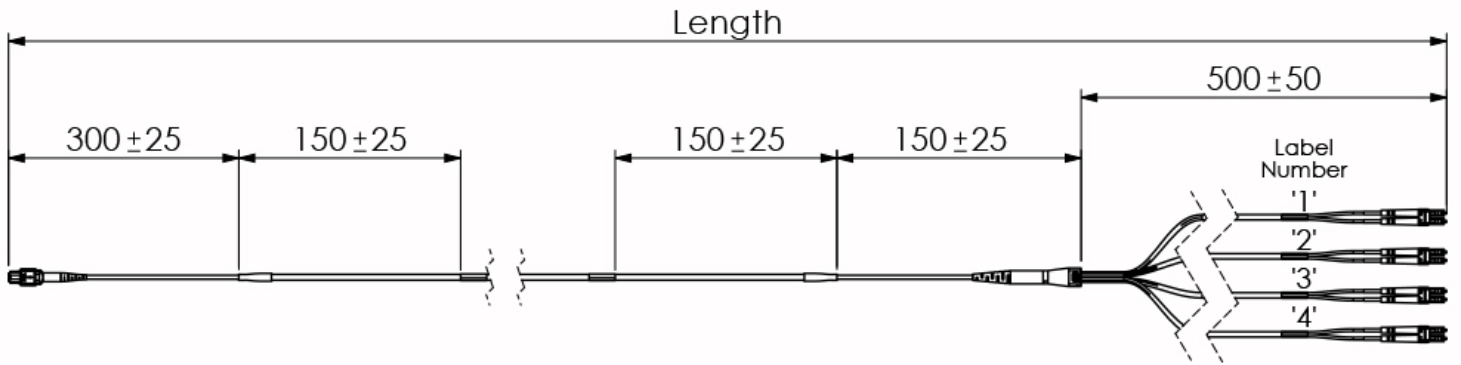
QSFP+to SFP+ MTP to LC (DX) Patch 3mm OD Fanout



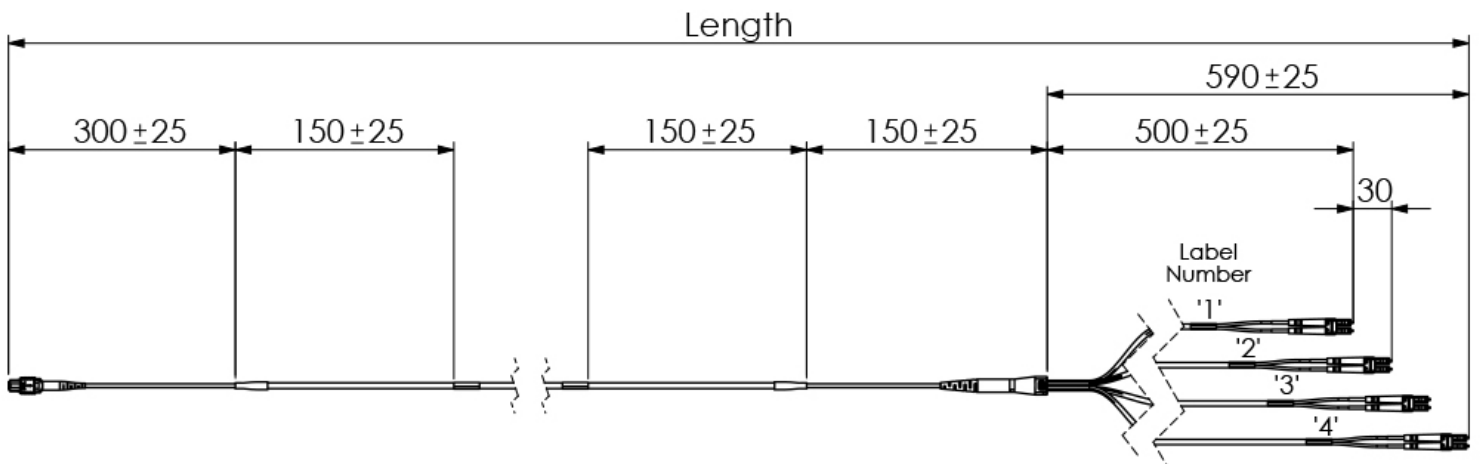
QSFP+ to SFP+ MTP to LC (DX) Patch 3mm OD Stagger



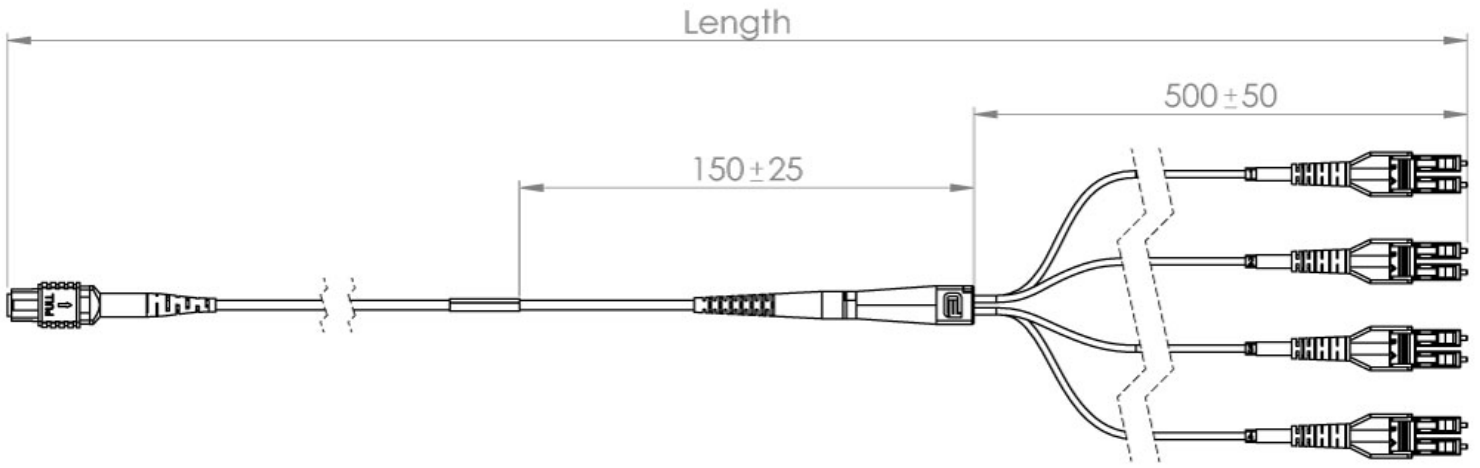
QSFP+ to SFP+ MTP to LC (DX) Trunk 4.5mm OD Fanout



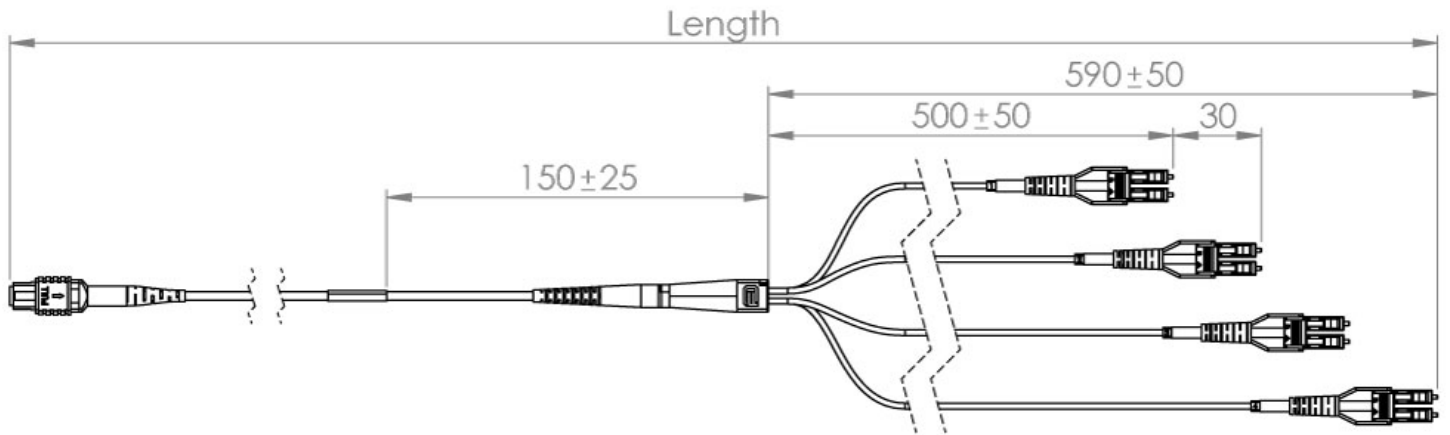
QSFP+ to SFP+ MTP to LC (DX) Trunk 4.5mm OD Stagger



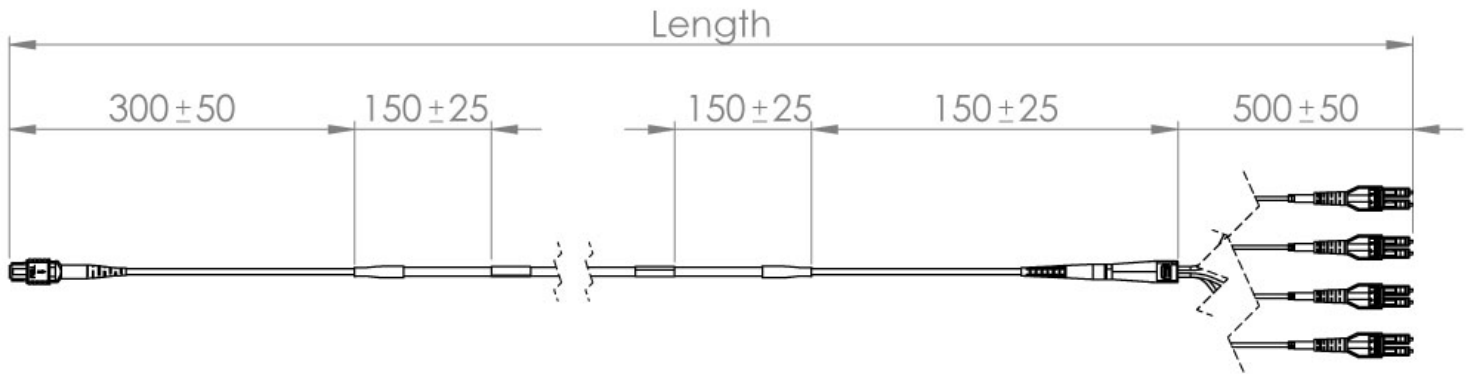
QSFP+ to SFP+ MTP to LC (UNI) Patch 3mm OD Fanout



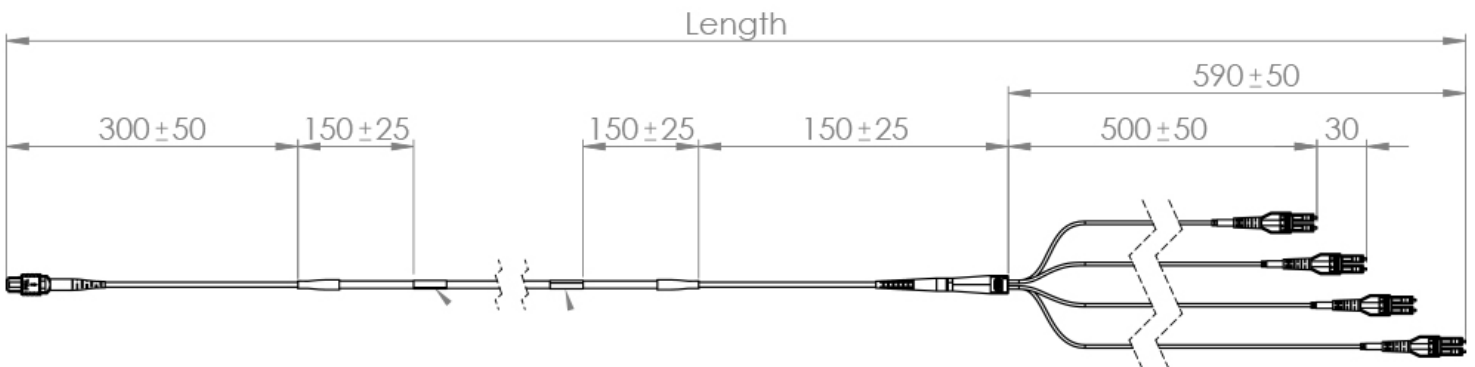
QSFP+ to SFP+ MTP to LC (UNI) Patch 3mm OD Stagger



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



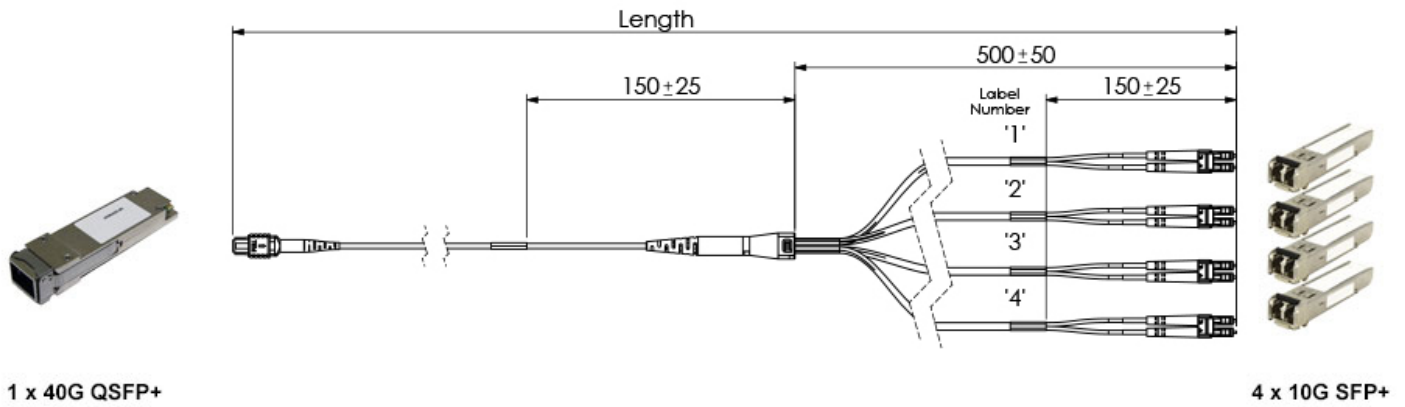
QSFP+ to SFP+ MTP to LC (UNI) Trunk 4.5mm OD Stagger



# Typical Application

What is a QSFP+ to SFP+ Fanout Assembly?

A QSFP+ to SFP+ cable assembly is an eight fibre **MTP to LC Ruggedised Fanout** connecting a single 40G QSFP+ with four x 100G SFP+ Transceivers



\*Drawings are part extracts only from original product design documentation for presentation purpose only- for detailed product documentation please refer to Partner WebSpace or alternatively request product documentation from sales.

\*\*We reserve the right to change specifications at any time without prior notice.

**CONTACT OUR SALES TEAM TODAY**

**Europe:** +44 1908 441 100 | [sales@optronicsnet.com](mailto:sales@optronicsnet.com)

**Americas:** +1 800 790 9932 | [sales@optronicsnet.com](mailto:sales@optronicsnet.com)

**Asia Pacific:** +86 755 2561 3694 | [apac@optronicsnet.com](mailto:apac@optronicsnet.com)

**Middle East & Africa:** +971 4 404 9606 | [mea@optronicsnet.com](mailto:mea@optronicsnet.com)

**Web:** [www.optronicsnet.com](http://www.optronicsnet.com)

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