

## 40G QSFP+ (MPO) to QSFP+ Assembly



MPO QSFP+ trunk/ patchcord assemblies are interconnecting QSFP+ transceivers operating within 40GBASE-SR parallel optics networks. QSFP+ transceivers utilize 12 Fibers MPO interface and perform 40G transmission using 4 x 10G channels (8 fibers: 4 x TX and 4 x RX ).

MPO QSFP+ assemblies are offered as 8 fibers OM3 or OM4 Trunks using a compact and rugged double jacket MicroCable structure or patch cords using compact single jacket MicroCable. Compact and flexible MicroCable optimizes cable-way use and improve airflow in high density data center environment.

MPO QSFP+ assemblies are built with highest quality components. MPO Premium versions are offered featuring low insertion loss for demanding high speed networks where power budgets are critical.

QSFP+ MPO assembly when connected directly to QSFP+ transceivers should feature FEMALE un-pinned MPO connector. When assembly is mated with another MPO QSFP+ Assembly - Male/ Pinned or Female/ Un-Pinned Connector should be chosen accordingly (MPO Male/ Pinned connector must always be mated with MPO Female/ Un-Pinned connector. When two Males or Females MPO connectors are mated together via MPO Adapter - high losses will occur)

### FEATURES/BENEFITS

- OS1/2 G.657A1, OM3, OM4
- 8x Fiber MicroCable 4.5 mm OD Trunk & 3 mm OD Patch lead Options
- LSZH, OFNP, OFNR Cable Jacket
- Standard jacket colors: OM3 and OM4 Aqua (OM4 Available EricaViolet), G.657A1 Yellow
- Loose Tube, Loose Tube Armoured and Universal Microcable Selection Available
- Female/Un-Pinned and Male/ Pinned MPO connectors
- Polarity B
- Factory terminated and tested
- MPO Interface - QSFP+ 40Gbase-SR transceivers are using MPO interface
- Optimised Performance - Low loss Premium MPO and OM4 fiber selection assures low insertion losses and power penalties in tight power budget high speed network environment
- High Density - Multifiber connector and compact dimension of ruggedised MicroCable ease space in costly data center environments
- Rapid Deployment - Factory terminated modular system saves installation and reconfiguration time during moves, adds and changes
- Reliability - 100% tested - Combination of high quality components and manufacturing quality control guarantees product to the highest standard

## APPLICATIONS

- Data Centre Infrastructure
- Assemblies for QSFP+ 40GBase-SR Transceivers
- Parallel Optics
- Infiniband

## SPECIFICATIONS

ELEMENT	CHARACTERISTIC
Fiber Grade	OS1/2 G.657A1, OM3, OM4
Cable Type	Microcable Max OD Trunks 8 cores $4.5 \pm 0.3$ mm Max OD Patchlead 8 cores $2.9 \pm 0.1$ mm <b>Jacket material:</b> LSZH, OFNP, OFNR <b>Jacket color:</b> Aqua (OM3, OM4), Erica Violet (OM4)
Connectors	MPO 12xFiber Ferrule <b>Boot Colour:</b> Black <b>Body Sleeve Colour:</b> MM (Beige), MM Premium (Aqua, EricaViolet for EV Cable))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
MPO Premium (MM)*	0.10 dB	0.35 dB	N/A
MPO (MM)*	0.20 dB	0.60 dB	N/A
MPO Premium (SM)**	0.10 dB	0.35 dB	>60 dB
MPO (SM)***	0.25 dB	0.75 dB	>60 dB

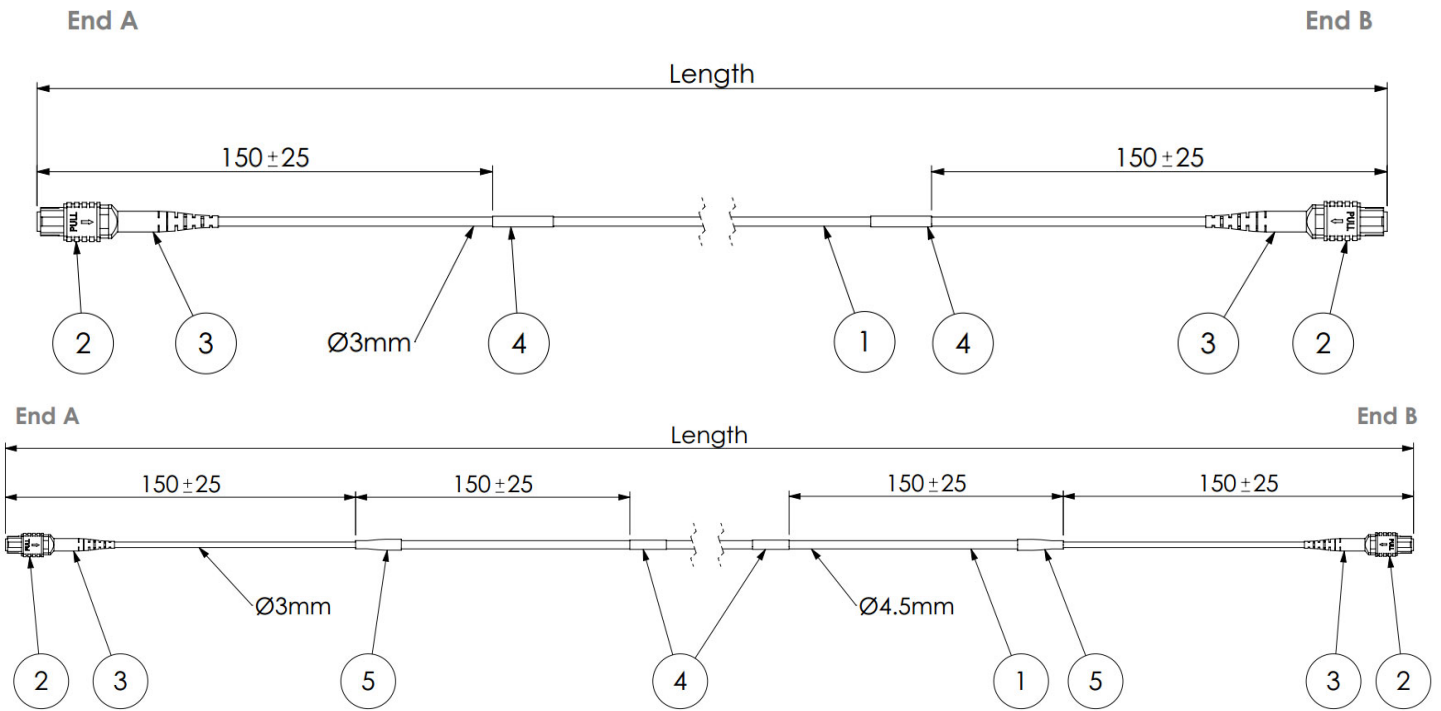
\* ANSI/EIA-455-171 Method D1; MM MPO

\*\* ANSI/EIA-455-171 Method D3 SM MPO

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

## Cable Performance

CABLED FIBRE TYPE (ISO/IEC 11801)	OM3	OM4
Attenuation Coefficient [dB/km]	≤ 3.5 Max (850 nm)	≤ 3.5 Max (850 nm)
	≤ 1.5 Max (1300 nm)	≤ 1.5 Max (1300 nm)
	≤ 2.7 Typ (850 nm)	≤ 2.7 Typ (850 nm)
	≤ 0.9 typ (1300 nm)	≤ 0.9 typ (1300 nm)
Minimum Bandwidth: Overfilled Launch [Mhz-km]	≥ 1500 (850 nm)	≥ 3500 (850 nm)
	≥ 500 (1300nm)	≥ 500 (1300 nm)
Minimum Bandwidth: Laser Effective Modal Bandwidth [Mhz-km]	≥ 2000 (850 nm)	≥ 4700 (850 nm)



**ADDITIONAL INFORMATION**

- 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
- RoHS, REACH and SvHC materials compliant

