

# MPO / MTP Product Family

Parameters	Spec.
Fiber Count	8 / 12 / 24
Insertion Loss	0.75 / 0.35 dB
Return Loss	≥ 50 dB
Optical fiber type	G652 / G657 / OM3
Optical cable type	Bare fiber / Flat / Round
Operating Temp.	-20 ~ +75 °C



MPO / MTP jumper

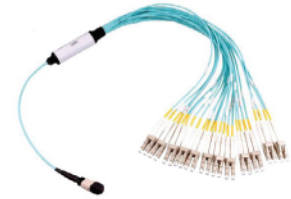
## Key Features

- GR-1435 qual. compliance
- G652 / G657 / OM1 / OM2 / OM3 optional
- MPO / MTP / MTP Elite available
- PC / APC male, female termination
- Bare fiber / Flat / Round jacket

## Application

- Optical system access network
- Data communication networks
- High bandwidth equipment
- Optical transmitters and receivers

Parameters	Spec.
Fiber Count	8 / 12 / 24
Fanout jacket	900um / 2.0mm
Tubing	LSZH / PVC
Tubing Color	Yellow / Orange / Colored
Fanout Connector	SC / FC / LC
Operating Temp.	-20 ~ +75 °C



MPO / MTP fanout jumper

## Key Features

- Round cable MPO / MTP fanout optional
- Colored tubing fanout or specify
- MPO / MTP / MTP Elite available
- Compact 3.5mm OD with 24 fiber counts
- 900um or 2.0mm fanout jacket

## Application

- Optical system access network
- Broadband networks
- Telecommunication system
- Data communication networks

Parameters	Spec.
Trunk fiber counts	12 / 24 / 36 / 48 / 72 / 96
Fiber type	G652 / G657 / OM3
Connector	MPO / MTP
Trunk cable	Round cable
Fanout cable type	LSZH / PVC
Operating Temp.	-20 ~ +75 °C



MPO / MTP trunk cable

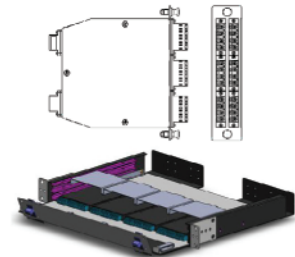
## Key Features

- 12 fiber counts within inner tubing
- MPO / MTP available
- Compact trunk cable OD
- Easy installation and reduce space
- Pulling eye available

## Application

- Optical system access network
- Broadband networks
- Telecommunication system
- Data communication networks

Parameters	Spec.
Fiber Count	8 / 12 / 24
Fanout jacket	900um / 2.0mm
Tubing	LSZH / PVC
Tubing Color	Yellow / Orange / Colored
Fanout Connector	SC / FC / LC
Operating Temp.	-20 ~ +75 °C



LGX MPO / MTP cassette

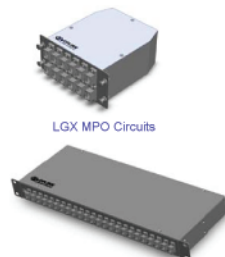
## Key Features

- Round cable MPO / MTP fanout optional
- Colored tubing fanout or specify
- MPO / MTP / MTP Elite available
- Compact 3.5mm OD with 24 fiber counts
- 900um or 2.0mm fanout jacket

## Application

- Optical system access network
- Broadband networks
- Telecommunication system
- Data communication networks

Parameters	Spec.
Circuit pattern	Matrix
Optical fiber type	Ribbon / Bare fiber
Insertion Loss	≥ 0.75 dB
Return Loss	≥ 50 dB
Operating Temp.	-20 ~ +75 °C
Dimension (mm)	435 x 150 x 44.5 / Specify



LGX MPO Circuits

1U Rack MPO Circuits

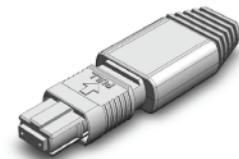
## Key Features

- Complex fiber routing in a flexible module
- Variety of options for SM or MM fiber
- Terminating with MT, MTP, MPO, SC, LC connectors
- Simplified fiber intra-connection

## Application

- High density fiber interconnects
- Telecommunication equipment
  - Transmission
  - Switching
  - Multiplexing

Parameters	Spec.
Fiber port	12 / 24
Channel Mapping	Standard / End - End
Insertion Loss	1.0 dB
Repeatability	0.2 dB
Termination	PC / APC
Operating Temp.	-20 ~ +75 °C



MPO Loopback

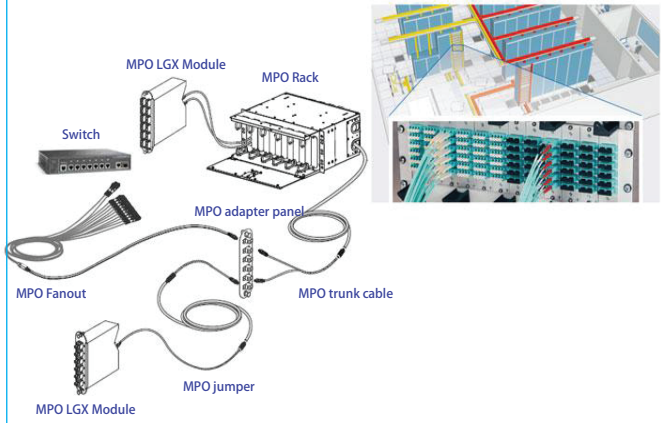
## Key Features

- Compact design
- Ruggedized enclosed easy removal
- Low insertion loss
- Offering MT ferrule
- SM and MM type optional

## Application

- Testing for network card
- Testing on QSFP module
- Telecommunication system testing

# Application – Data Centre



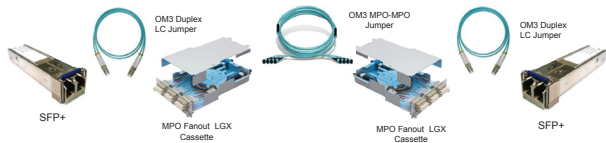
## MTP / MPO Fanout and Module

MPO system offering a migration path to 40 Gb/s and 100 Gb/s Ethernet  
 Insertion loss 0.5 dB max. per cassette  
 Return loss > 50 dB (LC / MPO)  
 Reduced number of LAN electronics required due to power saving data center design  
 Fully compliant to all data center standards

# Channel Mapping of 40G / 100G

## 10G Cabling Structure

10GBase-SR Module (SFP+)

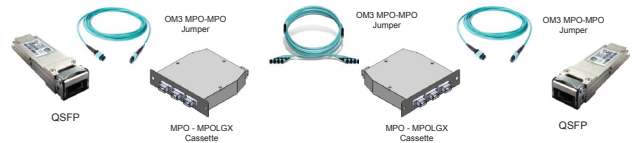


10GBase-LR Module (SFP+)



## 40G Cabling Structure

40GBase-SR Module (QSFP)

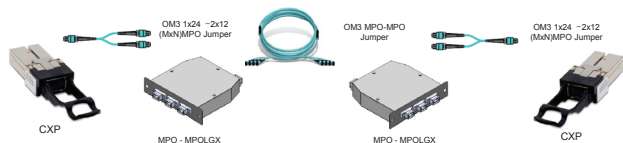


40GBase-LR Module (QSFP)



## 100G Cabling Structure

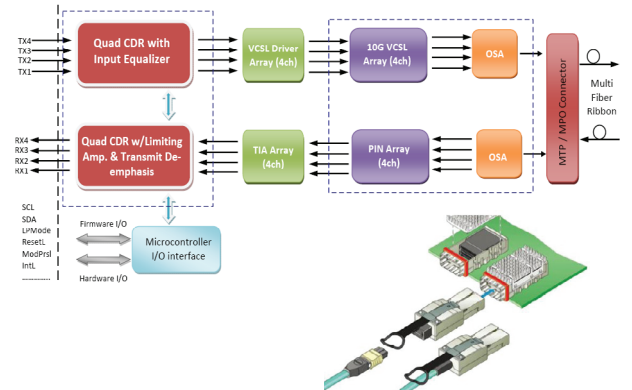
100GBase-SR Module (CXP)



100GBase-LR Module (CFP)

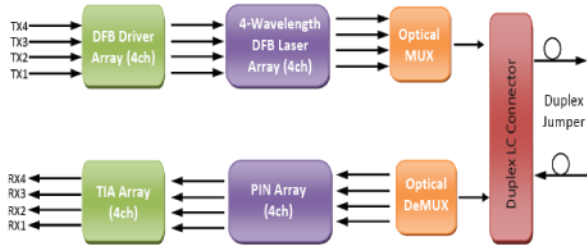


## MPO connector for 40G Migration

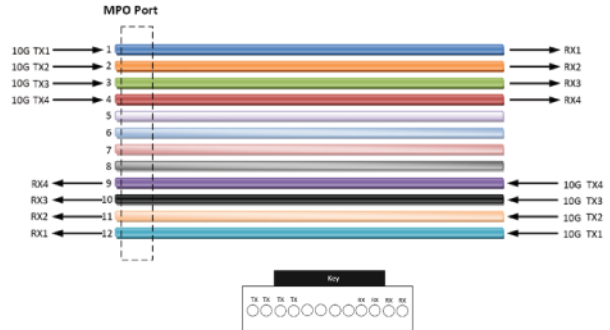


# Channel Mapping of 40G / 100G

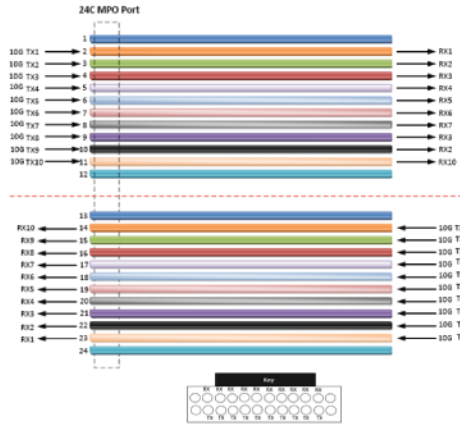
## WDM Migration (LC Duplex Jumper)



## 40G BaseSR4 Parallel Optics



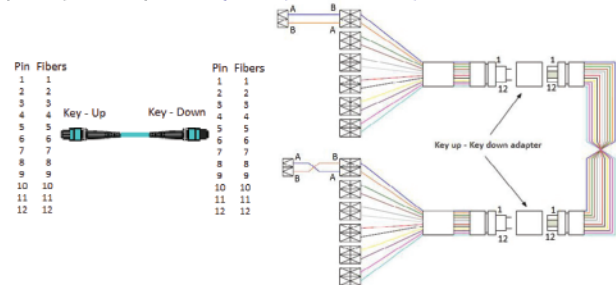
## 100G BaseSR10 Parallel Optics



## Polarity Method

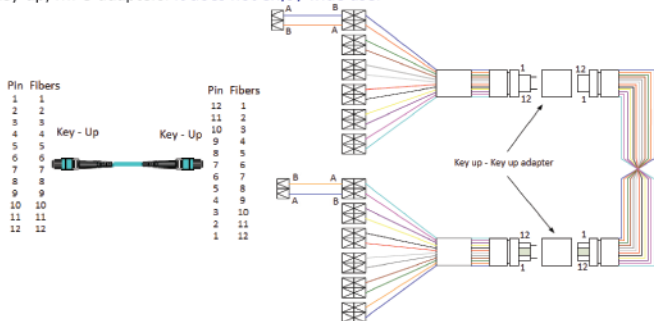
### Method A

Method A uses straight-through type A backbones (pin1 to pin1) and type A (key-up to key-down) MPO adapters. It is probably the most widespread method.



### Method B

Method B uses cross-over type B backbones (pin1 to pin12) and type B (key-up to key-up) MPO adapters. It does not enjoy wide use.



### Method C

It uses pair-wise flipped type C backbones and type A (key-up to key-down) MPO adapters. It is not very widespread because it does not offer a way of migrating to 40/100GbE.

