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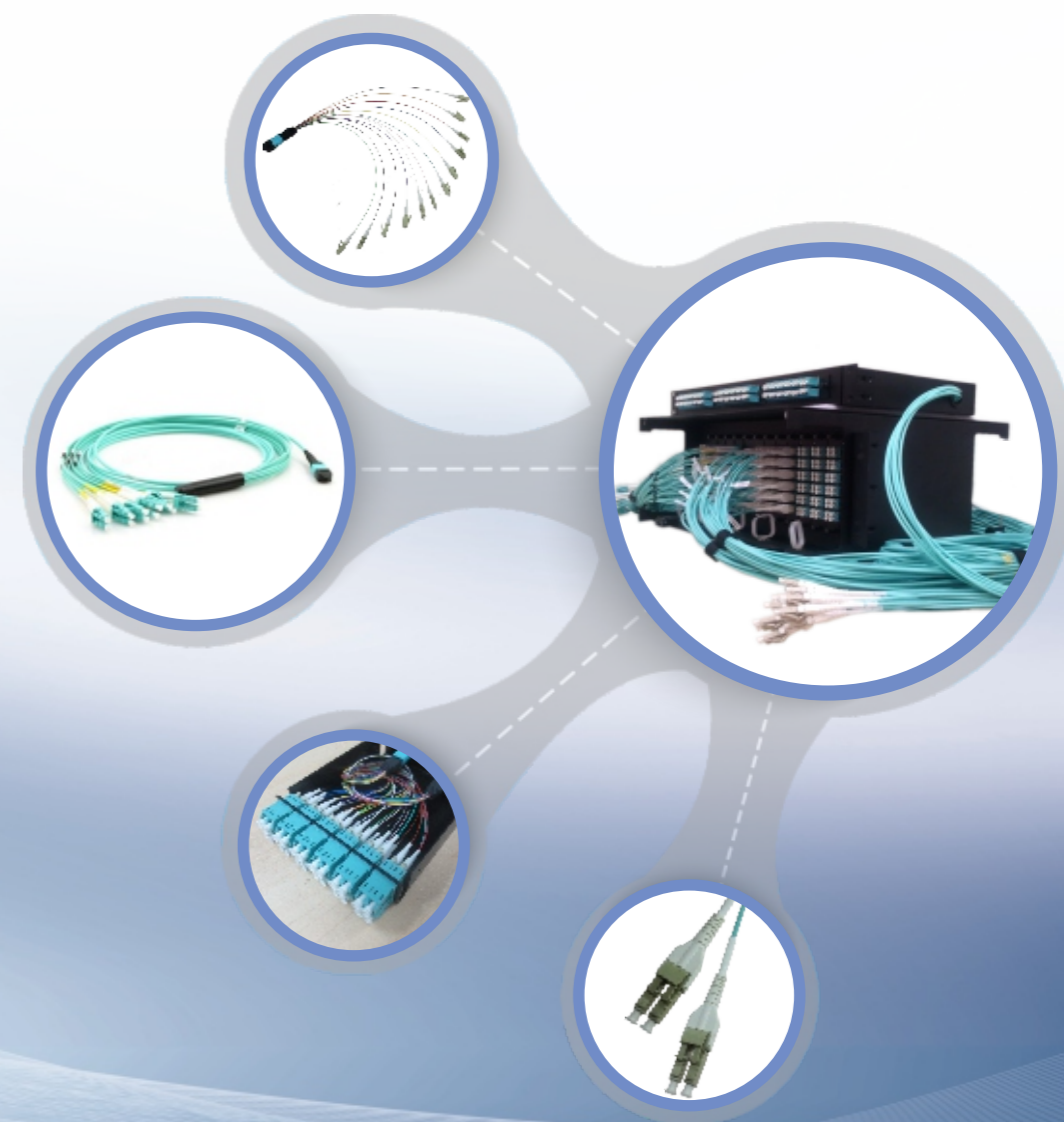
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Open Optical Network Device Explorer

# MPO/MTP Cabling System

Solutions Guide



# Company Profile

## Company Profile

**Who We Are**  
Founded in 2006, GIGALIGHT is an enterprise with outstanding brand influence in the field of global optical communications, positioned as a technology innovator and market explorer in the field of open optical networks.

GIGALIGHT's business focuses on developing decoupled optical network modules and subsystems to reduce CAPEX and OPEX for data centers and telecom operators. Since its establishment, the company has actively cooperated with global operators to realize the interconnection of optical networks, and has been widely recognized as a veritable advocate and leader of open optical interconnection middleware.

**What We Do**  
In recent years, the company has continued to develop silicon photonics technology and silicon-based coherent communication technology, aiming to further promote the optical layer opening and interface compatibility of open optical networks through these new technologies, and has made good progress. (Note: GIGALIGHT is a member of the OpenZR+ MSA team.)

Aiming to become a one-stop device integration solution provider in the field of open optical networks, GIGALIGHT has launched many active and passive products to meet the needs of various types of interconnections and interfaces in open optical networks(especially open data centers)—optical transceivers, active optical cables(AOC), direct-attached copper cables(DAC), silicon photonics optical transceivers, liquid-cooling optical transceivers, high-definition video ptical modules, coherent optical modules and coherent transmission subsystems, active/passive WDMs, passive optical access devices and high-density cablings, etc.

**Our Goal**  
The development of GIGALGHT benefits from more than 300 small and medium-sized customers around the world, who promote the growth of the company and the progress of employees. In order to give back to customers, GIGALIGHT takes the continuous. development of new technologies and the creation of ultra-compatible optical network middleware and subsystems for the open optical network as the company's unswerving goal.

To achieve this goal, GIGALIGHT has built a series of technology platforms, including software and hardware design and high-speed signal integrity platform, COB hybrid packaging technology platform, silicon-based optoelectronic chip design and packaging platform, and COM-based computing and management of multi-channel DAC manufacturing platform, as well as a coherent optical communication technology platform with self-developed algorithms, etc. The company has a world-class compatibility testing laboratory in the field of optoelectronics.

## Office location



**Shenzhen Headquarters (Finance & Marketing):**17th Floor, Zhongtai Tiancheng Building  
**Shenzhen R&D Center:**Changfeng Industrial Park  
**Wuhan R&D Center:**Optics Valley New Power Industrial Park  
**Shenzhen Factory:**Changfeng Industrial Park  
**Global Sales Office:**Shenzhen, Beijing, Shanghai, Russia, Singapore



Headquarters & Marketing Center



R&D, Operations and Sales center



Wuhan Technology Center

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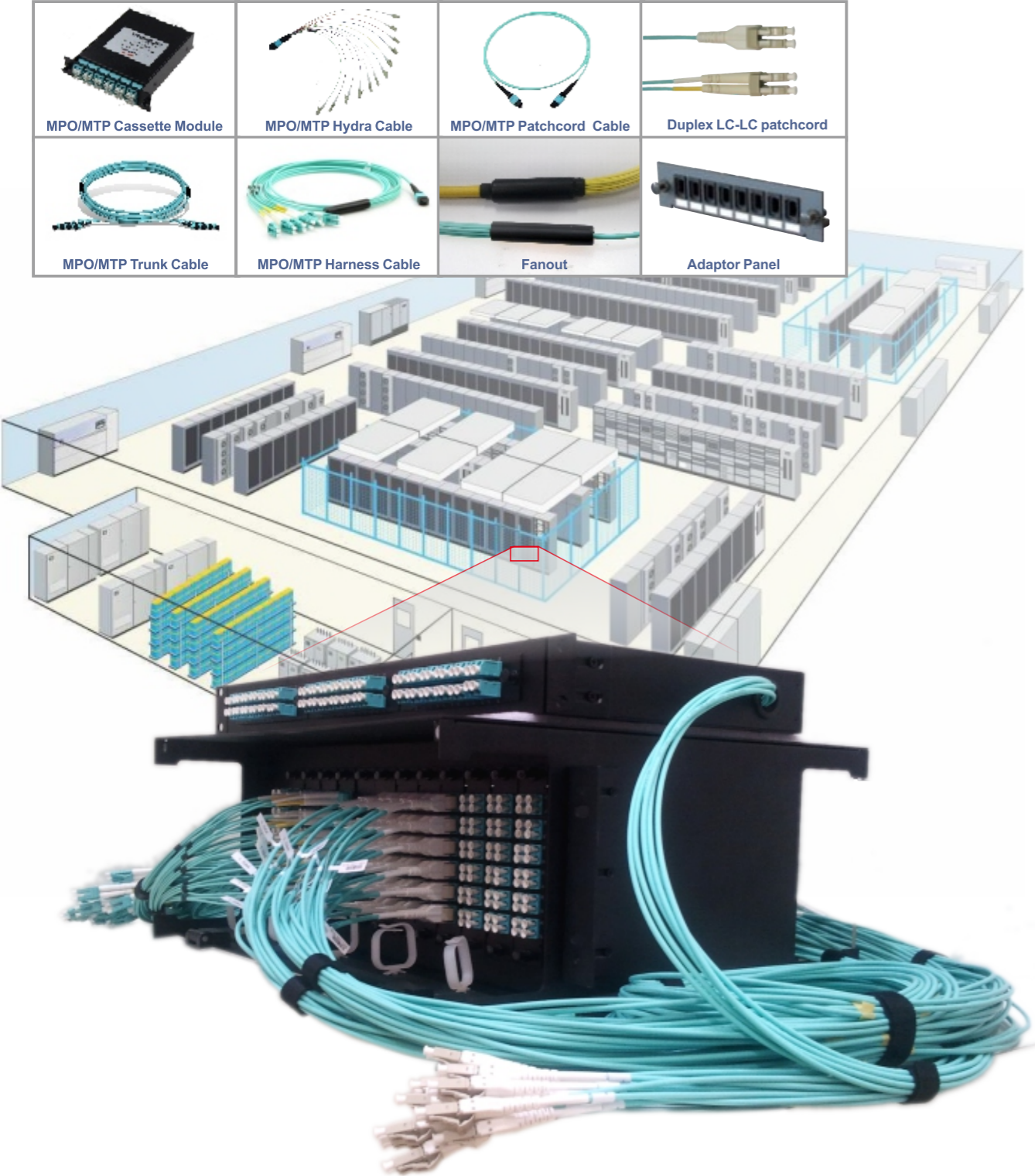
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# Data Center Solution



# Typical Application Scenario Data Center SAN



# MPO/MTP Optimate System

## MPO/MTP Patchcord



Description	Configuration	Connectors
12f MPO/MTP Patchcord	MPO-MPO Type A	12f MPO to 12f MPO
24f MPO/MTP Patchcord	MPO-MPO Type B	2x12f MPO to 2x12f MPO
48f MPO/MTP Patchcord	MPO-MPO Type C	24f MPO to 24f MPO
	Customized Polarity	48f MPO to 48f MPO
	Female or Male	

## MPO/MTP Harness



Description	Configuration	Connectors
MPO/MTP Harness cable	MPO to 4x duplex LC/SC	MPO/MTP
	MPO to 10x duplex LC/SC	LC/LC uniboot
	MPO to LC/SC/MU/FC/E2000	SC/MU/FC/E2000
	4~144 fibers breakout	

## MPO/MTP Trunk



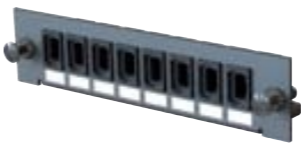
Description	Configuration	Connectors
MPO/MTP Trunk cable	2x12f MPO-2x12f MPO 24f trunk	12/24f MPO MTP
	4x12f MPO-2x12f MPO 48f trunk	
	6x12f MPO-6x12f MPO 72f trunk	
	9x8f MPO-9x8f MPO 72f trunk	
	N*12f MPO-N*12f MPO trunk	
	Spool package	
	eye Pulling structure	

## MPO/MTP Hydra



Description	Configuration	Connectors
MPO/MTP Hydra cable	12f MPO-12 LC/SC/FC/MU/E2000	MPO/MTP
	24f MPO-24 LC/SC/FC/MU/E2000	LC/LC uniboot
		SC/FC/MU/E2000

## Adaptor Panel



Description	Configuration	Connectors
Adaptor Panel	6 LC/SC Adapter	MPO/MTP
	6 MPO/MTP Adapter	
	6 LC W/4 ports Adapter	
	8 MPO/MTP Adapter	
	8 LC Adapter	
	12 SC simplex Adapter	
	24 LC duplex Adapter	

## Generic optical jumper

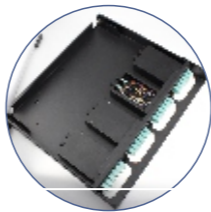


Description	Configuration	Connectors
Simplex and Duplex optical jumper	Simplex LC-LC,SC-SC,LC-SC,etc.	LC/SC/FC/MU/E2000
	Duplex LC-LC,SC-SC,LC-SC,etc.	

## MPO/MTP Cassette



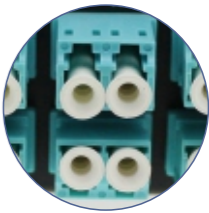
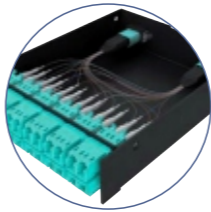
Description	Configuration	Connectors
MPO/MTP LC Cassette	12f MPO to 12 LC/SC	12/24/48f MPO MTP
MPO/MTP SC Cassette	24f MPO to 24 LC	LC/SC/FC/MU/E2000
Can be plugged into 1U and 4U rack	2x12f MPO to 24 LC	
	48f MPO to 48 LC	
	N*12f MPO to N*12 LC	
	Different density module box and	
	1U & 4U rack available	



1U Rack



4U Rack



MPO/MTP Connector

Cable Performance

Fibre Type (ISO/IEC 11801)	OS1/OS2	OM1	OM2	OM3	OM4
Attenuation Coefficient [dB/km]	≤ 0.38 Max (1310nm)	≤ 3.5 Max (850nm)	≤ 3.5 Max (850nm)	≤ 3.5 Max (850nm)	≤ 3.5 Max (850nm)
	≤ 0.25 Max (1310nm)	≤ 1.5 Max (1300nm)	≤ 1.5 Max (1300nm)	≤ 1.5 Max (1300nm)	≤ 1.5 Max (1300nm)
	≤ 0.34 Typ (1550nm)	≤ 2.9 Typ (850nm)	≤ 2.7 Typ (850nm)	≤ 2.7 Typ (850nm)	≤ 2.7 Typ (850nm)
	≤ 0.19 typ (1550nm)	≤ 1.2 Typ (1300nm)	≤ 0.9 typ (1300nm)	≤ 0.9 typ (1300nm)	≤ 0.9 typ (1300nm)
Minimum Bandwidth: Overfilled Launch [Mhz-km]	NA	≥ 200 (850nm)	≥ 500 (850nm)	≥ 1500 (850nm)	≥ 3500 (850nm)
		≥ 500 (1300nm)	≥ 500 (1300nm)	≥ 500 (1300nm)	≥ 500 (1300nm)
Minimum Bandwidth: Laser Effective Modal Bandwidth [Mhz-km]	NA	NA	NA	≥ 2000 (850nm)	≥ 4700 (850nm)

Connector Performance - MTP

Connector Mating	IL Typical	IL MAX	IL Typical Premium	IL MAX Premium	IL Typical	IL MAX	Return Loss
MTP Elite (MM)	0.20 dB	0.35 dB	NA	MTP Elite (SM)	0.18 dB	0.25 dB	>60dB
MTP Standard (MM)	0.35 dB	0.60 dB	NA	MTP Standard(SM)	0.25 dB	0.75 dB	>60dB
LC, SC (MM)	0.15dB	0.30dB	NA	LC, SC (SM)	0.18dB	0.25dB	>55/65dB*
LC, SC Premium (MM)	0.08dB	0.15dB	NA	LC, SC Premium (SM)	0.12dB	0.15dB	>55/65dB*

Connector Termination

Connector Type	Conformance	Singlemode	Multimode	SM Duplex	MM Duplex
SC connector	IEC 61754-4	SM PC- Blue APC-Green	MM PC- Beige	SM PC- Blue APC-Green with clips	MM PC- Beige/Aqua with clips Boot -Red & Black
LC connector	IEC 61754-20	SM PC- Blue APC-Green Boot-White	MM PC- Beige Boot-White	SM PC- Blue APC-Green with clips Boot-White	MM PC- Beige/Aqua with clips Boot-White
ST connector	IEC 61754-2	SM PC- Yellow boot	MM PC- Black boot	SM PC- Yellow boot	MM PC- Red & Black boot
FC connector	IEC 61754-13	SM PC- Blue boot APC-Green boot	MM PC- Black boot	SM PC- Black boot APC-Green boot	MM PC- Black boot

MPO/MTP Connectivity

SOLUTION

The Elite MTP and Premium LC discrete connectors with reduced insertion losses can reallocate power of interconnection losses to cover longer channel length.

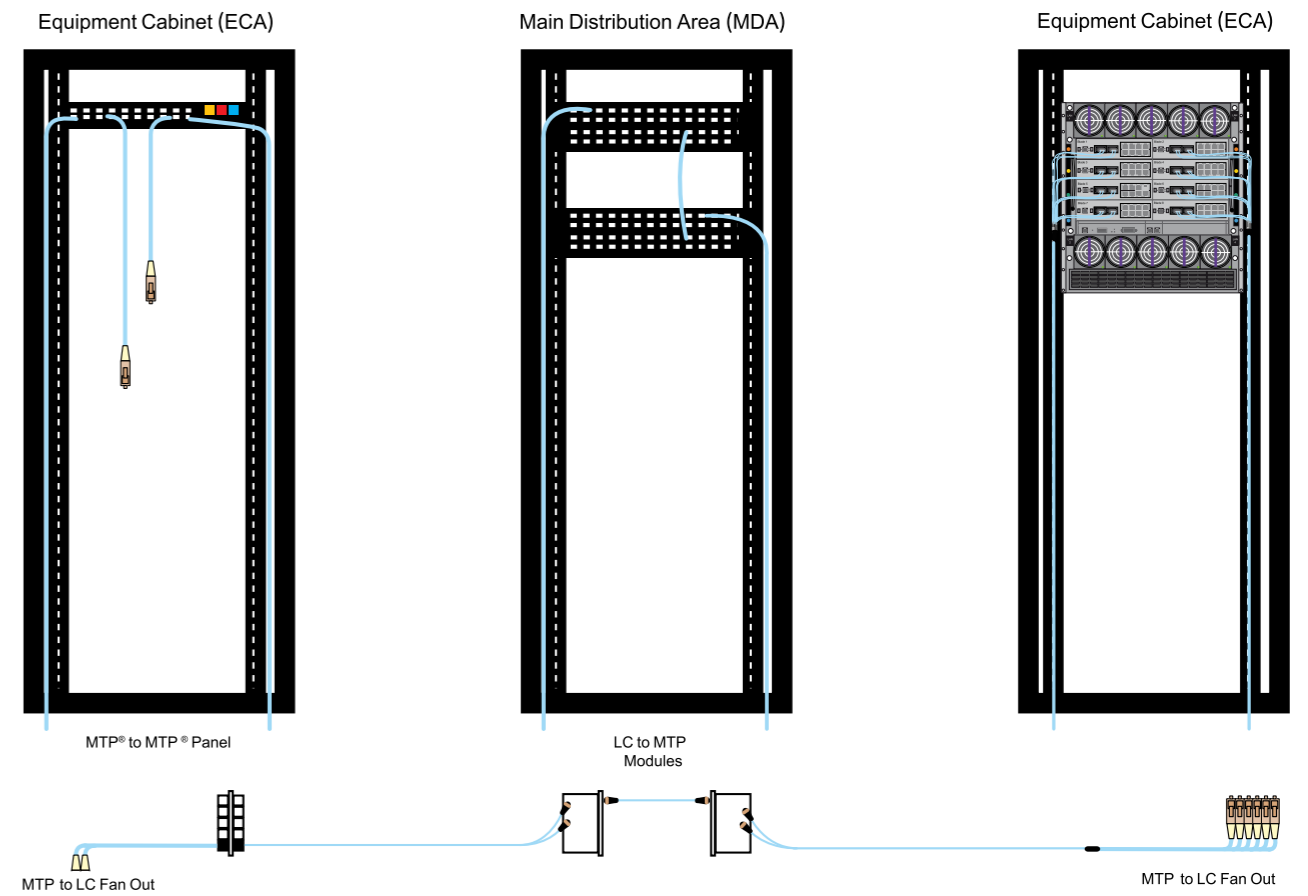
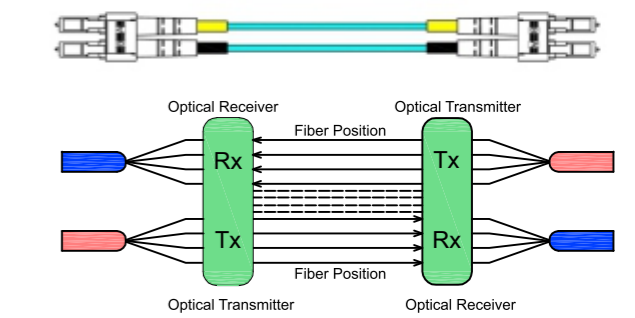
Reduced Topology

Gigalight's high technical expertise and excellent geometry-control methods enable us to provide extreme low-loss terminations with MT core dip less than 100nm,and all performance are 100% tested and guaranteed.

Connector Mating	Reduced Topology	
	IL typital	IL MAX
Elite (MM)	0.15dB	0.25dB
MTP Standard(MM)	0.35dB	0.5dB
LC, SC (MM)	0.05dB	0.1dB

Full Infrastructure

CONNECTOR	Standard	Premium / Elite	Reduced Topology Standard	Reduced Topology Elite
INTERC NR	4 x MTP , 4 x LC	4 x MTP , 4 x LC	4 x MTP , 4 x LC	4 x MTP , 4 x LC
Power Budget for100m	2.6dB	2.6dB	2.6dB	2.6dB
Average Link Loss	2.3dB	1.42dB	2.1dB	1.1dB
Max Link Loss	3.9dB	2.3dB	3.1dB	1.5dB



# MPO/MTP Patchcord Cable



### Features

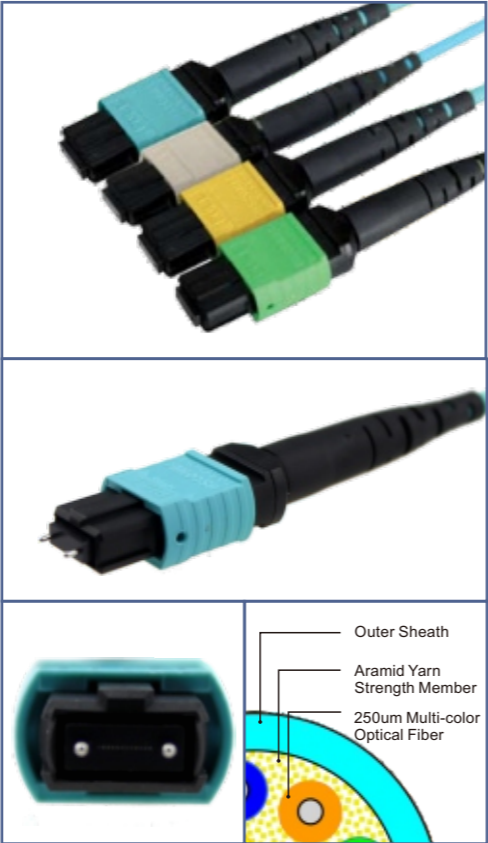
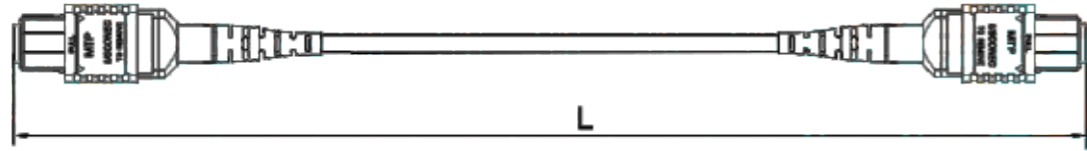
- ◆ MPO / MTP connector interface patchcord.
- ◆ Different cable structures available to cater for different installation needs.
- ◆ Available in 4/8/12/24/48 cable fibers with round to ribbon optical cable.
- ◆ Improves and simplifies fiber routing, decreases fiber management space.
- ◆ Comply with IEC 61754-7, Telcordia GR-1435-CORE, RoHS.

### Applications

- ◆ For installation in horizontal patch extension from consolidation point to the workstation outlets.
- ◆ High Density Fiber Management. Telecommunications and Broadband / CATV networks.
- ◆ DACS.
- ◆ LAN/WAN Premises

### Assembly drawing

Length	Tolerance
0 ≤ L < 1m	+50/-0 mm
1m ≤ L < 10m	+100/-0 mm
10m ≤ L	+1% L/-0



### Overview

Gigalight's MPO / MTP patchcords are simplex multi-fiber Cable using the MPO / MTP connector in fiber counts of 4, 8, 12, 24 or 48. They offer Male and Female MPO / MTP connectors on each end,available in 4~48 fibers versions as well as multi-mode (62.5/125, 10G OM2 / OM3 / OM4,Bend-insensitive fiber, etc.) and single-mode(G652D, G657A1 etc.) fiber types.

### Quick Glance key Feature

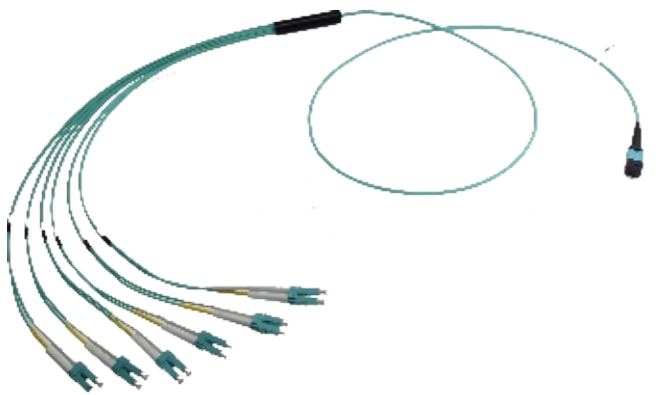


### Part Number Generator

GMP	X	X	XX	X	XXX	XX	XXX/XXX	XXX/XXX	XXX
Type	Polarity Options	Insertion Loss type	Fiber count	Connector Type	Fiber Type	Jacket Type	A-end Connector	B-end Connector	Cable Length
G GigaC™	A Type A	0 Standard	04 04-F	M Male	SM1 G652D	OR Riser	MTP/APC MTP APC	MTP/APC MTP APC	001~999m
M MPO /MTP	B Type B	1 Elite / Low Loss	08 08-F	F Female	SM2 G657A1	LS LSZH	MTP/PC MTP PC	MTP/PC MTP PC	
P Patchcords	C Type C		12 12-F	H Male on one side	SM3 G657A2	OP Plenum	MPO/APC MPO APC	MPO/APC MPO APC	
	R Type R		24 24-F		MM1 OM1	XX NA	MTP/PC MTP PC	MTP/PC MTP PC	
	O Others				MM2 OM2				
					MM3 OM3				
					MM4 OM4				

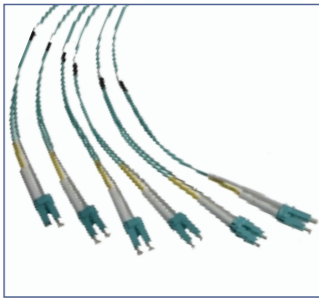
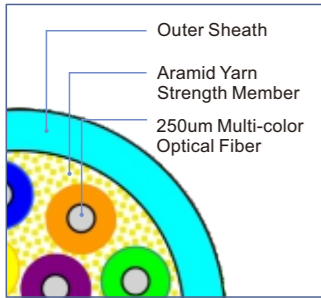
Example Part Number: GMP-A-1-12-M-MM4-LS-MPO/PC-MPO/PC-010

# MPO/MTP Harness Cable Feature Overview



### Features

- ◆ For transition from trunk backbone assemblies to fiber rack system.
- ◆ MPO / MTP in 8/12/24 fibers interface selectable.
- ◆ Single-fiber connector interface available in LC, SC, ST, E2000, MTRJ, Mini-LC in forms of Simplex or Duplex channeling.
- ◆ Ruggedized fanout: Round or Square fanout kit with 0.9/2.0/3.0mm legs to single-fiber connectors, customized fanout length to cater for different installation situations.
- ◆ Comply with Telcordia GR-1435-CORE, GR-2866-CORE, GR-326-CORE, RoHS.

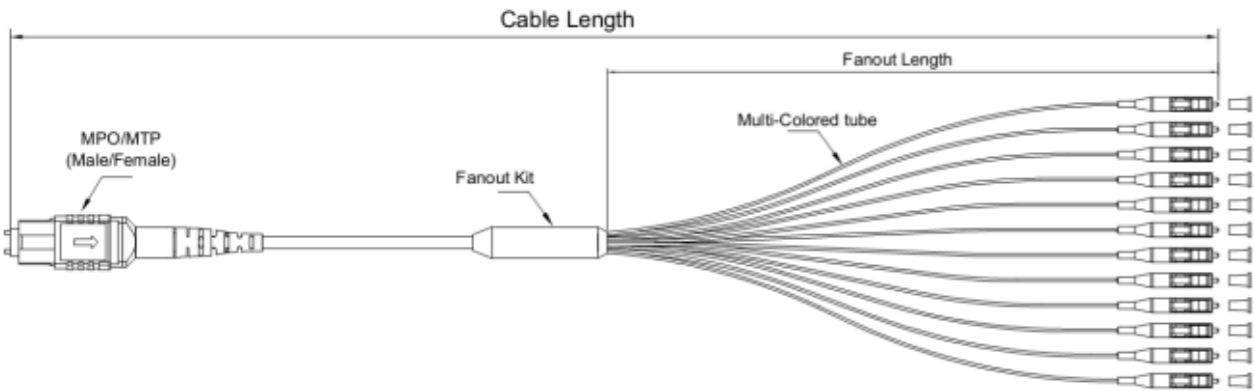


### Applications

- ◆ For installation in horizontal patch extension from consolidation point to the workstation outlets.
- ◆ High Density Fiber Management.
- ◆ DACS.
- ◆ LAN/WAN Premises.

### Assembly drawing

Length	Tolerance
0 ≤ L < 1m	+50/-0 mm
1m ≤ L < 10m	+100/-0 mm
10m ≤ L	+1% L/-0



### Overview

Gigalight's MPO / MTP harness cable assemblies utilize fanout kit to connect trunk cable to generic fiber optic connectors such as LC, SC, FC, ST, MTRJ, etc., available in 8/12/24 fibers versions as well as multi-mode (62.5/125, 10G OM2 / OM3 / OM4, Bend-insensitive fiber, etc.) and single-mode (G652D, G657A1 etc.) fiber types.

### Quick Glance key Feature

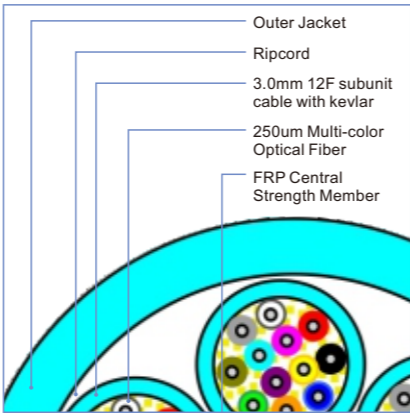
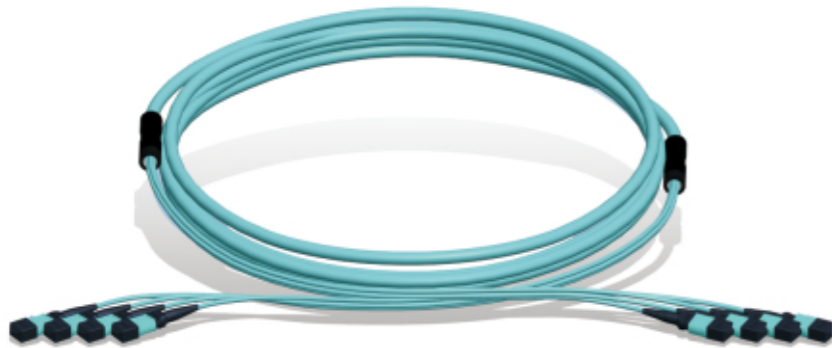


### Part Number Generator

GMF	X	XX	X	XXX	XX	XXXX	XXX/XXX	XXX/XXX	XXX
Type	Insertion Loss type	Fiber Count	Connector Type	Fiber Type	Jacket Type	Length On B-end	A-end Connector	B-end Connector	Cable Length
G GigaC™	0 Standard	04 04-F	M Male	SM1 G652D	OR Riser	0500 500mm	MTP/APC MTP APC	LC/APC	001~999m
M MPO /MTP	1 Elite / Low Loss	08 08-F	F Female	SM2 G657A1	LS LSZH	1000 1000mm	MTP/PC MTP PC	LC/UPC	
F Fanout		12 12-F		SM3 G657A2	OP Plenum		MPO/APC MPO APC	SC/APC	
		24 24-F		MM1 OM1	XX NA		MTP/PC MTP PC	SC/UPC	
				MM2 OM2				FC/APC	
				MM3 OM3				FC/UPC	
				MM4 OM4					

Example Part Number: GMF-1-12-M-SM1-OR-1000-MPO/APC-LC/UPC-010

# MPO/MTP Trunk Cable



### Features

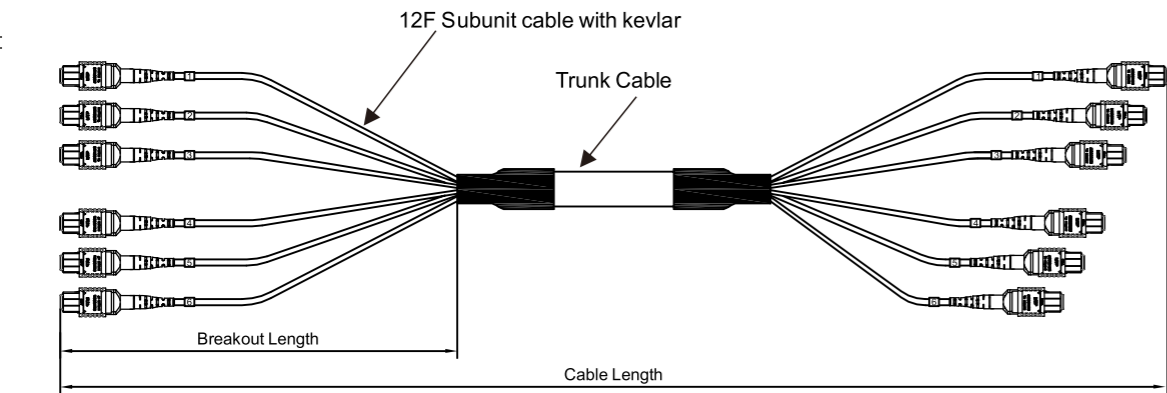
- ♦ MPO / MTP connector or MPO hybrid interface patchcord.
- ♦ Available from 12 to 144 fibers in increments of 12 fibers.
- ♦ Available in multi-mode (62.5/125, 10G OM2 / OM3 / OM4, Bend-insensitive fiber, etc.) and single-mode (G652D, G657A1 etc.)
- ♦ Generic connector interface available in Simplex or Duplex LC, SC, etc.
- ♦ Connectivity protected through customized dual shelf reel & pulling-eye during layout.
- ♦ Comply with Telcordia GR-1435-CORE, GR-326-CORE, RoHS.

### Applications

- ♦ For installation in horizontal patch extension from consolidation point to the workstation outlets.
- ♦ High Density Fiber Management.
- ♦ DACS.
- ♦ LAN/WAN Premises

Length	Tolerance
$0 \leq L < 1\text{m}$	+50/-0 mm
$1\text{m} \leq L < 10\text{m}$	+100/-0 mm
$10\text{m} \leq L$	+1% L/-0

### Assembly drawing



### Overview

Gigalight's trunk cable assemblies contain MPO to MPO and MPO hybrid types. Plug and Play Reels, pulling eye are designed to be quickly pulled and connected to Plug and Play Modules and Adapter Plates. Through customized configuration, these reels & pulling-eye ensure the high-performance, high-density connections can be made efficiently where you need them.

### Quick Glance key Feature

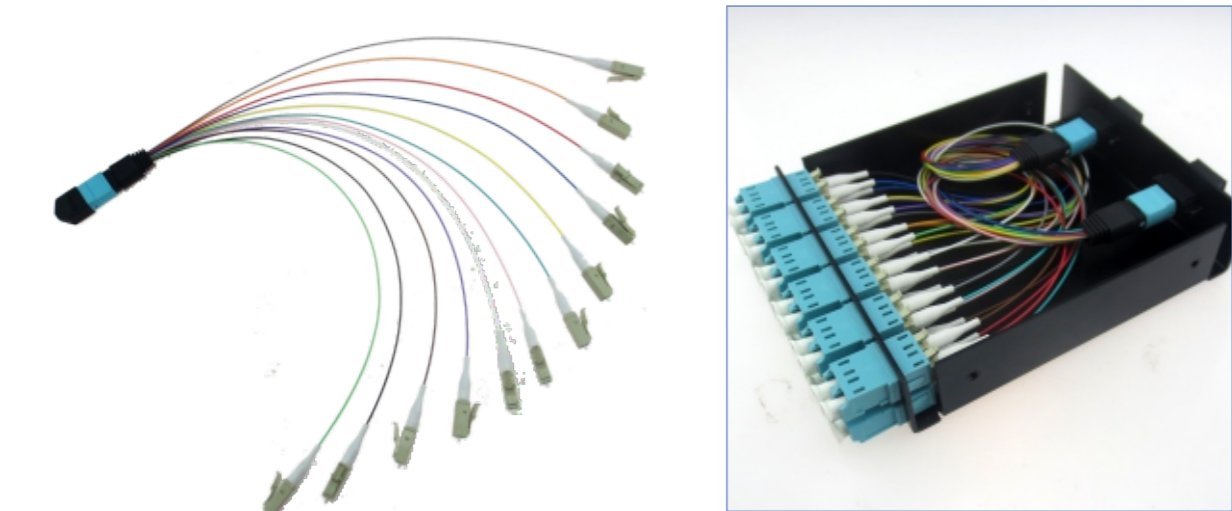


### Part Number Generator

GMT	X	X	XX	X	XXX	XX	XXXX	XXXX	XXX/XXX	XXX/XXX	XXX
Type	Polarity Options	Insertion Loss type	Fiber Count	Connector Type	Fiber Type	Jacket Type	Length On A-end	Length On B-end	A-end Connector	A-end Connector	Cable Length
G GigaC™	A Type A	0 Standard	04 04-F	M Male	SM1 G652D	OR Riser	0500 500mm	0500 500mm	MTP/APC MTP APC	MTP/APC MTP APC	001~999m
M MPO /MTP	B Type B	1 Elite / Low Loss	08 08-F	F Female	SM2 G657A1	LS LSZH	1000 1000mm	1000 1000mm	MTP/PC MTP PC	MTP/PC MTP PC	
T TRUCK CABLE	R Type R		12 12-F	H Male on one side	SM3 G657A2	OP Plenum			MPO/APC MPO APC	MPO/APC MPO APC	
	C Type C		24 24-F		MM1 OM1	XX NA			MTP/PC MTP PC	MTP/PC MTP PC	
	O Others				MM2 OM2						
					MM3 OM3						
					MM4 OM4						

Example Part Number: GMT-A-1-12-F-MM3-LS-0500-0500-MPO/PC-MPO/PC-XXX

# MPO/MTP Hydra Cable



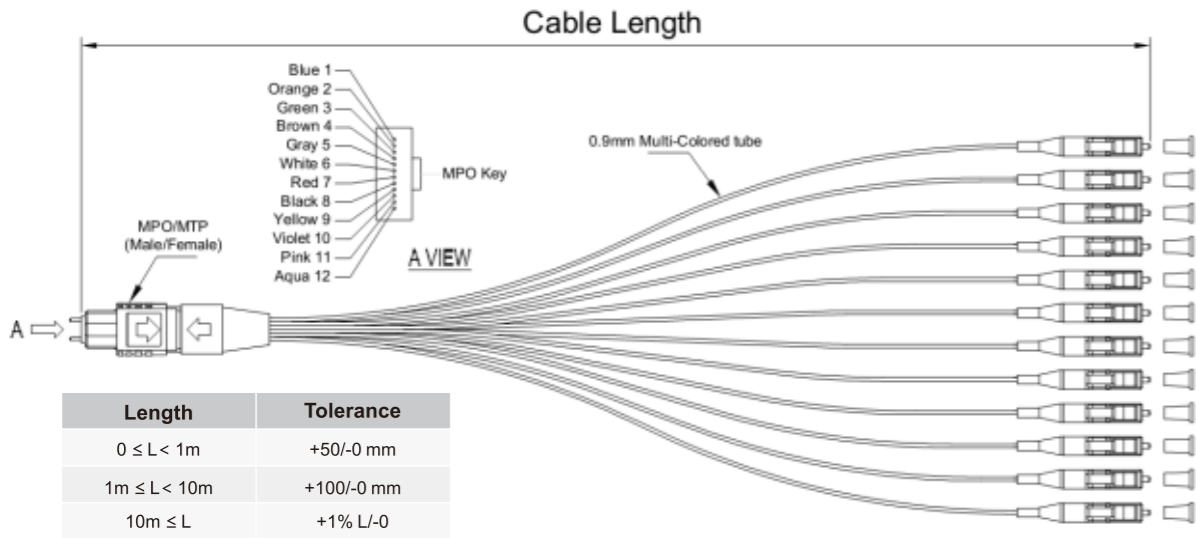
### Features

- ♦ High-density and small design, Easy and fast installation.
- ♦ Available in 12 / 24 / 48 fiber versions.
- ♦ Field connections with guaranteed quality and simplifies fiber routing.
- ♦ Modular system management, easy reconfiguration for moves, adds, and changes.
- ♦ Customized fiber polarity in the module.

### Applications

- ♦ Data Centre Infrastructure.
- ♦ High Density Fiber Management.
- ♦ Telecommunications networks and Broadband / CATV networks.
- ♦ LAN/WAN Premises

### Assembly drawing



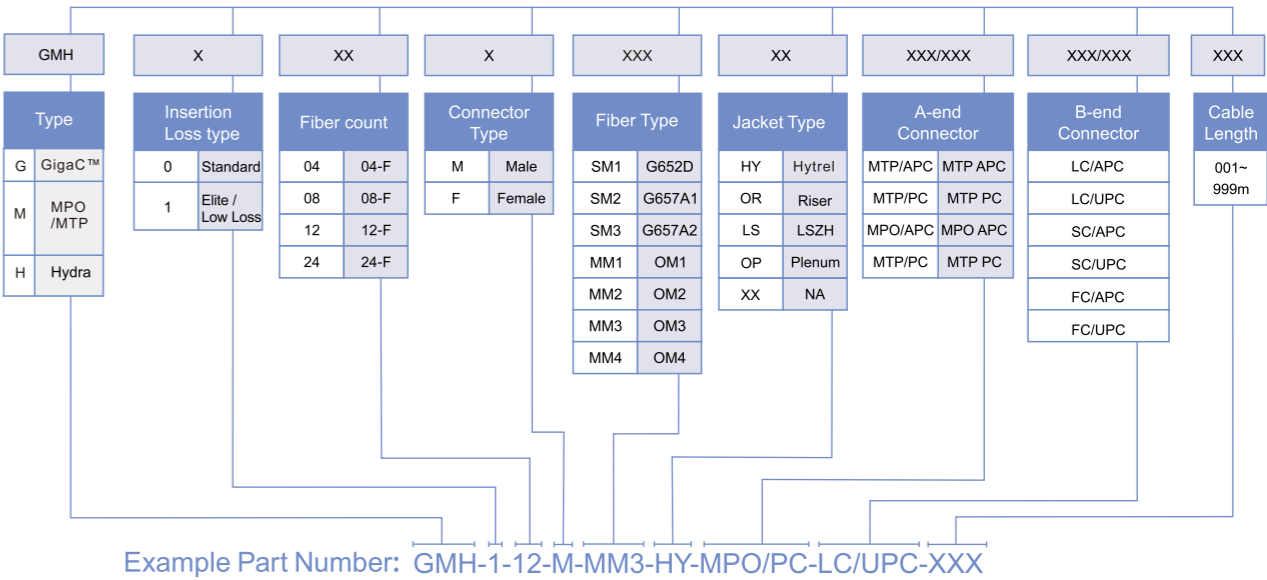
### Overview

Gigalight's MPO / MTP harness cable assemblies, is deployed inside plug and play cassette modules. This solution is a 12-colored 0.9mm cable utilizing a MPO / MTP connector on one end and generic connectors (such as LC, SC, FC, etc.) on the other end. They can be used together with Gigalight's plug and play modules, MPO / MTP Adapter Plates, and other solutions, also available in 8/12/24 fibers versions as well as Multi-mode (Standard 50/125, 62.5/125, BI 10Gig 50/125) and Single-mode fiber types.

### Quick Glance key Feature



### Part Number Generator

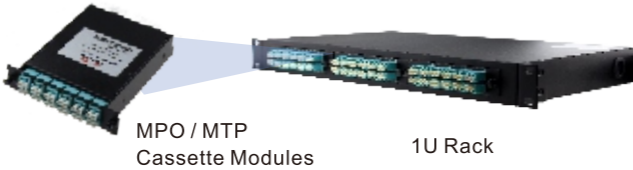
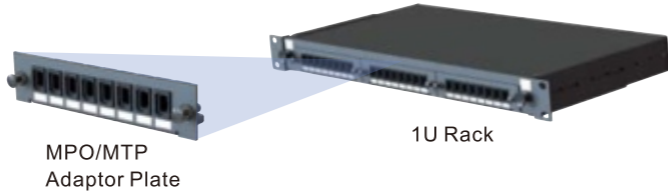
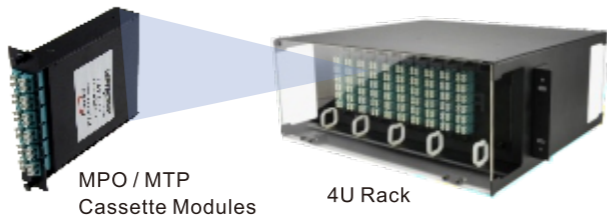


# MPO / MTP Cassette Module



### Features

- ♦ High-density and small design, Easy and fast installation.
- ♦ Available in 12 / 24 / 48 fiber versions.
- ♦ Field connections with guaranteed quality and simplified fiber routing.
- ♦ Modular system management, easy reconfiguration for moves, adds, and changes.
- ♦ Customized polarity in the module.



### Applications

- ♦ Data Centre Infrastructure.
- ♦ High Density Fiber Management.
- ♦ Telecommunications networks and Broadband / CATV networks.
- ♦ LAN/WAN Premises

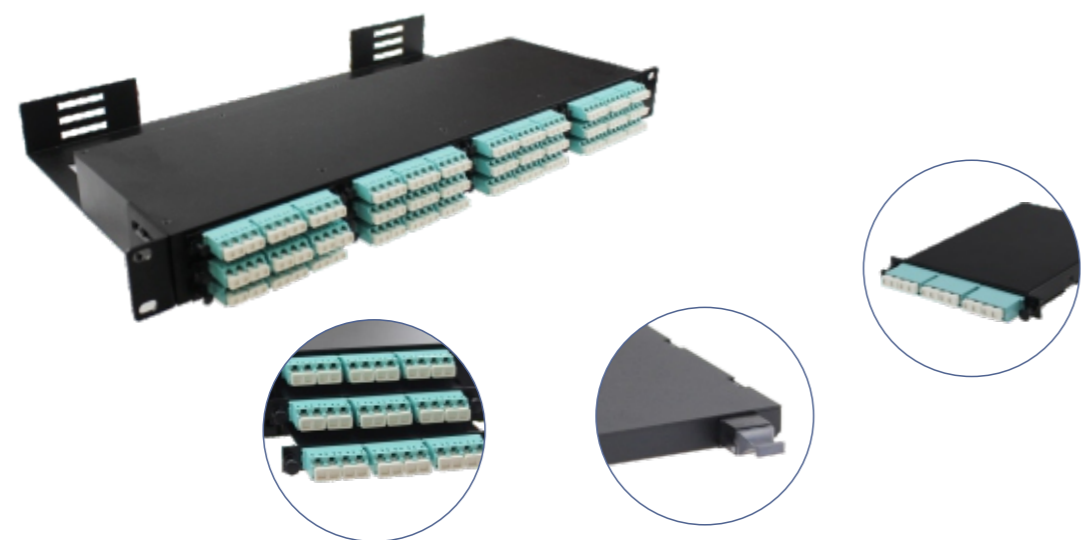
### Overview

Gigalight's MPO / MTP Cassette Modules provide secure transition between MPO / MTP and LC or SC discrete connectors. They provide a quick, reliably high performance and efficient way to deploy up to 24 LC or 12 SC fiber ports in a single module. The Modules can be mounted in 1U or 4U 19" multislots chassis. They are available in Multi-mode and Single-mode cable.

### Quick Glance key Feature



# Ultra High Density MPO/MTP Panel System

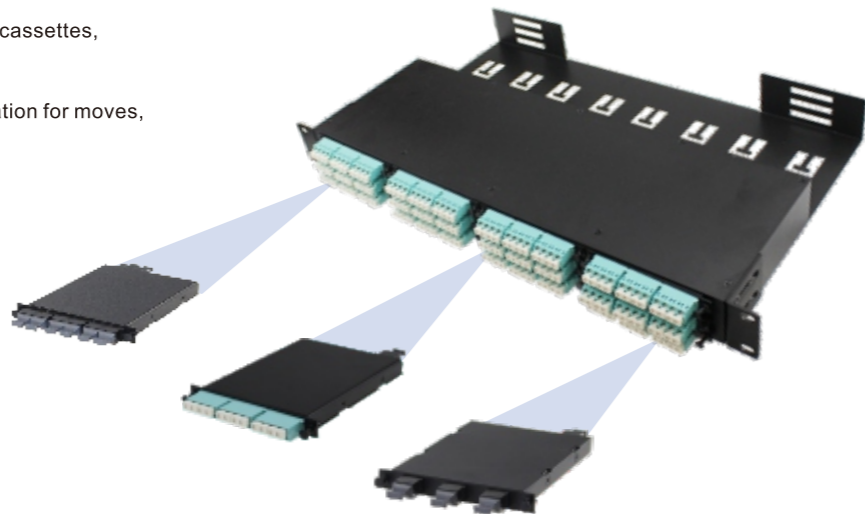


### Features

- ♦ Ural high density and compact design, easy for installation
- ♦ Hold up to 12 slots, each can be configured with cassettes, adapter plates, or splice trays
- ♦ Modular System management, Easy reconfiguration for moves, adds and changes.
- ♦ Available in 144 fibers in 1 U rack.
- ♦ Customized Polarity in the module.
- ♦ Filed connection with guaranteed quality and simplified fiber routing.

### Applications

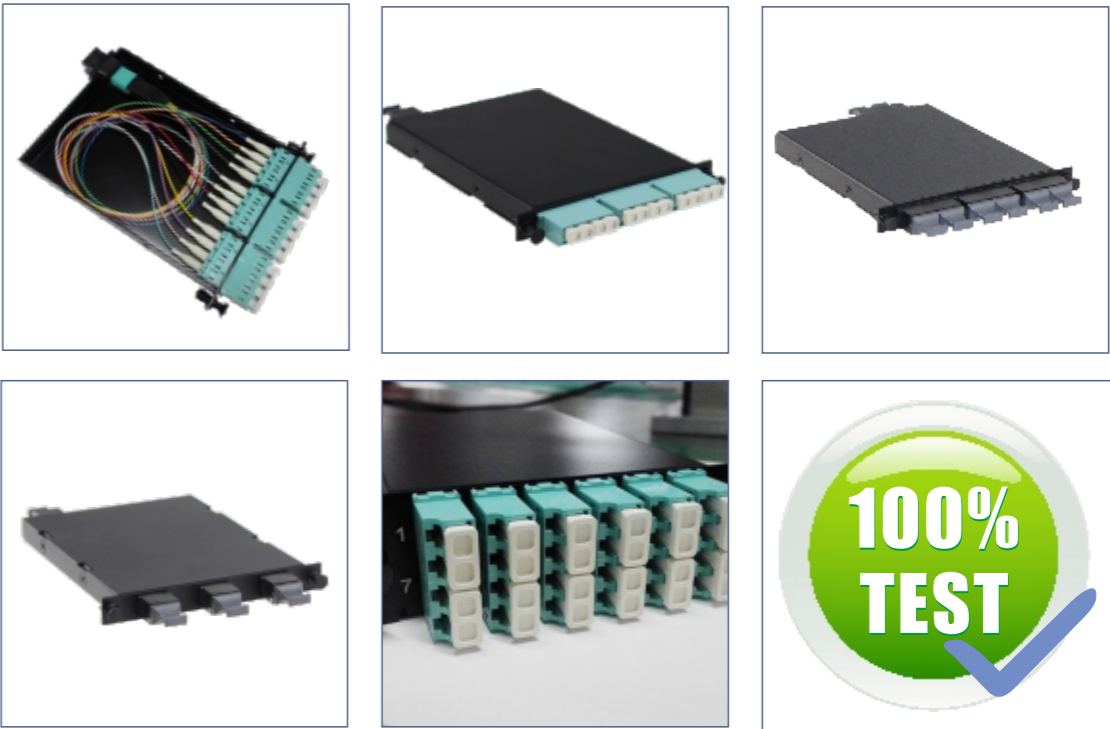
- ♦ Data Centre Infrastructure.
- ♦ Ultra-high Density Fiber Managemen
- ♦ Migration from 10G to 40/100G
- ♦ Telecommunications and Broadband/CATV Networks



### Overview

Gigalight's GigaC™ UHD MPO/MTP cabling system offers a simple installation, easy accessibility and reliable fiber management solution. Gigalight provides 72~144 fibers solution in a standard 19" rack, there are options of 3 slots, 4 slots, or 12 slots available in the front of 19" rack, each slot can be used to accommodate GigaC™ High density MPO/MTP module. □12 pcs MTP- LC 12-F cassette module can be inserted into one 19" rack, thus providing an easy solution for 144 fiber deployment in an 1U rack. The GigaC™ UHD

### Quick Glance key Feature



### Part Number Generator

1RU 96 fibers	GM-1U-04
1RU 144 fibers	GM-1U-12

Extras	
Description	Part Number
MPO-12LC Mini Cassette	GMC-X-12-M-OM3-HY-MPO/PC-LC/UPC
1xMPO-3xMPO Mini Cassette	GMC-X-24-M-OM3-HY-MPO/PC-MPO/PC
2xMPO-6xMPO Mini Cassette	GMC-X-48-M-OM4-HY-MPO/PC-MPO/PC
2xMPO-24LC Mini Cassette	GMC-X-24-M-OM5-HY-MPO/PC-MPO/PC

# Patch Panels for use with MPO/MTP Cassette Modules

1U 3-Slot Sliding Patch Panel For MPO/MTP Modules



1U Chassis  
scaling up to  
36~144 discrete fibres

Overview

Gigalight offers an innovative, robust 1U sliding patch panel, which is designed to accommodate up to 3 LGX Modules or MPO/MTP cassettes in a 1U space.

By utilizing different types of adaptors and fiber cables, we can offer a variety of solutions to end users, thus facilitate rapid deployment of high density data center infrastructure as well as improved troubleshooting and reconfiguration during moves, adds and changes.

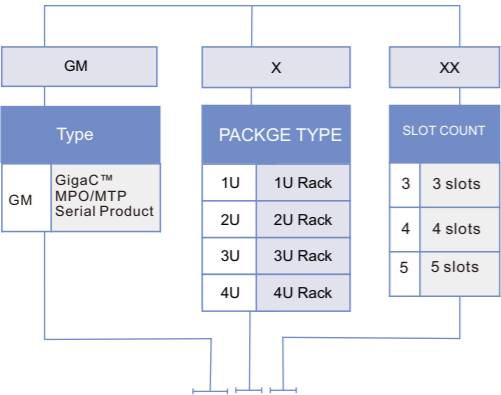
Features

- ◆ Up to 5 LGX/MTP modules in 1U
- ◆ Multiple adaptor options available
- ◆ Individually labelled ports
- ◆ Accepts loose tube, distribution and pre-terminated cables
- ◆ Fits standard 19" cabinet

Applications

- ◆ Data centres, premise installations, telecommunication networks
- ◆ Ethernet, Fibre Channel, LAN and WAN
- ◆ Data communication and telecommunication networks
- ◆ Indoor applications

Part Number Generator



Example Part Number: GM-X-XX

4U 12-Slot Sliding Patch Panel For MPO/MTP Modules



4U Chassis  
up to 288 discrete fibers

Gigalight offers 4U Rack with 12 slots for cabling in data center. The chassis also offers multiple cable entry solutions: MPO/MTP trunk cables connected to 12 individual MPO/MTP cassettes for pre-terminated solutions.

Features

- ◆ Customized 2~4U rack configuration
- ◆ Up to 12 modules in 4U rack
- ◆ Individually labelled ports
- ◆ Accepts loose tube, distribution and pre-terminated cables
- ◆ Fits standard 19" cabinet

Applications

- ◆ Data centers, premise installations, telecommunication networks
- ◆ Ethernet, Fiber Channel Management
- ◆ Data communication and telecommunication networks
- ◆ Indoor applications

Adaptor Plates

LC duplex Adapter

6 LC Adapter  
6 MPO/MTP Adapter

MPO/MTP Adapter

8 MPO/MTP Adapter  
8 LC Adapter

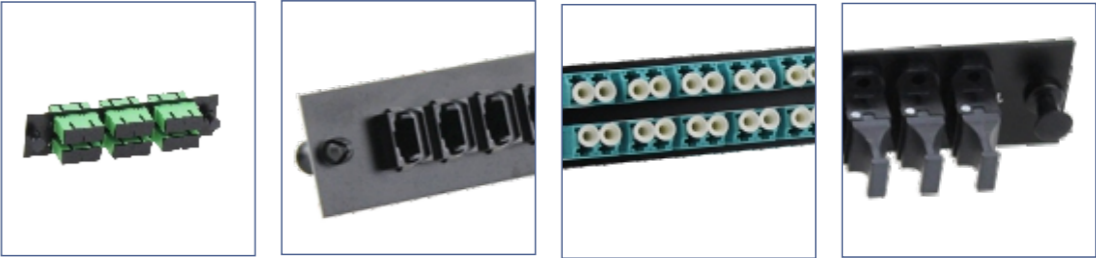
Dust Pannel

SC duplex Adapter

6 SC Adapter  
6 LC W/4 ports Adapter

LC duplex Adapter

24 LC duplex Adapter  
12 SC simplex Adapter



# Optical Patchcord

## Optical Fibre Patchcords



## Description

Gigalight optical patchcords are used to connect high speed and legacy networks . The patchcords are terminated with standard LC/SC connector which features optimum optical performance.For the pre-terminated system, Gigalight also offers multi-fiber trunk cable with different connectors and fanout package.

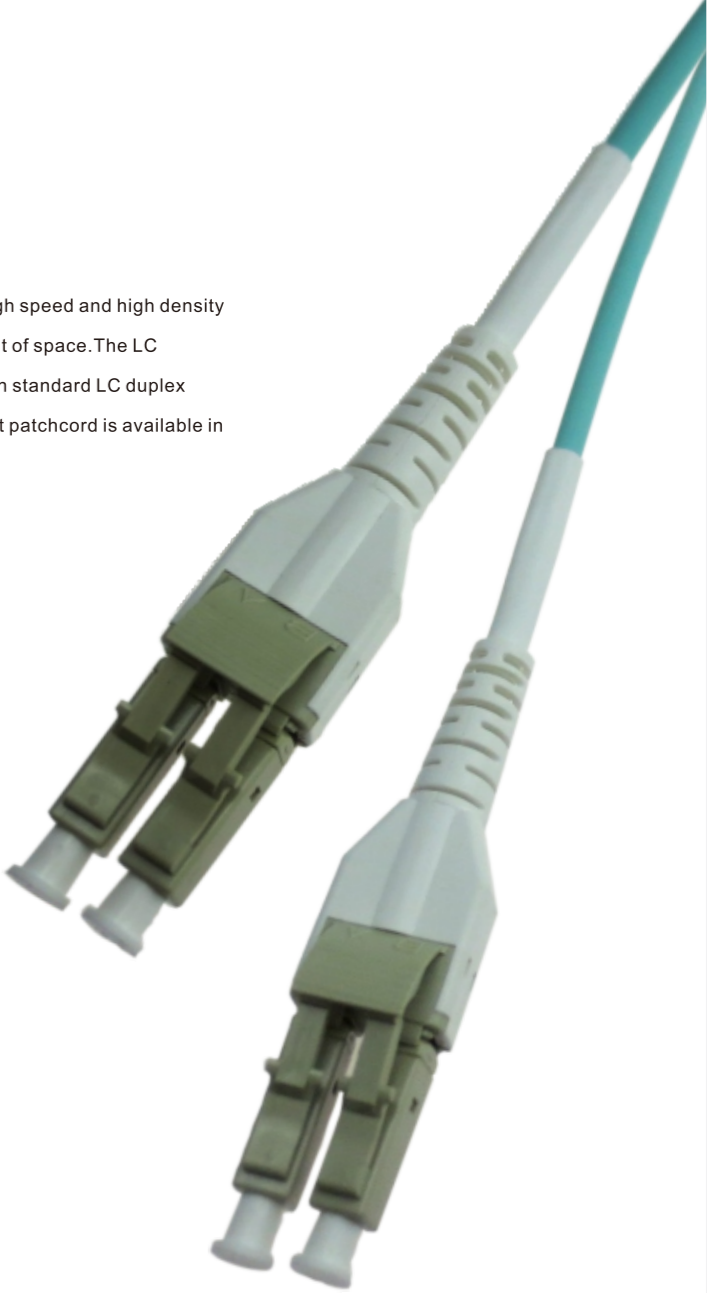
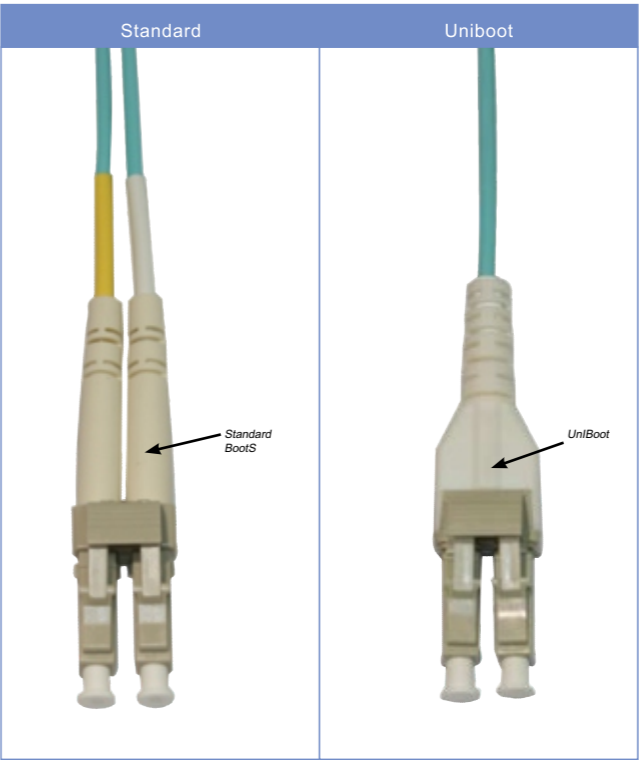


## Features

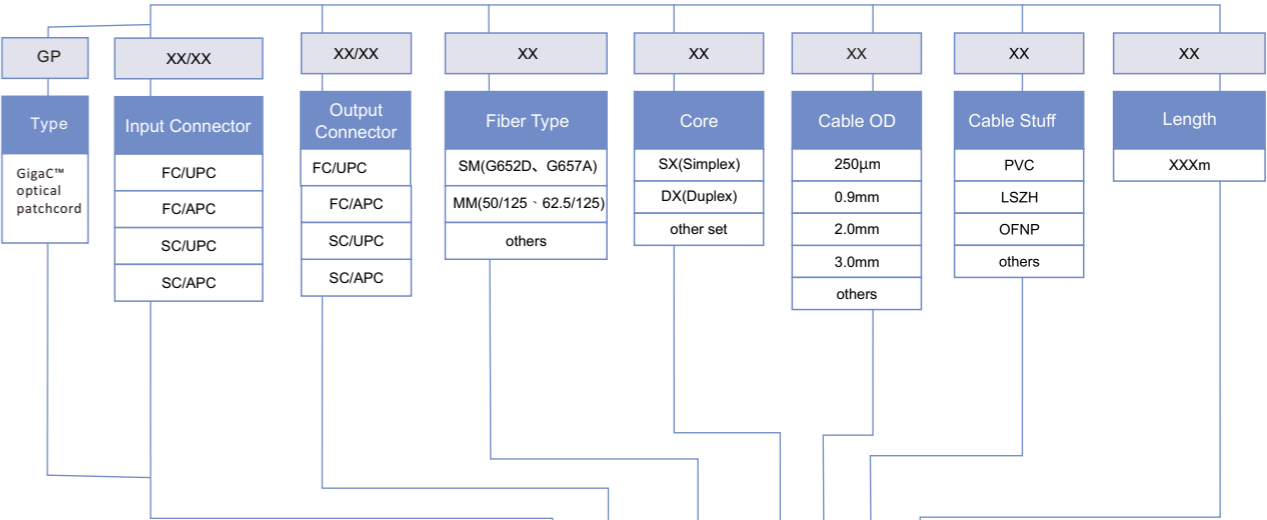
- ◆ SC, LC,FC connectors
- ◆ Low smoke zero halogen (LSZH),PVC
- ◆ Simplex/duplex/mutiple fiber assemblies
- ◆ Duplex assemblies available with clips (SC and LC)
- ◆ Different connector performance range for specific application

## LC Uniboot patchcords

As today's networking environment becomes increasingly dependent on high speed and high density solutions,the key concern is how to manage more cables in a smaller amount of space.The LC Uniboot patchcord reduces cable management space by 50% compared with standard LC duplex patchcord. There are two fibers within a single 3.0mm cable. The LC Uniboot patchcord is available in a wide variety of cable styles including LSZH, Plenum and Riser.



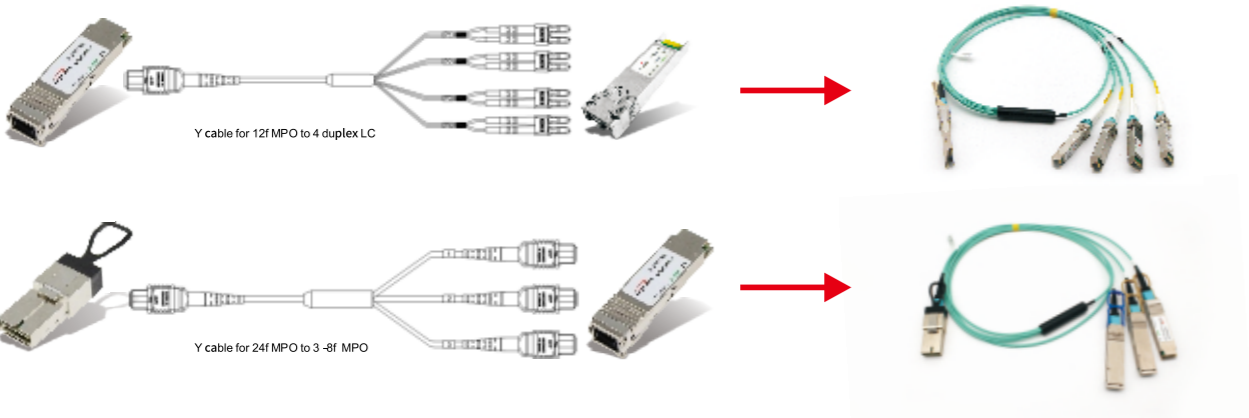
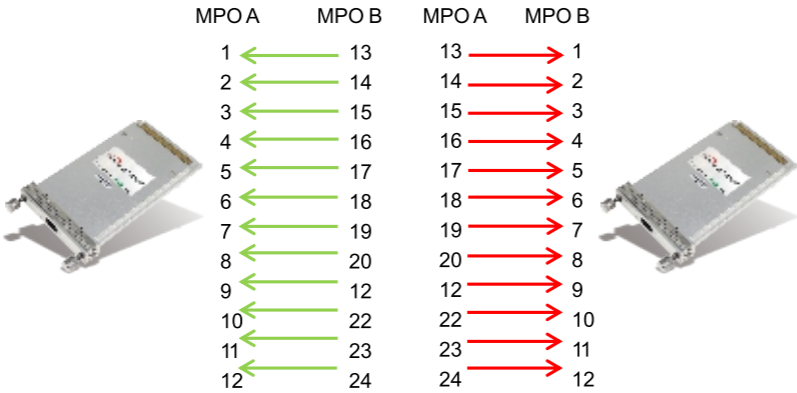
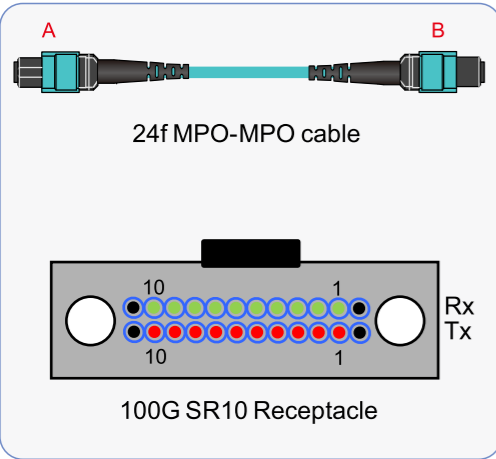
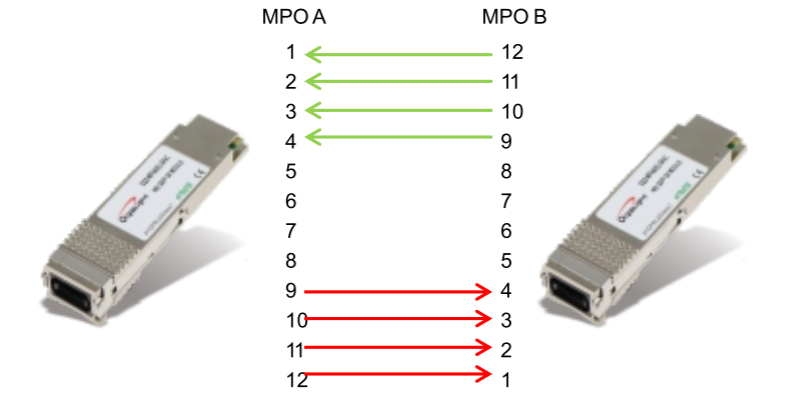
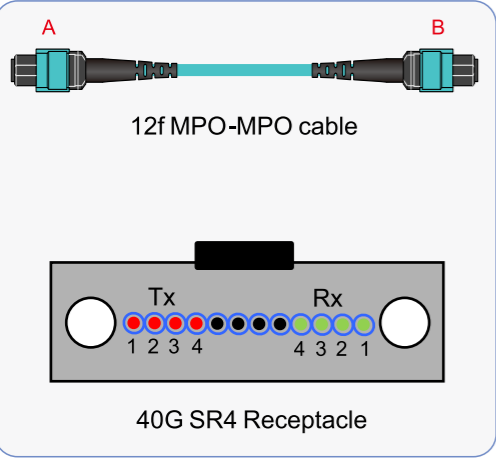
## Part Number Generator



Example Part Number: LC/UPC-G657A1-SX-0.9-LX-001

100G/40G Application

Based on Parallel Optical Interface Technology, a female MPO/MTP patchcord must be used between two 40G or 100G transceiver modules.



Gigalight's MPO/MTP Y cables are particularly designed to connect two high-speed transceivers, which provides a reliable, cost-effective cabling system for migrating from legacy 10G to higher speed 40G/100G Ethernet ect. e.g. our 12F MPO to 4 duplex LC can be used to connect four 10G SFP+ with one 40G QSFP+, and 24MPO to 3-8f MPO is used to connect three 40G QSFP+ with one 120G CXP. Gigalight can provide customized MPO/MTP solutions for specific application.

MPO/MTP Cabling Polarity

Overview of the methods and the individual components

The table below summarizes the described methods:

	Polarity method	MPO/MTP cables	MPO module	Duplex patch cable type	TIA-568.C Standard (parallel signals)	Polarity method	MPO/MTP cables	Adapter plate	MPO/MTP patch cord
TIA-568.C Standard (duplex signals)	A	Type A	Type A (Type A adapter)	1 x A-to-B 1 x A-to-A	TIA-568.C Standard (parallel signals)	A	Type A	Type A	1 x Type A 1 x Type B
	B	Type B	Type B1, Type B2 (Type B adapter)	2 x A-to-B		B	Type B	Type B	2 x Type B
	C	Type C	Type A (Type A adapter)	2 x A-to-B					
	Corning	Type B	Type R (Type B adapter)	2 x A-to-B					

Type A: MPO/MTP cable Key-up to key-down				Type B: MPO/MTP cable Key-up to key-up				Type C: MPO/MTP cable Key-up to key-down, flipped pair-wise			
Fibers				Fibers				Fibers			
1				1				1			
2				2				2			
3				3				3			
4	Key-up	Key-down		4	Key-up	Key-down		4	Key-up	Key-down	
5				5				5			
6	Position 1	Position 1		6	Position 1	Position 12		6	Position 1	Position 1	
7				7				7			
8	Position 12	Position 12		8	Position 12	Position 1		8	Position 12	Position 12	
9				9				9			
10				10				10			
11				11				11			
12				12				12			

Corning: MPO/MTP cable Key-up to key-down				Duplex patch cords A-to-B			
Fibers							
1							
2							
3							
4	Key-up	Key-down					
5							
6	Position 1	Position 1					
7							
8	Position 12	Position 12					
9							
10							
11							
12							

