ASCENT
Communication Technology

12/24 MTP/MPO LC Harness Cable Assembly

MTP/MPO Series

- **24-core MPO - 12xLC duplex multiple fiber assembly**
- **Single-mode & multi-mode available**
- **New miniature breakout module**
- **Female MTP/MPO connectors**
- **LSZH, OFNP, OFNR cable jacket types selection**
- **Rapid deployment Factory terminated modular system**
- **Reliability 100 % tested manufacturing quality control**
- **The fiber types are SM (G657A1), MM (OM3/OM4)**

Ascent's single-mode and multi-mode MPO/MTP® products are multi fiber connectors used in high-density backplane and Printed Circuit Board (PCB) applications in data and telecommunications system.
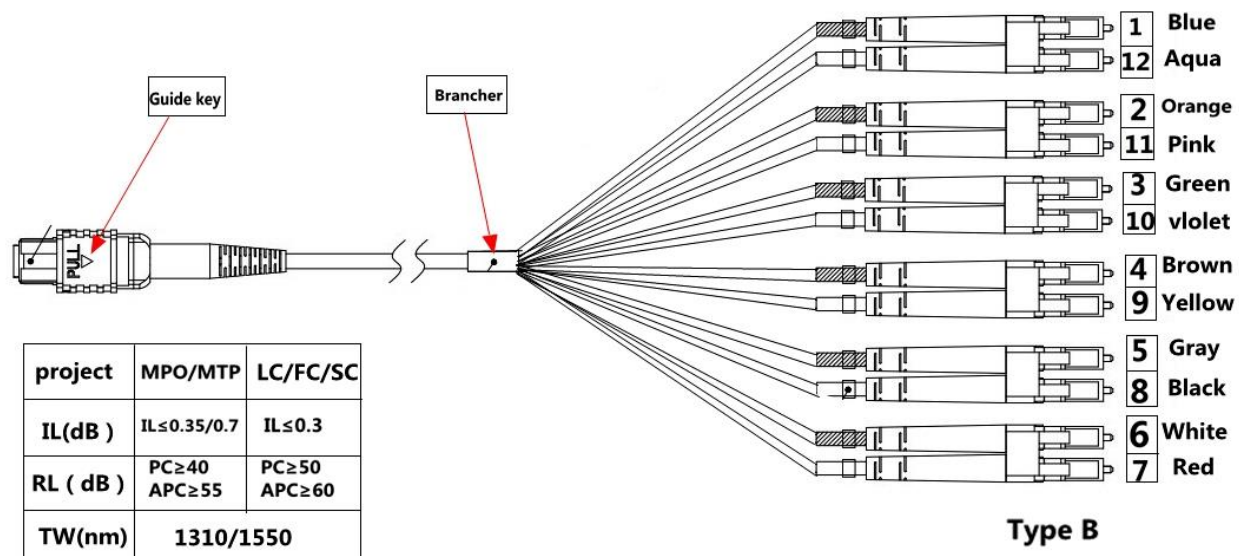
The MPO connector offers up to 24 times the density of standard connectors, providing significant space and cost savings. MPO patch cord utilizes precision molded MT ferrules, with metal guide pins and precise housing dimensions to ensure fiber alignment when mating.

MTP/MPO breakout cables are typically available in 8, 12, 24, 48, or 72 fibers. These fibers are connected between two connectors in three different methods that are called method A (straight through), method B (reversed connected) and method C (pairs flipped). A simple push/pull latching mechanism is used for easy insertion and removal. This allows shorter installation time and lowers overall cost. MTP®/MPO multi-fiber trunk cables are usually in mini-round cables and ribbon cables, with fanout kits broken down into 2 to 24 fiber 0.9 mm or 2.0 mm tails with connector LC, SC, ST, FC, etc. Cable total length, fanout length, and connector type are customizable.

Key Features

- 24-core MPO - 12xLC duplex multiple fiber assembly

- Single-mode & multi-mode available

- 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

- LSZH, OFNP, OFNR cable jacket types selection

- 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

- The fiber types are SM (G657A1), MM (OM3/OM4)

Mechanical Drawing

project	MPO/MTP	LC/FC/SC
IL(dB)	IL≤0.35/0.7	IL≤0.3
RL (dB)	PC≥40 APC≥55	PC≥50 APC≥60
TW(nm)	1310/1550	

1	Blue
12	Aqua
2	Orange
11	Pink
3	Green
10	vlolet
4	Brown
9	Yellow
5	Gray
8	Black
6	White
7	Red

Type B

Specifications

Fiber Transmission Performance

	Multi-mode				Single-mode
Fiber Type	62.5/125µm (850/1300nm)	50/125µm (850/1300nm)	50/125µm (850/1300nm)	50/125µm (850/1300nm)	Single-mode (1310/1383/1550nm)
ISO/IEC name	OM1	OM2	OM3	OM4	OS2
Maximum Attenuation (dB/km)	3.4/1.0	3.0/1.0	3.0/1.0	3.0/1.0	0.4/0.4/0.3*
Maximum Attenuation (dB/km)	3.4/1.0	3.0/1.0	3.0/1.0	3.0/1.0	0.65/0.65/0.5**
Minimum Over Filled Launch (OFL) Bandwidth (MHx•km)	200/500	700/500	1500/500	1500/500	/
Minimum Effective Modal Bandwidth (MHx•km)	220 / -	950 / -	2000 / -	5350 / -	/

Characteristics

	Multi-mode (at 850/1300nm)		Single-mode (at 1310/1550nm)	
MTP®/MPO Connector Insertion Loss	Typical 0.50 dB	Maximum 0.75 dB	Typical 0.45 dB	Maximum 0.55 dB
MTP®/MPO Connector Reflectance	<25 dB		<35dB (8o angled polish)	
Durability	500 rematings: < 0.50dB change		500 rematings: < 0.45 dB change	
Operating Temperature[1]	Outdoor cable: -40 °C to +70 °C			
	Indoor cable: 0 °C to +70 °C			
	Length as defined in P/N, XX meters.			
Length	Tolerance: < 5.0 meters +5/-0 cm; ≥ 5.0 meters +20/-0 cm			
	Loose tube cables include a transition at one or both ends that is included in overall length.			

Note 1: Contact customer service representative to discuss exceptional environmental conditions

Ordering Information

Product Name	Product Description
MPO-LC-OM4-12LSZH-A-xx	MTP Female to 6 LC UPC Duplex 12 Fibers Type A Straight Through LSZH OM4 50/125 Multimode Elite HD BIF Breakout Cable, xx m
MPO-LC-OM4-12LSZH-B-xx	MTP Female to 6 LC UPC Duplex 12 Fibers Type B Crossover LSZH OM4 50/125 Multimode Elite HD BIF Breakout Cable, xx m
MPO-LC-OS2-12LSZH-B-xx	MPO Female to 6 LC UPC Duplex 12 Fibers Type B Crossover LSZH OS2 9/125 Single Mode Elite Breakout Cable, xx m

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