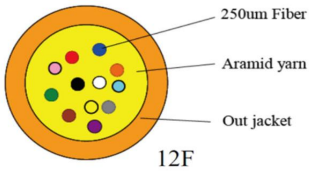
12F MPO OM4 Fiber Optic MPO-LC 2.0mm Straight harness Cables



Zion Code and Description

Zion Code	Zion Description
ZCM11A28HAAX	12F MPO OM4 Fiber Optic MPO-LC 2.0mm Straight harness Cables

The MPO connector is a type of fiber connecter. MPO (Multi-Fiber Push On) is a multi-core fiber connecter type. The MPO high -density fiber pre -connection system is currently mainly used in the application of high -density environments of data centers, the application of optical fiber to the building, and the internal connection applications inside the optical transceiver equipment such as the optical device, 40G, 100G, QSFP+.

MPO connector types are distinguished according to the IEC 61754-7 regulations: core numbers (array number), male head (Male, Female), polarity (PC or APC).

12 cores MPO to 6 LC Duplex(6xLC uniboot;12 LC Simplex) Straight harness Cables assemblies.MPO-LC/SC/FC/ST Straight harness Cables are terminated with MPO and LC/SC/FC/ST connector on both ends. The 12 pcs (6pcs for LC uniboot;12 LC Simplex) fanout cables are optimized for 40G QSFP+ PLR4 to 10G SFP+ LR optics direct connection and high-density data center applications. have same length . It's specifically designed for high-density fiber patching in data centers which need space saving and reduce cable management troubles.

12F MPO- LC/SC/FC/ST Straight harness Cables designed for 40G LR4 PSM, 40GBASE-SR4, 40G QSFP+ PLR4 and highdensity data center. It is optimized for 10/40/100G high-density data center applications.

Connectors' Industrial Standard:

Connector	Reference	Housing Details
MPO Singlemode	IEC 61754-7	SM APC: Green connectors+black boot (Standard Loss MPO) SM APC: Yellow connectors+black boot (Super low loss MPO)
MPO Multimode	IEC 61754-7	OM1&OM2 PC: Beige connectors+black boot (Standard Loss MPO) OM3&OM4 PC: Aqua connectors+black boot (Standard&Super low loss MPO) OM3&OM4 PC: Heather Violet connectors+black boot (Standard loss MPO)

- Meets IEC Standard IEC-61754-7; IEC61755, Telcordia GR-1435-CORE, JIS C5982; TIA-604-5(FOCIS5) compliant Structured cabling per TIA-568-C
- 10G Fiber Channel Compliant
- 40G and 100G IEEE 802.3

Other connectors' Industrial Standard:

- SC: TIA/EIA, FOCIS3, GR-326.NTT-SC IEC61754-4 and JIS C5973
- LC: TIA/EIA, FOCIS10, GR-326 EIA/TIA-604-10, IEC61754-20 and JIS C5973.
- FC: EIA /TIA-604-04, FOCIS4, NTT-FC, GR-326. IEC61754-13 and JIS C5973
- ST: TIA/EIA, FOCIS2, GR-326. IEC61754-2 and JIS C5973 Etc
- E2000: IEC61754-15

Available for

- G657A1 MPO-LC, MPO-SC，MPO-FC，MPO-SC，MPO-ST，MPO-E2000
- G657A2/B2 MPO-LC, MPO-SC，MPO-FC，MPO-SC，MPO-ST，MPO-E2000
- G657B3 MPO-LC, MPO-SC，MPO-FC，MPO-SC，MPO-ST，MPO-E2000
- OM1 62.5/125 MPO-LC, MPO-SC，MPO-FC，MPO-SC，MPO-ST，MPO-E2000
- OM2 50/125 MPO-LC, MPO-SC，MPO-FC，MPO-SC，MPO-ST，MPO-E2000
- OM3 50/125 MPO-LC, MPO-SC，MPO-FC，MPO-SC，MPO-ST，MPO-E2000
- OM4 50/125 MPO-LC, MPO-SC，MPO-FC，MPO-SC，MPO-ST，MPO-E2000
- OM5 50/125 MPO-LC, MPO-SC，MPO-FC，MPO-SC，MPO-ST，MPO-E2000

Optical Specifications:

Spec items.	Single mode (APC 8-degree polished)	Multimode (PC Flat polish)
nsertion loss (MPO) (IEC 61300-3-34)	Standard loss：≤0.75dB(max), ≤ 0.50dB(Typical) Super Low loss：≤0.35dB(max), ≤ 0.20dB(Typical)	Standard loss：≤0.6dB(max), ≤0.50(Typical) Super Low loss：≤0.35dB(max) , ≤0.20dB(Typical)
Insertion loss (LC/SC/FC/ST) (IEC 61300-3-6)	≤0.3dB	≤0.3dB
Return loss(MPO)	≥60dB（8degree polishing）	≥25dB
Return loss(LC/SC/FC/ST)	APC≥60dB; UPC≥50dB	≥35dB
Durability	<0.3dB typical change, 200 matings	
Interchangeability	≤0.2dB	
Insert-pull Test	500times, IL＜0.5dB	
Tensile strength	>70N	
Operating Temperature (℃)	·-40 to + 85°C	

Features:

- Low insertion loss, high return loss
- MT based Multi-fiber Connector, 4,8,12 and 24 fiber connector terminations and assemblies
- Economical solution for mass-termination of fiber
- Designed for low loss and standard loss SM and MM applications
- Ruggedized round cable, oval cable and bare ribbon options available
- Color coded housings available to differentiate fiber type, polish type and/or connector grade
- Good in repeatability and exchangeability

The merits of MTP/MPO Patch cable/trunk cable generally include:

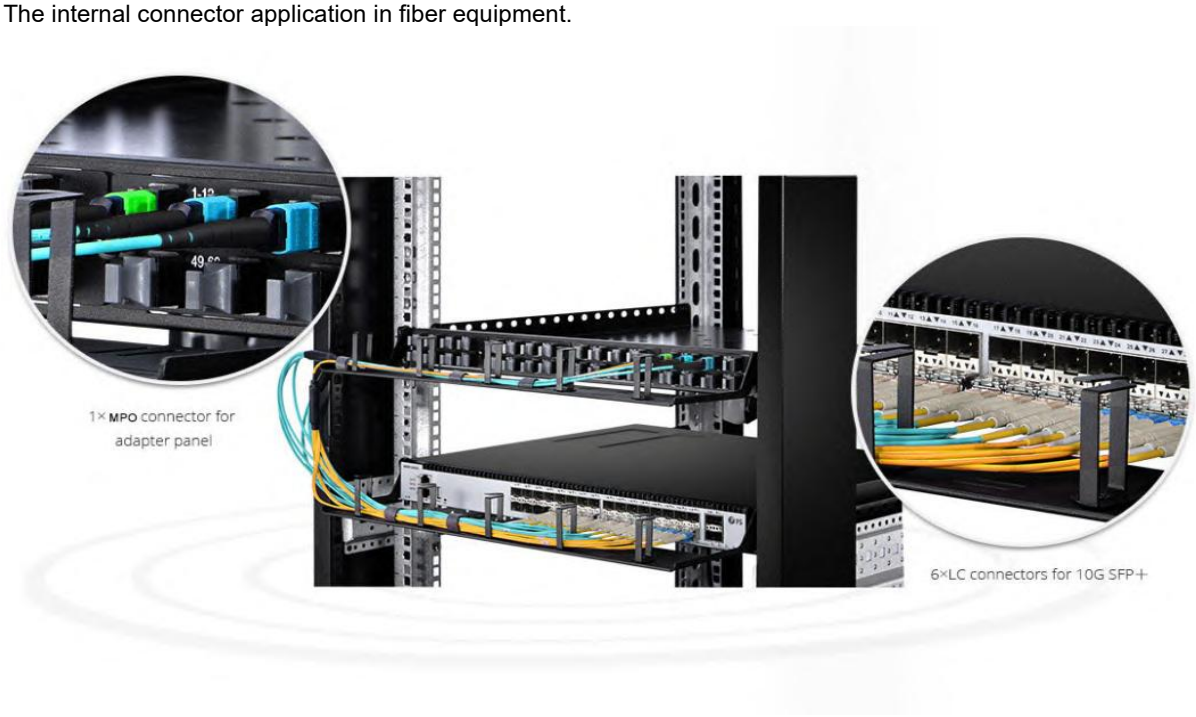
- High quality—MTP/MPO Patch cable/trunk cables are factory pre-terminated, tested and packaged along with the test reports. These reports serve as long-term documentation and quality control.
- Decreasing cable volume—MTP/MPO Patch cable/trunk cables have very small diameters, which decrease the cable volume and improve the air-conditioning conditions in data centers
- Time saving—With the special plug and play design, MTP/MPO Patch cable/trunk cables can be incorporated and immediately plugged in. It greatly helps reduce the installation time.

Application:

12F MPO- LC/SC/FC/ST Straight harness Cables designed for 40G LR4 PSM, 40GBASE-SR4, 40G QSFP+ PLR4 and highdensity data center. It is optimized for 10/40/100G high-density data center applications.

All of OMC's MPO Connectors are from Senko/Nissin/Sumitomo. MPO Fiber Patch Cord is a kind of high density cable assemblies which is generally use in three areas.

- The Data Center application with high dense degree environment
- The optical fiber to the building
- The internal connector application in fiber equipment.



LC/SC/FC/ST End-Face Geometry 3D Interference Index

Items	Connector	PC End-face	APC End-face
Radius of Curvature	SC/FC/ST	10~25 mm	5~12 mm
	LC/MU	7~25 mm	5~15 mm
Apex Offset		≤50 um	
Fiber Spherical Height		+/- 100 nm	
Angular Offset		------	8°± 0.5°

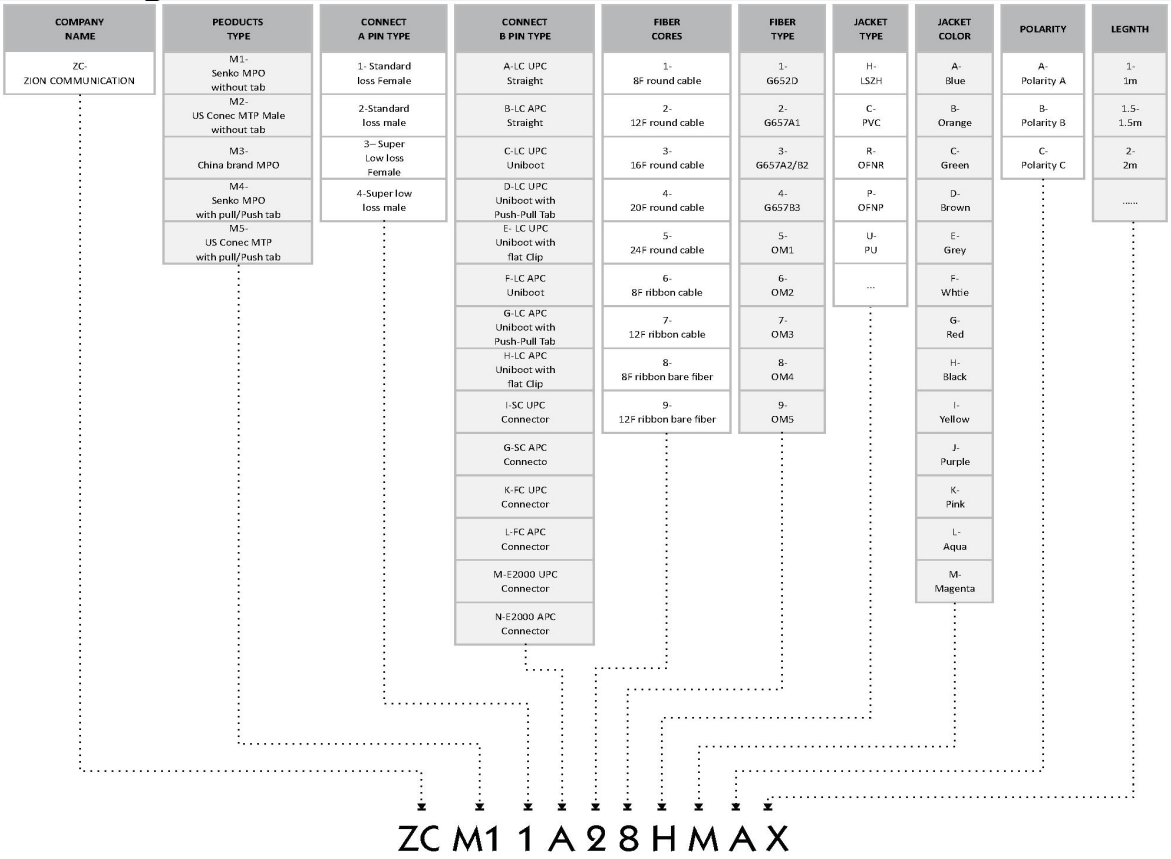
End-face Quality (LC/SC/FC/ST SM)

Zone	Range (μm)	Scratches	Defects	Reference
A: Core	0 to 25	None	None	IEC 61300-3-35:2015
B: Cladding	25 to 115	None	None	
C: Adhesive	115 to 135	None	None	
D: Contact	135 to 250	None	None	
E: Rest of ferrule		None	None	

End-face Quality (LC/SC/FC/ST MM)

Zone	Range (μm)	Scratches	Defects	Reference
A: Core	0 to 65	None	None	IEC 61300-3-35:2015
B: Cladding	65 to 115	None	None	
C: Adhesive	115 to 135	None	None	
D: Contact	135 to 250	None	None	
E: Rest of ferrule		None	None	

Naming Rules&Order Confirmation Information:



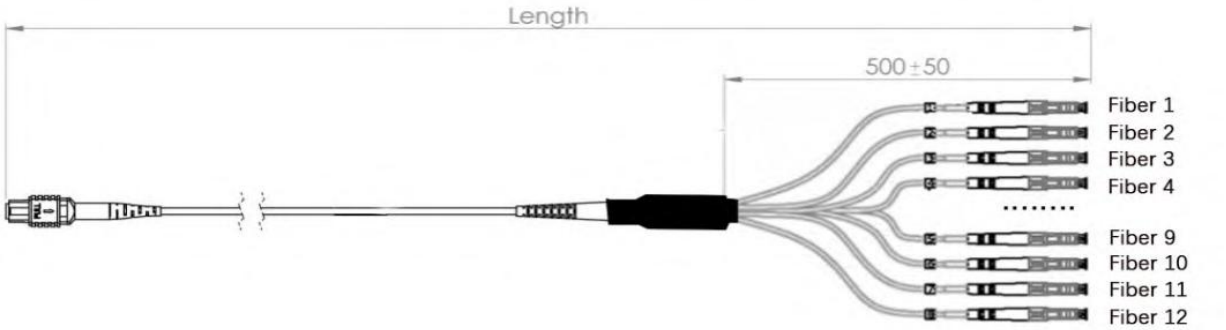
Zion Communication's Hot MPO-LC Straight harness Cables

Zion Code		Zion Description
7236037	ZCM11A12HIAX	8F MPO SM Fiber Optic MPO-LC 2.0mm Straight harness Cables
7236038	ZCM11A22HIAX	12F MPO SM Fiber Optic MPO-LC 2.0mm Straight harness Cables
7236039	ZCM11A52HIAX	24F MPO SM Fiber Optic MPO-LC 2.0mm Straight harness Cables
7236040	ZCM11A17HAAX	8F MPO OM3 Fiber Optic MPO-LC 2.0mm Straight harness Cables
7236041	ZCM11A27HAAX	12F MPO OM3 Fiber Optic MPO-LC 2.0mm Straight harness Cables
7236042	ZCM11A57HAAX	24F MPO OM3 Fiber Optic MPO-LC 2.0mm Straight harness Cables
7236043	ZCM11A18HMAX	8F MPO OM4 Fiber Optic MPO-LC 2.0mm Straight harness Cables
7236044	ZCM11A28HMAX	12F MPO OM4 Fiber Optic MPO-LC 2.0mm Straight harness Cables
7236045	ZCM11A58HMAX	24F MPO OM4 Fiber Optic MPO-LC 2.0mm Straight harness Cables
7236046	ZCM21A12HIAX	8F MTP SM Fiber Optic MPO-LC 2.0mm Straight harness Cables
7236047	ZCM21A22HIAX	12F MTP SM Fiber Optic MPO-LC 2.0mm Straight harness Cables
7236048	ZCM21A52HIAX	24F MTP SM Fiber Optic MPO-LC 2.0mm Straight harness Cables
7236049	ZCM21A17HAAX	8F MTP OM3 Fiber Optic MPO-LC 2.0mm Straight harness Cables
7236050	ZCM21A27HAAX	12F MTP OM3 Fiber Optic MPO-LC 2.0mm Straight harness Cables
7236051	ZCM21A57HAAX	24F MTP OM3 Fiber Optic MPO-LC 2.0mm Straight harness Cables
7236052	ZCM21A18HMAX	8F MTP OM4 Fiber Optic MPO-LC 2.0mm Straight harness Cables
7236053	ZCM21A28HMAX	12F MTP OM4 Fiber Optic MPO-LC 2.0mm Straight harness Cables
7236054	ZCM21A58HMAX	24F MTP OM4 Fiber Optic MPO-LC 2.0mm Straight harness Cables

Connector	Fiber Channel
MPO Connectors	12 Fibers

Three Connection Methods Help Keep the Right MTP/MPO Polarity

MPO –12 x LC Simplex structure-Type 1



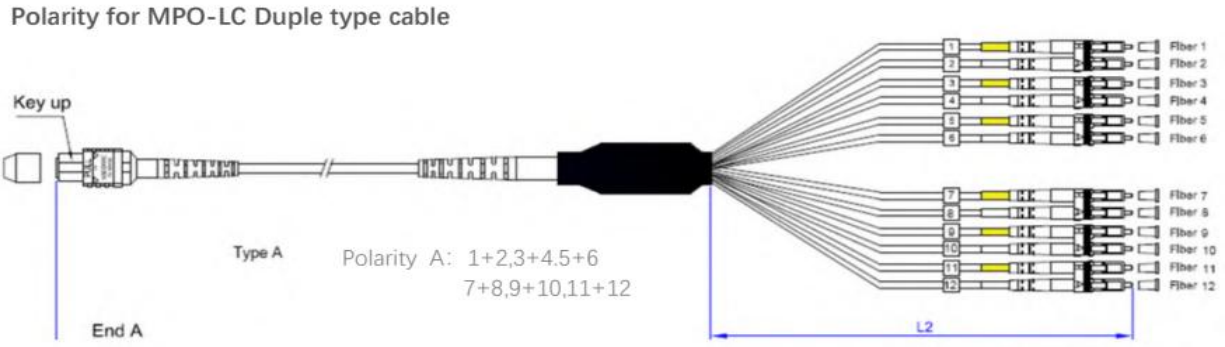
Fanout 2.0mm or 0.9mm OD leg, Fanout length: 0.5m

MPO can be Female and Male, Main cable OD:3.0mm

The cable's Polarity method is not fixed. Customer can use it in Polarity A and B freely.

Other connectors such as SC,FC,E2000… are available

MPO –6 x LC Duplex structure-Type 2-Type A



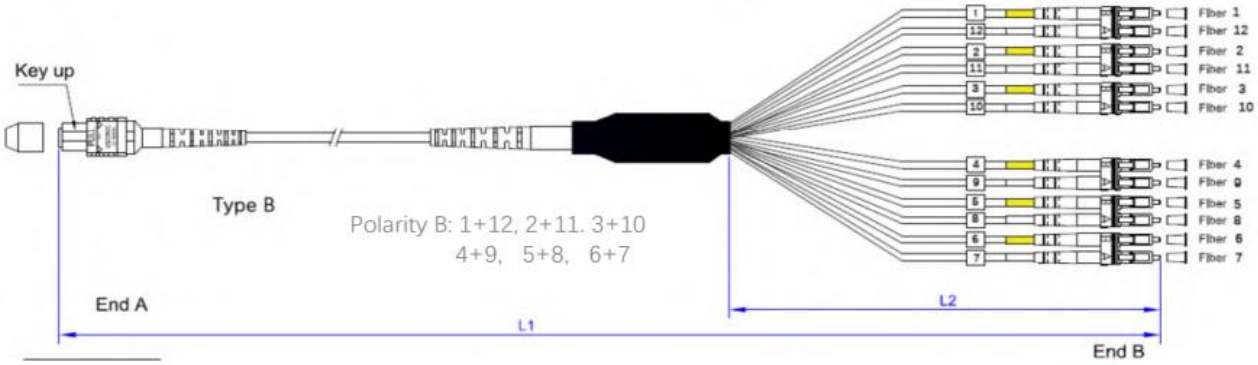
Fanout 2.0x4.1mm/0.9mm OD leg, Fanout length: 0.5m

MPO can be Female and Male, Main cable OD:3.0mm

The cable's Polarity method is not fixed. Customer can use it in Polarity A and B freely

Other connectors such as SC,FC,E2000… are available

MPO –6 x LC Duplex structure-Type 2-Type B



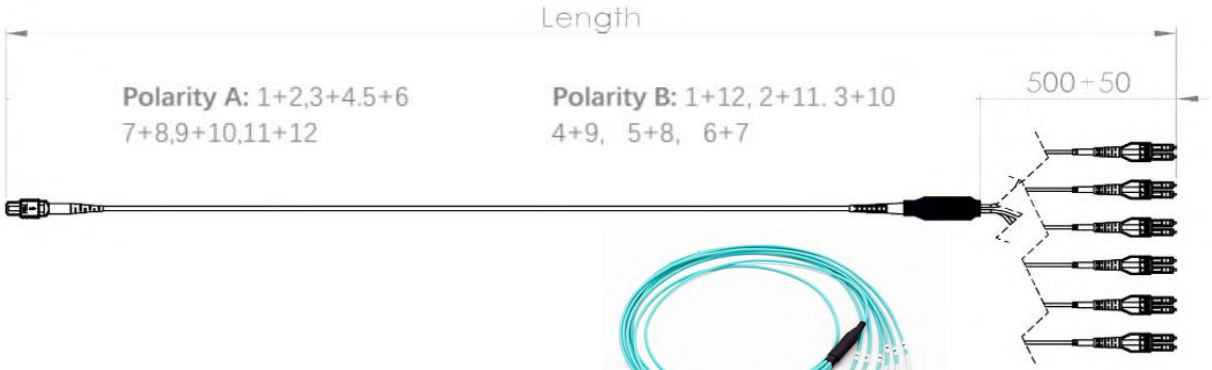
Fanout 2.0x4.1mm/0.9mm OD leg, Fanout length: 0.5m

MPO can be Female and Male, Main cable OD:3.0mm

The cable's Polarity method is not fixed. Customer can use it in Polarity A and B freely

Other connectors such as SC,FC,E2000… are available

MPO –Polarity for MPO –6 x Uniboot LC structure-Type 3



Fanoutt 2.0mm/3.0mm OD leg, Fanout length: 0.5m

MPO can be Female and Male, Main cable OD:3.0mm

LC connector is available for many kinds of different Uni-boot LC connectors

Material's details

Bend Insensitive fiber of G657A1,G657A2/B2,G657B3,OM1,OM2, OM3, OM4, OM5

Offering stable transmission

High quality MT ferrule,
Available for 8F,12F,24F

High Quality Senko MPO Connector meet

and Compatible with many International Standard

Packaging

This easily taken and well-protected fiber optical cable package has been labelled and marked by OMC as default .Standard carton size : 34*22*15 cm; 44*34*24 cm ; 54*39*34 cm . Which carton to be used depends on goods Qty . Packing can be customized.

1,Self-seal PE Bag

2 Bubble Bag

3, Paper Carton

4,fumig-free Pallet

OEM/ODM service for you

1. Cable color, printing word, material of cable jacket, connector's color
2. OEM Label, Identify ring, cable's label， box, shipping marks
3. Different quality Level.