

Cable Assemblies and Adapters for Mid-Board Optical Modules (MBOM)

molex

High-performance Cable Assemblies and Adapters for Mid-Board Optical Modules (MBOMs) deliver inside-the-box optic compatibility with transceivers from a wide range of vendors

Features and Benefits

MTP/MPO cable assemblies: ribbons encased in solid buffer core

Reduces fiber pistoning between ribbons

EMI shielding adapters available

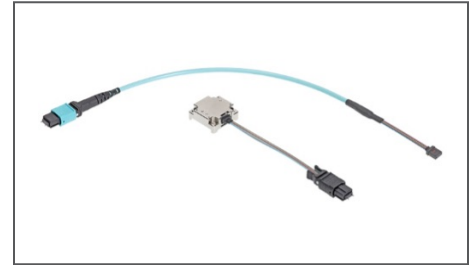
Enables both internal and external solutions.
Latching options available

MTP/MPO Connectors: Plenum rated

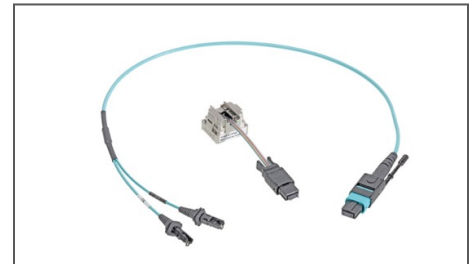
Meet system flammability requirements

Complete mid-board optical module connectivity solution

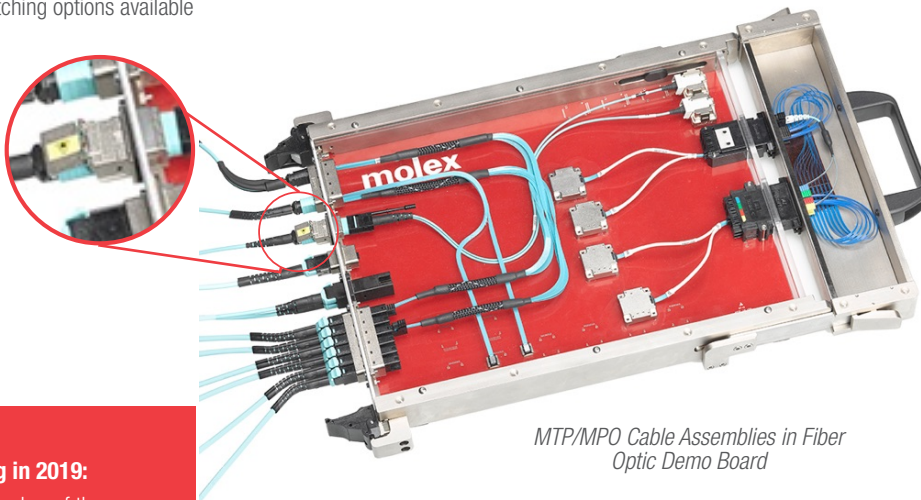
Components are designed to work together for optimum performance. Delivers end-to-end connectivity from one vendor



MTP/MPO Cable Assemblies for Finisar MBOM



MTP/MPO Cable Assemblies for Avago MBOM



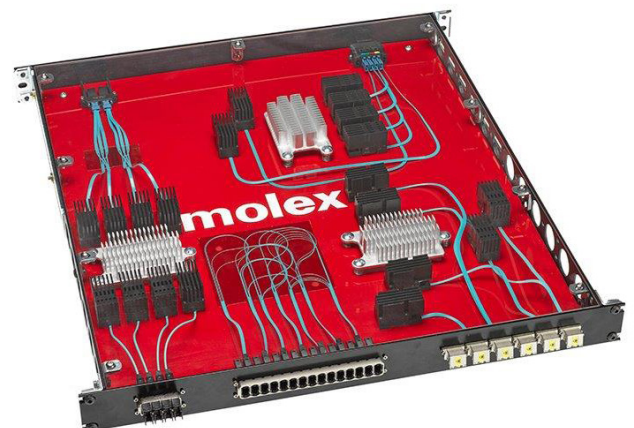
MTP/MPO Cable Assemblies in Fiber Optic Demo Board

MTP/MPO connectors use a push-pull connector housing and shuttered diecast

Provides quick and reliable connectors.
Shields and isolates EMI Emissions

VersaBeam POD assemblies with innovative perpendicular mating interface with parallel optical modules for board-mounted, row or clustered layouts

Provides optimum airflow on the PCB and ribbon-cable management above the optical modules. Capable of multiple re-matings to MBOMs



COBO Shuffle Box

VersaBeam: 12-fiber, 1.80mm-jacketed round and bare-ribbon fiber assemblies available

Jacketed round cable allows cable to be routed in any direction while protecting the fiber during installation. Variety of cable options provides design flexibility

Coming in 2019:

As a member of the Consortium for the On-Board Optics (COBO) MSA, Molex will design products to support the interchangeable and interoperable optical modules developed from COBO's specifications.

Applications

Data Centers

Servers

Routers

Switches

Telecommunications

Cloud computing

Servers



Data Centers

Customizable

Can meet the requirements of a wide variety of MBOM and datacenter needs

Cable Assemblies and Adapters for
Mid-Board Optical Modules (MBOM)

molex

Specifications

VersaBeam POD Cable Assemblies

REFERENCE INFORMATION

Packaging: Bag
12-Fiber Ribbon VersaBeam POD Cable
Mates to:
 Avago MicroPOD Modules
 Avago MiniPOD Modules
12-Fiber 1.80mm Round Jacketed
VersaBeam POD Cable Mates to:
 Avago MiniPOD Modules
Interface to Module:
 VersaBeam POD ferrule with Total Internal
 Reflection (TIR) Lens

The VersaBeam POD connector has integrated
latches that secure the ferrule to the MicroPOD
and MiniPOD modules

PHYSICAL

Ribbon-Fiber VersaBeam POD Connector:
 5.70 by 7.40mm
1.80mm Jacketed Round VersaBeam
POD Connector:
 4.80 by 28.50mm
Number of Fibers per VersaBeam
POD Connector: 12
Fiber Type: 50/125µm

OPTICAL

Insertion Loss: 2.0 dB with Interposer

ENVIRONMENT

VersaBeam POD Cable qualified to
 operating temperature: -40 to +75°C
Designed for on-board cable routing
Proof test: 2.2N

Specifications

MPO/MTP Cable Assemblies

REFERENCE INFORMATION

Packaging: Bag
Mates With: MTP/MPO connector to MTP/MPO,
 MT, or HBMT
Use With: Cable configurations with MPO/MTP, LC,
VersaBeam POD, MT and other optical interconnects
Designed In: Millimeters
RoHS: Yes
Halogen Free: No

PHYSICAL

Housing Material: Polymer
Housing Color:
 Aqua, Green or Black, others upon request
Ferrule: MT
Operating Temperature: -10 to +60°C

OPTICAL

MTP/MPO: 10-20N
Durability (min.): 50 cycles — Per Telcordia GR-1435
Insertion Loss (IL) (max.):
 Multimode Fibers — 0.75dB
 Singlemode Fibers — 1.0dB
Return Loss:
 Multimode — -20dB
 Singlemode — -20dB

Ordering Information

Mid-Board Optical Modules and Compatible VersaBeam POD Cable Assemblies

Foxconn MiniPOD (Formerly Avago)

Molex Series	Compatible Product	Directionality	Data Rate	Channels	Aggregate Bandwidth	Optical Interface	Approximate Size	Cable Type
106267	MiniPOD	Unidirectional	10 Gbps	12	120 Gbps	Prizm LightTurn	22.00 by 19.00mm	Ribbon
			10 Gbps		120 Gbps			Round
			10 Gbps		120 Gbps			Ribbon
			10 Gbps		120 Gbps			Round
			12.5 Gbps		150 Gbps			Ribbon
			12.5 Gbps		150 Gbps			Round
			14 Gbps		168 Gbps			Ribbon
			14 Gbps		168 Gbps			Round
Molex Series	Compatible Product	Directionality	Data Rate	Channels	Aggregate Bandwidth	Optical Interface	Approximate Size	Cable Type
106267	MiniPOD	Unidirectional	10 Gbps	12	120 Gbps	Prizm LightTurn	7.80 by 8.20mm	Ribbon
			10 Gbps		120 Gbps			
			10 Gbps		120 Gbps			
			12.5 Gbps		150 Gbps			
			12.5 Gbps		150 Gbps			
			14 Gbps		168 Gbps			
			14 Gbps		168 Gbps			

Cable Assemblies and Adapters for Mid-Board Optical Modules (MBOM)



Ordering Information

Mod-Board Optical Modules and Compatible MT Cable Assemblies

Amphenol FCI LEAP

Molex Series	Compatible Product	Directionality	Data Rate	Channels	Aggregate Bandwidth	Optical Interface	Size	Cable Type
106225	LEAP	Bidirectional	25 Gbps	12	300 Gbps	24F MT	25.00 by 25.00mm	Ribbon

Reflex Photonics LightABLE SR12

Molex Series	Compatible Product	Directionality	Data Rate	Channels	Aggregate Bandwidth	Optical Interface	Approximate Size	Cable Type
106225	LightABLE SR12	Unidirectional	10 Gbps	12	120 Gbps	12F MT	26.00 by 17.00mm	Ribbon

Finisar BOA

Molex Series	Compatible Product	Directionality	Data Rate	Channels	Aggregate Bandwidth	Optical Interface	Max Distance	Cable Type
106225	10G BOA	Unidirectional	10.5 Gbps	24	240 Gbps	24F MT	100m OM3	Ribbon
		Bidirectional		12	120 Gbps			

Samtec FireFly

Molex Series	Compatible Product	Directionality	Data Rate	Channels	Aggregate Bandwidth	Optical Interface	Size	Cable Type
106225	14G FireFly	Unidirectional	14 Gbps	12	168 Gbps	12F MT	11.00 by 16.00mm	Ribbon
106283						12F MPO		
106283						12F MTP		
106225		Bidirectional				24F MT		
106284						24F MPO		
106284						24F MTP		

EMI Adapters

Series No.	Component
106114	EMI MPO Adapter
106250	EMI MXC, MT Adapter

Custom Cable Assemblies for Mid-Board Optical Modules

Custom Product	Description
Contact Molex	Customized MBOM Cable Assemblies

www.molex.com/link/mbom.html

Molex is a registered trademark of Molex, LLC in the United States of America and may be registered in other countries; all other trademarks listed herein belong to their respective owners.