MXC* Optical Interconnect Solutions

molex®

Enabling the networking world's newest open-compute platforms with streamlined design and superior scalability, the MXC* Optical Interconnect Solution, with VersaBeam™ expanded-beam MT technology, delivers cutting-edge high-density performance
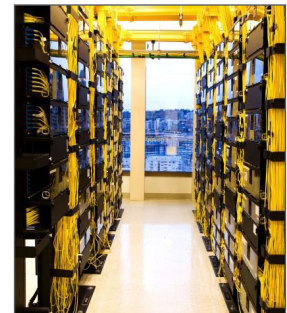
MXC Cable Assembly

Features and Benefits

Supports up to 64 fibers per ferrule	Provides options for different transmission link distances using OM3, OM4, multimode and singlemode† fibers. Allows system architects flexibility to meet specific bandwidth and distance requirements supporting both onboard multimode VCSEL and singlemode silicon photonics technologies
Simplified panel-mounted receptacle and assembly design with greatly reduced component count	Reduces cost, complexity and footprint by eliminating numerous components compared to MPO/MTP†† connector-to-adapter-to-connector interface designs
Anti-snag thumb-latch design	Provides latching and unlatching ease-of-use. Delivers 15% increased density compared to MPO/MTP push/pull style latches
Lower mating force than MPO/MTP. Spring force has not increased with the higher fiber count	Offers greater density without impacting mechanical design requirements. Ideal for backplane applications
Adjustable strain relief with optional FlexiBend™ boot	Makes cable routing easier. Can bend cable as necessary within space constraints without damaging cable
Recessed ferrule with VersaBeam™ expanded-beam MT technology	Protects the interface from damage. Expanded-beam connection is less sensitive to dust contamination, fiber damage and is easier to clean compared to standard MT ferrules
MXC-to-MPO/MTP fan-out cable configurations available	Allow for conversion from the MXC interface to individual MPO/MTP and LC connectors for connections to QSFP, CXP or SFF active optical modules
Standard MT-ferrule compatible	For use in applications not requiring expanded-beam MT connections
Supports round multi-fiber cable constructions from 12 to 64 fibers	Eases multi-fiber cable management compared to flat-ribbon cable on equipment front panels. Will eventually support a range of cable diameters from 2.00 to 5.50mm for fiber counts from 12 to 64 fibers

Applications

Telecommunications/Networking/Cloud Computing

- Hubs
- Servers
- Storage
- Open-Compute Architectures
- Disaggregated-Rack Architectures

Telecommunication Servers

Cloud Computing

*MXC is a trademark of US Conec Ltd.
†Singlemode currently in development
††MTP is a registered trademark of US Conec Ltd.

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Specifications

Reference Information
Packaging: Bag
Mates With: MXC connector to MXC receptacle only
Use With: Cable configurations with MPO/MTP†,
  LC, VersaBeam™ POD, MT and other optical
  interconnects.
Designed In: Millimeters
RoHS: Yes
Halogen Free: No

Optical
Mating Force:
  VersaBeam™ Expanded-Beam MT: 0.5kg
Durability (min.): 50 cycles — Per Telcordia GR-1435
Insertion Loss (IL) (max.):
  Multimode Fibers — 1.2 dB
  Singlemode Fibers — 1.5 dB††
Return Loss:
  Multimode — -20 dB
  Singlemode — -20 dB††

Physical
Housing Material: Polymer
Housing Color:
  Aqua, Green or Black, others upon request
Ferrule: VersaBeam™ Expanded-Beam MT
Operating Temperature: -10 to +60°C
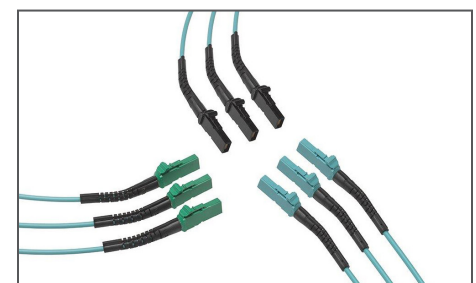
Ordering Information

Generic Cable Assemblies

Part No.	Description	Length (m)	Fiber Count	Fiber Type	Boot Type	Color
106210-1102	MXC Cable Assembly	10.0	32	Multimode OM3	FlexiBend™	Aqua
106210-1100		100.0		Multimode OM	Straight	
106210-6021		3.0	48	Multimode OM#	Straight	
106210-5003	MXC to [3] MPO (QSFP) Fan-Out Cable		24			

Kit for use with Avago MiniPOD and MicroPOD**

Part No.	Description	Length (m)	Fiber Count	Fiber Type	Boot Type	Color
106210-1103	MXC Cable Assembly	10.0	12	Multimode OM3	Straight	Aqua
106210-1104	MXC Receptacle to VersaBeam™ POD	0.5			N/A	

Kit for use with 25G Mid-Board Optical Modules (FCI LEAP‡ On-Board Transceiver, Finisar§ 25G BOA, TE CoolBit*** Mid-Board Optical Transceiver)

Part No.	Description	Length (m)	Fiber Count	Fiber Type	Boot Type	Color
106210-1105	MXC Cable Assembly	10.0	24	Multimode OM3	Straight	Aqua
106210-3005	MXC Receptacle to MT Ferrule	0.5			N/A	

MXC Connectors with FlexiBend™ boots

www.molex.com/link/mxcoptical.html