

MXC[®] Connectors

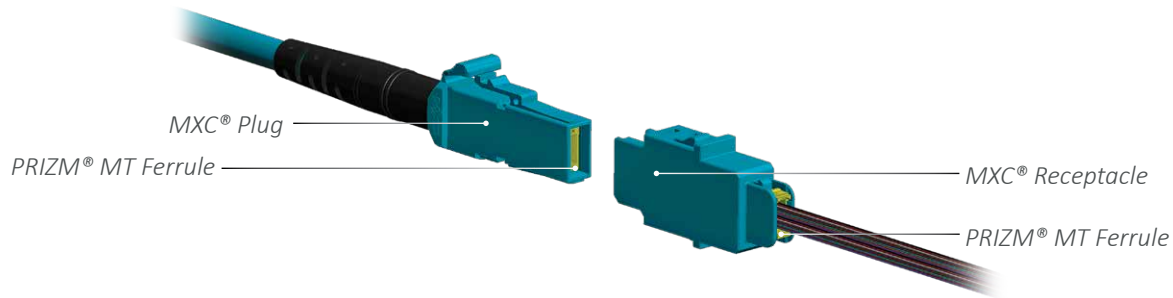
The MXC[®] connector platform is a versatile, cost effective, next generation connectivity solution optimized for direct interface to equipment densely populated with mid-board mounted, multimode or singlemode optical modules. Supporting a varied selection of link designs, the MXC[®] package is optimized for expanded beam PRIZM[®] MT ferrules providing for a more robust and debris insensitive interface compared to traditional physical contact solutions. The unique, streamlined external plug recesses the multi-fiber ferrule protecting the lensed interface while providing maximum port density. Designed specifically for intra-rack and inter-rack point to point links, the MXC[®] solution combines the bulkhead adapter and on-card plug into a single component, minimizing PCB space consumption on the inside of the equipment.

The MXC[®] connector platform also supports blind-mating of the optical fiber demarcation point for true optical backplane or mid-plane architectures. Utilizing the same external cable plugs for front panel and backplane applications, novel X, Y and Z floating mechanisms allow for generous mismatch between the card mounted and rack mounted connector components.

Features:

- Optimized for point to point, equipment card interface applications
- Debris insensitive resulting in high reliability
- Supports a wide variety of link designs in both multimode and singlemode
- Reduced complexity of connector components
- Fewer components with traditional adapter eliminated
- Optimized for US Conec's expanded beam PRIZM[®] MT ferrule technology

MXC® Connector Platform



Applications

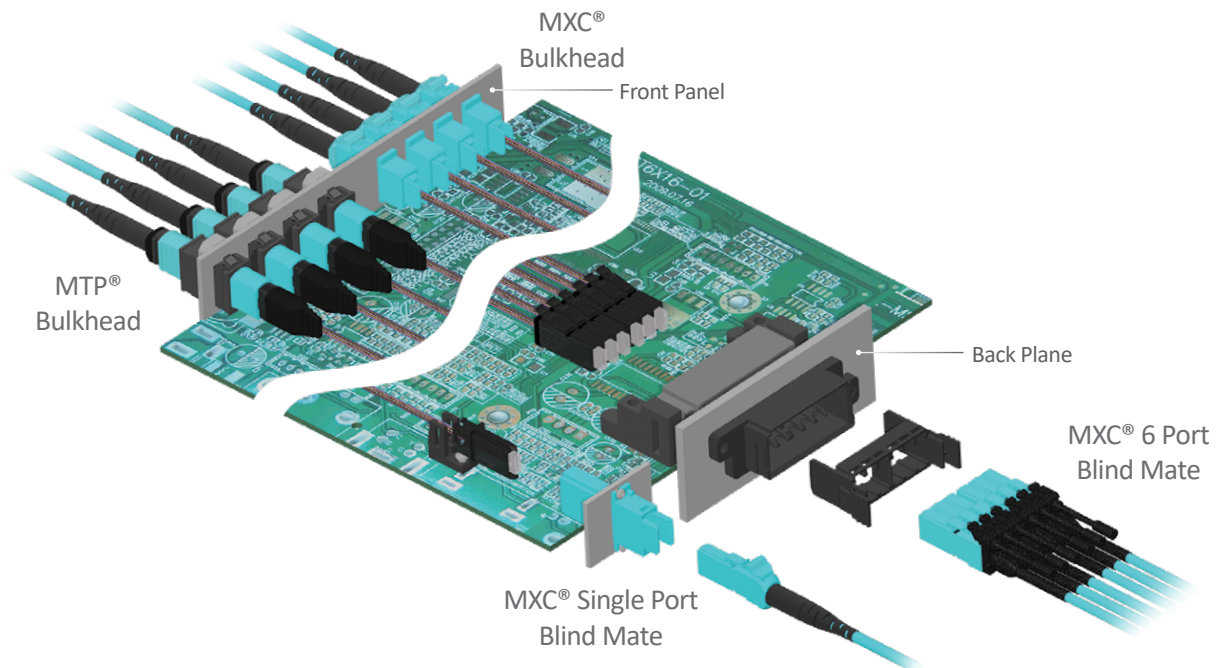
- Bulkhead fiber demarcation point for embedded single-mode and multimode Tx/Rx architectures
- Front panel and backplane multi-fiber point to point links
 - High performance computing
 - Switching/routing fabrics
 - Switch to server interconnects
 - Switch to switch interconnects

MXC® Interface

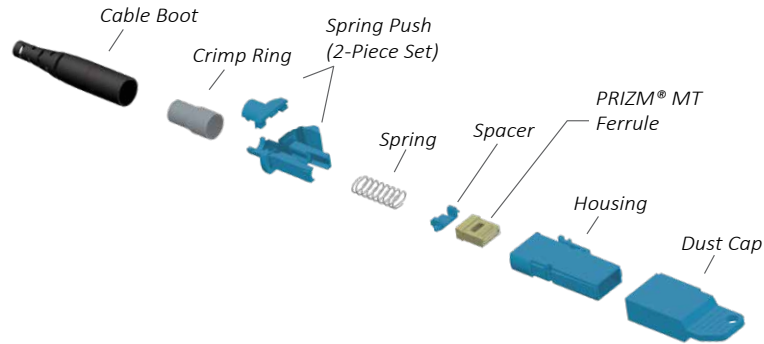
Smaller MXC® format accommodates ruggedized strain relief on the external cable only whereas MTP® cables accommodate ruggedized strain relief on internal and external plugs.

Space savings with MXC® compared to MPO-style connectors for bulkhead applications:

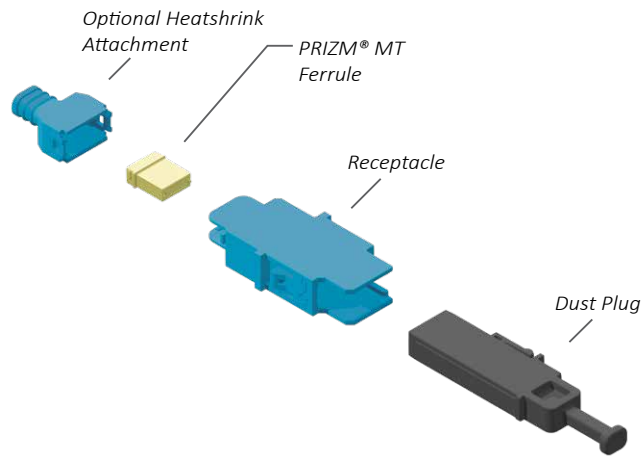
- 59% PCB area
- 40% Faceplate area
- 132 MXC® receptacles fit into a 19-inch 1U panel



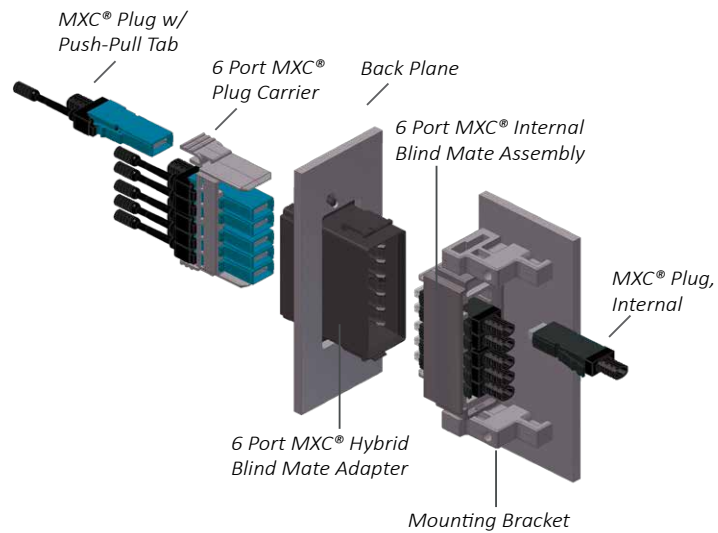
MXC® Plug



MXC® Receptacle



MXC® Blind Mate Hardware



PRIZM® MT Ferrules

US Conec's novel PRIZM® MT expanded beam ferrule technology has revolutionized high density point-to-point interconnects by merging low cost multi-fiber ferrule component design with no-polish fiber termination processing. The PRIZM® MT ferrule combines US Conec's industry leading high-precision fiber alignment capabilities with state-of-the-art molded optical component technology. The end result is a monolithic optical connector ferrule with fiber microholes, lenses, and mechanical alignment features offering robust and repeatable connections in challenging environments with little to no cleaning or inspection.

Features:

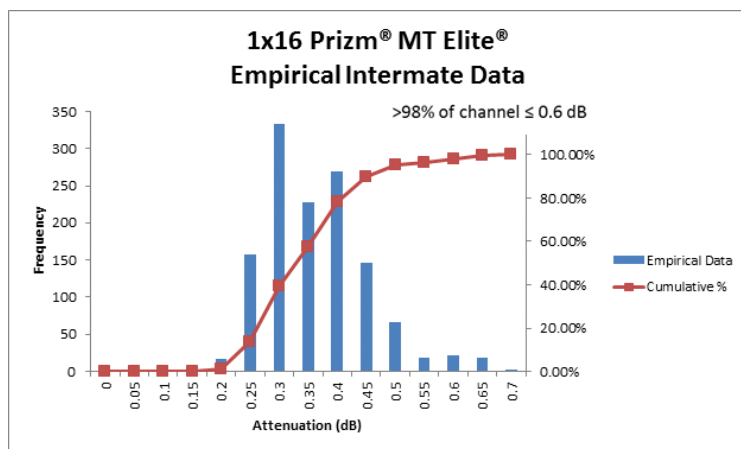
- Monolithic ferrule design
- Collimating lenses
- No physical contact
- No polish, low cost termination process
- Up to 64 fibers per ferrule
 - ≤16 fibers per row
 - ≤4 rows per ferrule
- Low insertion force
- Debris insensitivity
- GR-1435 compliant
- Optional AR coating
- Compatible with MXC® connectors and other MT based connector embodiments



Monolithic PRIZM® MT Ferrule

Performance Specifications

Ferrule Grade	Random Mated Attenuation IL (≥ 97%)	Typical IL	Return Loss
Multimode PRIZM® MT Elite	≤0.6dB	0.3dB	≥23dB
Multimode	≤1.2dB	0.9dB	≥20dB
Multimode + AR Coating	≤0.8dB	0.5dB	≥23dB



Actual empirical data on multiple selected lots to represent worst case ferrules with uncharacterized fiber.

