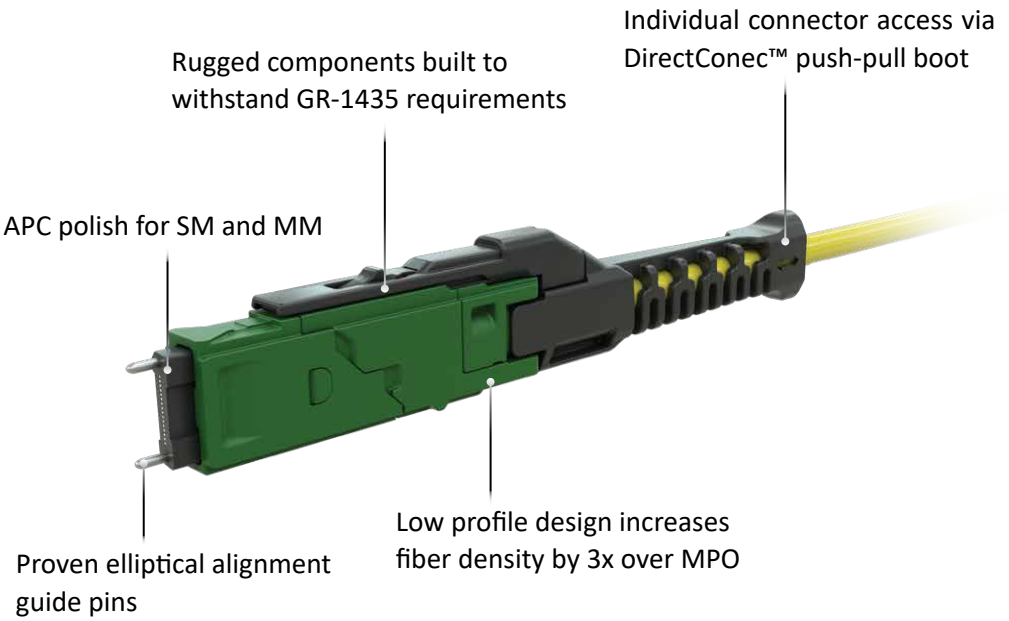
MMC CONNECTOR SOLUTIONS

MMC Connector

US Conec's MMC connector is a Very Small Form Factor (VSFF) multi-fiber optical connector designed for termination of single-mode and multimode fiber cables up to 2.5mm in diameter. The MMC connector employs novel TMT ferrule technology harmonized with the MT or MT-16 alignment structure. Individual connector access in the most extremely dense connector environments is easily accomplished using revolutionary DirectConec™ push-pull boot technology.

Features:

- 3x cabling port density over the MPO format
- DirectConec™ push-pull boot for effortless connector insertion and extraction
- Ut ilizes proven MT or MT-16 mechanical and fiber alignment structures
- 250 µm pitch for compatibility with standard 250 µm and smaller OD optical fibers
- TMT Elite™ low-loss, IEC Grade B insertion loss performance (0.25dB 97% random intermate)
- APC for both SM and MM applications
- Available in 1x12, 1x16 and 2x12 variants
- Tested to Telcordia GR-1435
- Cables up to 2.5mm OD
- Standard cabling industry infrastructure support including IBC cleaners, polishers, interferometers, and optical testing equipment

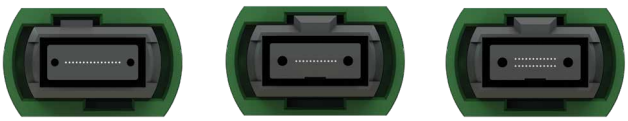


New Applications Require a Reduced Size Connector Format

Next generation architectures are driving the need for increased fiber counts and optical connectivity density which cannot be met with the MPO format. MMC applications include:

- Structured cabling
- Data Center Interconnect and reduced OD pre-terminated cable assemblies
- High bandwidth transceivers
- Co-packaged optics and on-board connectivity

MPO



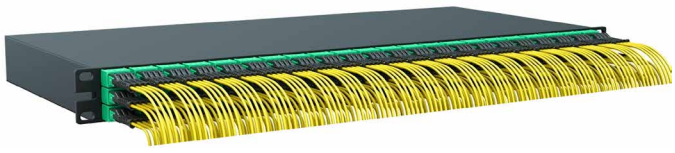
1x16 1x12 2x12

72 x MPO ports

864 fibers in 1RU using 12F MPO connectors
1,152 fibers in 1RU using 16F MPO connectors
1,728 fibers in 1RU using 24F MPO connectors

MMC

1x16 1x12 2x12



264 x MMC ports (>3x MPO in 1RU)

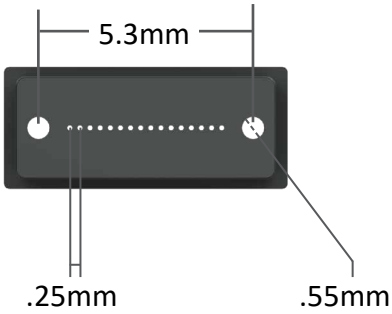
3,168 fibers in 1RU using 12F MPO connectors
4,224 fibers in 1RU using 16F MPO connectors
6,336 fibers in 1RU using 24F MPO connectors

TMT Ferrule Technology

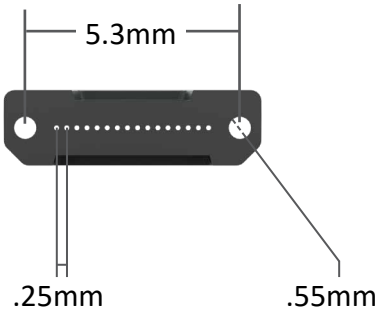
The TMT ferrule format is based on the proven alignment structure of MT and MT-16 ferrules used in MTP® and MTP®-16 applications. Engineered for durability, the novel shoulder features ensure precision polishing combined with the mechanical integrity needed for repeated insertion and extraction cycles. In addition to MMC applications, TMT ferrules are ideal for on-board fiber management, as well as incorporation into transceivers and hardened connector embodiments.

- 250 micron pitch
- Compatible with 250, 200, and 165 micron fibers
- Intermateable with corresponding MT and MT-16 formats
- Low insertion loss for SM APC and MM APC applications

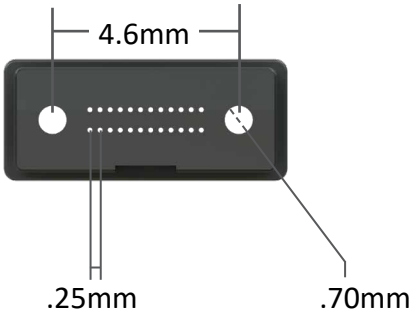
MT-16 Ferrule



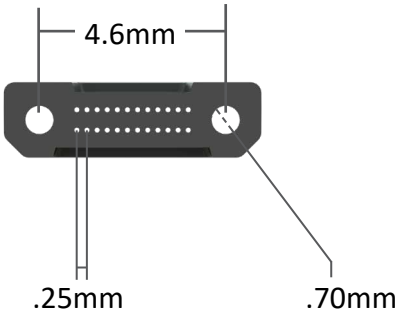
TMT-16 Ferrule

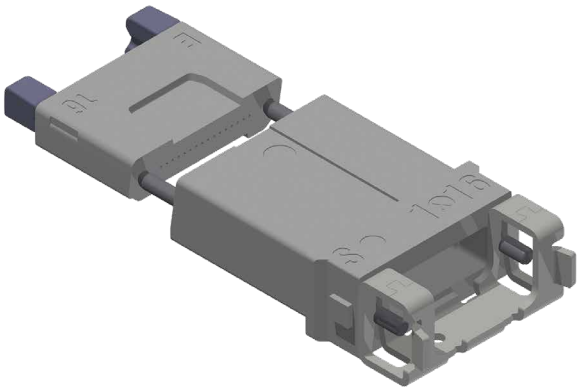


MT Ferrule



TMT Ferrule

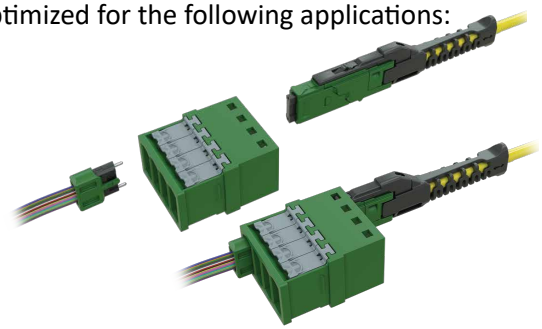




MMC Jr.

The small footprint of the MMC Jr. connector maintains a robust connection while minimizing valuable space consumption in space constrained applications. The MMC Jr. is optimized for the following applications:

- Transceivers
- On-board optics
- Cassette / module applications
- Data Center Interconnect / reduced OD cable assemblies



MMC Adapters

US Conec offers MMC adapters in multiple port counts, including variants to enable mating of MMC to MMC Jr. connectors. The 2 port adapter, designed for an MPO (SC) cutout, offers easy conversion from MPO to MMC with 2x density, while the 4 and 6 port options further maximize panel density. For applications where not all ports will be used, an optional port cover can be installed to block specific ports.

MMC 1-Port Adapter
MMC/MMC

MMC 2-Port Adapter
MMC/MMC

MMC 4-Port Adapter
MMC/MMC

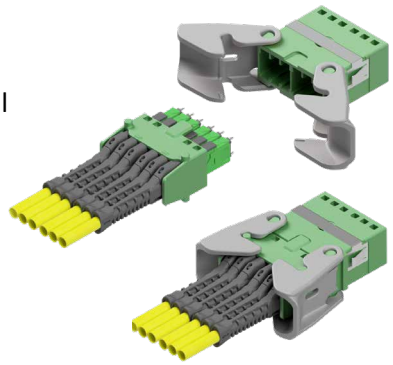
MMC 4-Port Adapter
MMC/MMC Jr.

MMC 6-Port Adapter
MMC/MMC Jr.

MMC Mass Insertion Solutions

MMC Mass Insertion solutions enable faster installation time and offer individual connector access in a carrier-based mechanical advantage design.

Mass-insertion of pre-configured MMC terminated cable assemblies enables fewer individual connector insertions and reduces field port mapping installation errors in complex mesh architectures, reducing both installation and troubleshooting time.



Ever-Increasing MMC Ecosystem

US Conec partners with industry leading vendors to develop components and equipment necessary to enhance the installer and end user experience.

- IBC™ cleaning tools
- Polishing equipment
- Test and inspection equipment
- Interferometry