## MMC Connector Solutions



## MMC Connector

Fujikura'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 2.5 mm 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 ${ }^{\text {TM }}$ push-pull boot technology.

## Features

- $3 x$ cabling port density over the MPO format
- DirectConec ${ }^{\text {TM }}$ push-pull boot for effortless connector insertion and extraction
- Utilizes proven MT or MT-16 mechanical and fiber alignment structures
- Compatible with standard 250 micron OD and pitch optical fibers
- TMT Elite ${ }^{\text {TM }}$ low-loss, IEC Grade B insertion loss performance ( $0.25 \mathrm{~dB} 97 \%$ random intermate)
- APC for both SM and MM applications
- Available in $1 \times 12,1 \times 16$ and $2 \times 12$ variants
- Tested to Telcordia GR-1435
- Cables up to 2.5 mm OD
- Standard cabling industry infrastructure support including One-Click ${ }^{\text {TM }}$ cleaners, polishers, interferometers, and optical testing equipment


## Applications

- Co-packaged optics and on-board connectivity
- High bandwidth transceivers
- Maximum density, low-loss, pre-terminated cabling infrastructure



## MMC Adapter Options

Fujikura offers 2-port and 4-port adapters connecting MMC connectors to MMC connectors or MMC Jr. connectors. The 2-port adapters are designed to fit through the same panel cutout as MPO (SC cutout) adapters, creating an instant doubling of fiber density by simply removing the simplex MPO adapters and installing the MMC 2-port adapters. The 4-port MMC adapters will fit into the same panel cutout as 4 -port MDC adapters.

All adapters can be ordered with or without dust plugs pre-installed in the adapters. For applications where certain adapter ports are not needed, Fujikura offers optional port covers that can be installed into those 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 Jr. and Adapter/Receptacle

The smaller footprint of the MMC Jr. connector maintains a robust connection while minimizing valuable space consumption on the boards or behind module/panel walls.

Optimized for:

- Transceivers
- On-board optics
- Module applications




## TMT Ferrule Technology

The TMT ferrule format is based on the proven alignment structure of MT and MT－16 ferrules used in MPO and MPO－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


TMT－16 Ferrule


## Ever-Increasing MMC Ecosystem

US Conec, the licensor of the MMC connector, partners with industry leading vendors to develop components and equipment necessary to enhance the installer and end user experience, and Fujikura, its collaborator, offers One-Click ${ }^{\text {TM }}$ Brand cleaning tools.

- One-Click ${ }^{\text {TM }}$ Brand cleaning tools
- Polishing equipment
- Test and inspection equipment
- Interferometry
- Aggregation solutions



## New Applications Require a Reduced Format Connector

Next generation architectures are driving the need for optical connectivity solutions which cannot be met with the status quo. 51.2T switching for 500 m reaches now requires fiber counts exceeding density capacities of the MPO format. MMC applications include:

- Co-packaged optics and on-board connectivity
- High bandwidth transceivers
- Maximum density, low-loss, pre-terminated cabling infrastructure


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

MMC



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