

# DMSI

## VSFF Connectivity: MMC & MDC

*Next-Generation Fiber Connector Solutions*

Very Small Form Factor (VSFF) connectors are the new standard for high-density data center deployments. DMSI is USConec-trained and certified to manufacture MMC and MDC assemblies — giving your customers access to next-gen connectivity today.

### MMC — Multi-fiber MT Connector

The MMC connector is designed for termination of single-mode and multimode fiber cables up to 2.5mm in diameter. It employs novel TMT ferrule technology harmonized with the MT-16 alignment structure — enabling significantly higher fiber density than traditional MPO connectors in the same footprint.

#### MMC Product Family

|              |                                                                                  |
|--------------|----------------------------------------------------------------------------------|
| <b>MMC12</b> | 12-fiber MMC — entry point for Base12 MMC deployments                            |
| <b>MMC16</b> | 16-fiber MMC — optimized for Base16 architecture (most common new build)         |
| <b>MMC24</b> | 24-fiber MMC — high-density deployments; equivalent to 2x MTP12 in one connector |
| <b>MMC32</b> | 32-fiber MMC — ultra-high density applications                                   |

#### MMC Assemblies Available

- MMC Patch Cords — single-mode and multimode
- MMC16 to 8x ELiMENT LC Uniboot Harness — for Base16 breakout
- MMC24 to 2x MTP12 Harness — backward-compatible breakout
- MMC Patch Panels — high-density port-per-U
- MDC-MMC Cassettes — transition modules for mixed environments
- X9 Enclosures — scalable rack-mount housings for MMC infrastructure

#### MMC Polarity

|                        |                                                    |
|------------------------|----------------------------------------------------|
| <b>Jumper Polarity</b> | MMC Non-pinned (Female) to MMC Non-pinned (Female) |
| <b>Trunk Polarity</b>  | MMC Pinned (Male) to MMC Pinned (Male)             |

### MDC — Mini Duplex Connector

The MDC is a two-fiber connector manufactured with the proven 1.25mm ferrule technology used in industry-standard LC connectors — but in a significantly smaller form factor, enabling higher port density on patch panels and cassettes.

**MDC Assemblies Available**

- MDC Patch Cords — single-mode and multimode
- MDC-MTP Breakout Cables — connect MDC infrastructure to MTP backbone
- Pre-Terminated MDC Shelves — plug-and-play deployment
- MDC-MMC Cassettes — mixed architecture transition support

**Certifications**

*DMSI is USConec trained and certified on MMC Connector & TMT Ferrule Termination and Assembly (Certificate CERTMMCSR24, February 2024). DMSI holds both MTP Certified and MMC Certified status from USConec — one of only a limited number of manufacturers worldwide to hold this certification.*

**MTP vs. MMC — At a Glance**

|                    |                                                                      |
|--------------------|----------------------------------------------------------------------|
| Ferrule Technology | MTP: MT ferrule   MMC: TMT ferrule (new)                             |
| Fiber Count Range  | MTP: 8–32 fibers   MMC: 12–32 fibers                                 |
| Form Factor        | MMC is smaller — higher density per rack unit                        |
| Polarity           | Pre-determined polarity system for simplified deployment             |
| Use Case           | MMC designed for next-gen Base16 and high-density data center builds |

