

US Conec manufactures durable, composite, Polyphenylene Sulfide (PPS) based thermoplastic ferrules available with up to 72 fiber holes that terminate 125 micrometer optical fiber. The alignment mechanism consists of two stainless steel guide pins that fit into precisely molded alignment holes. The ferrules are used in conjunction with US Conec's industry hailed, MTP® brand, MPO type connectors;

however, they are also suitable for custom designed passive or active fiber coupling packages. Fiber is secured to the ferrules with an optical connector grade thermal cure epoxy and can be polished with a variety of commercially available batch connector polishing machines. US Conec's highly stable, PPS material allows preparation of fiber tip protrusion with reduced polishing time and force resulting in superior endface geometry control. US Conec's MT ferrule is compliant with IEC standard 61754-5.

### Features:

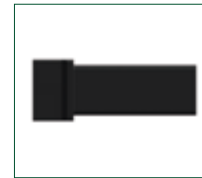
- High density; fiber pitch: 0.25mm
- Increased precision of fiber and guide pin hole sizes and location
- Consistent optical performance for multimode (flat protruded polish) and single mode (angled protruded polish)
- Extremely low hygroscopic material for exceptional environmental stability
- Mold marks to indicate fiber type and ferrule grade
- Pre-angled SM available
- MM MT Elite Optimized for 10G, 40G & 100G applications
- SM MT Elite meets IEC grade B requirements



Top View (Flat)



Bottom View (Pre-Angled)



24 Fiber, Multimode  
MT Ferrule



12 Fiber, Single mode  
Pre-Angled MT Ferrule

## MT Ferrule Performance

US Conec offers MT ferrules in multiple performance grades tailored to specific application and fiber count requirements. Both single mode and multimode ferrules are available in standard insertion loss performance and low insertion loss performance. US Conec's industry leading low-loss MT components are referred to as MT Elite® ferrules. With physical contact of the fiber tips, single mode, standard ferrules will have a maximum mated fiber pair insertion loss of 0.75dB while single mode MT Elite® ferrules will have a maximum insertion loss of 0.35dB. Standard loss multimode ferrules are offer a maximum insertion loss of 0.6dB when tested at 850nm on OM2, OM3 or OM4 fiber. Similarly, multimode MT Elite® ferrules have a maximum insertion loss of 0.35dB when tested at 850nm on OM2, OM3 or OM4 fiber.

### Multimode MT Elite® Ferrule

This leading-edge multimode MT ferrule provides a cost effective solution for managing the most stringent link attenuation budgets while allowing for the maximum number of potential connector pairs in the link. Multimode MT Elite® ferrules combined with US Conec's MTP® brand MPO connector components are ideal for use in array trunk cabling, breakout cassettes, and for existing and emerging high speed parallel optic protocols. The development of 100G+ high speed parallel optic multimode links utilizing 24 lanes is driving stringent link attenuation budgets into multi-row MPO connectivity.

### 12 Fiber Single mode MT Elite®, Pre-angled, IEC Grade B compliant

US Conec's SM MT Elite®, low loss ferrules are produced to meet the pending IEC 61755-3-31 grade B specifications. The improved specification offers more tightly controlled guide pin bores which reduce debris generation and provide for future intermateability of multiple component vendors. The pre-angled version of the SM MT Elite® ferrules reduce polishing steps and the need for multiple polishing fixtures.

For additional information about MT Ferrules or help finding a local distributor, please contact Customer Service at 828-323-8883 or visit our web site at [www.usconec.com](http://www.usconec.com)

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MTP®, MTP Elite®, Conec®, MT Elite®, IBC™, PRIZM®, LightTurn®, PRIZM® MT and Slimfan™ are trademarks or registered trademarks of US Conec Ltd.

## Specifications

	MM MT Elite® Multimode MT Ferrule	Standard Multimode MT Ferrule	SM MT Elite® Single mode MT Ferrule	Standard Single mode MT Ferrule
<b>Insertion Loss</b>	0.1dB Typical 0.35dB Maximum <sup>2,3,5</sup>	0.20dB Typical 0.60dB Maximum <sup>2,3,5</sup>	0.10dB Typical 0.35dB Maximum <sup>1,4,5</sup>	0.25dB Typical (All Fibers) 0.75dB Maximum (Single Fiber) <sup>1,5</sup>
<b>Optical Return Loss</b>	> 20dB <sup>5</sup>	> 20dB <sup>5</sup>	> 60dB (8° Angle Polish) <sup>5</sup>	> 60dB (8° Angle Polish) <sup>5</sup>

<sup>1</sup> As tested per ANSI/EIA-455-171 Method D3

<sup>2</sup> As tested per ANSI/EIA-455-171 Method D1

<sup>3</sup> As tested with proposed encircled flux launch condition on 50um fiber and 850nm per IEC 61280-4-1

<sup>4</sup> Compliant with proposed IEC 61755-3-31/GRADE B

<sup>5</sup> For 48-fiber MM MTs, 72-fiber MM MTs, or 24-fiber SM MTs, please see our website at [www.usconec.com/resources/faq.htm#ques6](http://www.usconec.com/resources/faq.htm#ques6).

## Ordering information for Standard MT & MT Elite® Ferrule Kits (Includes Boots)

Part Number	Description
12535	8-Fiber, SM MT Elite® Single mode APC Ferrule, GB
9734	12-Fiber, MM MT Elite®, Multimode
14821	12-Fiber, SM MT Elite®, Pre-Angled
12958	12-Fiber, Super-MT Elite®, APC Pre-Angled
13993	16-Fiber, MM MT Elite®, Multimode
12929	24-Fiber, MM MT Elite®, Multimode
14822	24-Fiber, SM MT Elite®, Pre-Angled
MTF-4MM7-02	4-Fiber, Multimode Ferrule
MTFA-4SM5-02	4-Fiber, Single mode APC Ferrule
MTF-8MM7-02	8-Fiber, Multimode Ferrule
MTFA-8SM5-02	8-Fiber, Single mode APC Ferrule
MTF-12MM7-02	12-Fiber, Multimode Ferrule
13642	12-Fiber, Single mode Pre-Angled
7413	24-Fiber, Multimode Ferrule
12678	24-Fiber, Single mode Ferrule, Pre-Angled
12599	48-Fiber, Multimode Ferrule
9730	72-Fiber, Multimode Ferrule

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