



MPO/MTP® MODULE



FEATURES

- MTP® (US Conec) brand or MPO standard compliant multifiber connector
- MPO/MTP® connector on one end, with LC or SC connectors on the other end
- 4, 8, 12 and 24-fiber with multimode and single mode options
- Connectors' designs comply with IEC standards (MPO/MTP®: IEC 61754-7; LC: IEC 61754-20; SC: IEC 61754-4)
- LSZH, OFNP, OFNR cable jacket types selection
- Rapid deployment, high density and high reliability
- Extremely low insertion loss and high return loss
- Telcordia GR-1435-CORE issue 2 compliant
- RoHS and REACH materials compliant

OPTICAL CHARACTERISTICS (applied to 12c MPO/MTP® connector)

| Item | Parameter | | Reference |
|---------------------|-------------------------------|--------------------|---------------|
| | Standard single mode | Standard multimode | |
| Insertion loss typ. | ≤ 0.1dB | ≤ 0.05dB | IEC 61300-3-4 |
| Insertion loss max. | ≤ 0.25dB | ≤ 0.15dB | |
| Return loss | ≥ 65dB (APC); ≥ 50dB (UPC) | ≥ 40dB | IEC 61300-3-6 |

OPTICAL CHARACTERISTICS (applied to LC and SC connector)

| Item | Parameter | | Reference |
|----------------|---|---|----------------|
| | Single mode | Multimode | |
| Insertion loss | Random mated average ≤ 0.07dB; Random mated for 97% ≤ 0.12dB | Random mated average ≤ 0.05dB; Random mated for 97% ≤ 0.10dB | IEC 61300-3-34 |
| Return loss | ≥ 70dB (APC); ≥ 55dB (UPC) | ≥ 45dB | IEC 61300-3-6 |

END-FACE GEOMETRY (applied to 12c MPO/MTP® connector)

| Item | Parameter | Reference |
|--------------------------------|--------------------|---------------------|
| Minus Coplanarity | ≤ 200nm | IEC 61755-3-31:2015 |
| Ferrule Surface X-Angle | -0.075° to +0.075° | |
| Ferrule Surface Y-Angle (SM) | 7.85° to 8.15° | |
| Ferrule Surface Y-Angle (MM) | -0.075° to +0.075° | |
| Fiber Height | 1100nm to 1500nm | |
| Fiber Differential Height-All | ≤ 150nm | |
| Fiber Differential Height-Adj. | ≤ 100nm | |
| Fiber Tip Spherical Radius | ≥ 1mm | |
| Ferrule Surface X-Radius | ≥ 2000mm | |
| Ferrule Surface Y-Radius | ≥ 50mm | |
| Core Dip (MM) | 0 to 100nm | |
| Geometry Limit | ≤ 10 | |



END-FACE GEOMETRY (applied to LC connector)

| Item | PC (Ref: IEC 61755-3-1) | APC (Ref: IEC 61755-3-2) |
|--------------------------|-------------------------|--------------------------|
| Radius of curvature (mm) | 7 to 15 | 6 to 12 |
| Fiber height (nm) | -30 to 30 | -30 to 30 |
| Apex offset (μm) | 0 to 30 | 0 to 30 |
| APC angle (°) | / | 7.8 to 8.2 |
| Key error (°) | / | -0.2 to +0.2 |

END-FACE GEOMETRY (applied to SC connector)

| Item | PC (Ref: IEC 61755-3-1) | APC (Ref: IEC 61755-3-2) |
|--------------------------|-------------------------|--------------------------|
| Radius of curvature (mm) | 10 to 15 | 6.5 to 9 |
| Fiber height (nm) | -30 to 30 | -30 to 30 |
| Apex offset (μm) | 0 to 30 | 0 to 30 |
| APC angle (°) | / | 7.8 to 8.2 |
| Key error (°) | / | -0.2 to 0.2 |

END-FACE QUALITY (SM)

| Zone | Range (μm) | Scratches | Defects | Reference |
|--------------------|------------|-----------|---------|---------------------|
| A: Core | 0 to 25 | None | None | IEC 61300-3-35:2015 |
| B: Cladding | 25 to 115 | None | None | |
| C: Adhesive | 115 to 135 | None | None | |
| D: Contact | 135 to 250 | None | None | |
| E: Rest of ferrule | | None | None | |

(Only Zone A and Zone B are applied to MPO/MTP® connector)

END-FACE QUALITY (MM)

| Zone | Range (μm) | Scratches | Defects | Reference |
|--------------------|------------|-----------|---------|---------------------|
| A: Core | 0 to 65 | None | None | IEC 61300-3-35:2015 |
| B: Cladding | 65 to 115 | None | None | |
| C: Adhesive | 115 to 135 | None | None | |
| D: Contact | 135 to 250 | None | None | |
| E: Rest of ferrule | | None | None | |

(Only Zone A and Zone B are applied to MPO/MTP® connector)

CONNECTOR TYPES

| Type | Reference | Note |
|----------|--------------|--|
| MPO/MTP® | IEC 61754-7 | Boot Color: Black Body Sleeve: MM (Beige, Aqua, Magenta), SM (Green, Yellow) |
| LC | IEC 61754-20 | Single mode simplex APC: Green connectors, Green boots (for 0.9mm) / White boots (for 2.0/3.0mm) UPC: Blue connectors, White boots |
| | | Single mode duplex APC: Green connectors, Green boots (for 0.9mm) / White boots (for 2.0/3.0mm) UPC: Blue connectors, White boots |
| | | Multimode simplex PC: Grey Connectors, White boots |
| | | Multimode duplex PC: Grey Connectors, White boots |
| SC | IEC 61754-4 | Single mode simplex APC: Green connectors, Green boots UPC: Blue connectors, Blue boots |
| | | Multimode simplex PC: Grey Connectors, Grey boots |

MECHANICAL CHARACTERISTICS

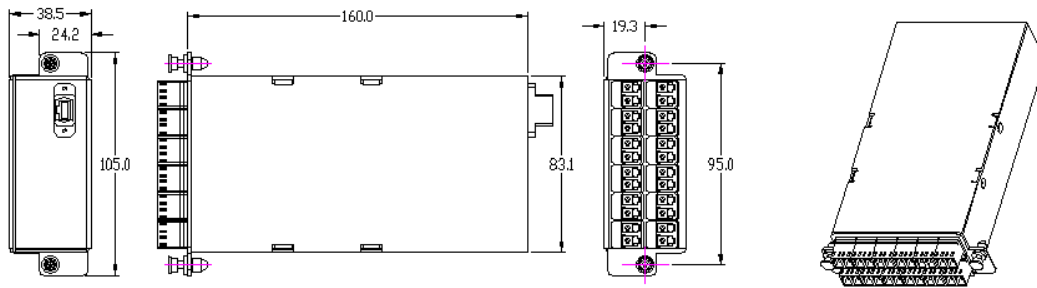
| Item | Parameter |
|---------------|-----------------------------|
| Mating cycles | ΔIL ≤ 0.2dB (for 500 mates) |

ENVIRONMENTAL CHARACTERISTICS

| Item | Parameter |
|-----------------------|----------------|
| Operating temperature | -10°C to +60°C |
| Storage temperature | -20°C to +70°C |



CASSETTE'S DRAWINGS



****CAN BE CUSTOMIZED****