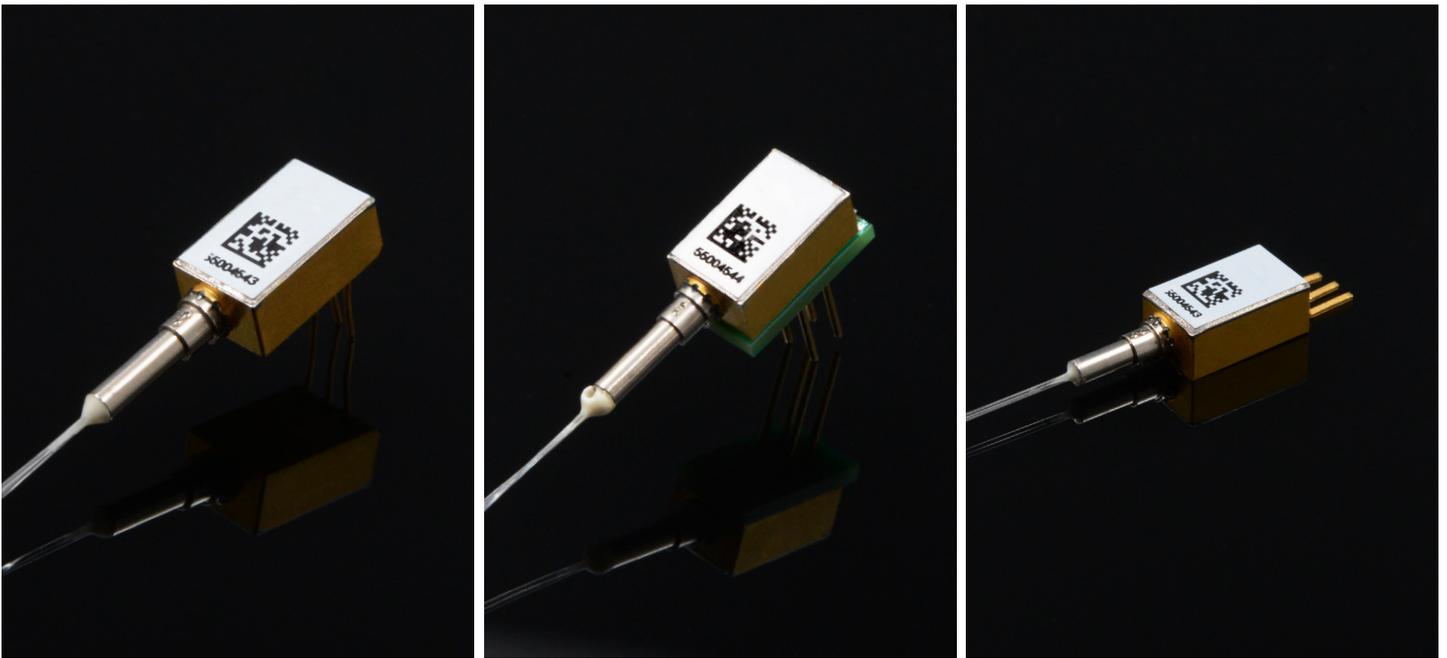


ULTRA MINI MTOF

Wideband Tunable Optical Filter

The MTOF series are tunable optical filters that can be used in various applications to improve the reach of optical transmission systems or signal monitoring applications. Ultra mini MTOF is ideal for filtering out amplified spontaneous emission (ASE) noise in post-amplified transmitters or pre-amplified receivers. With uniquely compact and very low cost, ultra mini MTOF is also ideal for integration in small transceiver form-factors for 400 Gb/s and above applications.



FEATURES

- C-band or L-band
- 5 THz tuning range
- 180 GHz or 305 GHz @ 3 dB Bandwidth for stander version, customized is available
- 3.0 dB insertion loss
- Low power consumption
- Compact size

APPLICATIONS

- ASE suppression
- Rx/Tx channel filter
- Coherent signal isolation
- Colorless Rx dynamic range extension

Product Specification

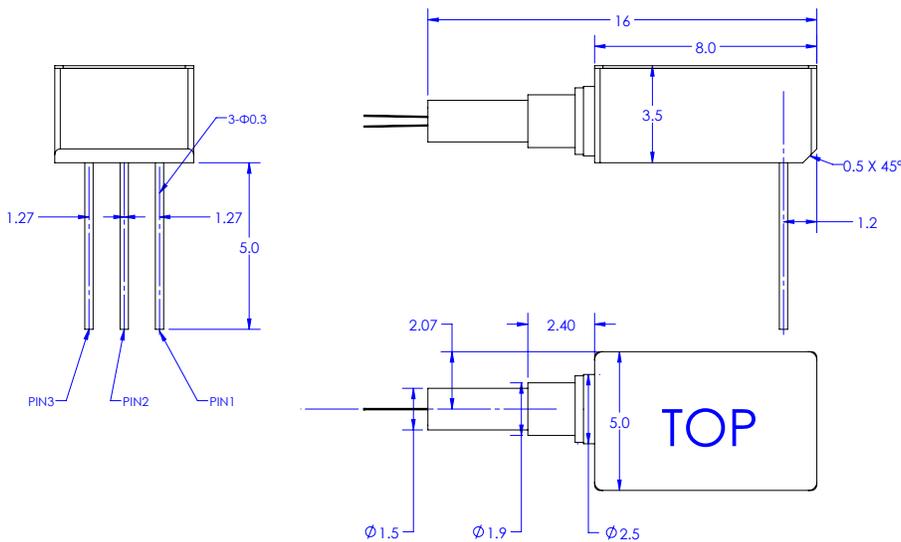
| Parameter | Condition | Min | Typ | Max | Units |
|-----------------------------|-----------------------------------|------------------------------|-----|-------|-------|
| Frequency Tuning Range | For C-band type | 196.25 | | 191.1 | THz |
| | For L-band type | 191.1 | | 186 | |
| 3 dB Bandwidth ¹ | For 180GHz version | | 180 | | GHz |
| | For 305GHz version | | 305 | | |
| Side-mode Suppression Ratio | | 20 | | | dB |
| TF Out-Of-Band Rejection | | 25 | 30 | | dB |
| Insertion Loss | | | 2.0 | 3.0 | dB |
| PDL | In ±12.5 GHz of center wavelength | | 0.2 | 0.4 | dB |
| Return Loss | | 27 | | | dB |
| Tuning Time | Any to any channel | | 30 | 50 | ms |
| Voltage Range | | | | 12 | V |
| Absolute Maximum Ratings | | | | 12.5 | V |
| Optical Power | | | | 27 | dBm |
| Electrical power | | | | 20 | μW |
| Fiber Type | | Corning ClearCurve ZBL fiber | | | |
| Fiber Length ¹ | | | 1.0 | | M |
| Operating temperature | | -5 | | 75 | °C |
| Storage temperature | | -40 | | 85 | °C |
| Dimensions [ref.] | L×W×H | 8×5×3.5 | | | mm |

¹ Customized as requirement.

Product Dimensions

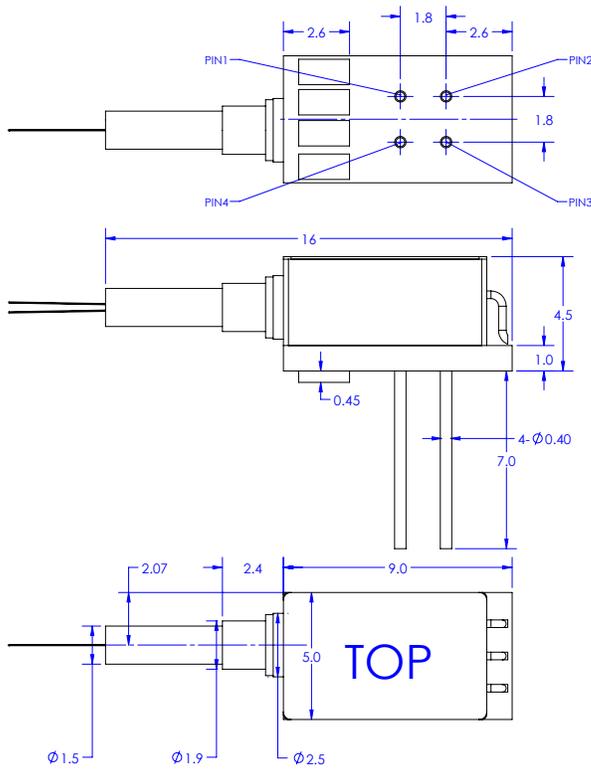
Dimensions in millimeters.

3.5 mm mini MTOF-SIP package



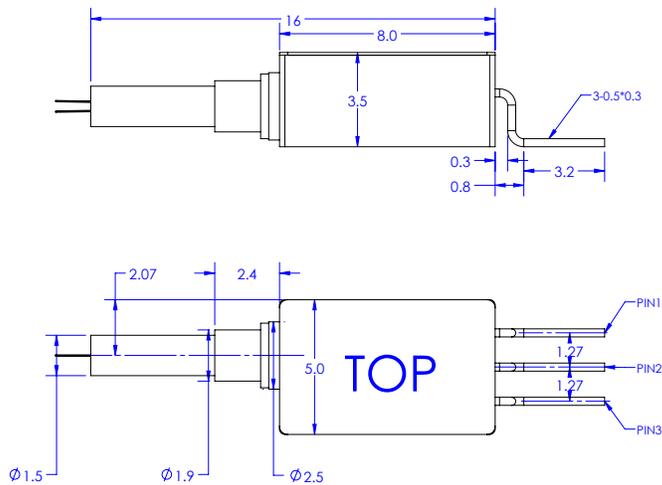
| | |
|-------|------------------|
| PIN 1 | Short Wavelength |
| PIN 2 | GND |
| PIN 3 | Long Wavelength |

3.5 mm mini MTOF-SMT package with adapter



| | |
|-------|------------------|
| PIN 1 | GND |
| PIN 2 | Long Wavelength |
| PIN 3 | NC |
| PIN 4 | Short Wavelength |

3.5 mm mini MTOF-SMT package



| | |
|-------|------------------|
| PIN 1 | Short Wavelength |
| PIN 2 | GND |
| PIN 3 | Long Wavelength |

Ordering Information

MTOF - X - XXX - XXX - XXXX
A B C D

| | | |
|---|------------------|-----------------------------------|
| A | Wavelength Range | C = C-Band L = L-Band |
| B | FWHM | Customizable Typical: 145,180,300 |
| C | Package | SIP SMT DIP |
| D | Fiber | CORN1 = ZBL OFS01 = OFS_81161 |