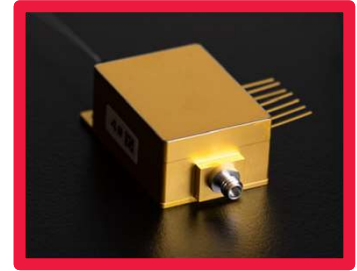


C-BAND TFLN 110 GHz PACKAGED INTENSITY MODULATOR

TFLN-G2-1550-W

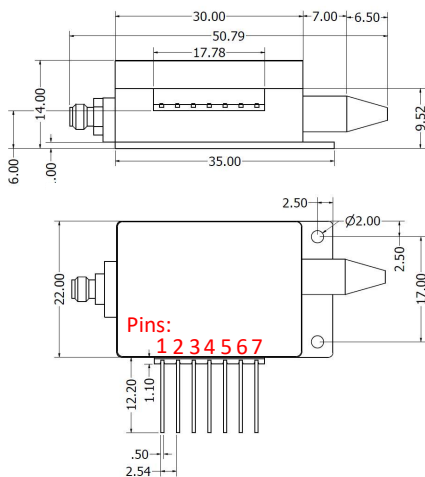
KEY FEATURES

- Convenient W-connector package with PM optical fiber
- <4.5 dB EO roll-off at 110 GHz typical
- Low half-wave voltage
- Compact form factor
- Differential thermo-optic heaters for stable bias control
- **Low V_{π} (<2 V) and low insertion loss (<5 dB) models available on request**



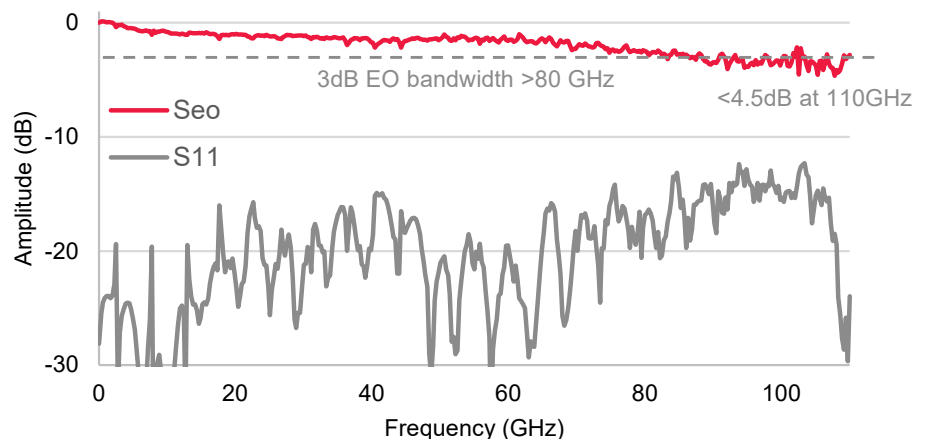
| Absolute Maximum Ratings | |
|--------------------------------|--------|
| Optical Input Power | 100 mW |
| RF Input Power | 23 dBm |
| Thermo-optic Bias Heater Power | 200 mW |

| Specifications | Min | Typical | Max | Units |
|-------------------------------------|-----|--|------|-------|
| Operating Wavelength | | 1550 | | nm |
| 1-dB Optical Bandwidth | 60 | 90 | | nm |
| Optical Insertion Loss (F2F) | | 7 | 9 | dB |
| Optical Return Loss | 25 | 35 | | dB |
| Optical Extinction Ratio (@DC) | 15 | 20 | | dB |
| Fiber Length | | 1 | | m |
| Fiber type | | PM13-U25D-H | | |
| RF V_{π} (@1 MHz) | | 3.3 | 3.7 | V |
| RF V_{π} (@2 GHz) | | 3.8 | 4.2 | V |
| 3dB E/O Bandwidth (Ref 2 GHz) | 65 | 80 | | GHz |
| 6dB E/O Bandwidth (Ref 2 GHz) | 110 | >125 | | GHz |
| Thermo-optic Bias Heater P_{π} | | 40 | 50 | mW |
| Thermo-optic bias heater resistance | 900 | 1000 | 1100 | Ohm |
| RF S11 (DC to 110GHz) | | -15 | -7 | dB |
| RF Input Connector | | W-connector | | |
| Nominal RF Impedance | | 50 | | Ohm |
| Bias Pin Connections | | Heater 1: Pins 5,6 Heater 2: Pins 3,4 | | |
| Optical Fiber Connections | | Modulator: 3→2 Reference loop: 1,4 | | |



Units in mm

Typical E/O response and RF return loss



Last Rev: 2023/03/02