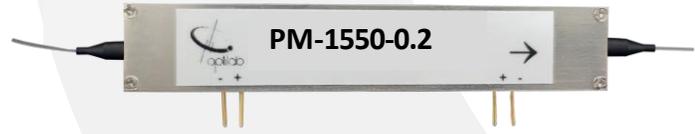


PM-1550-0.2



DEVICE

1550 nm Phase Modulator, Low Drive, 200 MHz

OVERVIEW

The Optilab PM-1550-0.2 is a high performance, 200 MHz LiNbO₃ phase modulator. It can provide phase modulation in a broad operation bandwidth with a low driving voltage. Its low insertion loss provides for maximum transmission power. The PM-1550-0.2 is fabricated with Annealed Proton Exchange (APE) optical waveguides, and uses polarization maintaining input and output fibers, making it easy to integrate with other optical components. Contact Optilab for more information.

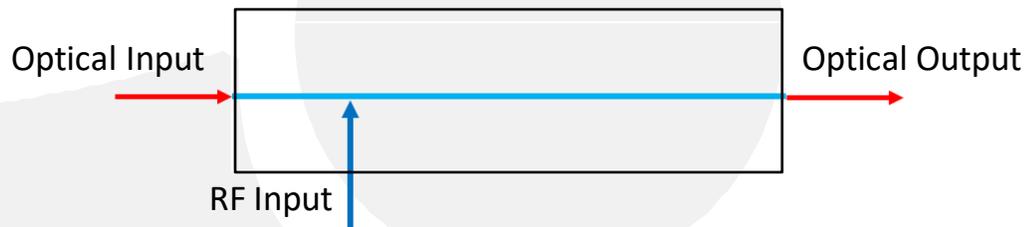
FEATURES

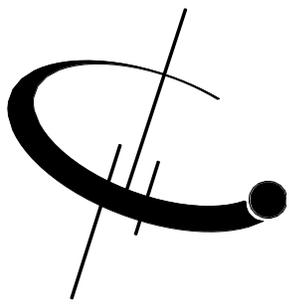
- 1550 nm +/- 30 nm
- X-cut APE Process
- Up to 400 MHz Bandwidth
- Low Drive Voltage
- Polarization Maintaining
- Low Optical Loss

USE IN

- Coherent Communications
- Optical Chirping
- Optical Sensing
- FM Spectroscopy
- Frequency Shifting
- Laser Linewidth Broadening

FUNCTION DIAGRAM





PM-1550-0.2

SPECIFICATIONS

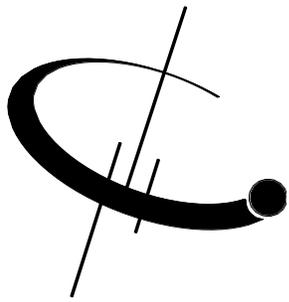
GENERAL

| | |
|---------------------------------------|---|
| Input Optical Power | 100 mW max |
| Operating Wavelength | 1550 nm +/- 30 nm |
| Insertion Loss | 3.0 dB typical, 3.5 dB max |
| Chip Polarization Extinction Ratio | > 60 dB |
| Pigtail Polarization Extinction Ratio | ≥ 20 dB |
| Process | Annealed Proton Exchange |
| Optical Return Loss | ≤ -45 dB |
| S ₂₁ Bandwidth | 200 MHz typical unterminated @ -3dB 400 MHz typical with external termination @ -3dB |
| V _π (unterminated) | 2.0V typ., 2.5V max @ 10 kHz |
| RF Input Voltage | 20 V _{pp} max |
| Impedance | High Z |

MECHANICAL

| | |
|-----------------------|---|
| Operating Temperature | -25°C to +75°C |
| Storage Temperature | -50 °C to +90 °C |
| Operating Humidity | 0% to 90% Relative Humidity |
| Input Fiber | Panda, PM1550, slow axis aligned to TE Mode |
| Output Fiber Type | Panda, PM1550, slow axis aligned to TE Mode |
| Input Connector | PM FC/APC, key aligned to slow axis |
| Output Connector | PM FC/APC, key aligned to slow axis |
| RF Port Connectors | Pins |
| Fiber Jacket | 900 μm loose tube |
| Dimension | 84.0 mm x 11.5 mm x 5.8 mm |

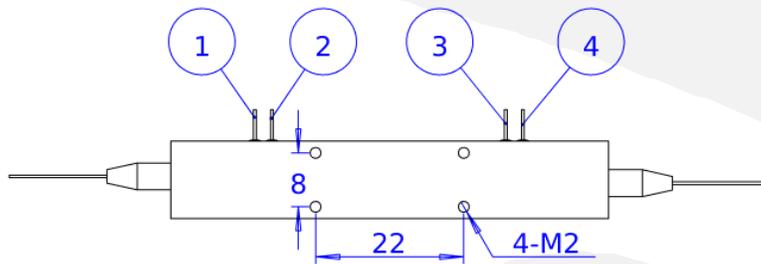
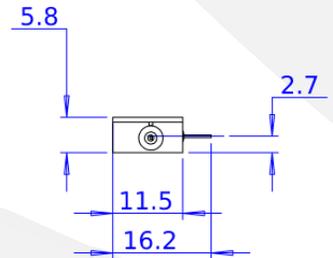
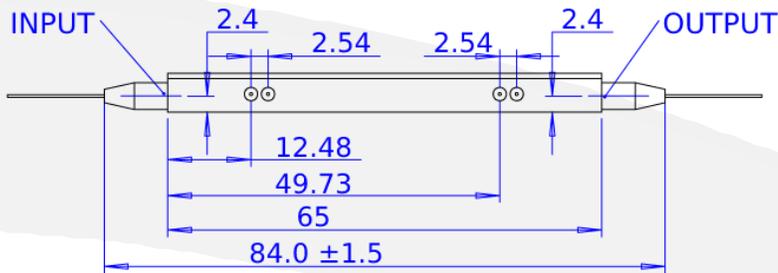
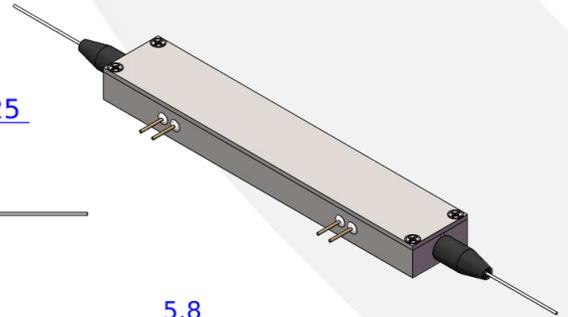
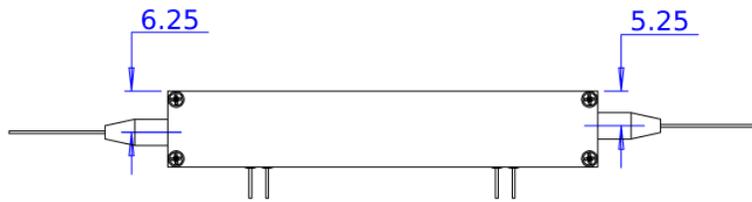




PM-1550-0.2

MECHANICAL
DRAWING

Unit: mm



| Pin | Description |
|-----|-------------|
| 1 | V- |
| 2 | V+ |
| 3 | V+ |
| 4 | V- |

