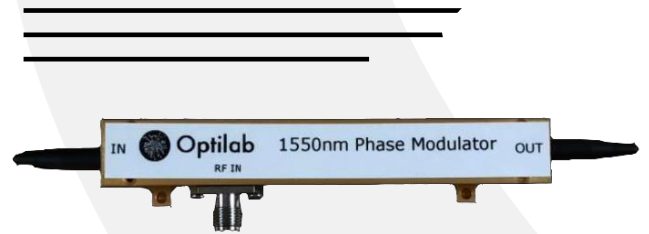


PM-1550-0.5



DEVICE

500 MHz 1550 nm Phase Modulator

OVERVIEW

The Optilab PM-1550-0.5 phase modulator is a 500 MHz LiNbO3 modulator. This modulator can provide phase modulation with a low driving voltage. Its low insertion loss provides for its maximum transmission power. The PM-1550-0.5 modulator uses polarization maintaining (PM) input and output fibers, making it easy to integrate with other optical components. Contact Optilab for more information.

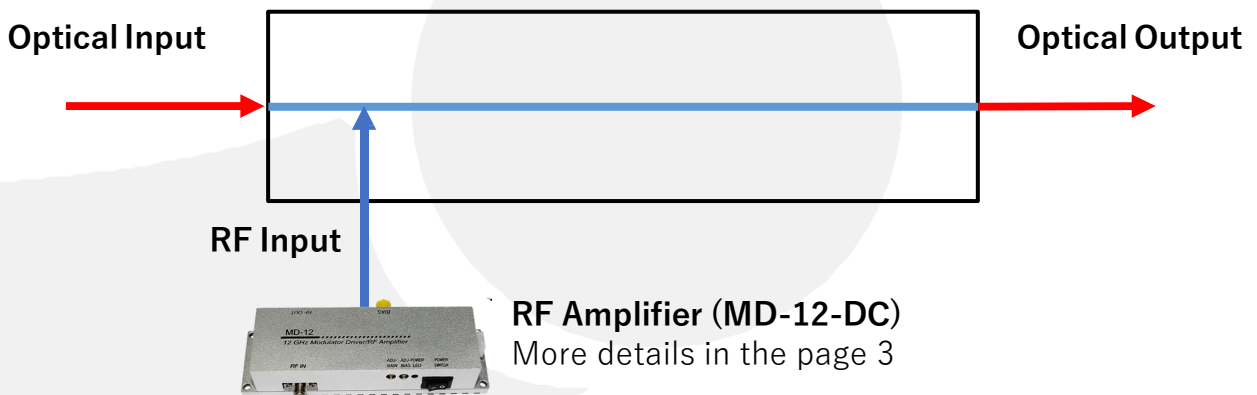
FEATURES

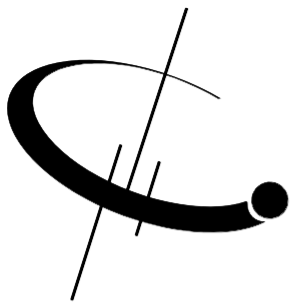
- Up to 500 MHz Bandwidth
- Low Optical Loss
- Low Drive Voltage
- 1525 nm to 1565 nm
- Minimal Back Reflections
- Polarization Maintaining

USE IN

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

FUNCTIONAL DIAGRAM





PM-1550-0.5

SPECIFICATIONS

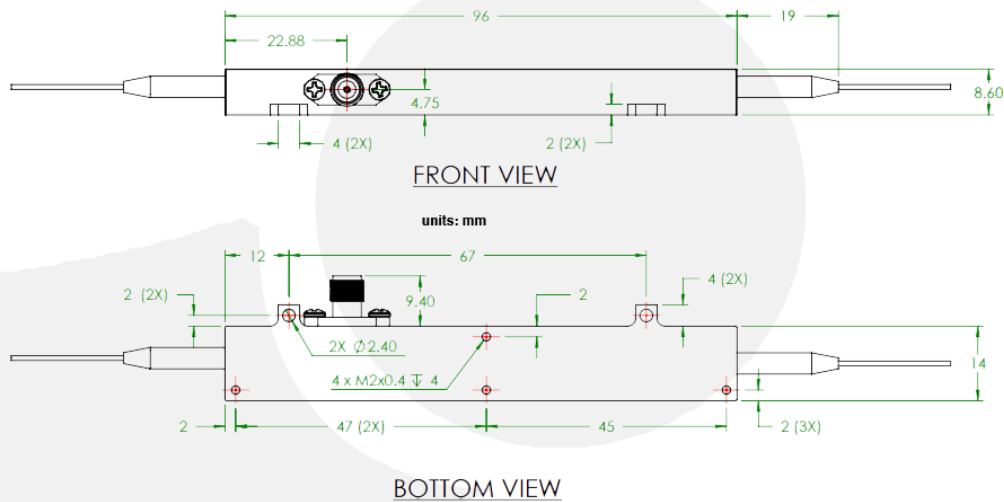
Input Optical Power	50 mW max.
Operating Wavelength	1525 nm to 1570 nm
Insertion Loss	3 dB typ., 3.5 dB max.
Polarization Extinction Ratio	≥ 21 dB
Optical Return Loss	≥ 30 dB
S21 Bandwidth	300 MHz typ., @ -3 dB
$\sqrt{\pi}$	8.2 V typ. @ 10 kHz, 8.4 V typ. @ 100 MHz
RF Input Power	+30 dBm max.
Impedance	Unterminated

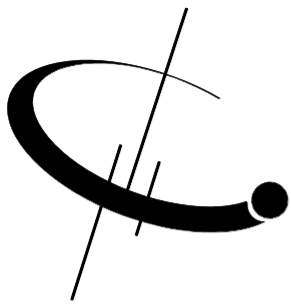
GENERAL

Operating Temperature	-55°C to +75°C
Storage Temperature	-60°C to +90°C
Operating Humidity	0% to 90% Relative Humidity
Input/Output Fiber	Panda - PM 1550
Input/Output Connector	PM FC/APC, request for others
RF Port Connectors	SMA Female
Cabling	900 um tubing
Dimensions	3.783" x 0.981" x 0.640"

MECHANICAL

MECHANICAL DRAWING





PM-1550-0.5

Relevant Driver

- **MD-12-DC**



The Optilab MD-12-DC Modulator Driver (MD) is a 12 GHz Bandwidth RF Amplifier in a compact and user-friendly module that provides a high-quality, single-ended voltage to drive an external LiNbO3 modulator. Please contact Optilab for more detail.

