PM-1550-10

DEVICE

10 GHz 1550 nm Phase Modulator

OVERVIEW

The Optilab PM-1550-10 phase modulator is a high performance, 10 GHz LiNbO3 modulator. This modulator can provide phase modulation with x-cut Annealed Proton Exchange (APE) process. Its low insertion loss provides for its maximum transmission power. The PM-1550-10 modulator uses polarization maintaining (PM) input and output fibers, making it easy to integrate with other optical components. Contact Optilab for more information.

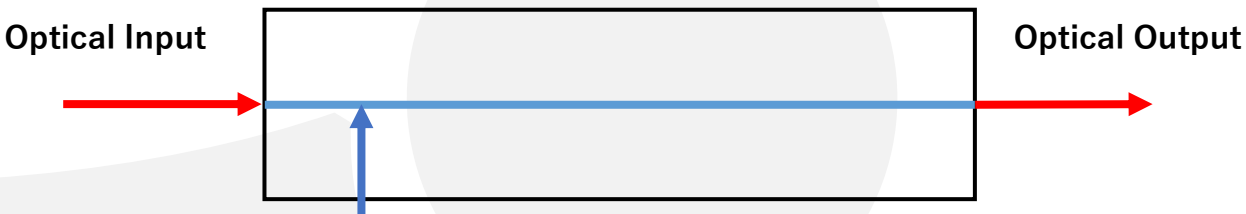
FEATURES

- 10 GHz 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



RF Amplifier (RFA-9)
More details in the page 4

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SPECIFICATIONS

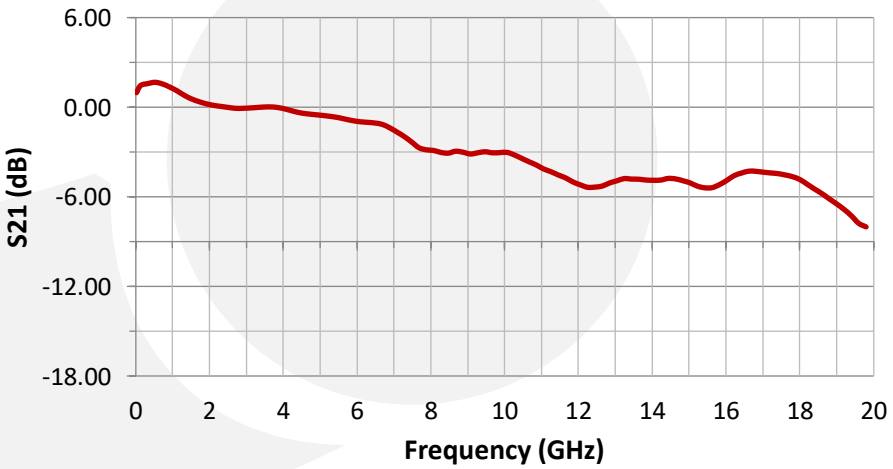
GENERAL

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	9 GHz typ. @ -3 dB
S11 Return Loss	≤ -10 dB @ 5 GHz
Vπ	11 V typ. @ 1 GHz 16V typ.@ 10 GHz
RF Input Power	+30 dBm max.
Impedance	50 Ω typ.

MECHANICAL

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	K Connector
Cabling	900 um tubing
Dimensions	3.783" x 0.981" x 0.640"

TYPICAL S21 RESPONSE



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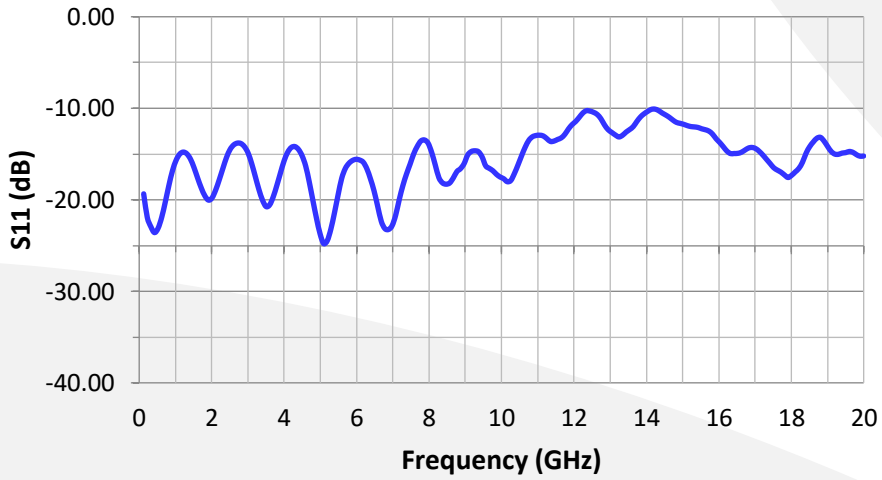
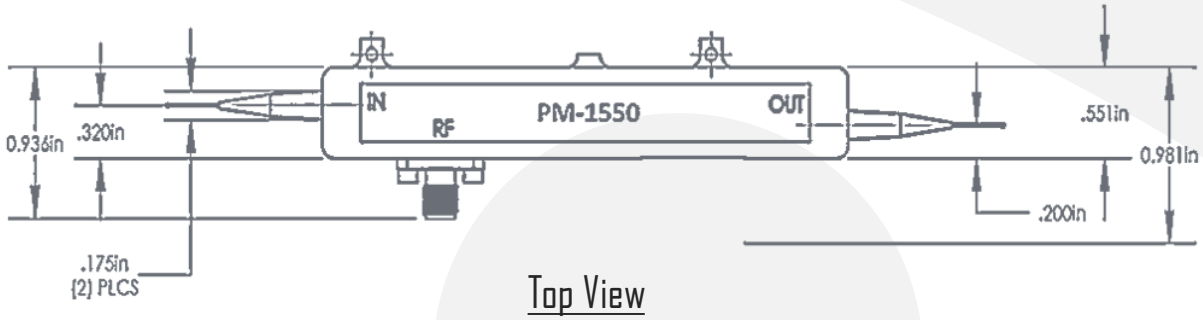
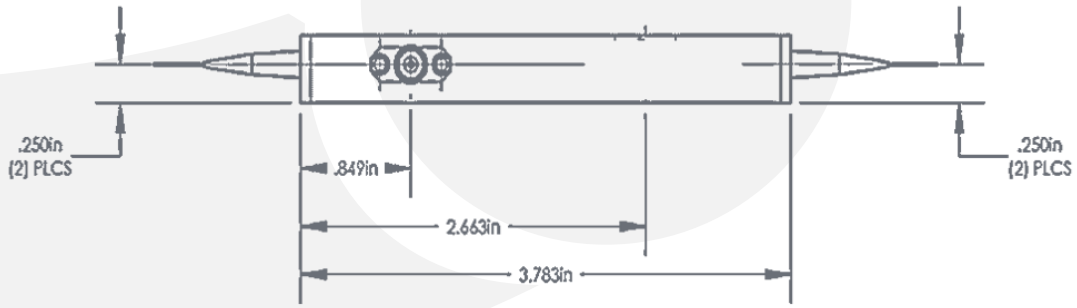
TYPICAL S11 RESPONSE



MECHANICAL DRAWING



Top View



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Available Accessories

- **RFA-9**

The Optilab RFA-9 is a high gain RF amplifier module with 30dBm output and 10V peak to peak. It offers cost-effective solutions for microwave and analog link. Please contact Optilab for more detail.