PM-1064-10

DEVICE

10 GHz, 1064 nm Phase Modulator

OVERVIEW

The Optilab PM-1064-10 is a high performance, 10 GHz $LiNbO_3$ phase modulator. PM-1064-10 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-1064-10 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.

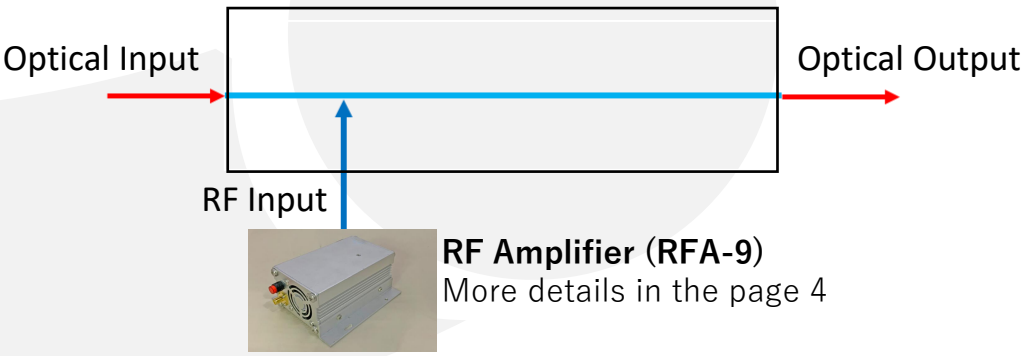
FEATURES

- 1030 nm to 1070 nm
- X-cut APE Process
- 10 GHz Bandwidth
- Low Optical Loss
- Minimal Back Reflections
- Polarization Maintaining

USE IN

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

FUNCTION DIAGRAM



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

PM-1064-10

SPECIFICATIONS

GENERAL

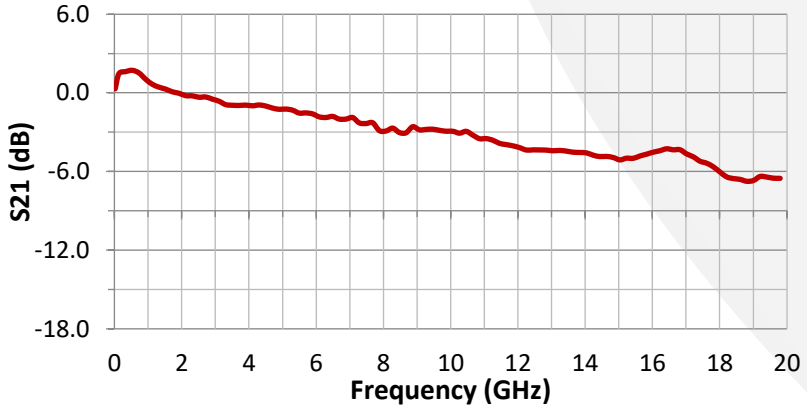
Input Optical Power	60 mW max
Operating Wavelength	1030 nm to 1070 nm
Insertion Loss	3.0 dB typical, 3.5 dB max
Chip Polarization Extinction Ratio	> 60 dB
Pigtail Polarization Extinction Ratio	≥ 20 dB
Process	Proton Exchange
Optical Return Loss	≥ 30 dB
S_{21} Bandwidth	7 GHz min, 10 GHz typical @ -3 dB
S_{11} Return Loss	≤-10 dB @ 10 GHz
Vπ	6.8 V typical @ 1 GHz 10 V typical @ 10 GHz
RF Input Power	+27 dBm max
Impedance	50 Ω typical

MECHANICAL

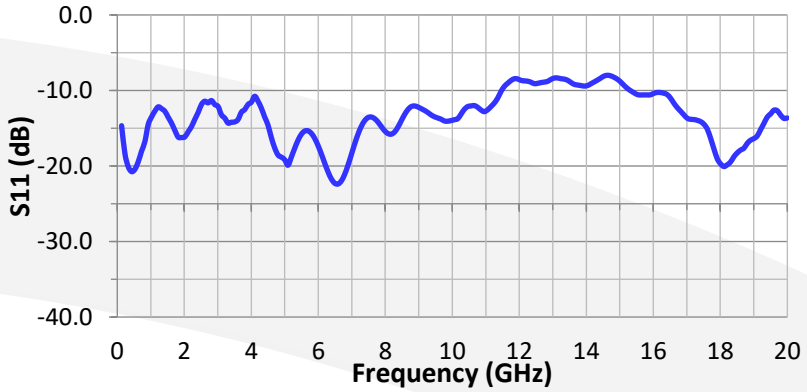
Operating Temperature	-55°C to + 75°C
Storage Temperature	-60 °C to +90 °C
Operating Humidity	0% to 90% Relative Humidity
Input Fiber	Panda, PM 980
Output Fiber Type	Panda, PM 980
Input Connector	PM FC/APC, others available
Output Connector	PM FC/APC; others available
RF Port Connectors	K Connector
Cabling	900 µm tubing
Dimension	3.783"x 0.981" x 0.640"

PM-1064-10

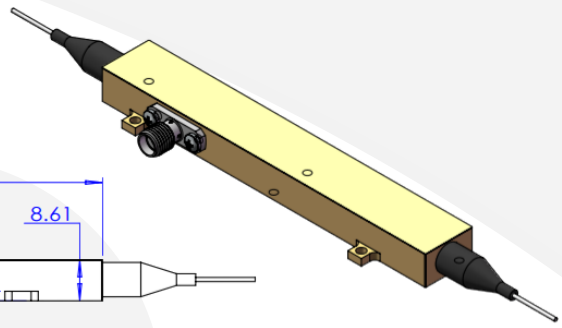
TYPICAL S21 RESPONSE

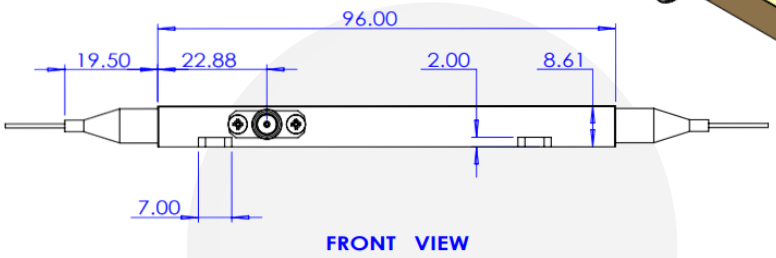


TYPICAL S11 RESPONSE

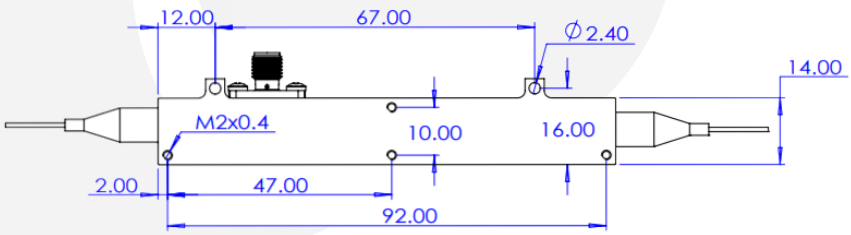


MECHANICAL DRAWING





FRONT VIEW



BOTTOM VIEW

PM-1064-10

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.