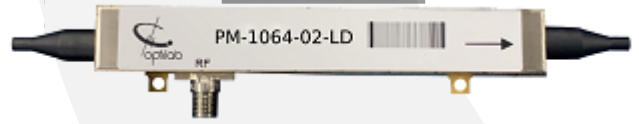


# PM-1064-02-LD



## DEVICE

## 1064 nm Phase Modulator, Low Drive, 2 GHz

## OVERVIEW

The Optilab PM-1064-02-LD is a high performance, 2 GHz LiNbO<sub>3</sub> 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-1064-02-LD 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.

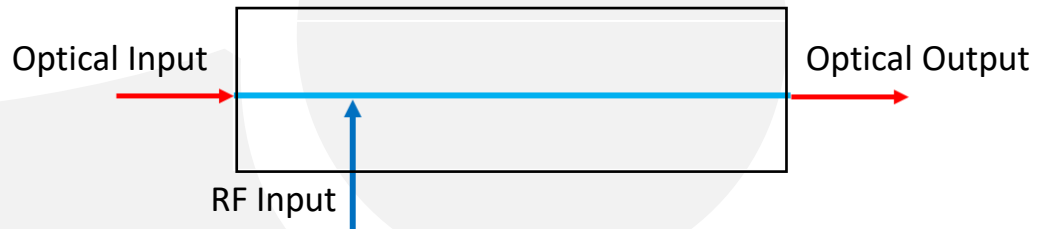
## FEATURES

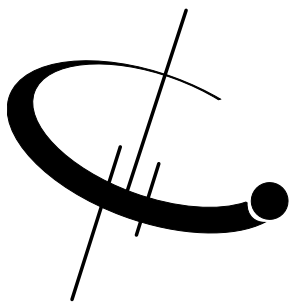
- 1030 nm to 1070 nm
- X-cut APE Process
- 2 GHz Bandwidth
- Minimal Back Reflections
- Polarization Maintaining
- Low Optical Loss

## USE IN

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

## FUNCTION DIAGRAM





# PM-1064-02-LD

## SPECIFICATIONS

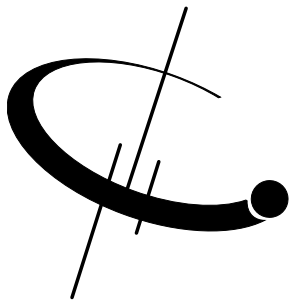
### GENERAL

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	Annealed Proton Exchange
Optical Return Loss	≤ -40 dB
S <sub>21</sub> Bandwidth	1.5 GHz min, 2 GHz typical @ -3 dB
S <sub>11</sub> Return Loss	≤ -10 dB
V <sub>π</sub>	4.5V typ. @ 1 GHz, 5V max. @ 1 GHz
RF Input Power	+25 dBm max
Impedance	50 Ω typical

### MECHANICAL

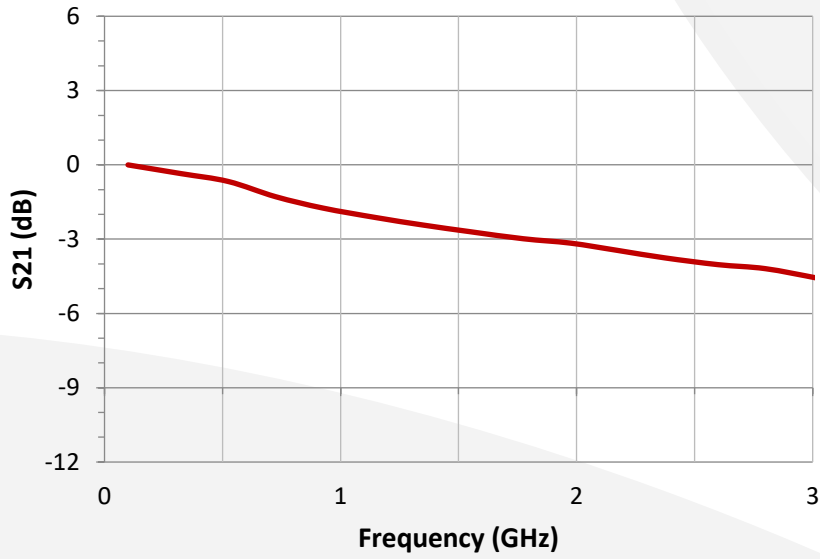
Operating Temperature	-55°C to +75°C
Storage Temperature	-60 °C to +90 °C
Operating Humidity	0% to 90% Relative Humidity
Input Fiber	Panda, PM 980, slow axis aligned to TE Mode
Output Fiber Type	Panda, PM 980, slow axis aligned to TE Mode
Input Connector	PM FC/APC, key aligned to slow axis
Output Connector	PM FC/APC, key aligned to slow axis
RF Port Connectors	SMA Female
Cabling	900 μm tubing
Dimension	96mm x 14mm x 8.6mm





# PM-1064-02-LD

TYPICAL S21  
RESPONSE



MECHANICAL  
DRAWING

