



# PM-1550-10-XL



## DEVICE

## 10 GHz, 1550 nm Phase Modulator

## OVERVIEW

The Optilab PM-1550-10-XL is a high performance, 10 GHz phase modulator for C band. PM-1550-10-XL can provide phase modulation in a broad operation bandwidth with a low driving voltage. Its low insertion loss and high optical power handling capability provides for maximum transmission power. The PM-1550-10-XL is fabricated with Annealed Proton Exchange (APE) optical waveguides on X-cut LiNbO<sub>3</sub> material, and uses polarization maintaining input and output fibers, making it easy to integrate with other optical components. Contact Optilab for more information.

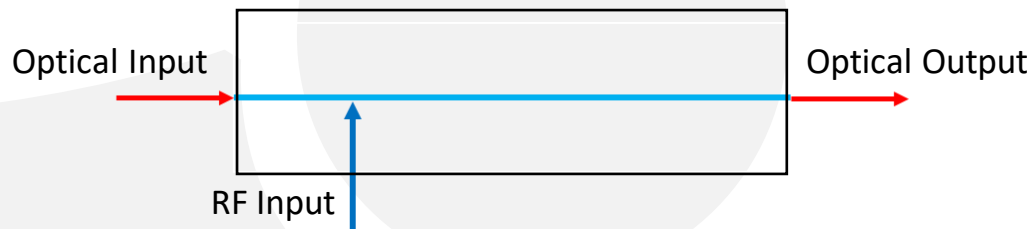
## FEATURES

- X-cut APE Process
- High Polarization Extinction Ratio
- High Optical Power Handling
- PM Input & Output

## USE IN

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

## FUNCTION DIAGRAM





# PM-1550-10-XL

## SPECIFICATIONS

### GENERAL

Input Optical Power	100 mW max
Operating Wavelength	1525 nm to 1570 nm
Insertion Loss	3.0 dB typical, 4.0 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	8 GHz typical, 7 GHz min.
S <sub>11</sub> Return Loss	≤ -9 dB
RF V <sub>π</sub>	7.2 V typical @ 1 GHz, 8V max
RF Input Power	+25 dBm max
Impedance	50 Ω

### MECHANICAL

Operating Temperature	0°C to +70°C
Storage Temperature	-40°C to +80°C
Operating Humidity	0% to 90% Relative Humidity
Input Fiber	Panda, PM15-U400
Output Fiber Type	Panda, PM15-U400
Input Connector	PM FC/APC, key aligned to slow axis
Output Connector	PM FC/APC, key aligned to slow axis
RF Port Connectors	2.92 mm female
Cabling	900 μm tubing



