PM-1550-0.2-S



DEVICE

1550 nm Phase Modulator, Low Drive, 200 MHz

OVERVIEW

The Optilab PM-1550-0.2-S is a high performance, 200 MHz $LiNbO_3$ 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-1550-0.2-S 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.

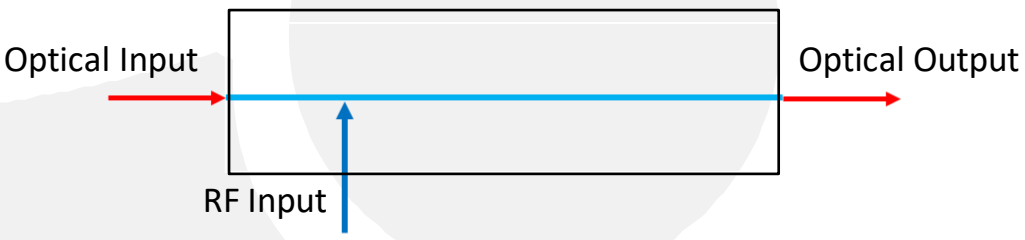
FEATURES

- 1550 nm +/- 30 nm
- X-cut APE Process
- 200 MHz Bandwidth
- Low Drive Voltage
- Polarization Maintaining
- Low Optical Loss

USE IN

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

FUNCTION DIAGRAM



PM-1550-0.2-S

SPECIFICATIONS

GENERAL

Input Optical Power	100 mW max
Operating Wavelength	1550 nm +/- 30 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	≤ -45 dB
S_{21} Bandwidth	200 MHz typical @ -3dB
$V\pi$	2.0V typ., 2.5V max @ 10 kHz
RF Input Voltage	20 Vpp max
Impedance	High Z

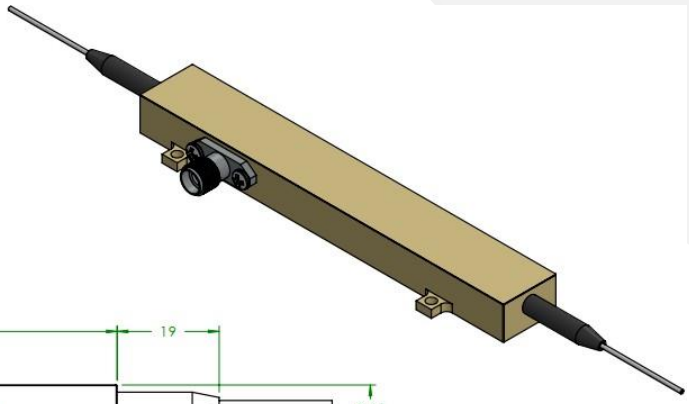
MECHANICAL

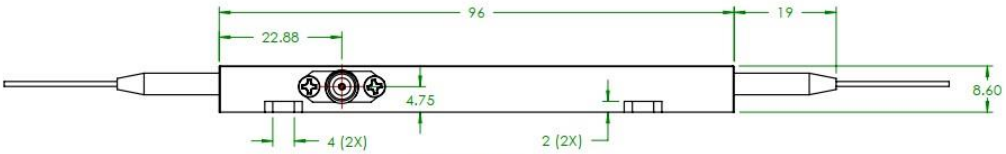
Operating Temperature	-25°C to + 75°C
Storage Temperature	-50 °C to +90 °C
Operating Humidity	0% to 90% Relative Humidity
Input Fiber	Panda, PM1550, slow axis aligned to TE Mode
Output Fiber Type	Panda, PM1550, slow axis aligned to TE Mode
Input Connector	PM FC/APC, key aligned to slow axis
Output Connector	PM FC/APC, key aligned to slow axis
RF Port Connectors	SMA Female
Fiber Jacket	900 µm loose tube
Dimension	96mm x 14mm x 8.6mm

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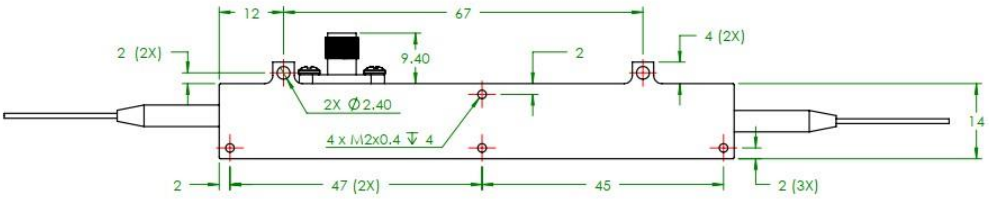
MECHANICAL
DRAWING

Unit: mm





FRONT VIEW



BOTTOM VIEW