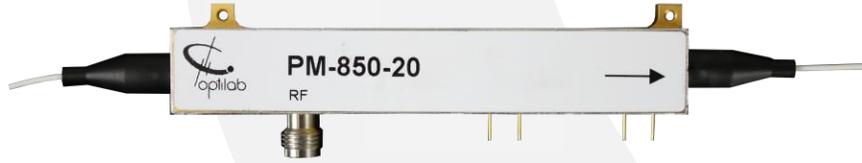


PM-850-20



DEVICE

20 GHz, 850 nm Phase Modulator

OVERVIEW

The Optilab PM-850-20 is a high performance, 850 nm phase modulator with 20 GHz bandwidth. PM-850-20 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-850-20 is fabricated with Annealed Proton Exchange (APE) optical waveguides on X-cut LiNbO₃ material, and uses polarization maintaining input and output fibers, making it easy to integrate with other optical components. Contact Optilab for more information.

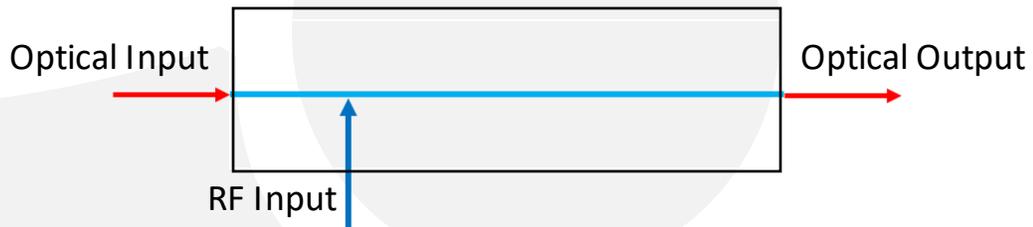
FEATURES

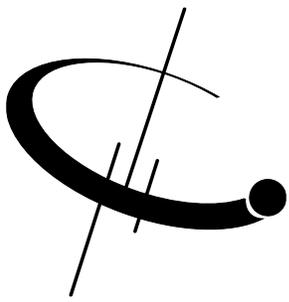
- X-cut APE Process
- High Polarization Extinction Ratio
- High Optical Power Handling
- PM Input & Output

USE IN

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

FUNCTION DIAGRAM





PM-850-20

SPECIFICATIONS

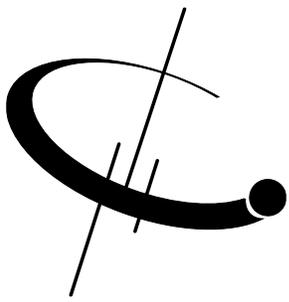
GENERAL

Input Optical Power	20 mW max
Operating Wavelength	830 nm to 870 nm
Insertion Loss	3.0 dB typical, 4.0 dB max.
Pigtail Polarization Extinction Ratio	≥ 20 dB
Process	Annealed Proton Exchange
Optical Return Loss	≥ 40 dB
S_{21} Bandwidth	20 GHz typical, 16 GHz min.
S_{11} Return Loss	≤ -9 dB
V_{π}	4.8V typical @ 1 GHz, 5.2V max
RF Input Power	+25 dBm max
Impedance	50 Ω

MECHANICAL

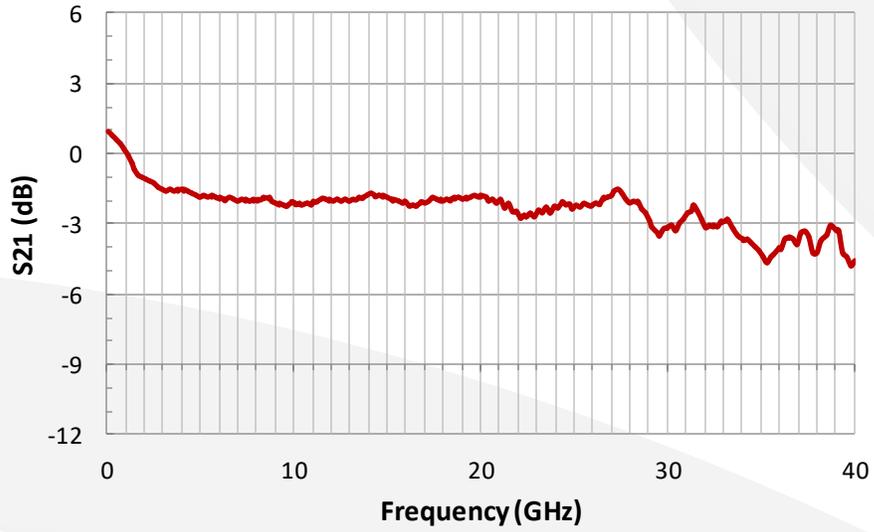
Operating Temperature	10°C to +75°C
Storage Temperature	-40 °C to +85 °C
Operating Humidity	0% to 90% Relative Humidity
Input Fiber	Corning PM85-U40D
Output Fiber Type	Corning PM85-U40D
Input Connector	PM FC/APC, key aligned to slow axis
Output Connector	PM FC/APC, key aligned to slow axis
RF Port Connectors	V female (1.85 mm female)
Cabling	900 μ m loose tube
Dimension	87 mm x 14.5 mm x 10.1 mm



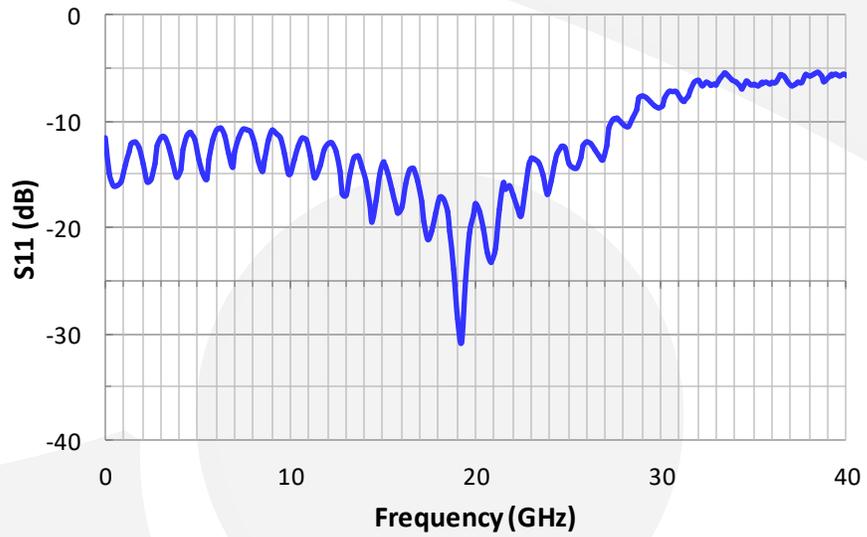


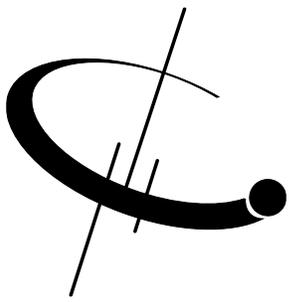
PM-850-20

TYPICAL S21
RESPONSE



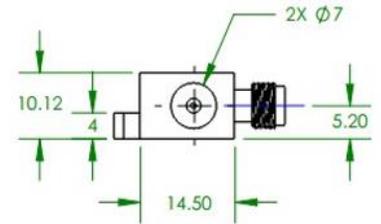
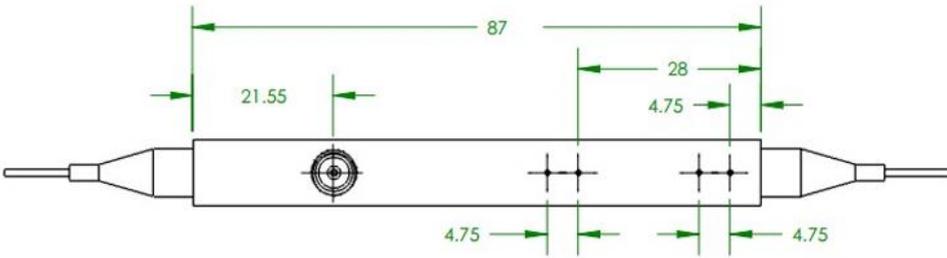
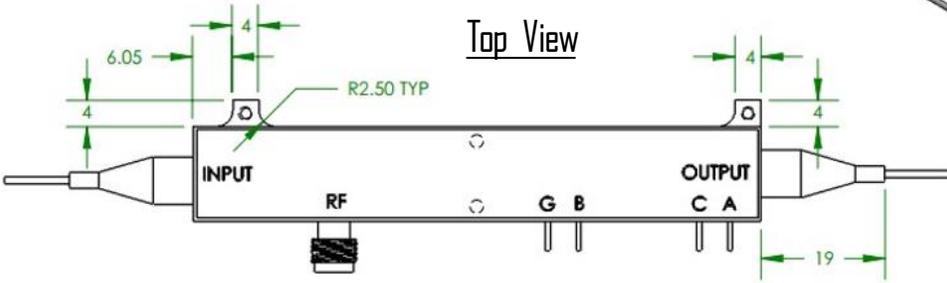
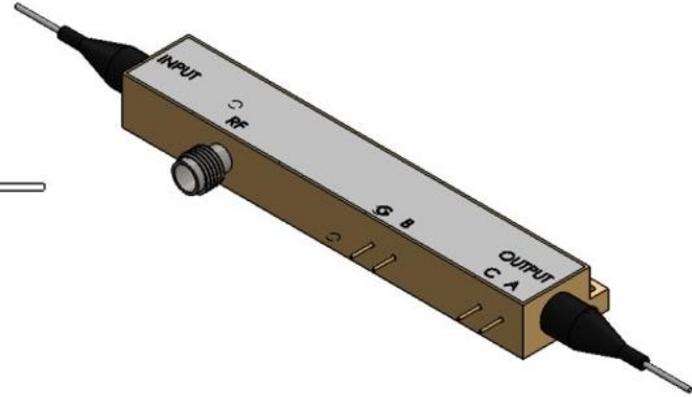
TYPICAL S11
RESPONSE



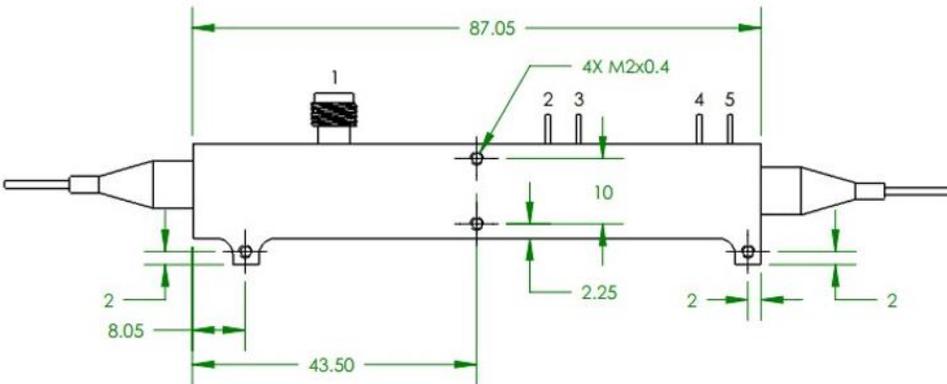


PM-850-20

MECHANICAL
DRAWING



Side View



Unit: mm

Note: G, B, C, A are not connected.

