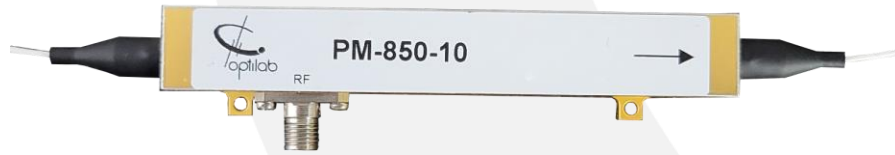


# PM-850-10



## DEVICE

# 850 nm, 10 GHz Phase Modulator

## OVERVIEW

The Optilab PM-850-10 is a 10 GHz LiNbO<sub>3</sub> based phase modulator designed for 850 nm wavelength. Thanks to the Annealed Photon Exchange (APE) waveguide fabrication process, PM-850-10 features low insertion loss and high optical power handling up to 20 mW. It uses polarization maintaining (PM) input and output fibers, making it easy to integrate with other optical components. Contact Optilab for more information.

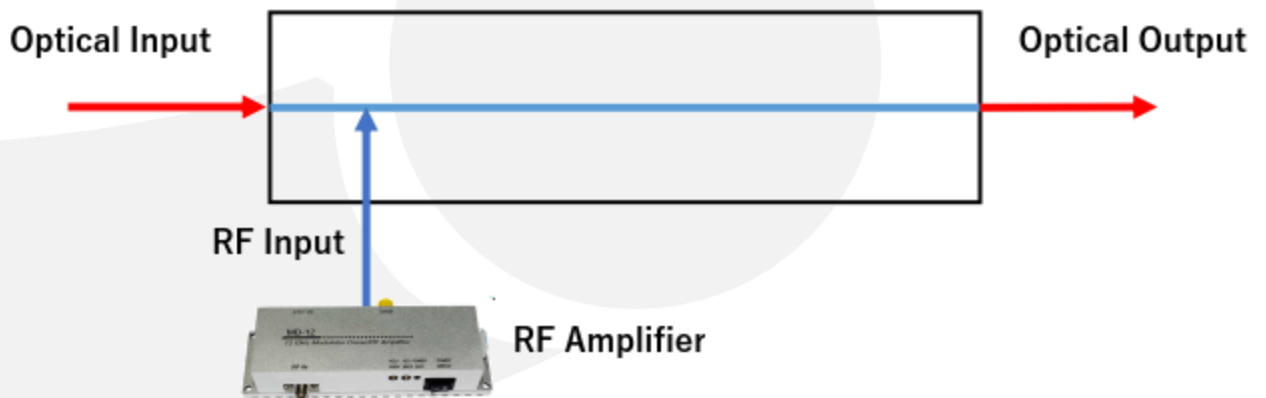
## FEATURES

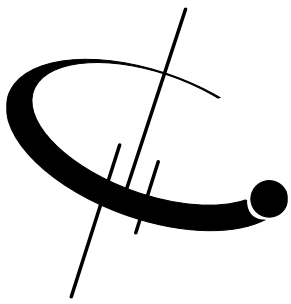
- Up to 10 GHz Bandwidth
- 850 nm operating wavelength
- Low Drive Voltage
- Polarization Maintaining

## USE IN

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

## FUNCTIONAL DIAGRAM





# PM-850-10

## SPECIFICATIONS

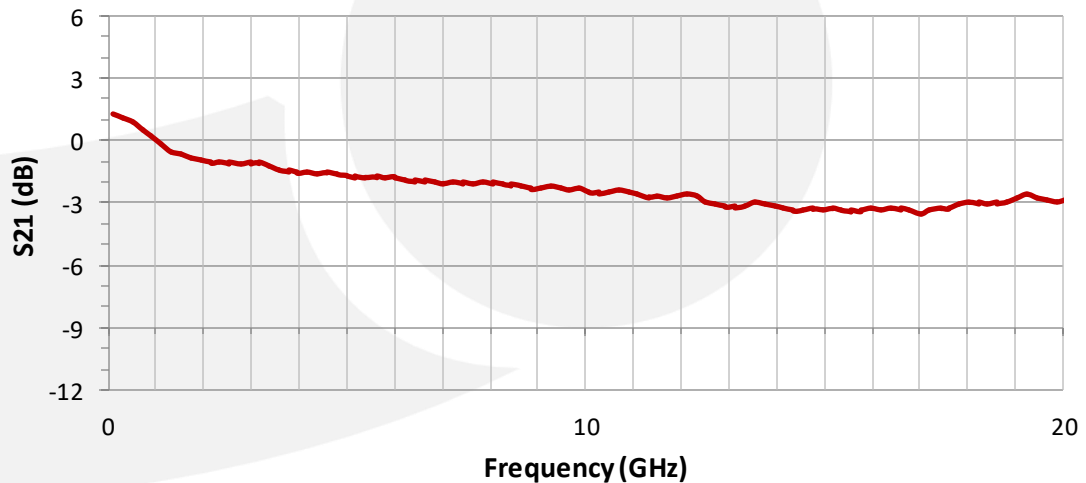
### GENERAL

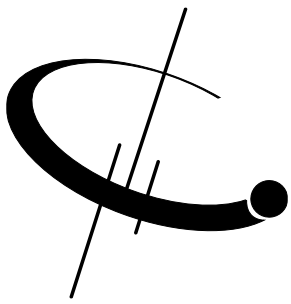
Input Optical Power	20 mW max.
Operating Wavelength	850 ± 20 nm
Insertion Loss	3.0 dB typ., 4 dB max.
Polarization Extinction Ratio	≥ 20 dB
Optical Return Loss	≤ -40 dB
S21 Bandwidth	≥ 10 GHz, @ -3 dB
RF V <sub>π</sub>	4.8 V typ. @ 1 GHz, 5.2V max
RF Input Impedance	50 ohm typ.
Maximum RF Input Power	+ 25 dBm

### MECHANICAL

Operating Temperature (Standard)	10 °C to +75 °C
Storage Temperature	-40 °C to +85 °C
Operating Humidity	0% to 90% Relative Humidity
RF Connector	SMA female
Input/Output Fiber Type	Corning PM85-U40D
Input/Output Connector	PM FC/APC, Slow axis aligned to narrow key
Material	LiNbO3
Cabling	0.9 mm loose tube
Dimensions	96 mm x 14 mm x 8.5 mm

### E to O S21 Response

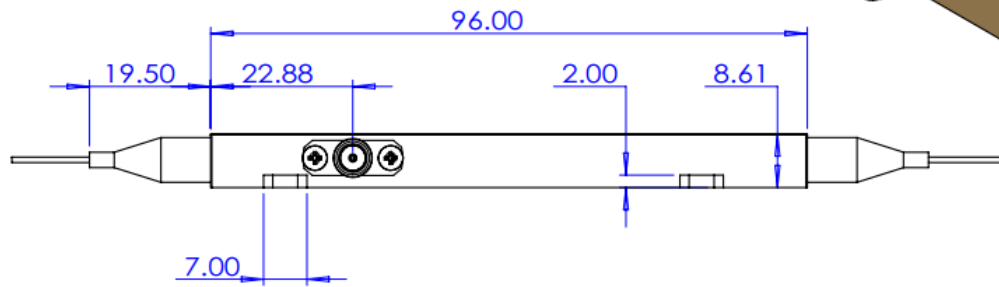
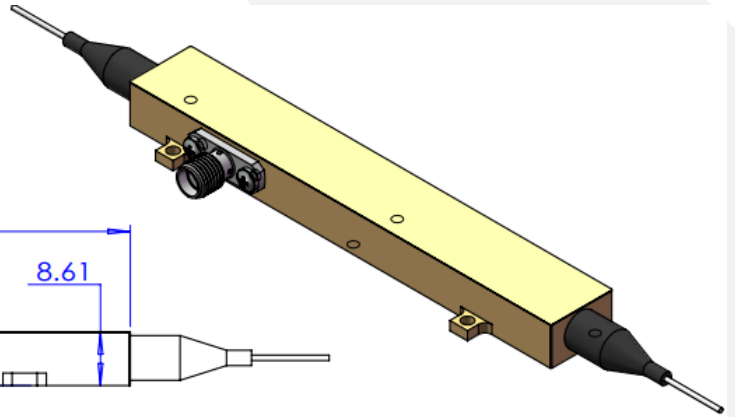




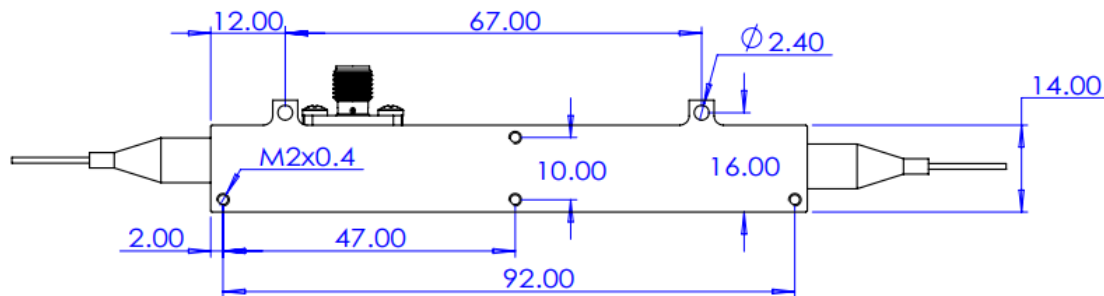
# PM-850-10

## MECHANICAL DRAWING

Unit: mm



FRONT VIEW



BOTTOM VIEW

