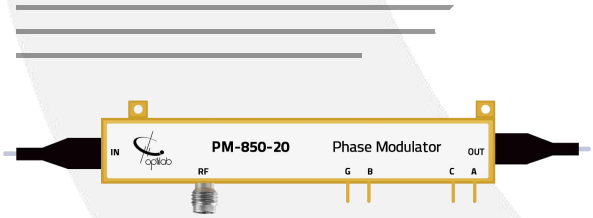
PM-850-20



DEVICE

850 nm, 20 GHz Phase Modulator

OVERVIEW

The Optilab PM-850-20 phase modulatoris a 20 GHz $LiNbO_3$ modulator. This modulator can provide phase modulation with a low driving voltage. Its low insertion loss provides for its maximum transmission power. The PM-850-20 modulator uses polarization maintaining (PM) input and output fibers, making it easy to integrate with other optical components. Contact Optilab for more information.

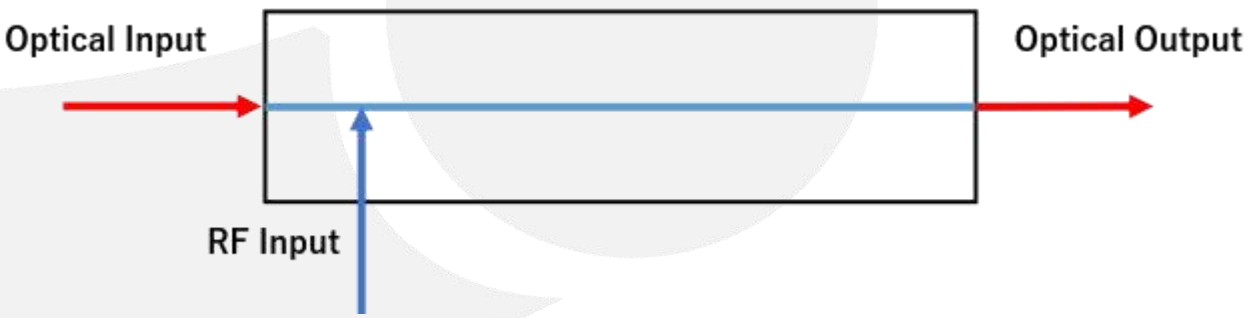
FEATURES

- Up to 20 GHz Bandwidth
- Low Optical Loss
- 850 nm operating wavelength
- Low Drive Voltage
- Minimal Back Reflections
- Polarization Maintaining

USE IN

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

FUNCTIONAL DIAGRAM



PM-850-20

SPECIFICATIONS

GENERAL

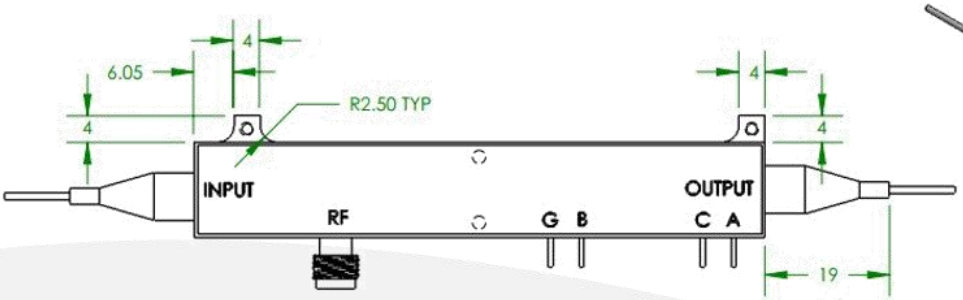
Input Optical Power	20 mW max.
Operating Wavelength	850 ± 20 nm
Insertion Loss	3.0 dB typ., 4.0 dB max.
Extinction Ratio	≥ 20 dB
Optical Return Loss	≤ -45 dB
S21 Bandwidth (RF Port)	20 GHz typ.; 16 GHz min.
S11 Return Loss	≤ -9 dB @ 20 GHz
Vπ (RF Port)	4.8 V typ. @ 1 GHz, 5.2 V max.
RF Input Power	+27 dBm max.
Impedance	50 Ω typ.

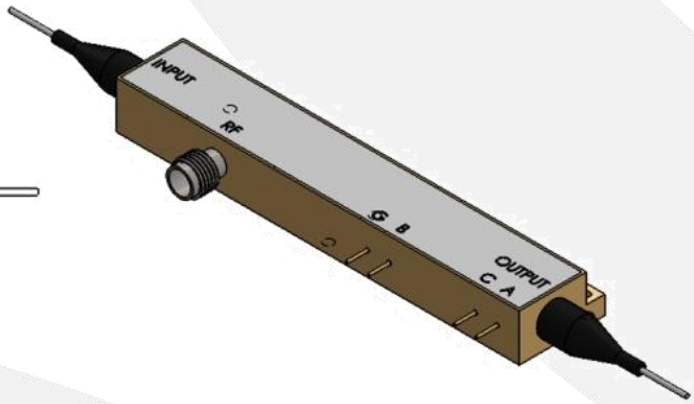
MECHANICAL

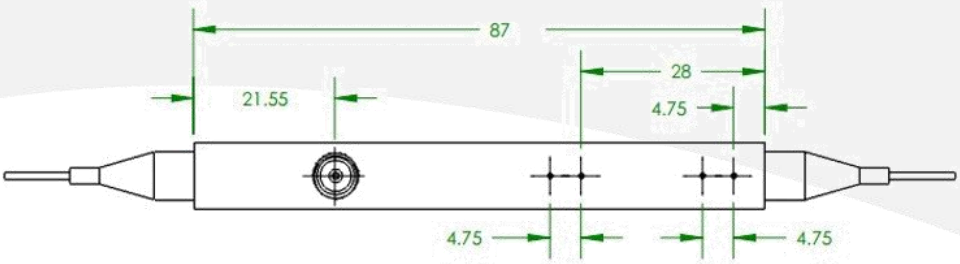
Operating Temperature (Standard)	0°C to +60°C
Storage Temperature	-10°C to +70°C
Operating Humidity	0% to 90% Relative Humidity
Input/Output Fiber Type	SM85-PS-U40D
Input/Output Connector	PM FC/APC, request for others
Material	$LiNbO_3$
RF Port Connectors	V or K Female
Cabling	900 µm tubing
Dimensions	87.05 x 18.5 x 10.1 mm

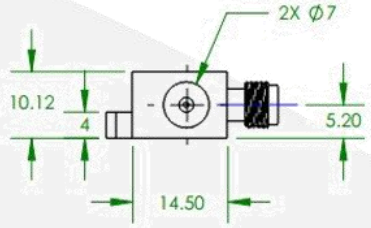
PM-850-20

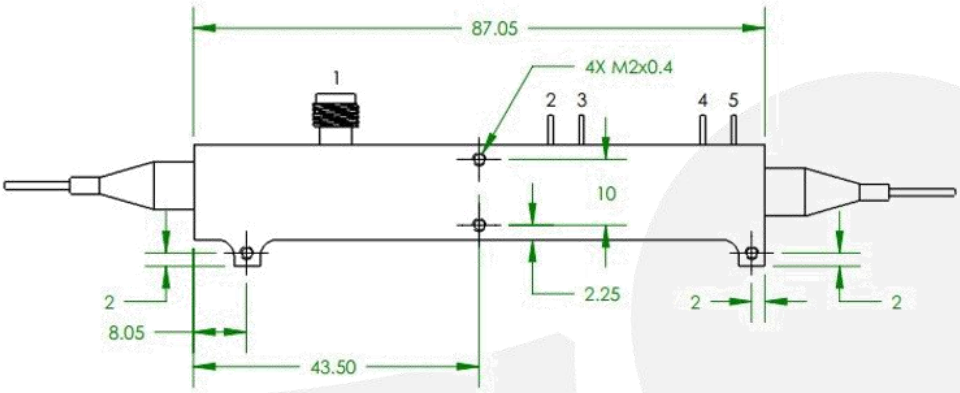
MECHANICAL DRAWING











Unit: mm