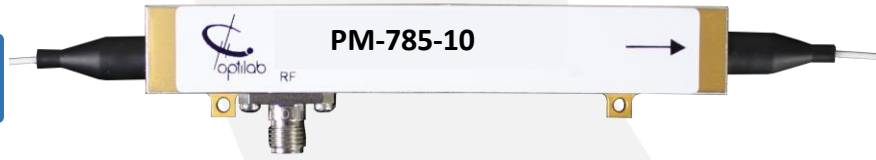




PM-785-10



DEVICE

785 nm, 10 GHz Phase Modulator

OVERVIEW

The Optilab PM-785-10 phase modulator is a 10 GHz LiNbO3 modulator. This modulator can provide phase modulation with a low driving voltage. Its low insertion loss provides for its maximum transmission power. The PM-785-10 modulator uses polarization maintaining (PM) input and output fibers, making it easy to integrate with other optical components. Contact Optilab for more information.

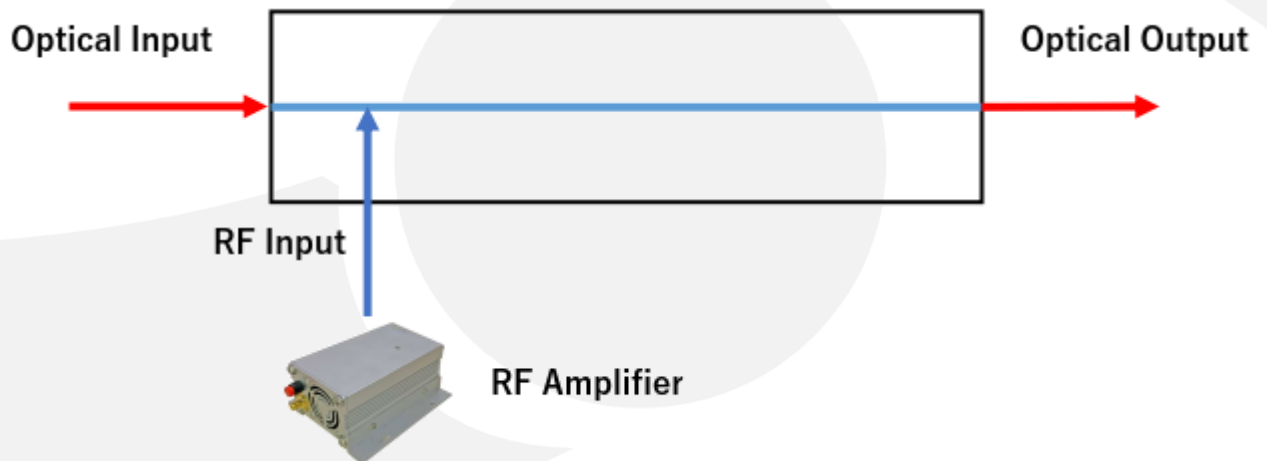
FEATURES

- Up to 10 GHz Bandwidth
- Low Optical Loss
- 785 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-785-10

SPECIFICATIONS

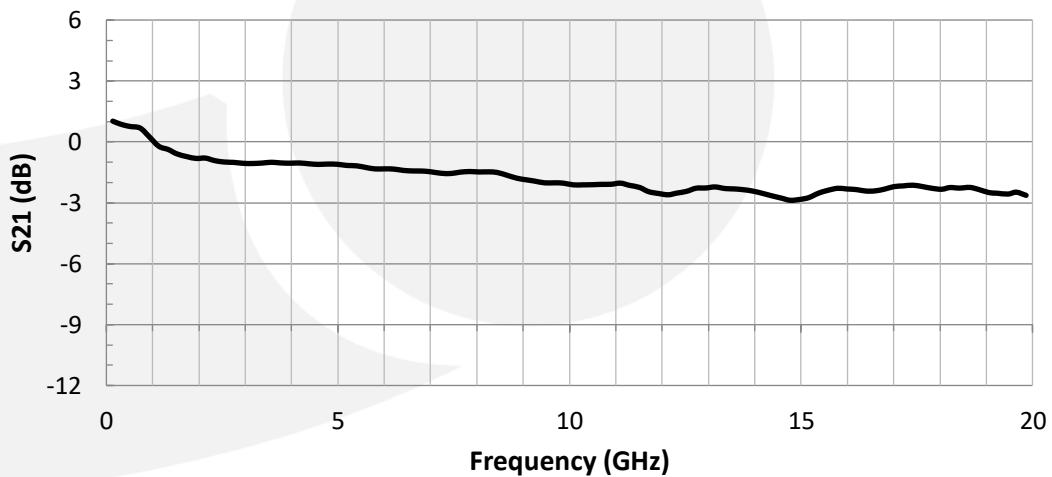
GENERAL

| | |
|-------------------------|-----------------------------------|
| Input Optical Power | 10 mW max. |
| Operating Wavelength | 785 ± 20 nm |
| Insertion Loss | 3.5 dB typ., 4.5 dB max. |
| Optical Return Loss | ≤ -40 dB |
| S21 Bandwidth (RF Port) | 8 GHz min, 10 GHz typical @ -3 dB |
| S11 Return Loss | ≤ -9 dB up to 10 GHz |
| Vπ (RF Port) | 4.2 V typ., 4.8V max. @ 1 GHz |
| RF Input Power | +27 dBm max. |
| RF Impedance | 50 Ω typ. |

MECHANICAL

| | |
|----------------------------------|-------------------------------------|
| Operating Temperature (Standard) | 0 °C to 70 °C |
| Storage Temperature | -40 °C to + 85 °C |
| Operating Humidity | 0% to 90% Relative Humidity |
| Input/Output Fiber Type | Corning PM85-U400 |
| Input/Output Connector | PM FC/APC, slow axis aligned to key |
| Material | LiNbO3 |
| RF Port Connectors | 2.92mm Female Connector |
| Cabling | 900 μm tubing, 1m long |
| Dimensions | 3.783" x 0.981" x 0.640" |

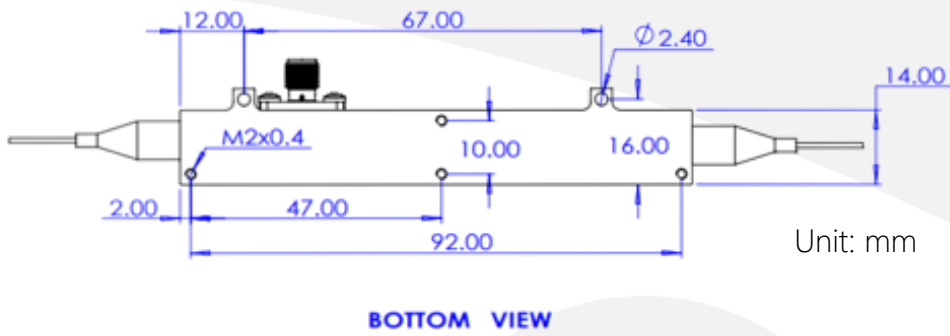
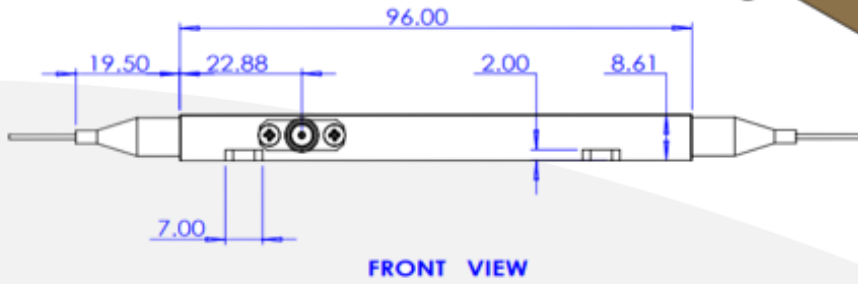
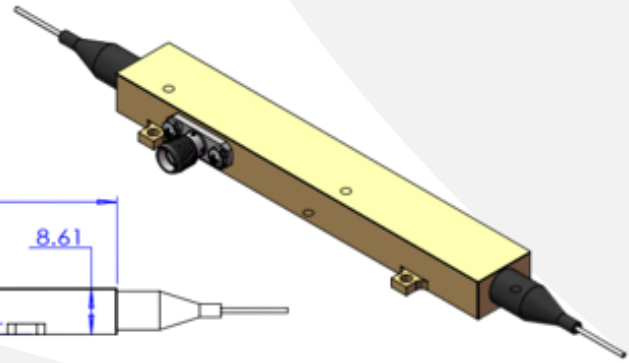
Typical S21 Frequency Response





PM-785-10

MECHANICAL DRAWING



Unit: mm

