### **DEVICE**

### 850 nm, 200 MHz Phase Modulator

### **OVERVIEW**

The Optilab PM-850-0.2-ULD is a 200 MHz LiNbO $_3$  based phase modulator designed for 850 nm. This modulator can provide phase modulation with an ultra low driving voltage. Its low insertion loss provides for its maximum transmission power. The PM-850-0.5modulator uses polarization maintaining (PM) input and output fibers, making it easy to integrate with other optical components. Contact Optilab for more information.

### **FEATURES**

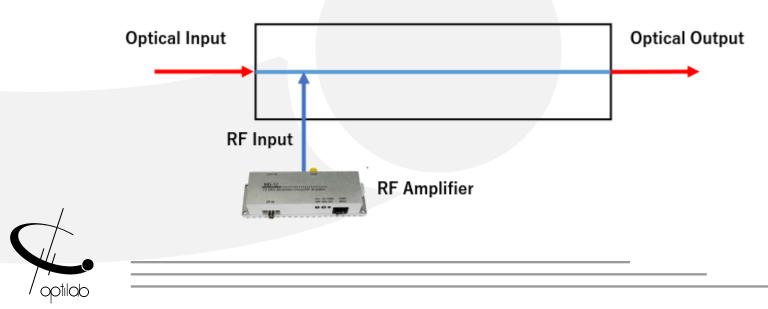
- Up to 200 MHz Bandwidth
- Compact Size
- 850 nm operating wavelength
- Ultra Low Drive Voltage
- Minimal Back Reflections
- Polarization Maintaining

### **USE IN**

- Coherent Communications
- Optical Chirping
- Optical Sensing

- FM Spectroscopy
- Frequency Shifting
- Laser Linewidth Broadening

### **FUNCTIONAL DIAGRAM**





# PM-850-0.2-ULD=

### **SPECIFICATIONS**

### **GENERAL**

Input Optical Power	20 mW max.			
Operating Wavelength	$850\pm20\mathrm{nm}$			
Insertion Loss	3.0 dB typ., 4 dB max.			
Polarization Extinction Ratio	≥ 20 dB			
Optical Return Loss	≤ -40 dB			
S21 Bandwidth	150 MHz typ. @ -3 dB			
RF Vπ	1.1 V typ. @ 100 MHz			
RF Input Impedance	10 k ohm typ. (High-Z)			
Maximum Input Voltage	+/- 20 V			

### **MECHANICAL**

Operating Temperature (Standard)	5 °C to +75 °C			
Storage Temperature	-40 °C to +85 °C			
Operating Humidity	0% to 90% Relative Humidity			
Input/Output Fiber Type	Corning PM85-U40D			
Input/Output Connector	PM FC/APC, Key aligned to narrow key			
Material	LiNbO3			
Cabling	None			
Dimensions	65 mm x 11.5 mm x 5.8 mm			

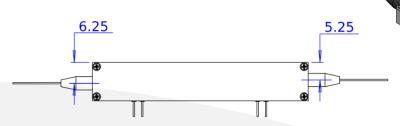


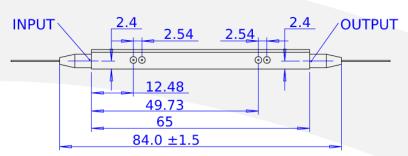


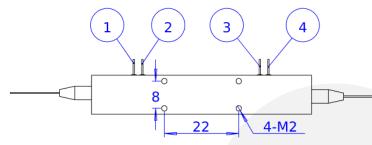
## PM-850-0.2-ULD

### MECHANICAL DRAWING









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