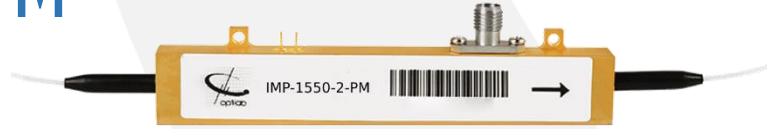


IMP-1550-2-PM



DEVICE

1550 nm, 2 GHz Intensity Modulator w/PM Output

OVERVIEW

The Optilab IMP-1550-2-PM Intensity Modulator is designed for analog modulation of up to 2 GHz for satellite links, antenna remoting, and RF over Fiber. Featuring an Annealed Proton Exchange (APE) waveguide, this modulator provides low insertion loss, low V_{pi}, and high-power handling capability. It has an operating temperature tolerance ranging from -10 °C to +55 °C, and superior insertion loss provides for its maximum transmission power. The IMP-1550-2-PM uses Polarization Maintaining (PM) input and output fibers. Contact Optilab for more information.

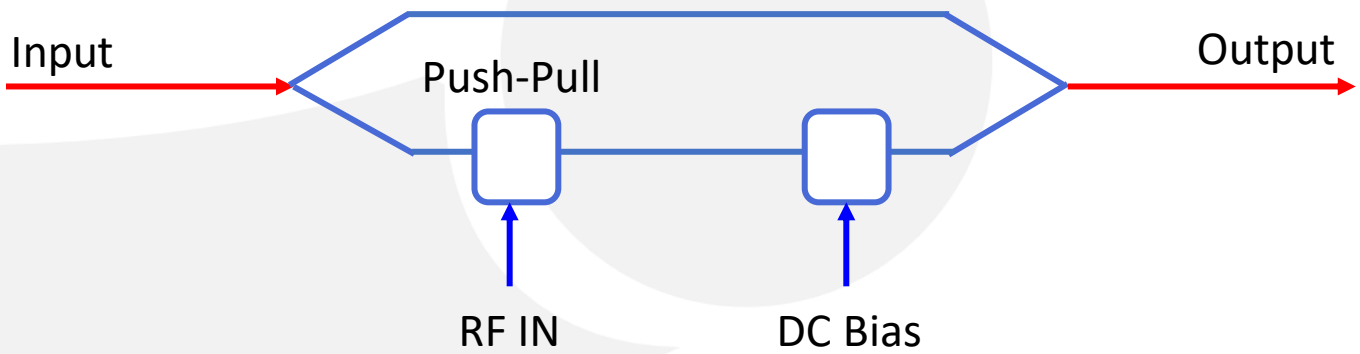
FEATURES

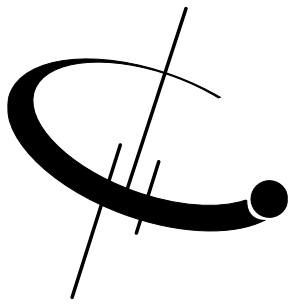
- Excellent stability in a biased circuit
- Polarization Maintaining output
- 1550 nm operating wavelength
- Low insertion loss, low V_{pi}
- High input power handling capability
- Lump electrode design

USE IN

- Analog Modulation
- Pulse Generation
- Research & Development
- Quantum Photonics
- Active Mode Locking Laser

FUNCTIONAL DIAGRAM





IMP-1550-2-PM

SPECIFICATIONS

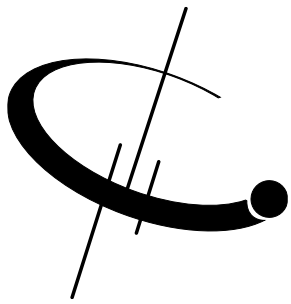
GENERAL

Input Optical Power	50 mW max.
Operating Wavelength	1550±30 nm
Chirp Value	< ± 0.2 (zero chirp design)
Insertion Loss	4.0 dB typ., 5 dB max.
Extinction Ratio	20 dB min.
Optical Return Loss	-45 dB max.
S21 3 dB (RF Port)	2 GHz typ.
V π (RF Port, @ 1 GHz)	4.5 V typ., 5 V max.
V π (Bias Port, @ 1 kHz)	6V typ., 7V max

MECHANICAL

Operating Temperature (Standard)	-10 °C to +55 °C
Storage Temperature	-30 °C to +80 °C
Operating Humidity	0% to 90% Relative Humidity
Input/Output Fiber Type	Corning PM15-U40D
Input/Output Connector	FC/APC, slow axis aligned to Key
Material	LiNbO3
Crystal Orientation	X-cut, Y-propagating
Waveguide Process	Annealed Proton Exchange, TE Mode pass only
RF Port Connectors	SMA female
Dimensions	96 mm x 14 mm x 8.5 mm

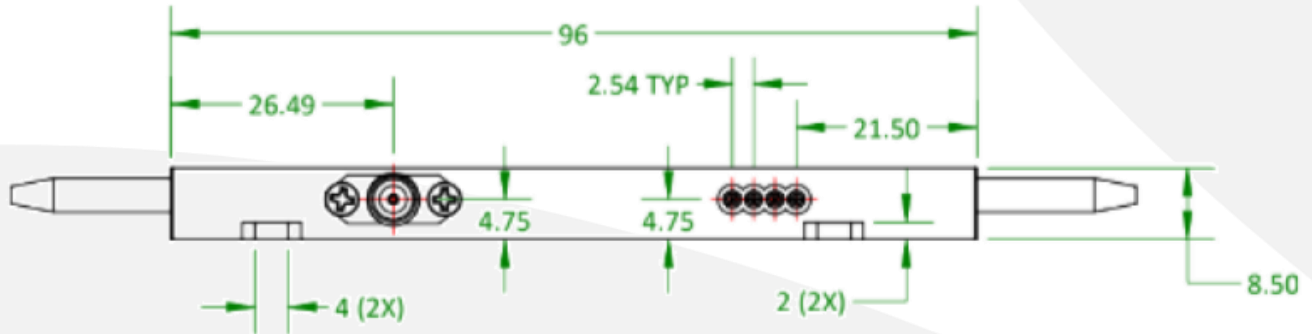




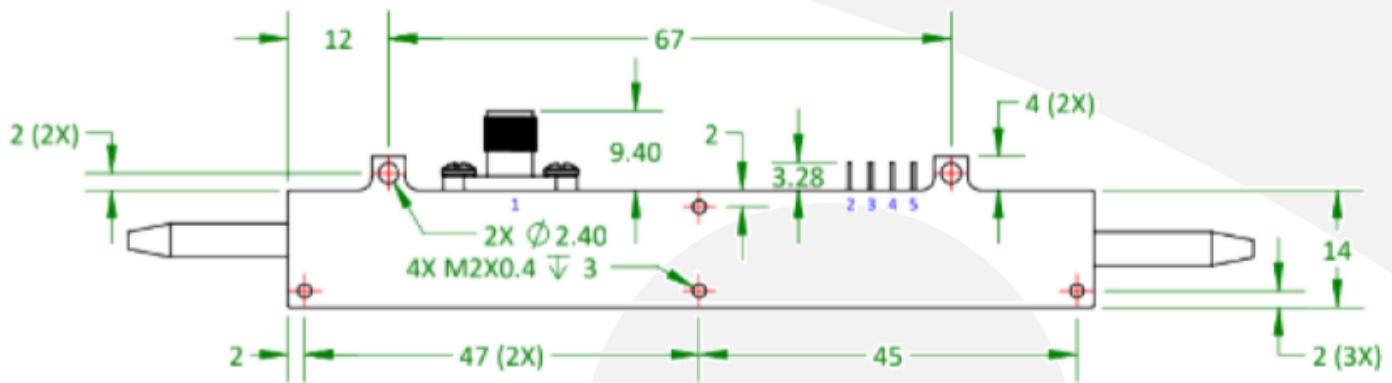
IMP-1550-2-PM

MECHANICAL DRAWING

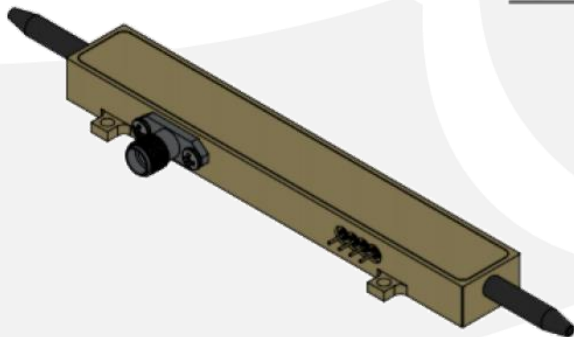
1. IMP-1550-2-PM Housing



FRONT VIEW



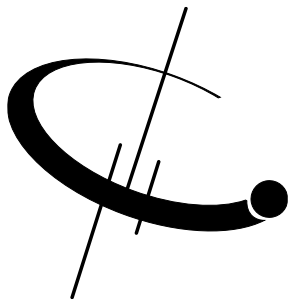
BOTTOM VIEW



PIN	Description
1	RF
2	GND
3	B
4	NC
5	NC

Unit: mm





IMP-1550-2-PM

Available Accessories

- **BCB-4**



The Optilab BCB-4 is a compact bias control board designed to maintain the linear operating point of optical intensity modulators.

