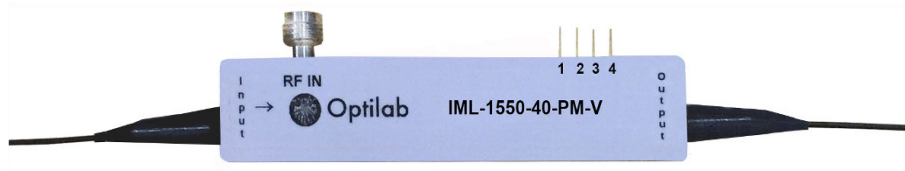


IML-1550-40-PM-V



1550 nm, 40 GHz Analog Modulator, PM Output, V Connectors

The Optilab IML-1550-40-PM-V Intensity Modulator is designed for analog modulation of up to 40 GHz for microwave links, antenna remoting, and RF over Fiber. It is a high linearity, low driving voltage lithium niobate mach zehnder interferometer (MZI) design. It is a bias-stabilized lithium modulator that proves to be extremely stable for long periods of time, and features excellent stability in a biased circuit, operating from 1525 nm to 1610 nm. It has an excellent operating temperature tolerance ranging from -30 °C to +60 °C, and its low insertion loss provides for its maximum transmission power. The IML-1550-40-PM-V uses a Polarization Maintaining (PM) input and output fiber, and features separate RF and bias ports. Contact Optilab for more information.

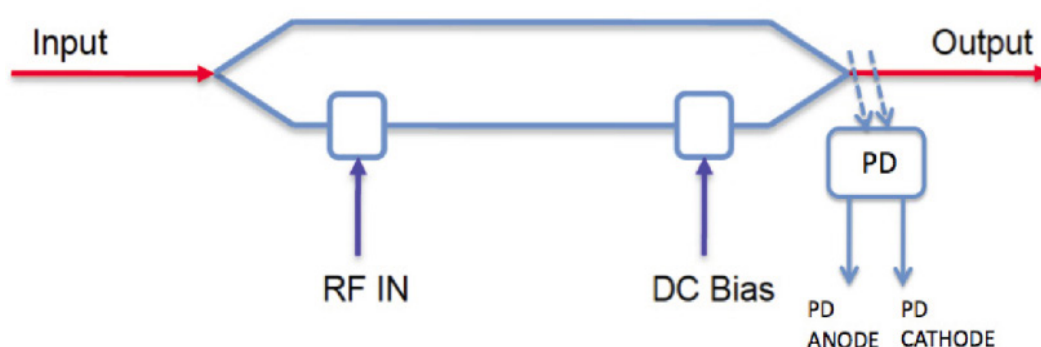
Features

- 3dB bandwidth of 30 GHz
- Excellent stability in a biased circuit
- Low Drive Voltage of 2.0 V
- 1525 nm to 1610 nm range wavelength
- Zero chirp design
- Built in photodiode
- Customizable options:
 - High Extinction Ratio (>30 dB)
 - Temperature Qualified (-55 °C to +75 °C)

Applications

- 40 GHz RF over Fiber (RFoF)
- Antenna remoting
- High frequency fiber optic links
- Delay Lines Telemetry Systems
- Instrumentation
- 43 Gb/s digital link
- Active mode-locked laser

Functional Diagram



1550 nm, 40 GHz Analog Modulator, PM Output, V Connectors

OPTIONS

IML-1550-40-PM-V-xx

xx **HE:** High Extinction Ratio
TQ: Temperature Qualified

TECHNICAL INFO

For technical info and support:

sales@optilab.com

www.optilab.com

WEB ORDER

To order, please click below.



Optilab Advantage

- Innovation
- Performance
- Quality
- Customization
- Warranty

General Specifications	
Input optical power	100 mW max.
Operating wavelength	1525 to 1610 nm
Chirp Value	<± 0.2 (zero chirp design)
Insertion Loss	4dB typ., 4.5dB max.
Extinction Ratio	≥ 25 dB ≥ 30 dB (HE Version)
Optical return loss	≤ -45 dB
S ₂₁ Bandwidth (RF Port)	30 GHz typ. @ -3 dB
S ₁₁ Return Loss (RF Port)	≤ -8 dB @ 30 GHz
V _π (RF Port)	2.0 V typ. @ low frequency 3.0 V typ. @ 10 GHz; 4.5 V typ. @ 30 GHz;
RF Input power	27 dBm max.
Impedance (RF Port)	50 Ω typ.
S ₂₁ Bandwidth (Bias Port)	500 MHz typ.
V _π (Bias Port)	≤ 2 V @ 1 KHz
Impedance (Bias Port)	>1 MΩ
PD Responsivity	40 ~100 mA/W typ.
Analog Link Performance	
IIP3 @7 GHz	23 dBm typ.
1 dB Compression Point @10 GHz	9 dBm typ.

Mechanical Specifications	
Operating Temperature (standard)	-30 °C to +60 °C
Operating Temperature (TQ version)	-55 °C to +75 °C
Storage Temperature	-60 °C to +90 °C
Operating Humidity	0% to 90% Relative Humidity
Input Fiber Type	PANDA - PM 1550
Output Fiber Type	PANDA - PM 1550
Input Connector	PM FC/APC; Customized is available
Output Connector	PM FC/APC; Customized is available
Bias Port Connector	2 PINS (Pin 1, 2)
TAP PD Connector	2 PINS (Pin, 3, 4)
RF Port connectors	V Connector
Cabling	900 μm tubing
Dimension	72 x 16 x 7 mm