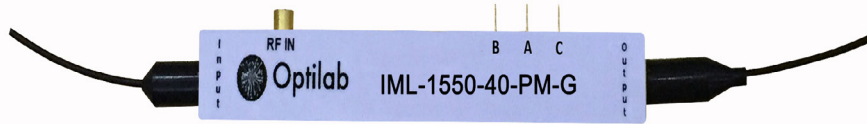


# IML-1550-40-PM-G



## 1550 nm, 40 GHz Intensity Modulator, PM Output, GPPO Connectors

The Optilab IML-1550-40-PM-G Intensity Modulator is designed for analog modulation of up to 40 GHz for satellite links, antennae remoting, and RF over Fiber. It is an ultra low drive voltage lithium modulator with excellent stability in a biased circuit, operating from 1530 nm to 1610 nm. It has an operating temperature tolerance ranging from -30 °C to +60 °C. With low insertion loss, and ultra low RF drive voltage, IML-1550-40-PM-G provides optical transmission performance for analog modulation system. The IML-1550-40-PM-G features a GPPO connector for RF input, three lead pins for bias input and photodiode (Anode and Cathode), and PM input and output fiber. Contact Optilab for more information.

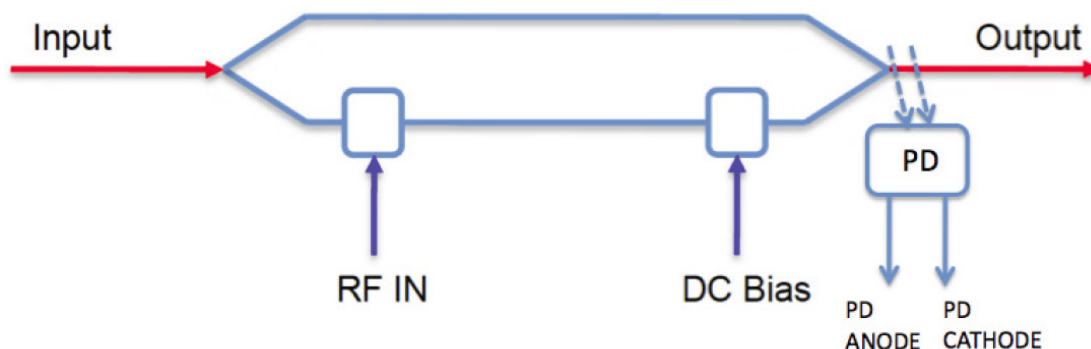
### Features

- Excellent stability in a biased circuit
- 1530 nm to 1610 nm operating wavelength
- Low insertion loss < 4.5 dB
- Ultra low drive voltage 2.0 V
- PM input and output fiber
- Built in monitor PD
- Customizable options:
  - Temperature Qualified (-55 °C to +75 °C)

### Applications

- Analog Transmission up to 40 GHz
- Satellite link
- Antenna remote
- RF over Fiber
- 40 Gb/s systems
- Active mode laser

### Functional Diagram



# 1550 nm, 40 GHz Intensity Modulator, PM Output, GPPO Connectors

## OPTIONS

**IML-1550-40-PM-G-XX**

XX TQ: Temperature Qualified

## TECHNICAL INFO

For technical info and support:

[sales@optilab.com](mailto:sales@optilab.com)

[www.optilab.com](http://www.optilab.com)

## WEB ORDER

To order, please click below:



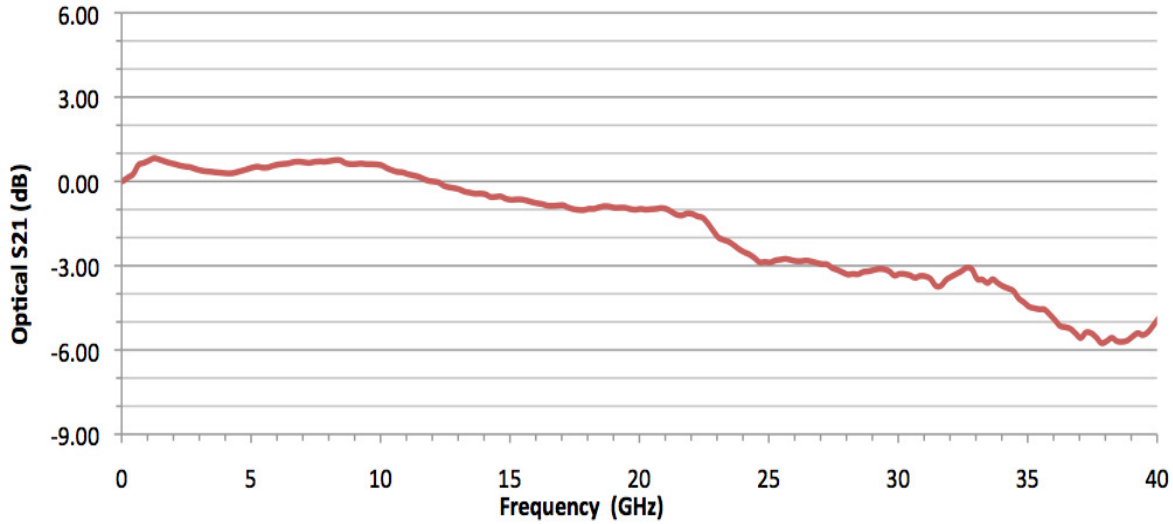
## Optilab Advantage

- Innovation
- Performance
- Quality
- Customization
- Warranty

General Specifications	
Input optical power	100 mW max.available
Operating wavelength	1530 to 1610 nm
Chirp Value	<± 0.2 (zero chirp design)
Insertion Loss	<4.0 dB typ. ; 4.5 dB max.
Extinction Ratio	≥ 25 dB min.
Optical return loss	≤ - 45 dB
S21 Bandwidth	30 GHz typ.
S11 Return Loss	≤ -10 dB @ up to 20 GHz
V $\pi$ (RF Port)	2.0 V typ.@ low frequency 2.5 V typ. @ 10 GHz; 4.3 V typ. @ 30 GHz
RF Input power	27 dBm max.
V $\pi$ (Bias Port)	< 3.0 V @ 1 kHz
PD Responsivity	0.05 ± 0.02 mA/mW
Analog Link Performance	
IIP3 @7 GHz	25 dBm typ.
1 dB Compression Point @10 GHz	8.0 dBm typ.
Mechanical Specifications	
Operating Temperature (standard)	-30 °C to +60 °C
Operating Temperature (TQ version)	-55 °C to +75 °C
Storing Temperature	-60 °C to +90 °C
Operating Humidity	0% to 90% Relative Humidity
Input Fiber Type	PANDA - PM
Output Fiber Type	PANDA - PM
Input Connector	PM FC/APC or FC/UPC
Output Connector	PM FC/APC or FC/UPC
Material	LiNbO3
Crystal Orientation	X-cut, y-propagating
Waveguide Process	Ti-indiffused
Bias Port Connector	Single Lead pin
PD Monitor Port	2 lead pin
RF Port connectors	GPPO
Cabling	900 $\mu$ m tubing
Dimensions	72 x 12 x 7 mm

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## Typical S21 Bandwidth



## Typical S11 Bandwidth

