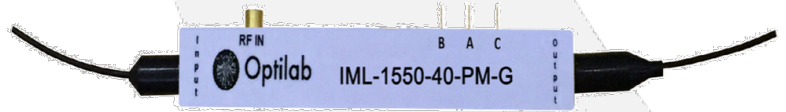


IML-1550-40-PM-G



DEVICE

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

OVERVIEW

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 oC to +60 oC. 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.

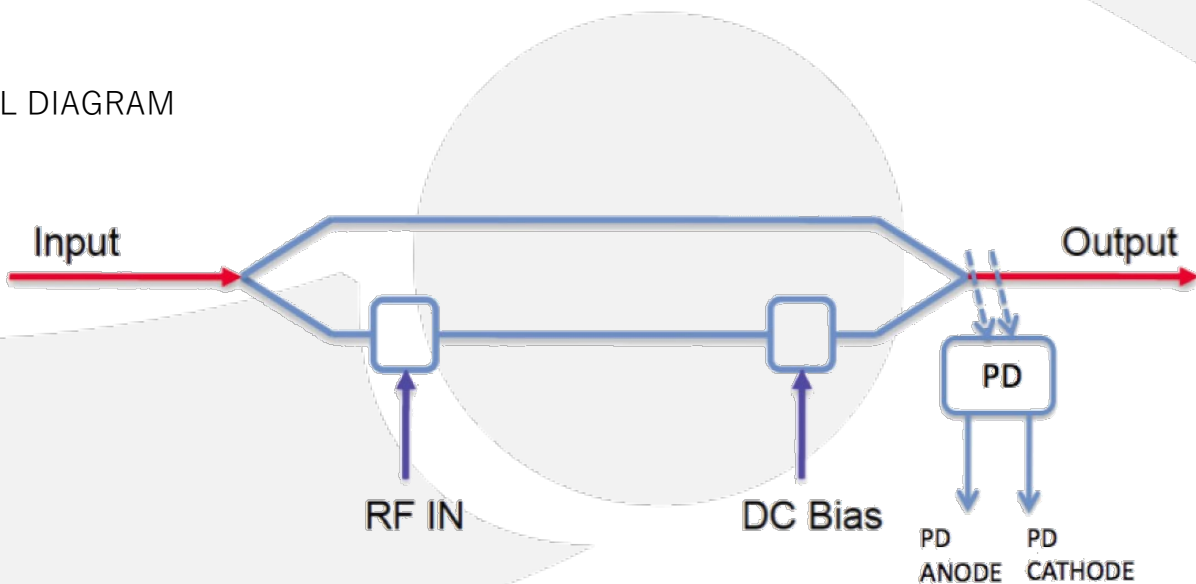
FEATURES

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

USE IN

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

FUNCTIONAL DIAGRAM





IML-1550-40-PM-G

SPECIFICATIONS

Input Optical Power	100 mW max. available
Operational 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 π (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 π (RF Port)	< 3.0 V @ 1 kHz
PD Responsivity	0.05 ± 0.02 mA/mW

GENERAL

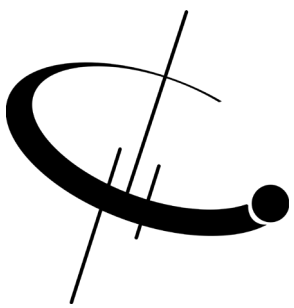
ANALOG LINK PERFORMANCE

IIP3 @ 7 GHz	25 dBm typ.
1 dB Compression Point @ 10 GHz	8.0 dBm typ.

MECHANICAL

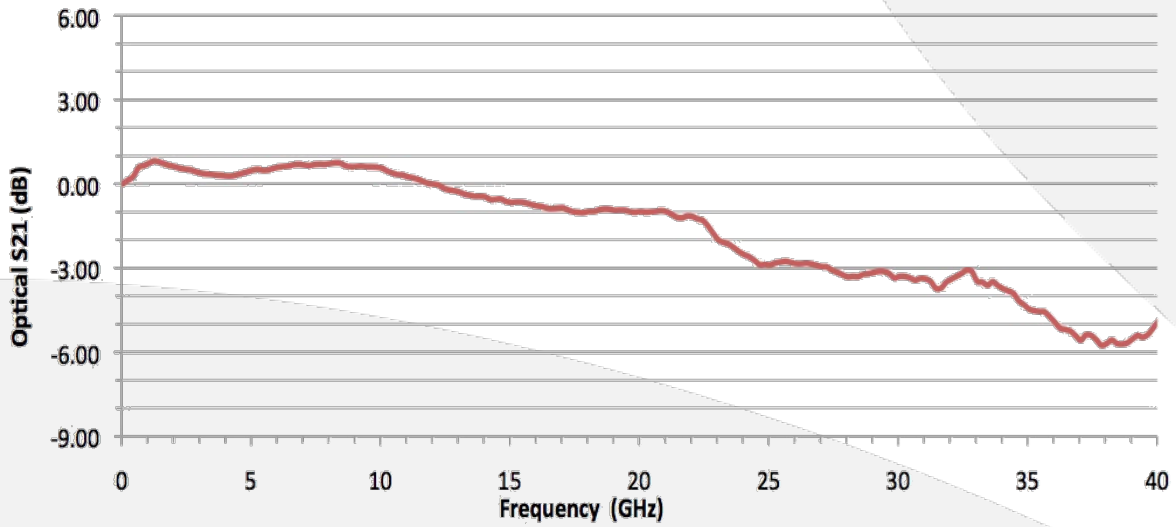
Operating Temperature (standard)	-30°C to +60°C
Operating Temperature (TQ version)	-55°C to +75°C
Storage Temperature	-60°C to +90°C
Operating Humidity	0% to 90% Relative Humidity
Input/Output Fiber Type	PANDA - PM
Input/Output Connector	PM FC/APC, FC/UPC
Material	LiNbO3
Crystal Orientation	X-cut, y-propagating
Waveguide Process	Ti-indiffused
Bias Port Connector	Single Lead pin
PD Monitor Port	2 Lead pin
RF Port Connectors	K type (GPPD w/ SMA)
Cabling	900 um tubing
Dimensions	72 mm x 12 mm x 7 mm





IML-1550-40-PM-G

TYPICAL S21 BANDWIDTH



TYPICAL S11 BANDWIDTH

