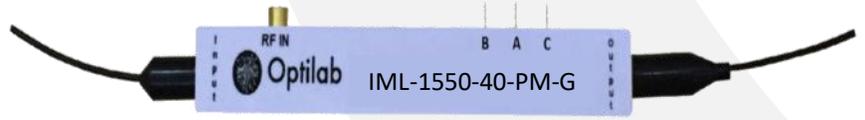


IML-1550-40-PM-G



DEVICE

1550 nm, 40 GHz Compact Intensity Modulator, PM output, GPPO Connector

OVERVIEW

The Optilab IML-1550-40-PM-G Intensity Modulator is designed for analog modulation of up to 40 GHz for satellite links, antenna 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 and three lead pins for bias input, built in PD for bias monitoring, and photodiode (Anode and Cathode). Contact Optilab for more information.

FEATURES

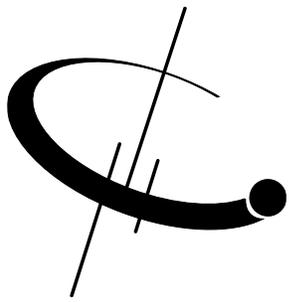
- Excellent bias stability
- 1530 nm to 1610 nm operating wavelength
- Insertion loss < 4.0 dB typical
- Ultra low drive voltage 3.0 V
- Built in monitor PD
- Customizable Options: Temperature Qualified (-55 °C to +75 °C)

USE IN

- Analog transmission up to 40 GHz
- Satellite Link
- Antenna Remote
- RF over Fiber
- 43 Gb/s systems

FUNCTIONAL DIAGRAM





IML-1550-40-PM-G

SPECIFICATIONS

Input Optical Power	100 mW max. available
Operating Wavelength	1530 to 1610 nm
Chirp Value	$< \pm 0.2$ (zero chirp design)
Insertion Loss	< 4.0 dB typ., 5.0 dB max.
Extinction Ratio	≥ 23 dB, ≥ 30 dB for HER
Optical Return Loss	≤ -40 dB
S21 Bandwidth (RF Port)	25 GHz min.
S11 Return Loss (RF Port)	≤ -10 dB @ up to 25 GHz
V_{π} (RF Port)	3.0 V typ. @ low frequency, 3.0 V typ. @ 10 GHz, 4.3 V typ. @ 30 GHz
RF Input Power	27 dBm max.
V_{π} (Bias Port)	≤ 2.5 V @ 1 kHz
PD Responsivity	≥ 0.01 A/W

GENERAL

Operating Temperature (Standard)	-30 °C to +60 °C
Operating Temperature (TQ Version)	-55 °C to +75 °C
Storage Temperature	-60 °C to +80 °C
Operating Humidity	0% to 90% Relative Humidity
Input/Output Fiber Type	PANDA – PM 1550
Input/Output Connector	PM FC/APC, or other type
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 Connector	GPPD
Cabling	900 μ m tight buffer
Dimensions	70mm x 10mm x 7mm

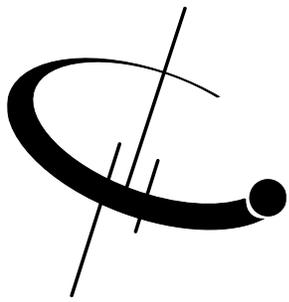
MECHANICAL

OPTIONS

IML-1550-40-PM-G-XX(X)

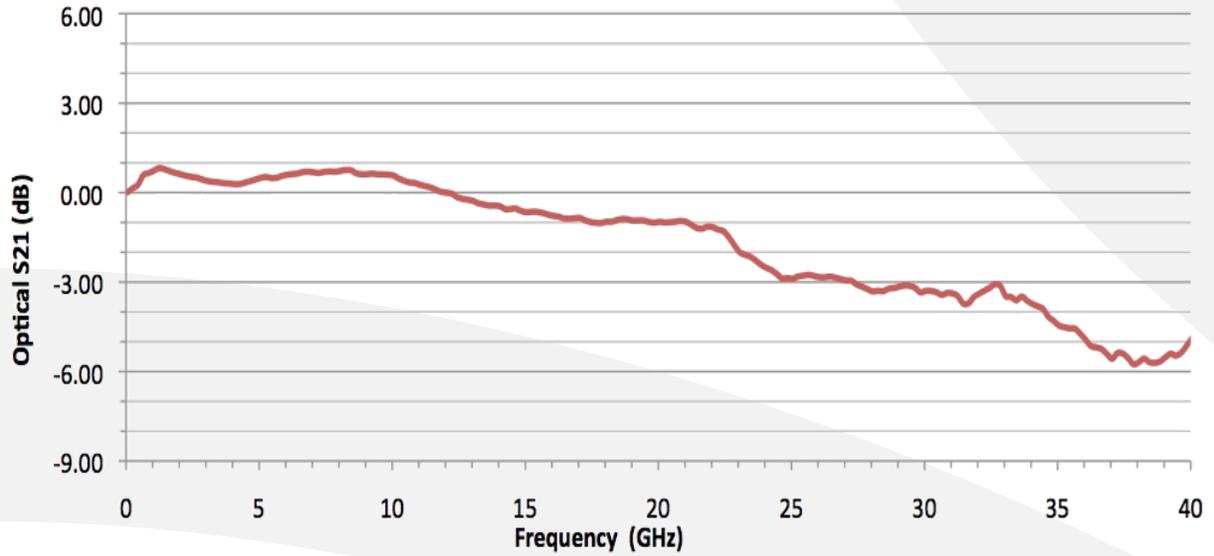
XX TQ: Temperature Qualified
XXX HER: High Extinction Ratio



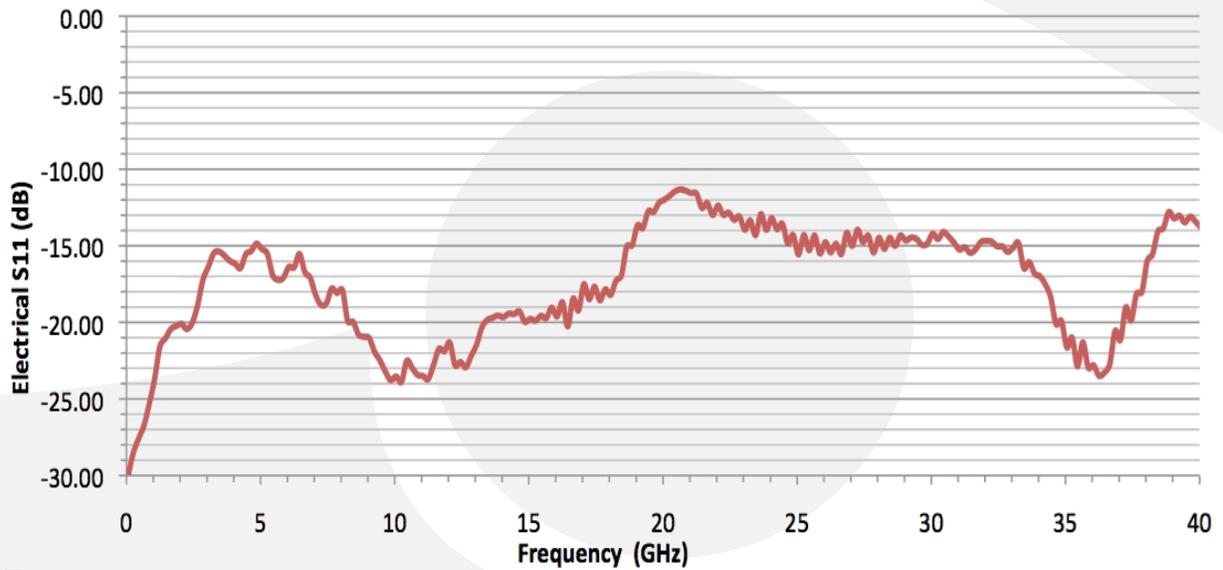


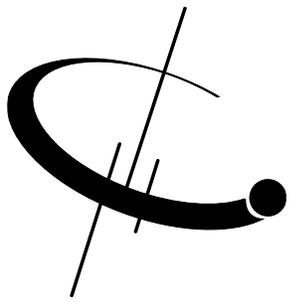
IML-1550-40-PM-G

TYPICAL S21 BANDWIDTH



TYPICAL S11 BANDWIDTH





IML-1550-40-PM-G

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.

