IM-1550-12

1550 nm, 12 GHz Bandwidth Intensity Modulator

The Optilab IM-1550-12 Intensity Modulator is designed for TDM and WDM 15 Gb/s transmission. The IM-1550-12 can also be incorporated for analog modulation up to 15 GHz for satellite links, antennae remoting, and RF over Fiber. It is a hands-on bias-stabilized lithium modulator that proves to be extremely stable for long periods of time. It features excellent stability in a biased circuit and operates from 1530 to 1600 nm. It has an excellent operating temperature tolerance ranging from -30 °C to +85 °C. Its low insertion loss provides for its maximum transmission power. IM-1550- 12 uses a Polarization Maintaining (PM) input fiber and a Single Mode (SM) output fiber. It features separate RF and bias ports.

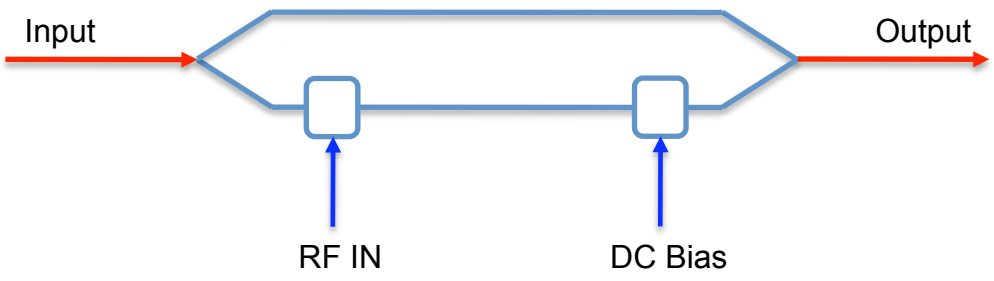
Features

- Excellent stability in a biased circuit
- Low Drive Voltage
- 1530 nm to 1600 nm operating wavelength
- Low insertion loss
- Useful bandwidth up to 15GHz
- Wide Operating Temp. Range of -30° C to +85° C
- **3 year warranty standard**

Applications

- TDM and WDM up to 15 Gb/s
- Analog Transmission up to 15 GHz
- Satellite Link
- Antenna Remote
- RF over Fiber

Functional Diagram



1550 nm, 12 GHz Bandwidth Intensity Modulator

OPTIONS

IM-1550-12-x

x — Connector Type:
a, FC/APC;
u, FC/UPC

TECHNICAL INFO

For technical info and support:

sales@optilab.com

www.optilab.com

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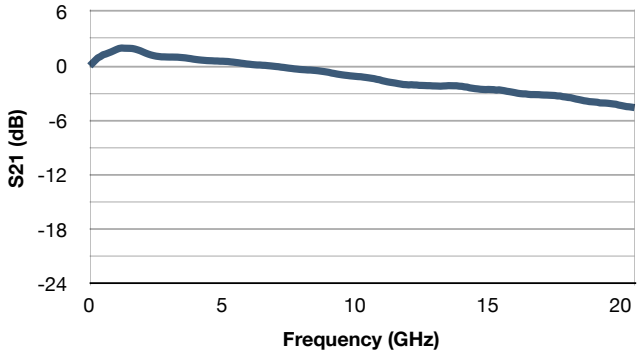
Optilab Advantage

- Innovation
- Performance
- Quality
- Customization
- Warranty

General Specifications	
Input optical power	100 mW max.available
Operating wavelength	1530 to 1600 nm
Chirp Value	< 0.1 (zero-chirp design)
Insertion Loss	≤ 5.0 dB max.
Extinction Ratio	≥ 25 dB min.
Optical return loss	≤- 45 dB
PRBS Electrical drive voltage	6.0 Vpp typ.
S21 Bandwidth (RF Port)	Up to 15 GHz
S11 Return Loss (RF Port)	≤ 10 dB @ 10 GHz
Vπ (RF Port)	≤ 5.7 V typ. @ DC
RF Input power	27 dBm max.
Impedance (RF Port)	50 Ω typ.
S21 Bandwidth (Bias Port)	500 MHz typ.
Vπ (Bias Port)	≤ 10 V @ DC
Impedance (Bias Port)	>1 MΩ
Mechanical Specifications	
Operating Temperature	-30° C to +85° C
Storing Temperature	-40° C to +95° C
Operating Humidity	0% to 90% Relative Humidity
Input Fiber Type	PANDA - PM
Output Fiber Type	SMF-28
Input Connector	PM FC/APC, PM FC/UPC
Output Connector	FC/APC, FC/UPC
Material	LiNbO3
Crystal Orientation	X-cut, y-propagating
Waveguide Process	Ti-indiffused
Bias Port Connector	SMA
RF Port connectors	Wiltron K
Cabling	900 µm tubing
Dimensions	3.783"x 0.981" x 0.640"

Typical S21 Bandwidth



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