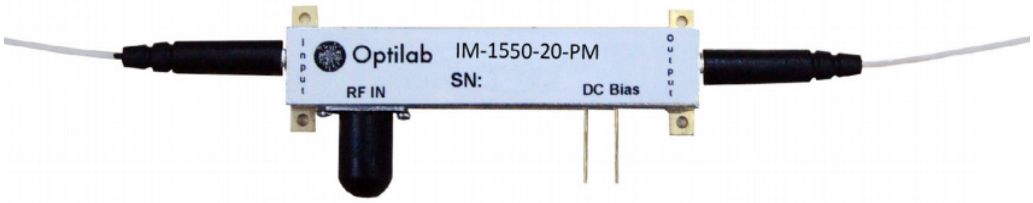
IM-1550-20-PM



1550 nm, 20 GHz Intensity Modulator, PM Output

The Optilab IM-1550-20-PM is a 20 GHz Intensity Modulator that is manufactured with both PM (Polarization Maintaining) fiber on input and output ports, incorporating a zero-chirp design for ultra long haul transmission. Covering full C-band and L-band, it can be used for any ITU grid DWDM channel, with exceptional E/O bandwidth and a highly linear transfer function. Applications include digital transmission up to 20 Gb/s, analog RFoF transmission to 20 GHz, optical pulse generation, mode-locked fiber laser and microwave optical link. The Optilab IM-1550-20-PM operates with low drive voltage, making it compatible with a wide variety of modulator drivers, and a separate bias port allows the modulator to operate at specific points of the transfer function. Supplied in a hermetic package, qualified to TelcordiaTM GR-468-CORE, this product assures high reliability and performance at all times. Contact Optilab for more information.

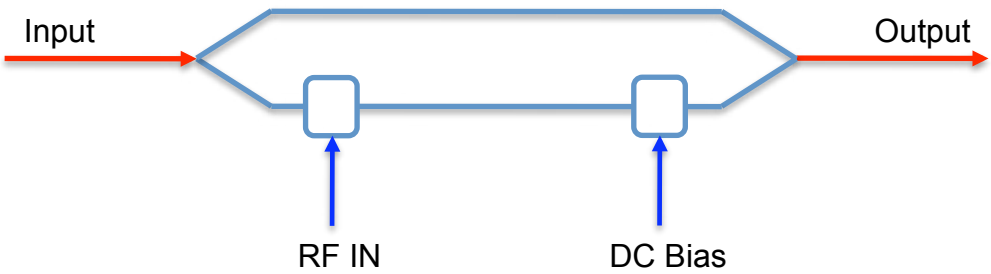
Features

- PM input and output port
- Low Drive Voltage
- 1530 nm to 1610 nm operating wavelength
- Zero chirp design
- Low insertion loss
- Useful bandwidth up to 20 GHz
- High Extinction Ratio

Applications

- OC192 C-band & L-band
- TDM and WDM up to 20 Gb/s
- Analog Transmission up to 20 GHz
- Satellite Link
- Antenna Remote
- RF over Fiber
- Pulse Generation
- Active mode laser

Functional Diagram



1550 nm, 20 GHz Intensity Modulator, PM Output

OPTIONS

IM-1550-20-PM-XX-y

XX **TQ**: Temperature Qualified

y 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	70 mW typ., 100 mW max.
Operating wavelength	1525 nm to 1605 nm
Chirp Value α	< 0.2 (zero chirp design)
Insertion Loss	4 dB typ., 4.5 dB max.
Extinction Ratio	≥ 30 dB typ. @ DC
Optical return loss	≤- 45 dB max.
PRBS Electrical drive voltage	5.0 Vpp typ. @ 1 GHz
S21 3 dB Bandwidth (RF Port)	15 GHz min., 17 GHz typ.
S11 Return Loss (RF Port)	≤ -13 dB min up to 9 GHz
Vπ (RF Port)	≤ 6.5 V @ 10 GHz
RF Input power	26 dBm
Impedance (RF Port)	50 Ω typ.
S21 Bandwidth (Bias Port)	200 MHz min.
Vπ (Bias Port)	≤ 10 V @ DC
Impedance (Bias Port)	100 kΩ min.
Analog Link Performance	
IIP3 @7 GHz	32 dBm
1 dB Conpression Point @10 GHz	16.0 dBm
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, FC/UPC optional
Output Connector	PM FC/APC, FC/UPC optional
Material	LiNbO3
Crystal Orientation	X-cut, y-propagating
Waveguide Process	Ti-indiffused
Bias Port Connector	2 Pins
RF Port connectors	Anritsu K
Cabling	900 µm tubing
Dimensions	66 mm x 22 mm x 9 mm