

0801 Electro-Optic Modulator

IM-1550-12-B



1550 nm, 12 GHz Compact Intensity Modulator

IM-1550-12-B is a 12 GHz intensity modulator, 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 15 Gb/s, analog RFoF transmission to 12 GHz, optical pulse generation, and microwave optical link. The IM-1550-12-B operates with standard drive voltage, making it compatible with a wide variety of modulator drivers, and a diplexed bias port allows the modulator to operate at specific points of the transfer function. Supplied in a hermetic package, qualified to Telcordia™ GR-468-CORE, this product assures high reliability and performance at all times.

FEATURES

- SM Output Port
- Standard Drive Voltage
- 1530 nm to 1610 nm Operating Wavelength
- Low Insertion Loss
- Useful Bandwidth Up to 12 GHz
- High Extinction Ratio
- Zero Chirp Design

USE IN

- OC192 C-band & L-band
- TDM & WDM Up to 15 Gb/s
- Analog Transmission Up to 12 GHz
- Antenna Remote
- RF over Fiber
- Pulse Generation
- Satellite Link

Order notes to our customers: The default parameters are as follows. For special needs, please contact sales.
1) Connector FC/APC, 900 um, 1 m by default for all devices except for high power devices.
2) Slow axis working, fast axis blocked, connector key is aligned to slow axis by default for PM devices.

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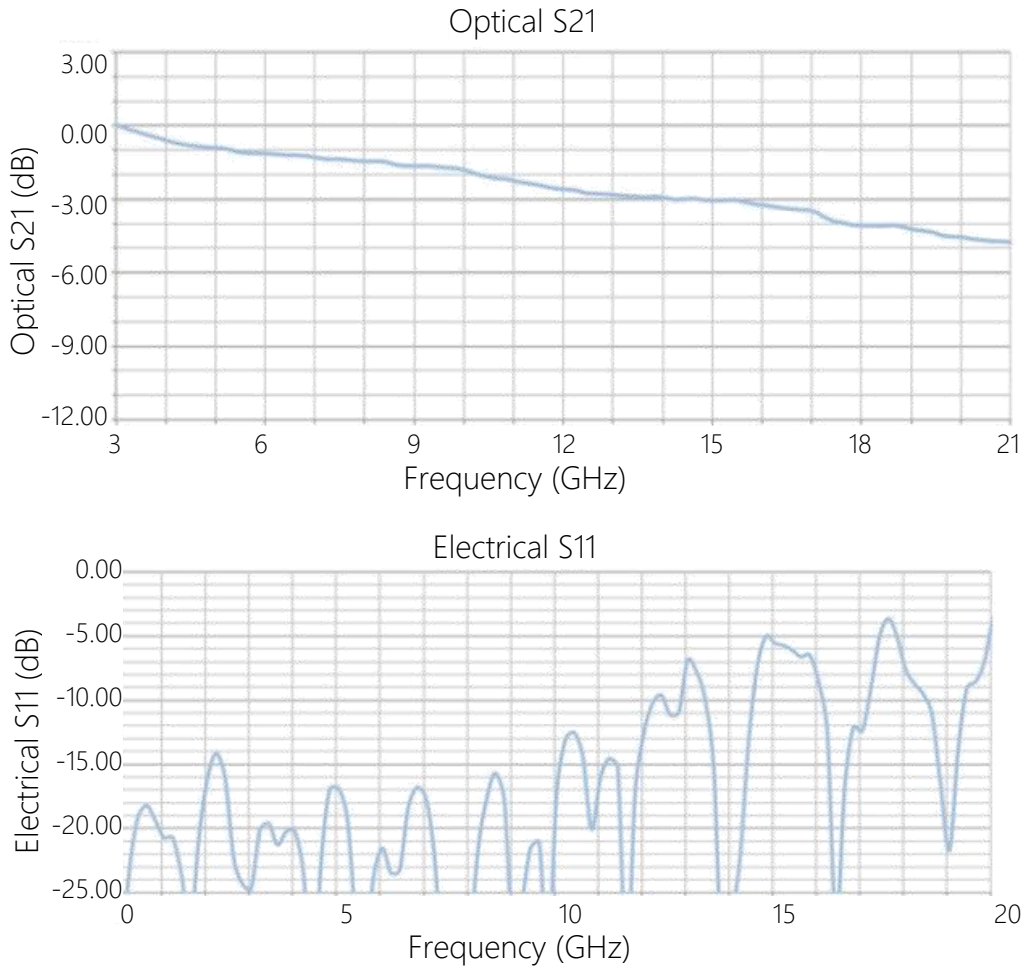
Power Handling	100 mW max.
Operating Wavelength	1525 nm to 1620 nm
Chirp Value	0.2 max. (Zero Chirp Design)
Insertion Loss	4 dB typ.; 5 dB max.
Extinction Ratio	27 dB min. typ. @ DC
Optical Return Loss	-35 dB max.
PRBS Electrical Drive Voltage	5.0 Vpp typ. @ 1 GHz
S21 3 dB Bandwidth	10 GHz min.; 12 GHz typ.
S11 Return Loss	-14 dB max. typ.; Up to 9 GHz
V π	5 V max. @ 1 GHz
RF Input Power	10 V max.
Impedance	43 Ω typ.
Operating Temperature (Standard)	0°C to +70°C
Storage Temperature	-40°C to +85°C
Operating Humidity	0% to 90% Relative Humidity
Input Fiber Type	PM PANDA
Output Fiber Type	SMF-28
Input Connector	PM FC/APC, PM FC/UPC Optional
Output Connector	SMF FC/APC, FC/UPC Optional
Material	LiNbO3
Crystal Orientation	X-cut, Y-propagating
Waveguide Process	Ti-indiffused
RF Port Connectors	SMA
Optical Cabling	900 μ m Tubing
Dimension	117.9x15.2x9.8 mm

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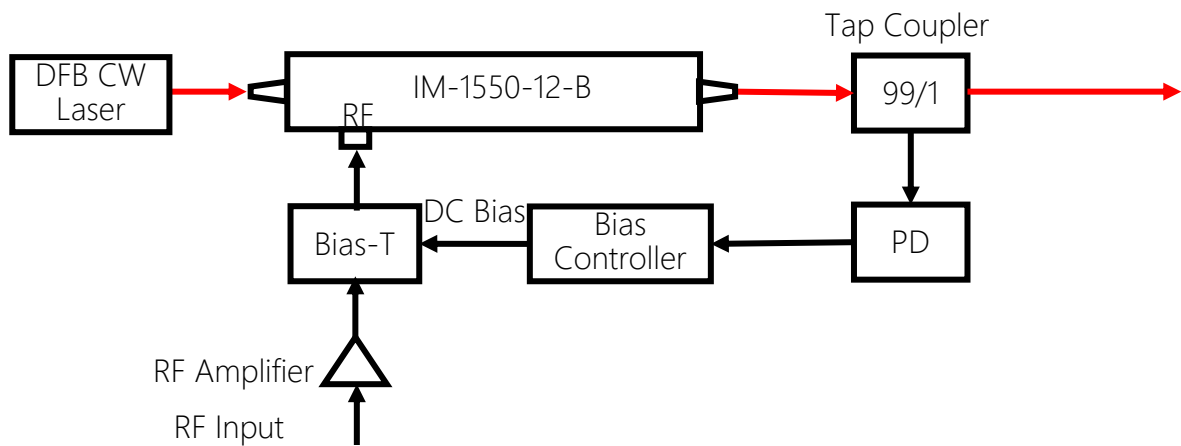
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TYPICAL S21 and S11 BANDWIDTH



Application Diagram

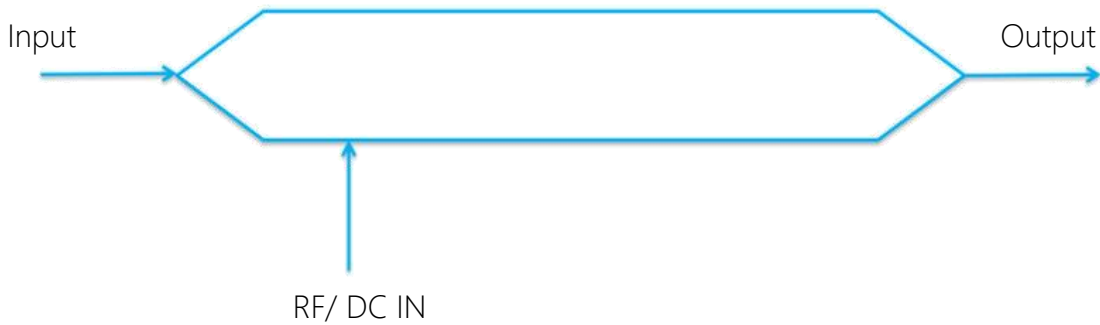


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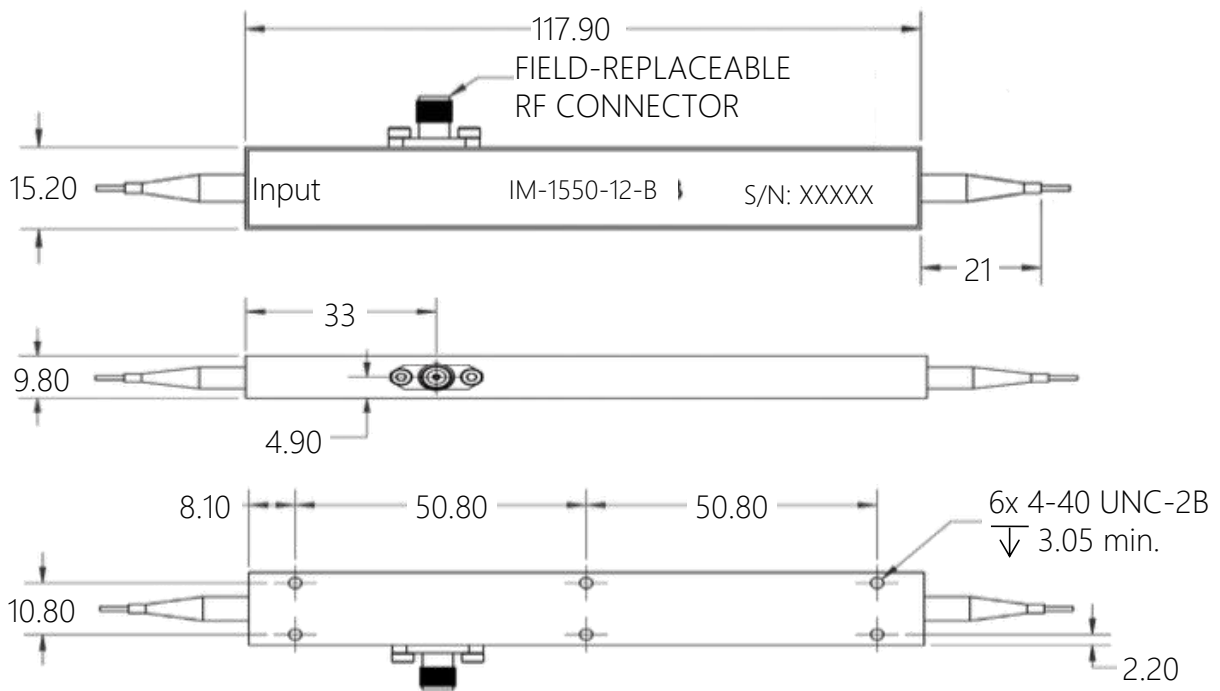
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FUNCTION DIAGRAM



MECHANICAL DRAWING

Unit: mm



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