

0701 Electro-Optic Modulator

 IM-BF2001

Compact Polarizing Intensity Modulator, 3.5 GHz w/ Built in 1% Photodiode

The 3.5 GHz compact intensity modulator is ideally suited for long-haul transmission and fiber optic sensor application. This modulator operates with a low drive voltage of 3.2V (V_{pi}), making it compatible with a wide variety of GaAs IC-based drivers. A separate bias port allows the modulator to operate at optimal points of transfer function. In addition, an integrated photodiode simplifies the bias feedback circuit design. It features Proton Exchange (PE) waveguide design, which is used as a polarizer. This modulator is built with a 1% photodiode.

FEATURES

- Low Drive Voltage of 3.2 V (V_{pi})
- Separate Bias Port
- Simplify Bias Feedback Circuit
- Integrated 1% Photodiode
- Proton Exchange (PE) Waveguide Design

USE IN

- Long-haul Transmission and Fiber Optic Sensor Application
- GaAs IC-based Drivers
- Polarizer

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Waveguide Process		Proton Exchange (PE)+Titanium Indiffused (TI)
Integrated Photodiode		Yes
Operating Wavelength Range		1530 nm to 1600 nm
Insertion Loss		5 dB max.
On/Off Extinction Ratio		25 dB min.
Optical Return Loss		45 dB min.
Drive Voltage V _{pi}		3.2 V typ.
Electro-optic bandwidth (-3 dB)		3.5 GHz typ.
RF Return Loss	RF Port	10 dB min. from DC to 3 GHz
RF Input Power		25 dBm max.
RF Impedance		50 Ohm
Drive Voltage V _{pi}		3.3V typ.
Input Impedance	Bias Port	10 MOhm min.
Input Fiber		PANDA - 900 micron Loose Tube
Output Fiber		SMF-28 - 900 micron Loose Tube
Input Connector		SC/UPC
Output Connector		None
RF Connector		3-pin Feedthrough: Ground-Signal-Ground
Bias Connector		2-pin Feedthrough: Ground-Bias
Dimensions		42(L)x10(W)x5.5(H) mm
Operating Temperature Range		0°C to +70°C
Storage Temperature Range		-40°C to +80°C