

# 0801 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<sub>pi</sub>), 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.

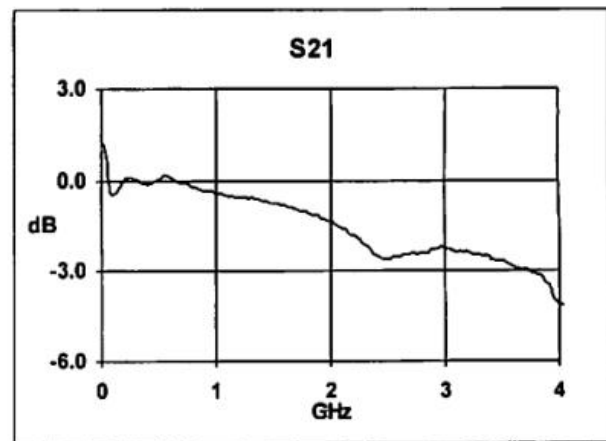
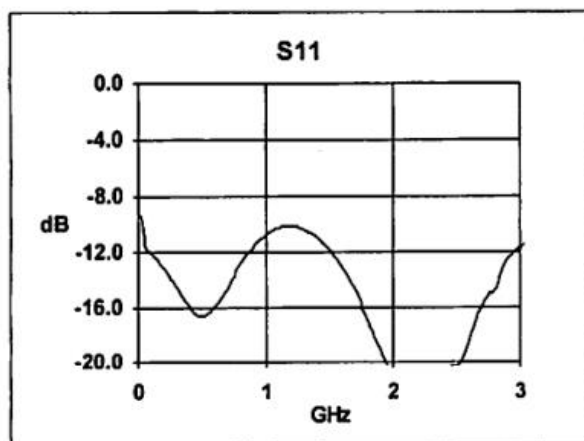
### FEATURES

- Low Drive Voltage of 3.2 V (V<sub>pi</sub>)
- 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

### RF Performance Parameters



**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.

## 0801 Electro-Optic Modulator

IM-BF2001

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 <sub>pi</sub>	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 <sub>pi</sub>	Bias Port	3.3 V typ.
Input Impedance		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	
Dimension	42x10x5.5 mm	
Operating Temperature Range	0°C to +70°C	
Storage Temperature Range	-40°C to +80°C	

**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.**