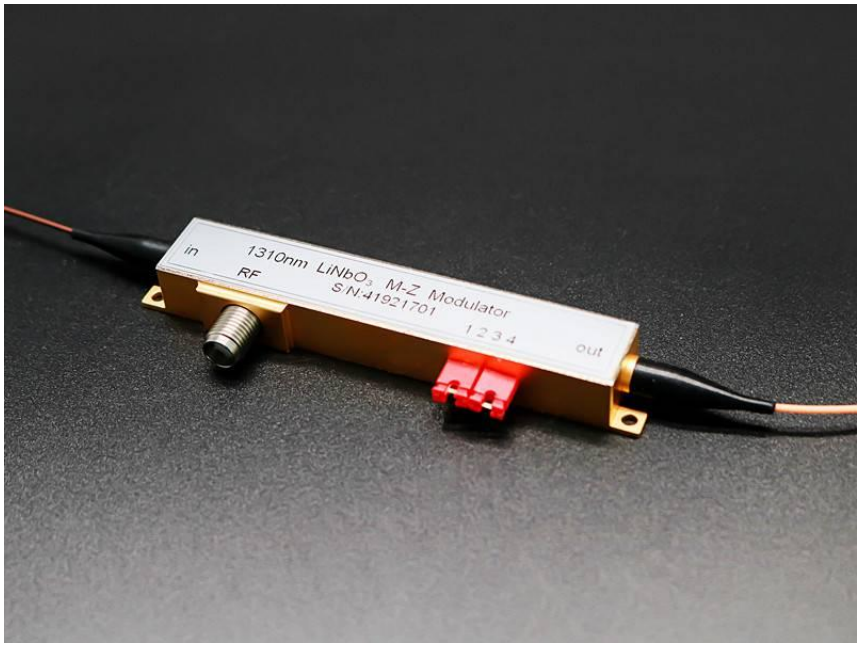
1310nm LiNbO3 High Frequency Phase Modulator 20GHz



Product Description

The 1310/1550nm lithium niobate (LiNbO3) high frequency phase modulator uses titanium diffusion or proton exchange technology to make optical waveguides. The input and output optical fibers are precisely obliquely coupled to the waveguides, and the electro-optical effect of lithium niobate materials is used to achieve phase modulation of optical signals. Titanium diffusion (Ti-indiffusion) or proton exchange (APE) waveguide technology

can obtain birefringence or single polarization phase modulation respectively.

• Product features

Low insertion loss、 Low drive voltage、 Titanium diffused or proton exchange waveguide、 Excellent long-term stability

• Part Number

MP-EOM-PM-1310-20G-FA

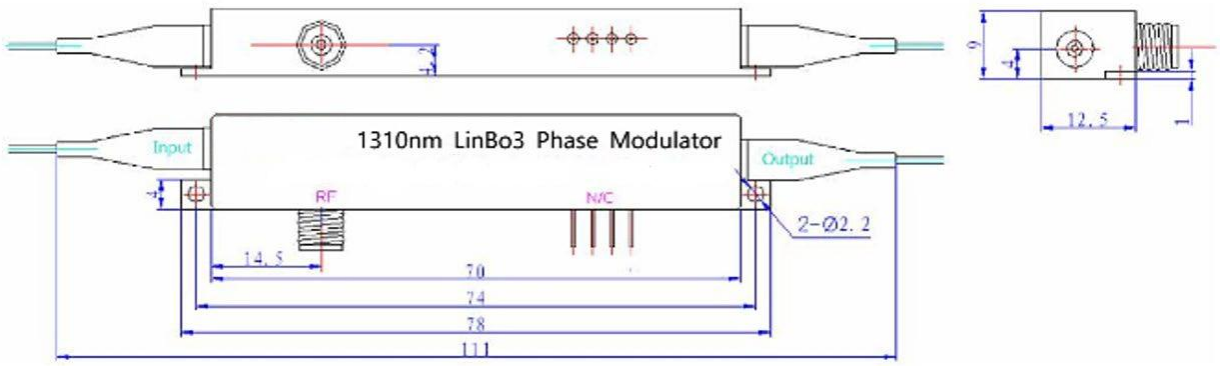
• Application area

Fiber optic communications 、 Microwave photons 、 Quantum communications、 Optical sensing、 Optical chirp

• Core parameters

Wavelength	Bandwidth	Half-wave Voltage
1310nm	20GHz	3.5V

Dimension Drawing



General Parameters

Electrical/optical properties (Tsub=25 °C, CW):

Parameters	Unit	Min.	Typ.	Max.
Model		MP-EOM-PM-1310/1550-10G-PM-FA		
Half-wave voltage DC electrode	V		3.5	4.5
Electro-optical bandwidth S21@-3dB	GHz	10		20
RF half-wave voltage @DC	V		3.5	4.0
Bias half-wave voltage	V			5.0
Jitter	dB		0.5	1
Electrical return loss S110-20GHz	dB		-12	-10

RF connector input resistance	Ω		40	
Input impedance DC connector	Ω		>1M	
Crystal: Lithium Niobate	.	X-cutY-propagation		
Waveguide process		APE Technology		
Insertion loss	dB		3.0	4.0
Optical return loss	dB		<-45	
Wavelength-dependent loss (1480-1600nm)	dB		0.5	1.0
DC extinction ratio	dB	20	22	
Input fiber		Panda PM FIBER1.5m length，900um		
Output fiber		SMF-28SMFiber1.5length，900um(PMF Optional)		
Input RF connector		SMA		
DC connector		Pinfeed-through diameter：1.0mm		
Package size	mm	110x12.5x9.0		
Operating temperature	℃	0~+70		
Storage temperature	℃	-40~+85		
DC input maximum voltage	V	±20		

Maximum RF input power	dBm	+28
Maximum input optical power	mW	200(APE Technology)

Order Info:

MP-PM-W-BW-Y-Z-AB-CD

PM:PhaseModulator

W_Wavelength:

0850:850nm

1064:1064nm

1310:1310nm

1550:1550nm

BW: Bandwidth

0.3G>300MHz

10G>10GHz

Y:Input Fiber

P:PM Fiber

S:SM Fiber

Z: Output Fiber

P:PM Fiber

SSM Fiber

AB：Input fiber connector

00:bare Fiber FA:FC/ APC

FC:FC/ SPC

CD： Output fiber connector

00:bare fiber

FA:FC/ APC

FC:FC/ SPC