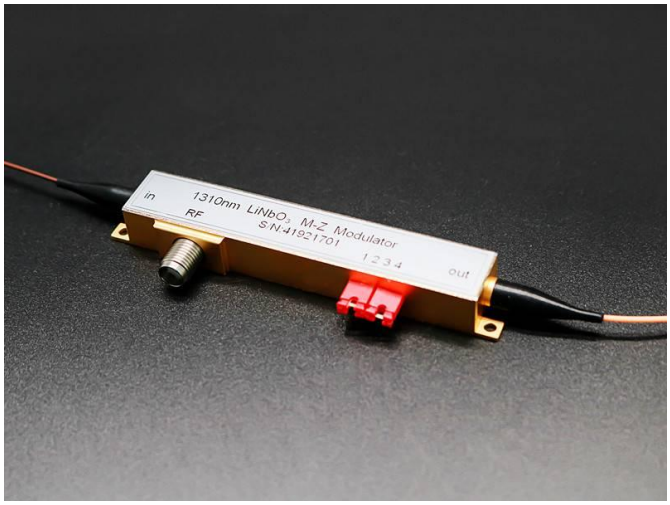
1064nm Lithium Niobate High-Frequency Phase Modulator (40GHz Electro-optic Bandwidth)



Product Description

1310/1550nmnm LiNbO3 high frequency phase modulator uses titanium diffusion or proton exchange process to make optical waveguide, the input and output optical fiber and waveguide are precisely obliquely coupled, and the electro-optical effect of lithium niobate material is used to realize the phase modulation of optical signal. Titanium diffusion (Ti-indiffusion) or proton exchange (APE) waveguide process can obtain double refraction or single polarization phase modulation respectively.

Product features

Low Insertion Loss、 Low Drive Voltage、 Titanium Diffusion or Proton Exchange Waveguide、 Excellent Long-Term Stability

Part Number

MP-PMD-1064-40G-PM-FA

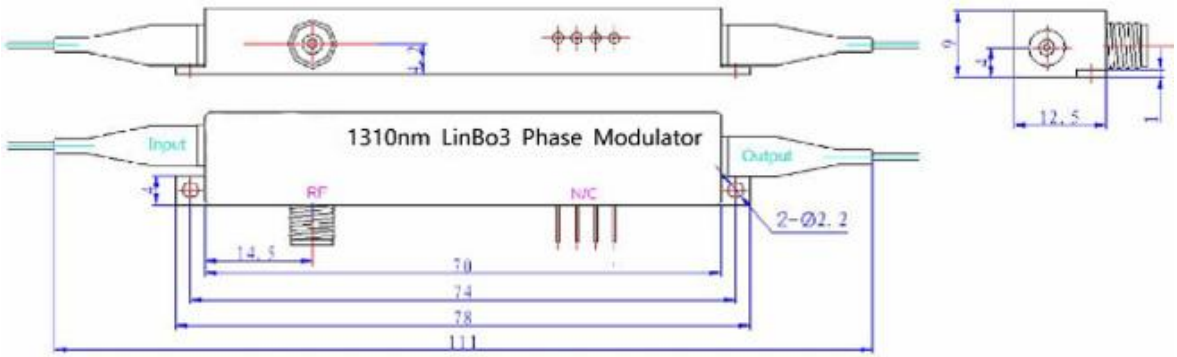
Application area

Fiber Optic Communication 、 Microwave Photonics 、 Quantum Communication、 Optical Sensing、 Optical Chirp

Core parameters

Wavelength	Bandwidth	Connector
1064nm	40GHz	FC/APC

Dimension Drawing



General Parameters

Parameter

Parameter	Unit	Min	Typical	Max
Half-wave voltage (DC electrode)	V		3.5	5.0
Bandwidth S21@-3dB	GHz	10		40
RF half-wave voltage (DC)	V		3.5	5.0
Bias half-wave voltage	V			5.0
Jitter	dB		0.5	1
Electrical return loss S11-20GHz	dB		-12	-10
RF connector input impedance	Ω		40	
Input impedance DC connector	Ω		>1M	
Crystal: Lithium Niobate (LiNbO3)	.	X-cut Y-propagation		
Waveguide process		APE Process		
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 optical fiber		Panda PM fiber, 1.5m length, 900μm		
Output optical fiber		SSMF-28 SM fiber, 1.5m length, 900μm (PMF optional)		
Input RF connector		SMA		
DC connector		Pin feed-through, diameter: 1.0mm		
Package size	mm	110 x12.5 x9.0		
Operating temperature	℃	0~+70		
Storage temperature	℃	-40~+85		
Max DC input voltage	V	±20		

Parameter	Unit	Min	Typical	Max
Max RF input power	dBm		+28	
Max input optical power	mW		200（APE Process）	

Order Info:

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

PM:Phase Modulato

W_Wavelenth:

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

S: SM 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