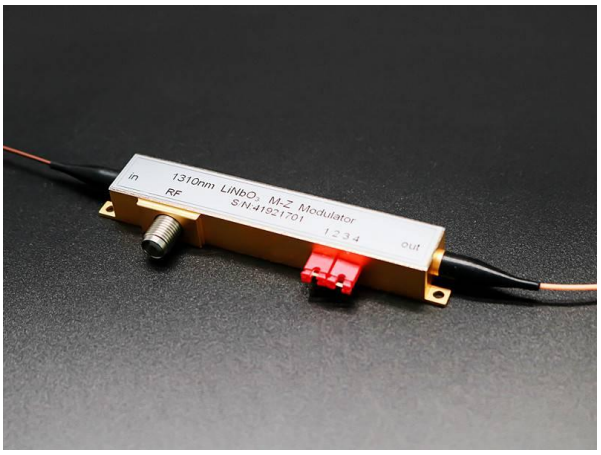
1064nm LiNbO3 High Frequency Phase Modulator 10GHz



Product Description

1064/1310/1550nmnm 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.

Part Number

PM-1064-10G-PM-FA

Product features

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

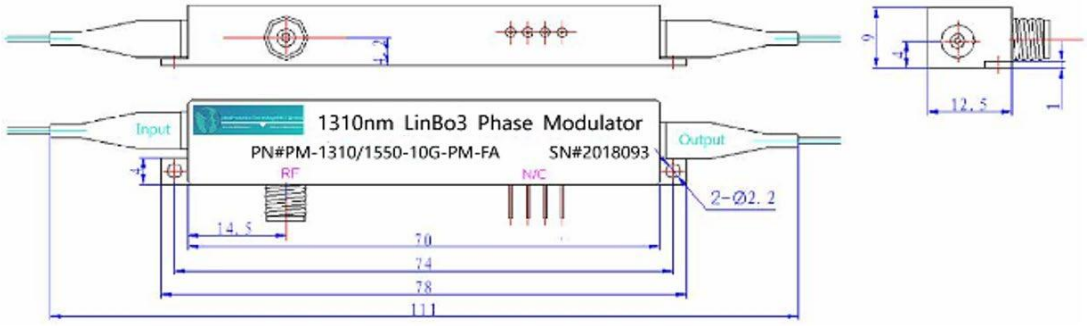
● Application area

Fiber optic communications、 Microwave photons、 Quantum communications、

Optical sensing、 Optical chirp

Parameters

Dimensional Drawing



Technical parameters:

Parameters	Unit	Min.	Typ.	Max.
Model		PM-1064/1310/1550-10G-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-cut Y-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 Polarization Maintaining Fiber1.5m length， 900um		
Output fiber		SMF-28 Single mode fiber1.5m length，900um （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		
DC input maximum voltage	V	±20		
Maximum RF input power	dBm	+28		
Maximum input optical power	mW	200（APE Technology）		

Order Info:
PM-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/SPCt