

## 1064nm High Power Phase Modulator 20G

1064nm High Power Phase Modulator (LiNbO<sub>3</sub>) is a kind of external optical modulator, the phase of light waves can be modulated by the electrical signal applied to the modulator. It based on Electro-optic effect of the LiNbO<sub>3</sub> crystal. Our Phase Modulator can be built with advanced proton exchange (APE) or Ti-indiffusion technology, features low insertion loss, high modulation bandwidth and low half-wave voltage, it's widely used in Optical Quantum Communication systems, Coherent Synthesis, Phase Delay and Optical Chirping field. The handling power can be up to 1W or customized.

### Application:

Optical Quantum Communication  
Coherent Synthesis  
Phase Delay  
Optical Chirping

### Features:

X-cut, Y-propagating  
Low Insertion Loss  
Low Half-wave Voltage  
High Power Available

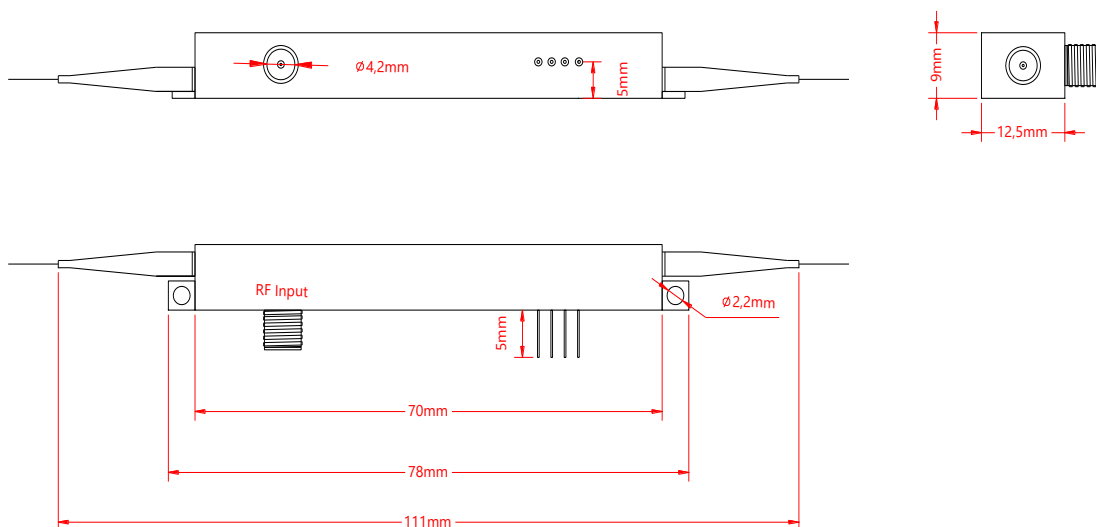


### Optical and Electrical Specification:

Parameter	Symbol	Min.	Tpy.	Max.	Unit	Test Condition
Center Wavelength	$\lambda_c$	960	1064	1100	nm	
Optical Power	Po			1000	mW	CW, APE
Insertion Loss	IL		3	3.5	dB	
Polarization Extinction Ratio	ER	20			dB	
ReturnLoss	RL	50			dB	
Residuary Intensity Modulation				0.3	%	
Modulation Bandwidth @3dB	S21		10		GHz	
RF Low Half-wave Voltage	$V_{\pi}$		3	3.5	V	@50KHz
Electrical Return Loss	S11	10	12		dB	
Input RF Optical Power	Prf			33	dBm	CW
RF Impedance	Zrf	50			$\Omega$	
RF Interface		SMA or K (2.92mm)			-	
Operating Temperature	T	-10		60	$^{\circ}\text{C}$	
Storage Temperature	T	-40		85	$^{\circ}\text{C}$	
humidity	RH	5		90	%	
Fiber Type	PM Panda or SM Fiber					

Notice: Above specifications are tested in room temperature at 23 $^{\circ}\text{C}$ .  
Specifications may change without notice.

### Drawing:



**Ordering Information (Part Number):****HPHMD-*WWWW*-*BB*-*P*-*FF*-*HH*-*J*-*LL*-*CC***

<b>WWWW</b>	<b>BB</b>	<b>FF</b>	<b>HH</b>	<b>J</b>	<b>LL</b>	<b>CC</b>
<b>Wavelength</b>	<b>Modulation Bandwidth</b>	<b>Fiber Type (input/output)</b>	<b>Handlign Power</b>	<b>Fiber Jacket</b>	<b>Fiber Length</b>	<b>Connector</b>
1064 - 1064nm SSSS - Specify	2.5 - 2.5Ghz 10 - 10GHz 20 - 20GHz 40 - 40GHz	PP - PM/PM PS - PM/SM	Z3 - 300mW Z5 - 500mW 01 - 1W SS - Specify	B - 250um Bare Fiber L - 900um Loose Tube	02 - 0.2m 05 - 0.5m 10 - 1.0m 15 - 1.5m 20 - 2.0m SS - Specify	NE - None FA - FC/APC FU - FC/UPC LA - LC/APC LU - LC/UPC SA - SC/APC SU - SC/UPC SS - Specify



