

## 2000nm Intensity Modulator 10G

2000nm Intensity Modulator (LiNbO<sub>3</sub>) is a kind of external optical modulator which is designed for loading modulation signals of various modulation formats onto the light. The effective refractive index of the modulator scales linearly with the externally applied voltage. Our MZM Intensity Modulator built with advanced proton exchange technology, features low insertion loss, high modulation bandwidth and low half-wave voltage, it's widely used in Optical Quantum Communication systems, Coherent Synthesis, Spectral Broadening and Interferometry field.

### Application:

Optical Quantum Communication  
Coherent Synthesis  
Spectral Broadening  
Interferometry

### Features:

X-cut, Y-propagating  
Low Insertion Loss  
Low Half-wave Voltage  
Zero Chirp

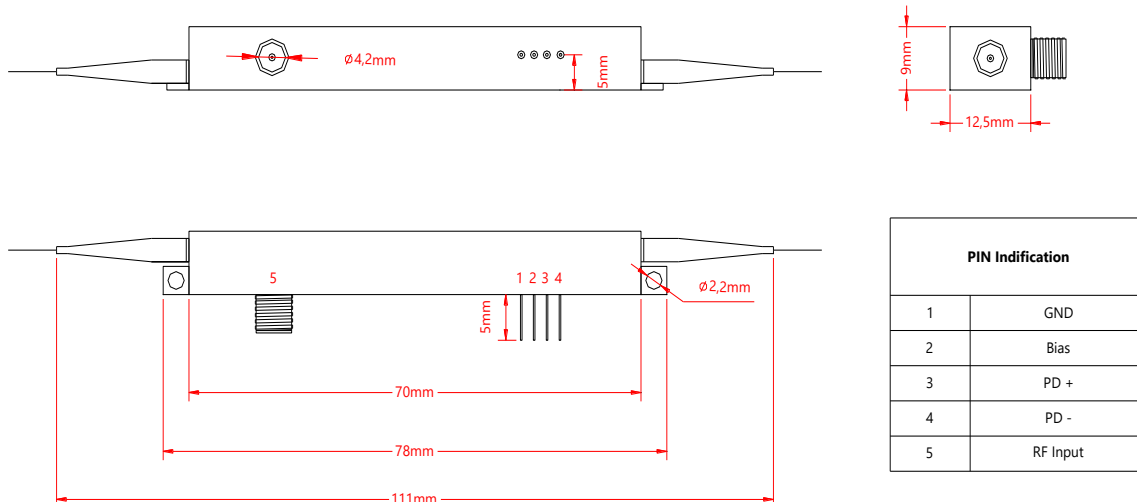


### Optical and Electrical Specification:

Parameter	Symbol	Min.	Tpy.	Max.	Unit	Test Condition
Center Wavelength	$\lambda_c$	1900	2000	2100	nm	
Optical Power	$P_o$			100	mW	CW
Insertion Loss	IL		4	4.5	dB	
Extinction Ratio	ER	20			dB	DC
ReturnLoss	RL	50			dB	
Modulation Bandwidth @3dB	S21		10		GHz	
RF Low Half-wave Voltage	$V_{\pi}$		5.5	6	V	@50KHz
Bias Low Half-wave Voltage	$V_{\pi}$		10.5	12	V	
Electrical Return Loss	S11	10	12		dB	
Input RF Optical Power	$P_{rf}$			30	dBm	CW
RF Impedance	$Z_{rf}$	40			$\Omega$	
Bias Impedance	$Z_{bias}$	1M			$\Omega$	
RF Interface	S11	SMA			-	
PD Responsivity	R	0.01			A/W	
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):****ITMD-WWWW-B-P-FF-J-LL-CC**

<b>WWW</b>	<b>B</b>	<b>P</b>	<b>FF</b>	<b>J</b>	<b>LL</b>	<b>CC</b>
<b>Wavelength</b>	<b>Modulation Bandwidth</b>	<b>PD Optional</b>	<b>Fiber Type (input/output)</b>	<b>Fiber Jacket</b>	<b>Fiber Length</b>	<b>Connector</b>
2000 - 2000nm	2.5 - 2.5Ghz 10 - 10GHz	0 - Without 1 - With	PP - PM/PM PS - PM/SM	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

