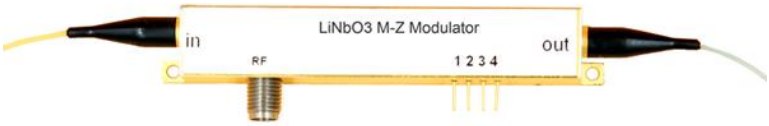
Electro-Optic Intensity Modulator--HC - BN Series

Product Description

HC-BN series electro-optic intensity modulators utilize the electro-optic effect of lithium niobate crystals and adopt push-pull Mach-Zehnder interference structure to realize the intensity modulation of optical signals. They have the characteristics of low insertion loss, high modulation bandwidth, high extinction ratio, low half-wave voltage, and high damage optical power.

Features

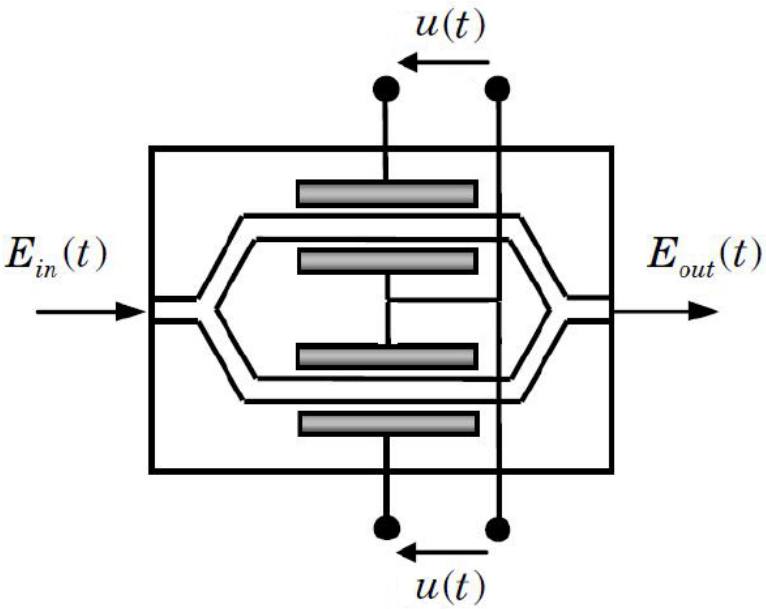
- Multiple Working Wavelength
- Low half wave Voltage
- High Bandwidth
- Low insertion loss



Application

- High Speed Fiber Communication System
- Microwave fiber optic link
- Quantum Communication

Functional Block diagram



Technical parameters

Parameter	Symbol	BN-08	BN-10	BN-15-10	BN-15-20
Operationg Wavelength	λ	830±40	1064±60	1550±100nm	
Insertion Loss	IL	<5 dB	<4 dB	<4 dB	<4 dB
Optical Return Loss	ORL	-40 dB	-45 dB	-45dB	-45dB
Operationg bandwidth (-3dB)	S_{21}	10GHz	10GHz-	10GHz	20GHz
Rise time 10%~90%	tr	35ps	35ps	35ps	18ps
Half-Wave voltage@50KHz, RF	Vπ	5V	4.5V	4V	4V
Half-wave Voltage@Bias	Vπ	6V	6V	5V	5V
Extinction ratio	ER	28dB	30dB	30dB	30dB
Imput impedance	Z_{RF}	50Ω@RF, 1MΩ@Bias			
Electrical inferface		SMA(f)]			
Electrical return loss	S11	<-10dB			
Input fiber		PM Panda slow Axis Alignment			
Output fiber		Single mode fiber or PM fiber			
Fiber interface		FC/APC or Customer Specified			
Operating temperature	Top	-10~60 C			
Storage temperature	Tst	-40~80 C			
Electrical signal imput power	Pi	<28dOBm			
Maximum input optical power	Po	20mW	100mW	100mW	100mW

Characteristic Curve

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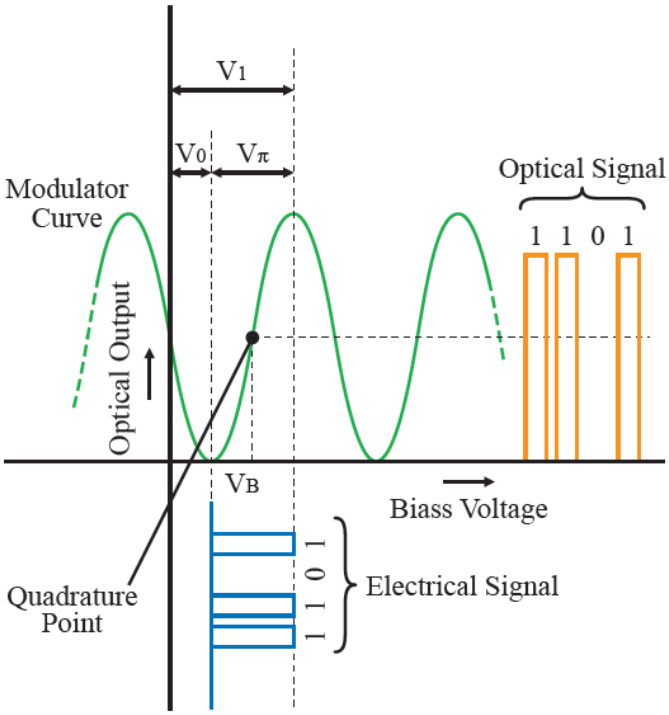
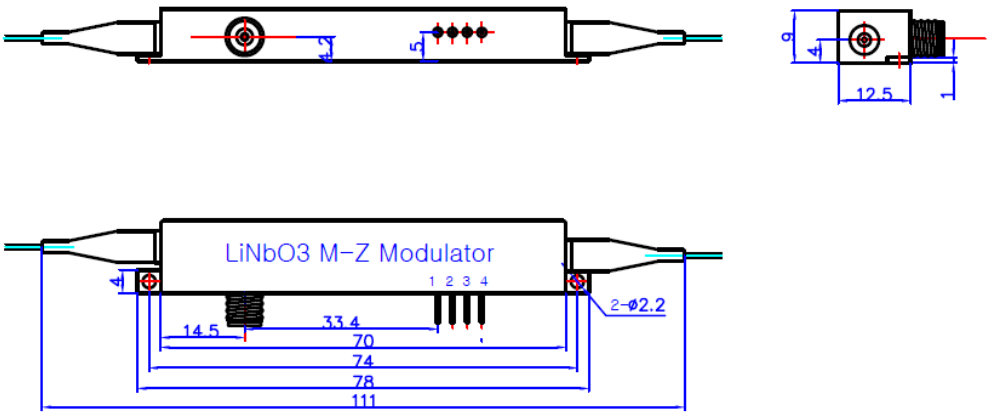


Mechanical Diagram（Unit ： mm）



PIN# 1. Bias 2.GND 3.PD Cathode 4. PD Anode

Ordering Information HC-BN-WL-BW-PP

WL—Operation Wavelength：15-1550nm, 10-1064nm

BW—Operating Bandwidth：10G---10GHz 20—20GHz

PP—input/output fiber：PP---PM/PM PS--PM/SM

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