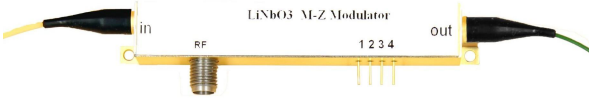
R-AM-13

1310nm Intensity Modulator

The $LiNbO_3$ intensity modulator is widely used in high-speed optical communication system, laser sensing and ROF systems because of well electro-optic effect. The R-AM series based on MZ structure and X-cut design, has stable physical and chemical characteristics, which can be applied both in laboratory experiments and industrial systems.

Features

- Low insertion loss
- Bandwidth: 2.5GHz
- Low half-wave voltage
- Customization option



Applications

- ROF systems
- Quantum key distribution
- Laser sensing systems
- Side-band modulation

Optical parameters

Parameter		Symbol	Min	Typ	Max	Unit
Operating wavelength		λ	1290	1310	1330	nm
Insertion loss		IL		4	5	dB
Optical return loss		ORL			-45	dB
Switch extinction ratio @DC		ER@DC	20	23		dB
Dynamic extinction ratio		DER		13		dB
Optical fiber	Input port		PM Fiber (125/250μm)			
	output port		PM Fiber or SM Fiber (125/250μm)			
Optical fiber interface			FC/PC、FC/APC Or Customization			

Electrical parameters

Parameter		Symbol	Min	Typ	Max	Unit
Operating bandwidth （-3dB）		S_{21}		2.5		GHz
Half-wave voltage	RF	V_{π}@1KHz		3	4	V
	Bias	V_{π}@1KHz		3.5	4.5	V
Electrical return loss		S_{11}		-12	-10	dB
Input impedance	RF	Z_{RF}	50			Ω
	Bias	Z_{BIAS}	1M			Ω
Electrical interface			SMA(f)			

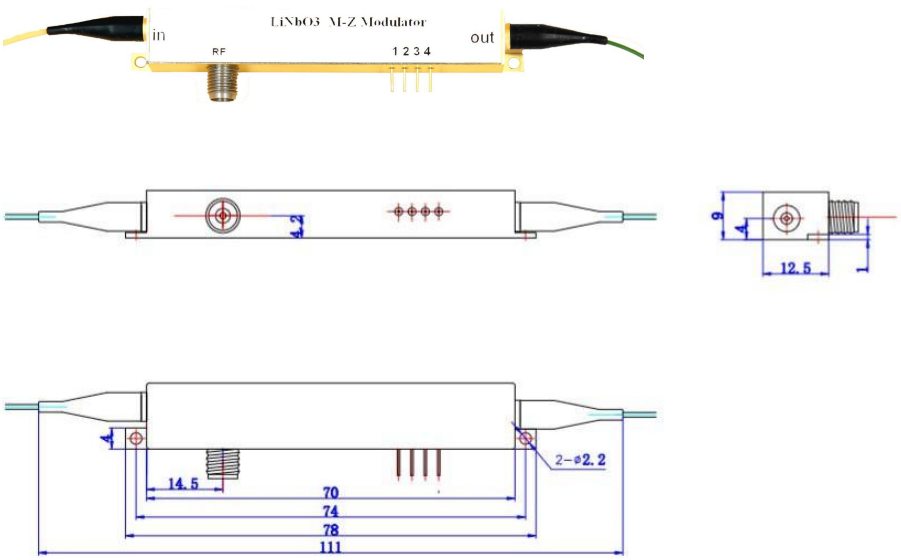
Limit

Parameter	Symbol	Unit	Min	Typ	Max
Input optical power	$P_{in,Max}$	dBm			20
Input RF power		dBm			28
bias voltage	Vbias	V	-15		15
Operating temperature	Top	℃	-10		60
Storage temperature	Tst	℃	-40		85
Humidity	RH	%	5		90

Ordering information

R	AM	15	10G	XX	XX
	Type： AM---Intensity Modulator	Wavelength： 08---850nm 10---1060nm 13---1310nm 15---1550nm	Operating bandwidth： 2.5G---10GHz 10G---10GHz 20G---10GHz	In-Out Fiber type： PP---PM/PM PS---PM/SMF	Optical connector： FA---FC/APC FP---FC/PC XX---Customization

Mechanical Diagram



PORT	Symbol	Note
In	Optical input port	PM Fiber (125μm/250μm)
Out	Optical output port	PM and SM Fiber option
RF	RF input port	SMA(f)
Bias	Bias control port	1,2 Bias, 34-N/C

RF Driver and Bias control circuit board information are provided on website (www.bjrofoc.com), you can also contact us for more information by email (bjrofoc@rof-oc.com) or WhatsApp（+86-18978968297）