



AM Series Intensity Modulator

Description



The LiNbO₃ intensity modulator is widely used in high-speed optical communication system, laser sensing and ROF systems because of well electro-optic performance. The R-AM series based on MZ push-pull 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
- High Bandwidth
- Low half-wave voltage
- Customization option

Applications

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

Wavelength

- 750nm
- 850nm
- 1064nm
- 1310nm
- 1550nm

Bandwidth

- 10GHz
- 20GHz
- 40GHz
- 50GHz

Rof-AM Series	Rof-AM-07	Rof-AM-08	Rof-AM-10	Rof-AM-13	Rof-AM-15			
Operating wavelength	780nm	850nm	1064nm	1310nm	1550nm			
Bandwidth	10GHz	10GHz	10/20GHz	2.5GHz	50GHz	10GHz	20GHz	40GHz
Insertion Loss	<5dB	<5dB	< 5dB	< 5dB	< 4dB			
Extinction ratio @DC	> 20dB	> 20dB	> 20dB	> 20dB	> 20dB			
V _π @RF (1KHz)	< 3V	< 3V	< 4V	<3.5V	< 6V	<5V		
V _π @Bias	< 3.5V	< 3.5V	< 5V	<5V	<8V	<7V		

**R-AM-15-10G****Wavelength 1550nm 10GHz Intensity modulator**

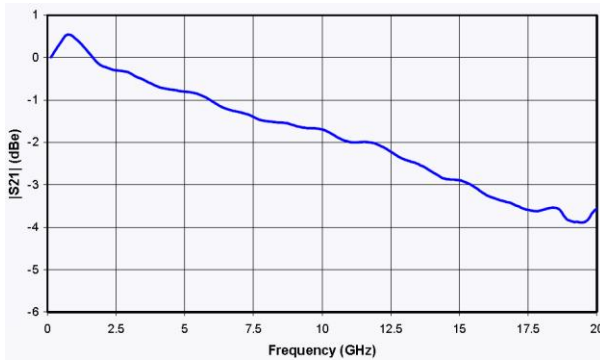
Parameter	Symbol	Min	Typ	Max	Unit
Optical parameters					
Operating wavelength	λ	1530	1550	1565	nm
Insertion loss	IL		4	5	dB
Optical return loss	ORL			-45	dB
Switch extinction ratio @DC	ER@DC	20	23	45	dB
Dynamic extinction ratio	DER		13		dB
Optical fiber	Input port		Panda PM Fujikura SM		
	output port		Panda PM Fujikura SM		
Optical fiber interface		FC/PC、FC/APC Or user to specify			
Electrical parameters					
Operating bandwidth (-3dB)	S_{21}	10	12		GHz
Half-wave voltage V_{π}	RF	@50KHz	4.5	5	V
	Bias	@Bias	6	7	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 Conditions

Parameter	Symbol	Unit	Min	Typ	Max
Input optical power	$P_{in,Max}$	dBm			20
Input RF power		dBm			28
bias voltage	V_{bias}	V	-15		15
Operating temperature	T_{op}	$^{\circ}C$	-10		60
Storage temperature	T_{st}	$^{\circ}C$	-40		85
Humidity	RH	%	5		90

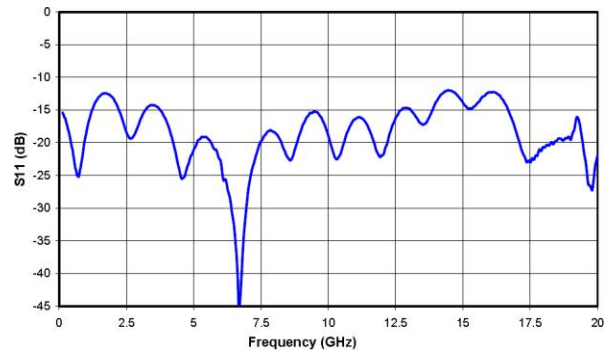


S21 Curve



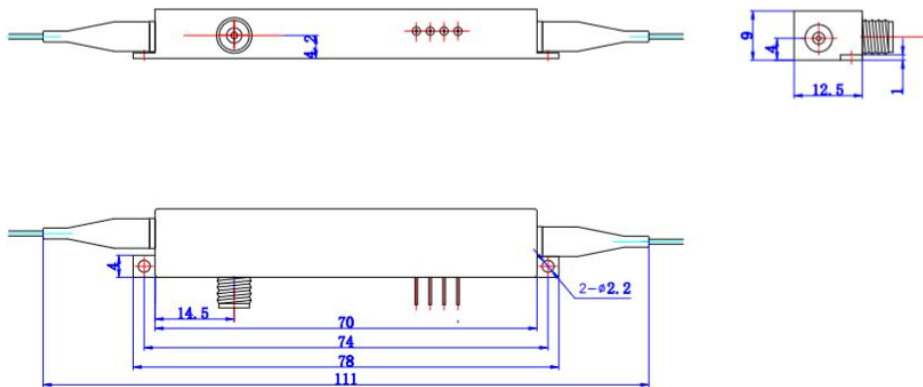
S21 Curve

&S11 Curve



S11 Curve

Mechanical Diagram



ordering information:

Rof	AM	XX	XXG	XX	XX	XX
	Type: AM---Intensity Modulator	Wavelength: 07---780nm 08---850nm 10---1060nm 13---1310nm 15---1550nm	Bandwidth: 10G---10GHz 20G---20GHz 40G---40GHz 50G---50GHz	Monitor PD: PD---With PD 00 --- No PD	In-Out Fiber type: PP---PM/PM	Optical connector: FA---FC/APC FP---FC/PC SP---Customization

Please contact me if you have special requirement

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