



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

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

Bandwidth

- 300MHz
- 2.5GHz
- 10GHz
- 20GHz

Operating wavelength	850nm	1064nm	1310nm	1550nm	
3dB Bandwidth	~10GHz	~10GHz	~10GHz	~10GHz	~20GHz
Insertion Loss	<5dB	<5dB	<5dB	<5dB	
Extinction ratio @DC	>23dB	>23dB	>23dB	>23dB	
V _π @RF (1KHz)	<3V	<4V	<4.5V	<5.5V	<6V
V _π @Bias	<3.5V	<5V	<6V	<7V	

Ordering Information

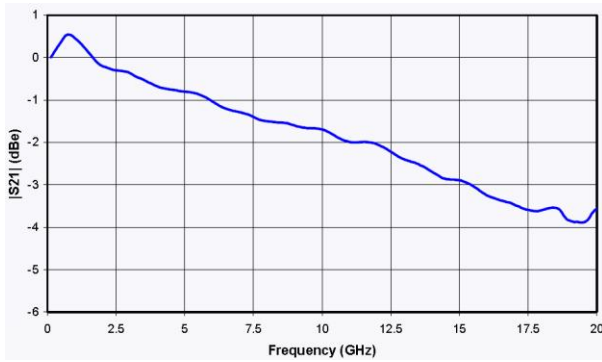
R	AM	15	10G	XX	XX
	Type: AM---Intensity Modulator	Wavelength: 08---850nm 10---1060nm 13---1310nm 15---1550nm	3dB bandwidth: 2.5G---10GHz 10G---10GHz 20G---20GHz 40G---28GHz	In-Out Fiber type: PP---PM/PM PS---PM/SMF	Optical connector: FA --- FC/APC FP --- FC/PC SP --- Customization

**R-AM-15-40G****Wavelength 1550nm 40GHz Intensity modulator**

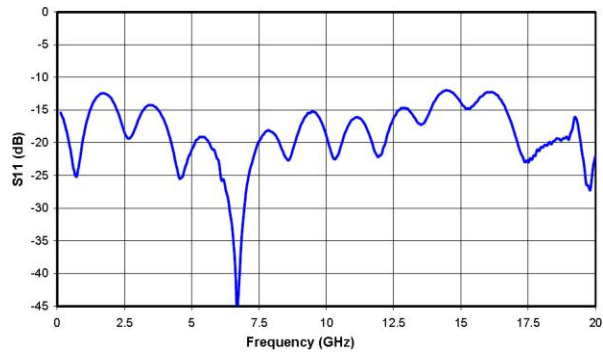
Parameter		Symbol	Min	Typ	Max	Unit
Optical parameters						
Operating wavelength		λ	1525	1550	1565	nm
Insertion loss		IL		4	5	dB
Optical return loss		ORL			-45	dB
Switch extinction ratio @DC		ER@DC	20	23	45	dB
Dynamic extinction ratio		DER		13		dB
Optical fiber	Input port		Panda PM			
	output port		Panda PM or SMF-28			
Optical fiber interface			FC/PC、FC/APC Or user to specify			
Electrical parameters						
Operating bandwidth (-3dB)		S ₂₁	26	28	30	GHz
Half-wave voltage V _{pi}	RF	@1KHz		5	5.5	V
	Bias	@1KHz		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@850nm	P _{in,Max}	dBm			20
Input RF power		dBm			28
bias voltage	V _{bias}	V	-20		20
Operating temperature	T _{op}	°C	-10		60
Storage temperature	T _{st}	°C	-40		85
Humidity	RH	%	5		90

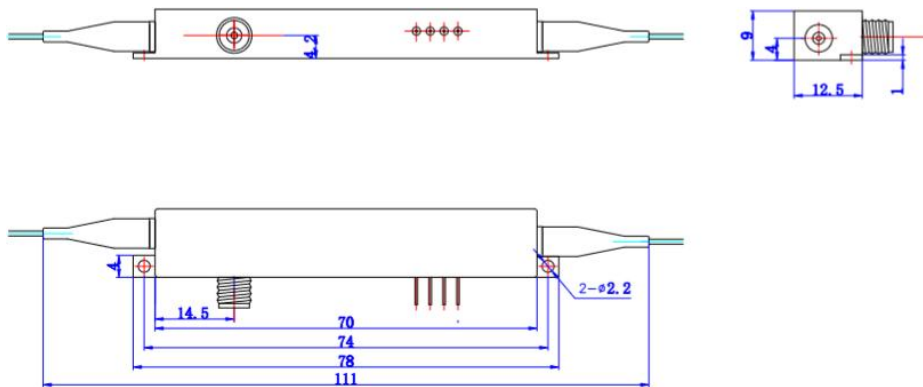


S21 Curve



S11 Curve

Mechanical Diagram



ordering information:

ROF	AM	10	XX	XX	XX
	Modulator type : AM---intensity modulator	Operating wavelength : 10---1064nm	Operating bandwidth : 2.5G---2.5GHz 10G---10GHz 20G---20GHz	Input output optical fiber: PS---PM/SMF PM--- PM/PMF	Connector: FA---FC/APC FP---FC/PC SP---user specified

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.com@rof-oc.com) or WhatsApp (+86-18978968297)