

ROF-PM-15 series 1550nm high speed electro-optic phase modulator

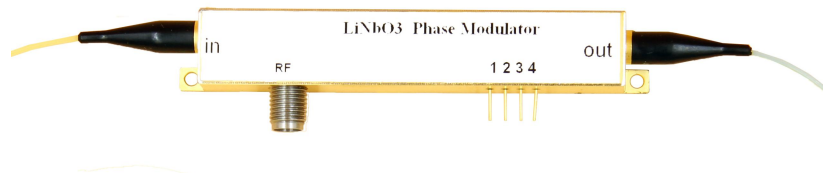
This lithium niobate electro-optical phase modulator adopts titanium diffusion process, has the characteristics of low insertion loss, high modulation bandwidth, low half-wave voltage, high damage optical power, etc. It is mainly used in the fields of optical chirp control in high-speed optical communication systems, phase shift in coherent communication systems, sideband generation in ROF systems, and reducing stimulated Brinouin scattering (SBS) in analog optical fiber communication systems.

Features

- Modulation bandwidth ~40GHz
- Low half wave voltage
- Low insertion loss

Applications

- Optical fiber sensing
- Optical fiber communication
- Laser coherent synthesis
- Phase delay (direction shifter)
- Quantum communication
- ROF system



Parameters

Parameter		Symbol	Min	Typ	Max	Unit
Optical parameters						
Operating wavelength		λ	1520		1570	nm
Insertion loss		IL		3	4	dB
Optical return loss		ORL			-45	dB
Optical fiber	Input port		Panda PM			
	output port		Panda PM			
Optical fiber interface			FC/PC、FC/APC or user specified			
Electrical parameters						
bandwidth (-3dB)	ROF-PM-15-40G	S ₂₁		20		GHz
bandwidth (-5dB)	ROF-PM-15-40G	S ₂₁		40		GHz

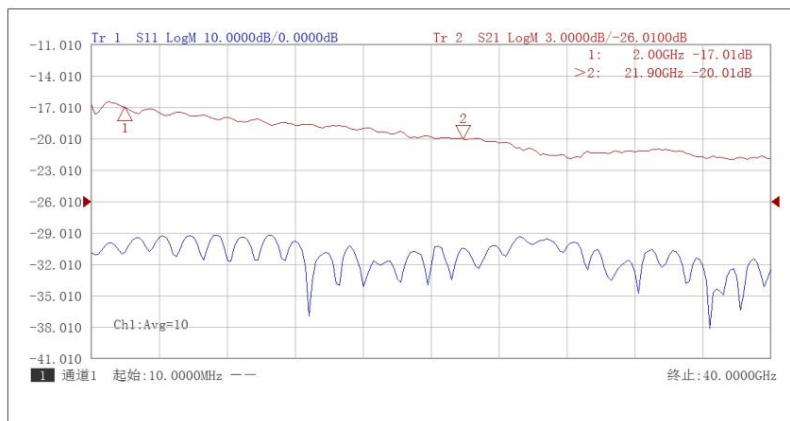


V _{pi} @ 50KHz	ROF-PM-15-40G	V _π		3	3.5	V
V _{pi} @40GHz	ROF-PM-15-40G	V _π		5.5	7	
Electrical return loss		S ₁₁		-12	-10	dB
Input impedance	ROF-PM-15-40G	Z _{RF}		50		Ω
Electrical interface	ROF-PM-15-40G			K(f)		

Limit Conditions

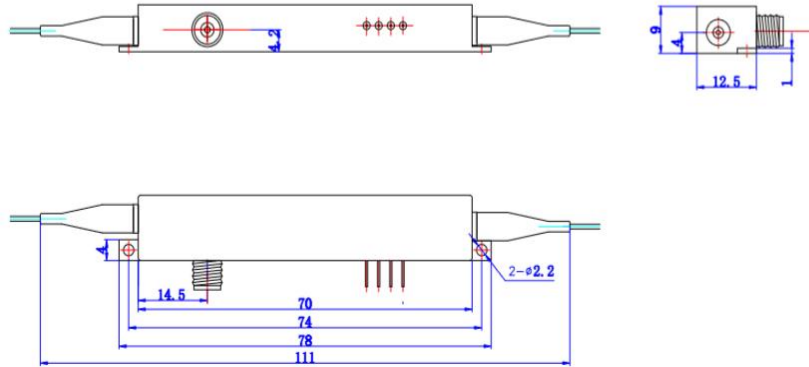
Parameter	Symbol	Min	Typ	Max	Unit
Input optical power @1550nm	P _{in,Max}	dBm			17
Input RF power		dBm			27
Operating temperature	T _{op}	°C	-10		60
Storage temperature	T _{st}	°C	-40		85
Humidity	RH	%	5		90

Characteristic Curve



S₁₁&S₂₁ curve

Mechanical Diagram(mm)



ROF-PM-15-40G Mechanical structure drawing

Order Information

ROF	PM	W	B	F	C
	Modulator Type: PM---Phase modulator	Wavelength: 15---1550nm	Bandwidth: 40G---40GHz	Fiber: PP---PM/PMF	Connector: FA---FC/APC FP---FC/PC SP--- User specified

* please contact our sales if you have special requirements.