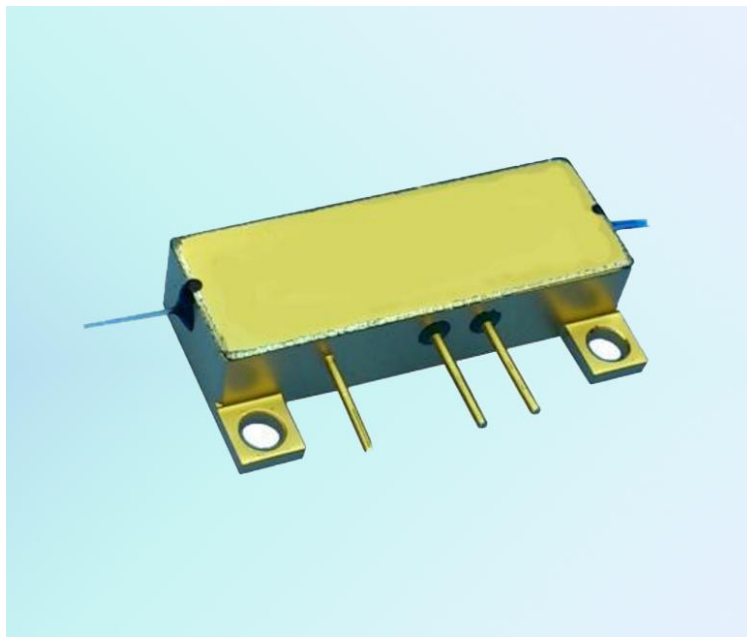




R-MIOC Series Y-Waveguide Modulator



Description

The R-MIOC Series Y-Waveguide Modulator is a LiNbO_3 multifunctional integrated optical circuit (LiNbO_3 MIOC) based on microelectronic technology, which can achieve polarizer and analyzer, beam splitting and combining, phase modulation and other function. The waveguides and electrodes are fabricated on LiNbO_3 chip, the output and input fibers are precisely coupled with the waveguides, then the whole chip is encapsulated in a gold-plated Kovar housing to obtain well performance and high reliability.

Features

- X-cut, low insertion loss
- APE waveguide, high polarization extinction ratio
- Push-pull electrode, low half-wave voltage
- Well long-term stability and small package size

Applications

- Fiber optical gyroscope (FOG)
- Fiber Optic Current Sensor (FOCS)
- Hydrophones and other optical fiber sensing fields

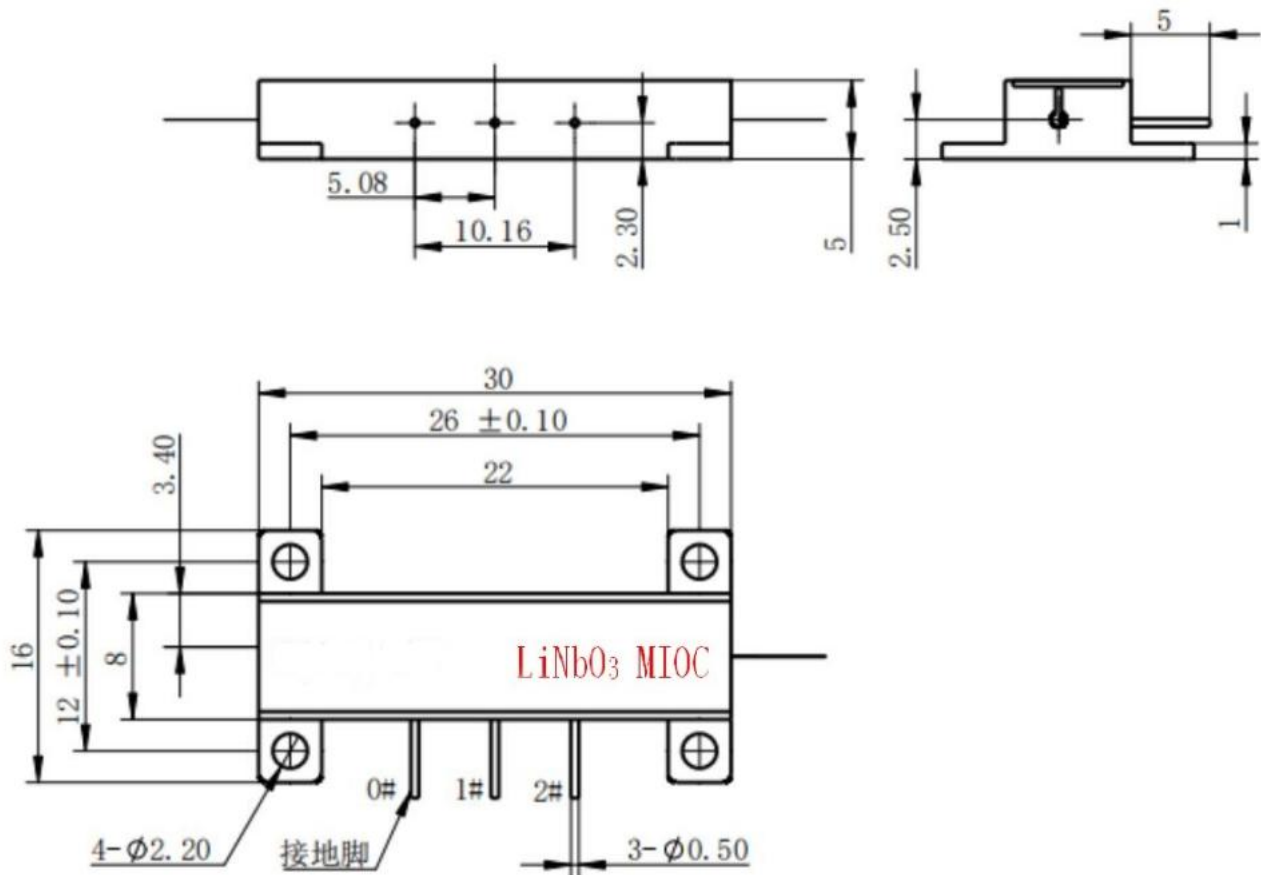


Parameters

Category	Parameter	Symbol	Unit	Numerical value	
Optical parameters	Operating wavelength	λ	nm	1290~1330	1530~1570
	Insertion loss	IL	dB	≤ 3.5	
	Change of insertion loss at full temperature	ΔIL	dB	≤ 0.5	
	Coupling Ratio	D	%	50 ± 2	
	Change rate of spectral ratio at full temperature	ΔD	%	≤ 3.0	≤ 2.0
	Backward light reflection	RL	dB	≤ -55	
	Residual Intensity Modulation	RIM		$\leq 1/1000$	
	Ambient temperature pigtail polarization crosstalk	PER	dB	≤ -30	
	Full temperature pigtail polarization crosstalk	PER _T	dB	≤ -25	
Electrical parameters	Half wave voltage	V _{π}	V	≤ 3.5	≤ 4.0
	Waveform slope	S		$\leq 1/250$	
	Bandwidth	BW	MHz	≥ 300	
Packaging structure	Packaging form			Metal or ceramic	
	Device size (excluding pins)		mm	30×8×5	
	Pigtail type			Small mode field (6.0mm) PM Fiber	PM Fiber
	Fiber length	L	m	≥ 1.0	≥ 1.2
Environmental indicators	Working temperature	T _w	°C	-45~+70	
	Storage temperature	T _s	°C	-55~+85	



Mechanical Diagram



Ordering information

ROF	MIOC	XX	XX	XX
	Multifunctional integrated optical device	Wavelength: 13---1310nm 15---1550nm	In-Out Fiber type: PP---PM/PM	Optical connector: FA---FC/APC FP---FC/PC N---No connector