



LiNbO₃ Multi-function Integrated Optical Chip



➤ Key Capability

- ✧ X-cut ,y-propagating LiNbO₃
- ✧ Very low insertion loss
- ✧ APE process for waveguide
- ✧ Push-pull electrode design
- ✧ Small packaging and light weigh
- ✧ Excellent long-term stability

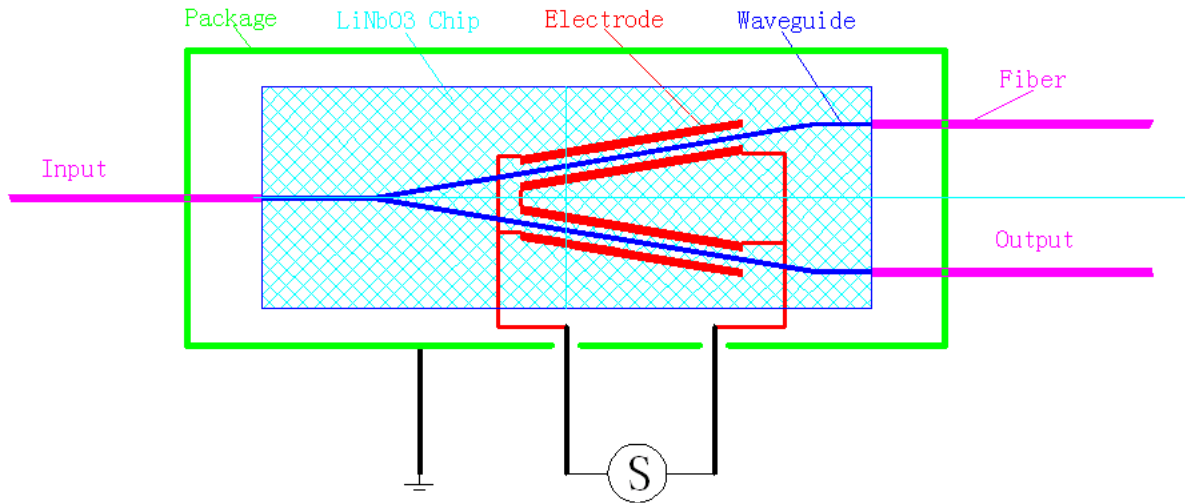
LiNbO₃ multi-function integrated optical chip (IOC) is manufactured by micro-electronics technology, which can get different waveguide and electrode graph on the surface of LiNbO₃ chip. There are several cells integrated on the same chip, include polarizer, splitter /combiner, phase modulator, etc. The characteristic of this device is fast responding, small packaging, lightweight and anti-disturbance of electromagnet, etc.

➤ Applications

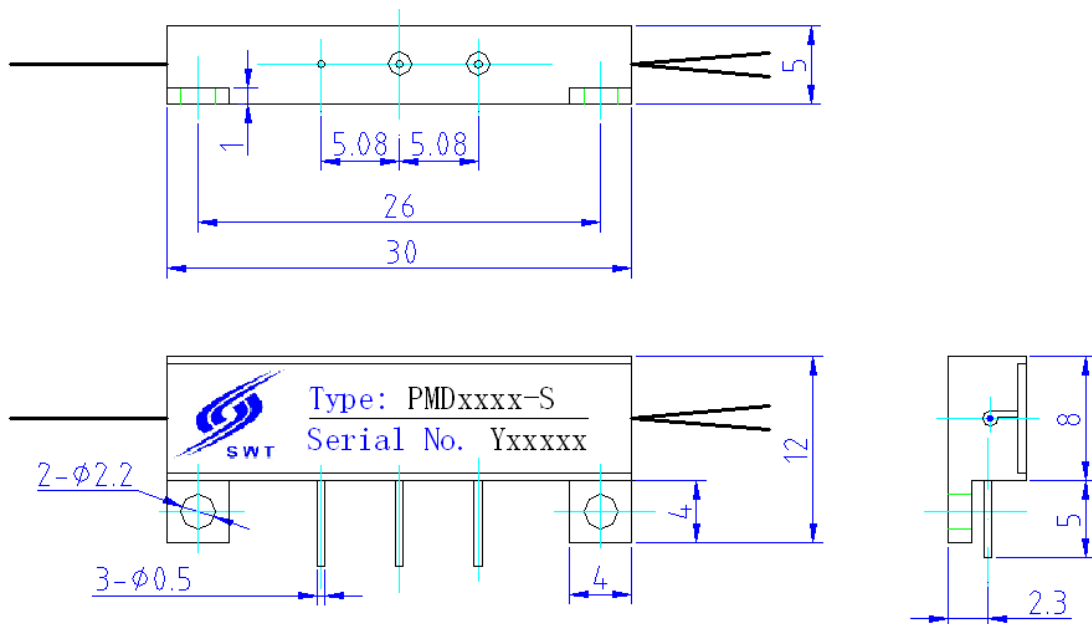
- ✧ Fiber optic gyroscopes (FOG).
- ✧ Hydrophone and other optic sensitive fields



➤ Device Schematic



➤ Package Outline:(PMD08xx-S, PMD13xx-S, PMD15xx-S)





➤ Specifications(23°C)

Parameter		Unit	Values		
Optical	Operating Wavelength	nm	820~850	1310	1550
	Insertion Loss	dB	≤4.0		
	Splitting Beam Ratio	-	47/53 ~ 53/47		
	Optical Return	dB	≥50		
	Polarization extinction, chip	dB	≥55		
	Additional Intensity Modulating	-	≤0.2%		
	PM Pigtail Crosstalk	dB	≤-27	≤-30	≤-30
Electrical	Half wave Voltage	V	≤3.0	≤4.0	≤4.5
	Applied DC Voltage	V	≤15V		
	Electrode type	-	Push-pull modulating		
	Bandwidth	MHz	≥300		
Mechanical	Electrical connector	-	3 PIN		
	Pigtail type	-	PM or SM		
	Packaging dimensions	mm	30×8×5		
Environmental	Work temperature	°C	-55 ~ +85		

We can provide different pigtail and package by customer requirement. Welcome to contact us.

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