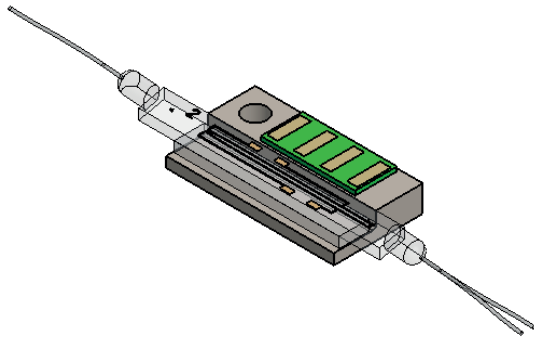


## Y-JPX-LN series

Polarizing Y-Junction Phase Modulator

### PHOTLINE MODULATOR



#### FEATURES

- Superior polarization rejection rate
- Low drive voltage
- Low insertion loss

#### APPLICATIONS

- Fiber Optic Gyroscopes
- Sagnac Interferometers based sensors

#### OPTIONS

- Chip on submount
- Pigtailed chip on submount
- Packaged devices
- 800 nm devices

iXBlue Photonics Y-JPX-LN series Integrated Optical Circuits are high performance optical devices designed for Fiber Optics Gyros.

The proprietary Y optical splitting junction offers a low insertion loss over several tens of nanometers. The YJPX-LN IOCs are produced with a Proton Exchange waveguide process that provides a highly polarized light at the outputs of the devices. They can be used in harsh environments and are available as bare chips, pigtailed chips and packaged devices.

#### Preliminary Performance Highlights

ELECTRICAL				
		Min	Typ	Max
$V\pi$ (push pull and single pass)	V	-	7	8
Electro-optic bandwidth	MHz	0	-	30
OPTICAL				
Crystal	Lithium Niobate X-Cut Y-Prop			
Operating wavelength	nm	1460	-	1610
Cut-off wavelength	nm	-	1460	1480
Insertion loss (including 3dB Y-junction)	dB	-	6.5	7.5
Split ratio	%	0.45	0.5	0.55
Rejection rate of polarisation (bare chip)	dB	55	60	-
Residual Intensity Modulation	%	-	0.1	-
RECOMMENDED OPERATING CONDITIONS				
Operating temperature	°C	-40	-	+85
MECHANICAL				
Chip dimensions	mm	-	23 x 3 x 1	-
FIBER SPECIFICATIONS (pigtailed chip only)				
Input / output fibers	Polarization maintaining 1550 nm RCSM15-PS-U17C - diameter 80 $\mu$ m			

#### About us

iXBlue Photonics includes iXBlue iXBlue iXBlue brand that produces specialty optical fibers and Bragg gratings based fiber optics components and iXBlue Photline brand that provides optical modulation solutions based on the company lithium niobate ( $\text{LiNbO}_3$ ) modulators and RF electronic modules.

iXBlue Photonics serves a wide range of industries: sensing and instruments, defense, telecommunications, space and fiber lasers as well as research laboratories all over the world.

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