

LITHIUM NIOBATE PHASE MODULATORS

PRODUCT OVERVIEW

PSI offers ultra-high-speed lithium niobate phase modulators. Our traveling-wave design and advanced index-matching technologies enable optical response over the entire millimeter-wave spectrum (up to 300 GHz). We provide a standard modulator package, as well as customized modulator chips, packages and services for integration of modulators and RF amplifiers. PSI can also provide chip-scale modulators with custom backend processing for custom packaging and integration.

KEY PRODUCT FEATURES

- Optical C-band Operation
- Z-cut phase modulators with ultra-wide bandwidth (0-100GHz)
- Integrated Modulator Arrays with a 1-8 and 1-16 format (0-40GHz)
- X-cut single sideband and suppressed carrier modulator

APPLICATIONS

- RF sideband Generation
- Optical Phase Control
- Passive RF Detection and Imaging

KEY PRODUCT FEATURE

- Low Insertion Loss
- Low Amplitude Modulation
- Ti-diffusion Optical Waveguide Technology



KEY PRODUCT SPECIFICATIONS

Parameters	Condition	Min	Typ	Max	Unit
Optical Insertion Loss			4		dB
Vp (10GHz)			4		V
Vp (40GHz)			8		V
Vp (100GHz)			14		V
RF Return Loss		-	10	-	dB
Maximum Optical Input Power		500			mW
Input/Output Fiber	Polarization Maintaining PANDA or Equivalent				
Fiber Termination	FC/PC, FC/APC, or other				
RF Connector	1mm Connector				
Operating Wavelength	C-Band				
Package Dimensions	8.5mmx13.4mmx3.5mm				

ARRAYED PHASE MODULATOR K-KA BAND

Parameters	Condition	Min	Typ	Max	Unit
Optical Insertion Loss			2		dB
Vp		6@10GHz		8@40GHz	V
RF Return Loss		-	10	-	dB
Maximum Optical Input Power		500			mW
RF Crosstalk		-	-30	-	dB
Input/Output Fiber	Polarization Maintaining PANDA or Equivalent				
Fiber Termination	FC/PC, FC/APC, or other				
RF Connector	1mm Connector				
Operating Wavelength	C-Band				