GHz Resonant Optical Phase Modulator



(1-3.05 GHz, temperature control option)



DATASHEET





The GHz Resonant Optical Phase Modulator provides high speed free space optical phase modulation based on an electro-optical technology. It integrates a resonance electrical circuit inside the package to facilitate low driving voltage. The device can be driven by a function generator. It further integrated TEC temperature controller for stable operation.

Features

- Solid-State
- High speed
- Ultra-high reliability
- Low insertion loss
- Compact

Specifications

Parameter	Min	Typical	Max	Unit
Resonance Frequency	1.1		3.05	GHz
Bandwidth		3.8		MHz
Q Factor		325		
Required RF Power (1rad@400nm)		35		dBm
Max RF Power			5	W
Optical Aperture		2.5x2.5		mm²
Max Optical Power			1	W/mm ²
Optical Wavelength	300		560	nm
Operating Temperature [1]		5		°C
Storage Temperature	-40		85	°C

[1] TEC actively cooled

Applications

- Optical blocking
- Configurable operation
- Instrumentation

Note: The specifications provided are for general applications with a cost-effective approach. If you need to narrow or expand the tolerance, coverage, limit, or qualifications, please [click this <u>link</u>]:

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Mechanical Dimensions (mm)

*Product dimensions may change without notice. This is sometimes required for non-standard specifications.

Ordering Information

						1
Prefix	Туре	Wavelength	Resonance Frequency	Polarizer	TEC	
GHZM-	Standard = 11 Special = 00	850 = 8 780 = 7 650 = 6 550 = 5 450 = 4 300 = 3 Special = 0	1.12 GHz = 112 3.05 GHz = 305	No = 1 Yes = 2 Special = 0	None=1 Yes=2	

Red is special order.

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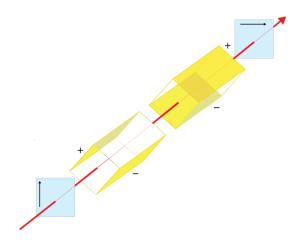


Typical Speed and Repetition Measurement

Note: Top Traces are electrical; Bottom traces are optical

Typical Bandwidth Measurement

Amplitude Electro-Optic Crystal Configuration (yellow indicates electrode)



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