

M-APE-1064

10 GHz, 1064 nm Phase Modulator



The Newport M-APE-1064 is a high performance, 10 GHz LiNbO₃ phase modulator. M-APE-1064 can provide phase modulation in a broad operation bandwidth with a low driving voltage. Its low insertion loss provides for maximum transmission power. The M-APE-1064

is fabricated with Annealed Proton Exchange (APE) optical waveguides, and uses polarization maintaining input and output fibers, making it easy to integrate with other optical components.



Features & Uses

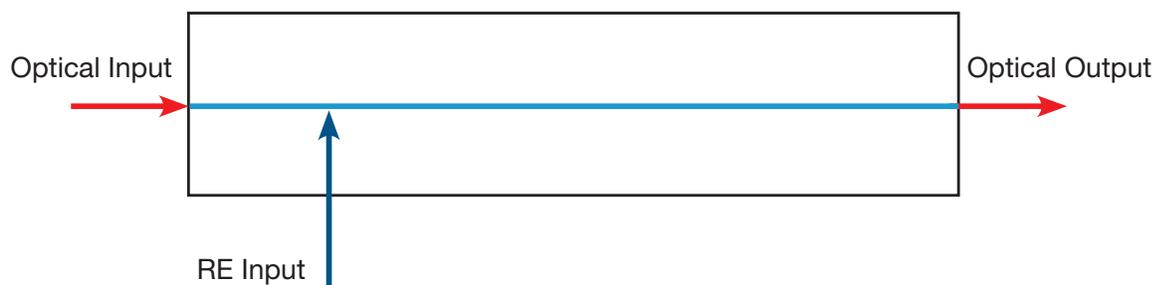
Features

- 1030 nm to 1070 nm
- X-cut APE Process
- 10 GHz Bandwidth
- Low Optical Loss
- Minimal Back Reflections
- Polarization Maintaining

Benefits of Use

- Coherent Communications
- Optical Chirping
- Optical Sensing
- FM Spectroscopy
- Frequency Shifting
- Laser Linewidth Broadening

Function Diagram



Specifications

GENERAL

Input Optical Power	60 mW max
Operating Wavelength	1030 nm to 1070 nm
Insertion Loss	3.0 dB typical, 3.5 dB max
Chip Polarization Extinction Ratio	> 60 dB
Pigtail Polarization Extinction Ratio	≥ 20 dB
Process	Proton Exchange
Optical Return Loss	≥ 30 dB
S ₂₁ Bandwidth	7 GHz min, 10 GHz typical @ -3 dB
S11 Return Loss	≤ -10 dB @ 10 GHz
V _π	6.8 V typical @ 1 GHz 10 V typical @ 10 GHz
RF Input Power	+27 dBm max
Impedance	50 Ω typical

MECHANICAL

Operating Temperature	-55°C to + 75°C
Storage Temperature	-60°C to +90°C
Operating Humidity	0% to 90% Relative Humidity
Input Fiber	Panda, PM 980
Output Fiber Type	Panda, PM 980
Input Connector	PM FC/APC, others available
Output Connector	PM FC/APC, others available
RF Port Connectors	K Connector
Cabling	900 μm tubing
Dimension	3.783"x 0.981" x 0.640"

TYPICAL S21 RESPONSE

