

Fiber Optical Phase Modulator

20GHz, 1064 nm



DATASHEET

[Return to the Webpage](#)



Features

- X-cut APE Process
- High Polarization Extinction Ratio
- High Optical Power Handling
- PM Input & Output

Applications

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



Legal notices: All product information is believed to be accurate and is subject to change without notice. Information contained herein shall legally bind Agiltron only if it is specifically incorporated into the terms and conditions of a sales agreement. Some specific combinations of options may not be available. The user assumes all risks and liability whatsoever in connection with the use of a product or its application.

Rev 07/09/26

This is a high performance, 20 GHz phase modulator. It can provide phase modulation in a broad operation bandwidth with a low driving voltage. Its low insertion loss and high optical power handling capability provides for maximum transmission power. It is fabricated with Annealed Proton Exchange (APE) optical waveguides on X-cut LiNbO₃ material, and uses polarization maintaining input and output fibers, making it easy to integrate with other optical components.

Note: This component is intended for OEM system integration and is not designed for standalone laboratory use. Units supplied without a protective benchtop enclosure are provided without warranty, as they are susceptible to damage from improper handling, installation, or operation.

Specifications

Parameter	Min	Typical	Max	Unit
Input Optical Power			300	mW
Operating Wavelength	1030	1080		nm
Insertion Loss		3		dB
Chip Polarization Extinction Ratio	60			dB
Pigtail Polarization Extinction Ratio	20			dB
Optical Return Loss	40			dB
S21 Bandwidth	16	20		GHz
V _π @10GHz		5.5	6	V
RF Input Power			27	Ω
Impedance		50		Ω
Operating Temperature	0		70	°C
Storage Temperature	-40		80	°C
Operating Humidity	0		90	%

+1 781-935-1200

sales@agiltron.com

www.agiltron.com

Information contained herein is deemed to be reliable and accurate as of the issue date. We reserve the right to change the design or specifications at any time without notice.
Agiltron is a registered trademark of Optowares Corporation in the U.S. and other countries.

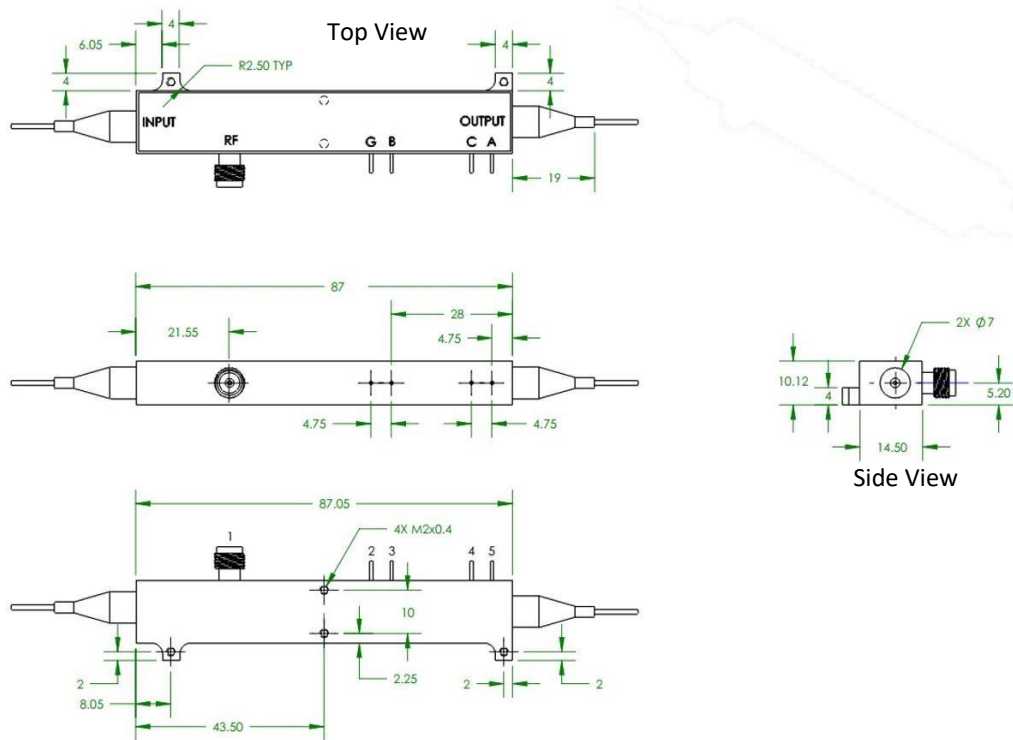
Fiber Optical Phase Modulator

20GHz, 1064 nm



DATASHEET

Dimensions (mm)



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

Electrical Connection

PIN	Symbol	Description
1	-	N/A
2	-	N/A
3	-	N/A
4	-	N/A
5	-	N/A
6	-	N/A
7	-	N/A
RF	RF connector*	V female (1.85 mm connector)

Ordering Information (Part Number)

	2	1	☐	☐	☐	☐	☐	☐	☐
Prefix	Configuration		Wavelength	Frequency	Input Fiber	Output Fiber	Cable	Fiber Length	Connector ^[1]
LNPM-	Phase = 2		1060 nm = 1	20GHz = 3	PM 980 = 9	PM 980 = 9	0.9mm Tube= 1	0.5m = 1 Special = 0	FC/APC = 3 FC/PC = 2 Special = 0

[1]. The default connector configuration uses fiber with 0.9 mm buffer protection. The connector cannot be installed directly onto bare fiber because the bare fiber is prone to damage during shipping. However, the connector can be assembled on bare fiber if a 3 cm protective loose tube is added for reinforcement. The customer may remove this protective tube after testing. The optical power handling of a standard connector is less than 0.5 W for SMF-28 fiber and decreases further for smaller-core fibers.

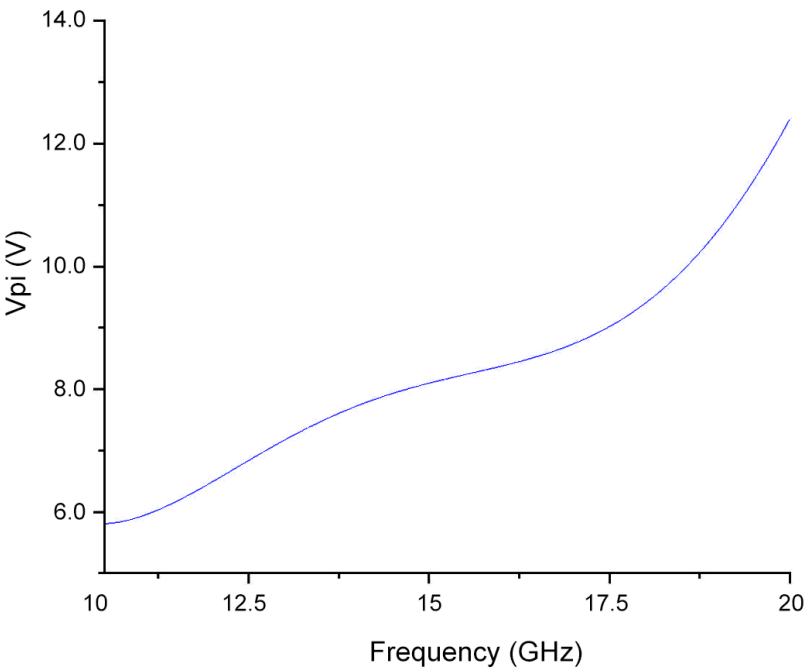
Fiber Optical Phase Modulator

20GHz, 1064 nm



 DATASHEET |

Vp vs Frequency



Information contained herein is deemed to be reliable and accurate as of the issue date. We reserve the right to change the design or specifications at any time without notice.
Agiltron is a registered trademark of Optowares Corporation in the U.S. and other countries.