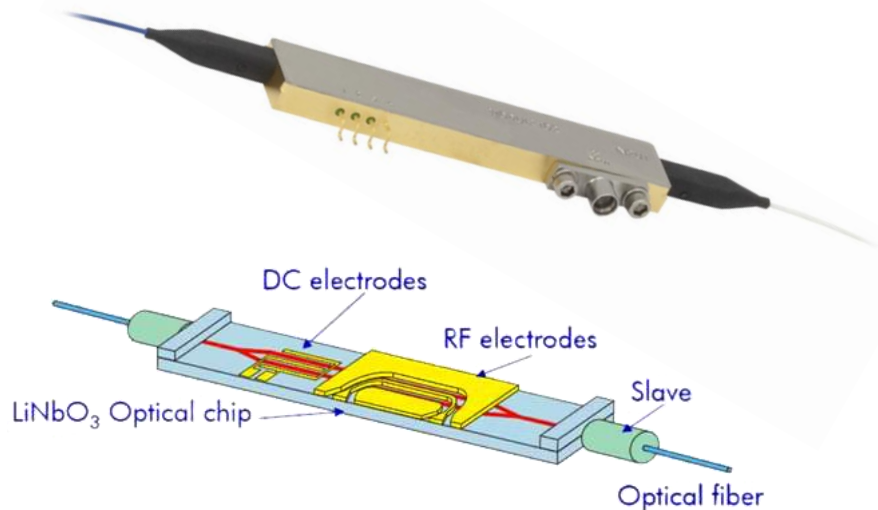


Lithium Niobate Fiber Optical Modulator

(10 GHz, 4.5-5.5V, bias control option)

Product Description

This series of Lithium Niobate fiberoptic Modulators is designed for laboratory test use. Its low operating voltage makes it convenient to use a function generator as the driver. It has a bias control section that integrates with a tap monitor for stable operation. The modulator is mounted on a PCB in which the bias can be applied through a SMA connector. Automatic bias control option is also available that maintain the Vp via a slow speed feedback circuitry.



Performance Specifications

Lithium Niobate Modulator	Min	Typical	Max	Unit
Operation Wavelength	1520		1605	nm
Insertion Loss	4	4.5	5	dB
Return Loss	40			dB
Extinction Ratio	15 (H frequency)	20 (H-F)	27 (L frequency)	dB
Optical Input Power			10	mW
RF Driving Voltage	4.5 (Z-cut)			V
Vp at 40KHz	2.5 (Z-cut)			V
Bandwidth	DC	10	14	GHz
S11 (130MHz to 10 GHz)			10	dB
RF Port Resistance (DC)			40	Ω
RF Input Power			24	dBm
Bias Port Resistance (DC)			1	M Ω
Bias Voltage Range	-15		15	V
Photodetector Responsivity			20	mA/W
Photodetector Extinction Ratio			6	dB
Photodetector Bandwidth		100		KHz
Operating Temperature	-1		70	$^{\circ}$ C
Storage Temperature	-45		85	$^{\circ}$ C

Note: Over the maximum power input will burn the device over time

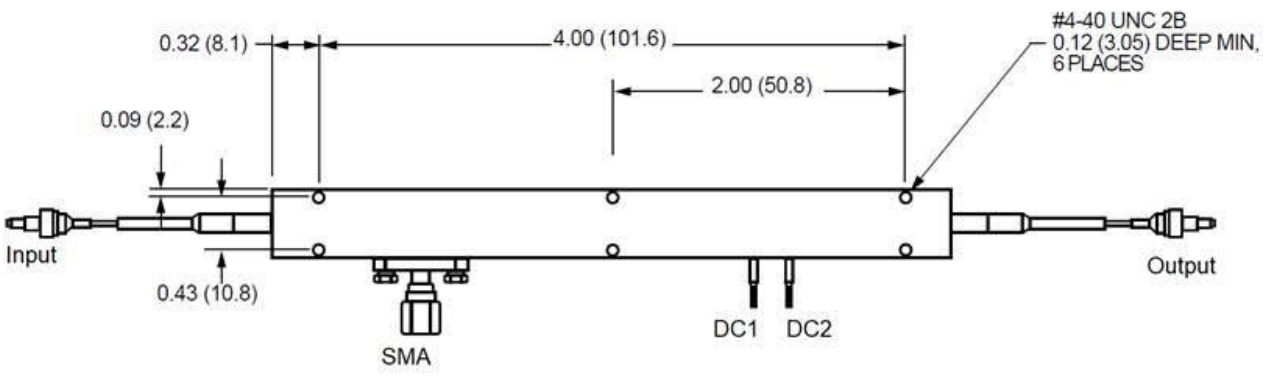
Features

- Low Voltage
- Bias Control
- Feedback

Applications

- Laboratory Uses
- Concept Proving
- Instrumentation

Dimensions (Unit: mm)



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

Electrical Connection

Pin	Description
1	RF input
2	DND
3	DC bias
4	PD anode
5	PD cathode

Ordering Information

Prefix	Config	Feedback	Wavelength	Frequency	Input Fiber	Output Fiber	Cable	Fiber Length	Connector
LNML-	1	<input type="checkbox"/> no=1 <input type="checkbox"/> yes=2	<input type="checkbox"/> 1520-1620nm=2	1 <input type="checkbox"/> 10GH=1	<input type="checkbox"/> PM 1550=5	<input type="checkbox"/> SMF28e=1	<input type="checkbox"/> 0.9mm tube=1 <input type="checkbox"/> Special=0	<input type="checkbox"/> 0.5m=1 <input type="checkbox"/> Special=0	<input type="checkbox"/> None=1 FC/PC=2 FC/APC=3 SC/PC=4 SC/APC=5 ST/PC=6 Special=0

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