LMD-43

## DEVICE 43 Gb/s C+L Band Lightwave Modulator

The Optilab LMD-43 is a high performance digital lightwave transmitter designed for broad bandwidth applications up to 43 Gb/s. This rackmount unit includes an internal Lithium Niobate (LN) optical intensity modulator, and an ultrabroadband RF driver with matched impedance, as well as a built-in Automatic Bias Control (ABC) board which allows a stable operation over long operating periods of time. The external laser source can be any polarization maintaining device, such as a fiber laser, tunable laser, or fixed wavelength Distributed Feedback (DFB) laser, making it a versatile solution. It is compliant with standards such as OC- 192, STM-64, and 10G Enet, and optical links can be established quickly and efficiently with its intuitive front panel. For a higher output power version, an optional internal booster EDFA is also available for increased transmission range. Contact Optilab for more information.

Optilab

- FEATURES 40 GHz Modulator
  - Internal Modulator Driver
    - Built-In Automatic Bias Control
    - Accepts C+L Band DFB Laser Sources
- Accepts Tunable Laser Input
- Variable Gain Adjustment
- 1 Year Warranty

- USE IN
- C-Band Lightwave Modulation
  - Wideband RFoF Transmission
  - RF/IF Signal Distribution

- Satellite Communication
- Optical Communications
- OC-192, STM-64, and 10 G Enet



	Deerating Wavelength aser Source Optical Input Level /pp Modulation Adjustment RF Return Loss mpedance Digital Bandwidth nput RF Voltage Optical Output Level	1530 nm to 1600 nm (C+L optional)   User's External Input   +20 dBm max.   4.5 - 7.5 V   > 15 dB @ 10 GHz, > 12 dB @ 15 GHz   50 Ω   50 Mb/s to 43 Gb/s   > 0.5 Vpp   > 6 dBm @ +13 dBm optical input
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IODULATOR	Modulator Bandwidth	
Ν	Modulator Bias Mode Extinction Ratio Modulator Voltage Range	40 GHz typ. Automatic Bias Control > 13 dB @ 10 Gb/s, > 23 dB @ 500 Mb/s 7.0 Vpp @ 40 Gb/s
N		
	Modulator Driver Type	High Gain, Single-ended, 40 GHz
RIVER	Rise/Fall Time	I8 ps max.
<u>(</u>	Optical Return Loss	50 dB min.
(	Operating Temperature	0 °C to +40 °C
	Storage Temperature	-10 °C to +70 °C
Ī	Power Supply Requirements	80 V – 240 V AC, 48 to 70 Hz, 1A
(	Optical Connector	FC/APC (Input/Output)
IECHANICAL	Fiber Type	PANDA Input, SMF-28 Dutput
F	RF Input Connector	SMA Connector Female, 5U Ω
(	Control	Modulation Voltage
	Alarm	LLU: Uptional Input Power Detector
	Dimensions	

/ optilab



## ORDERING OPTIONS

- LMD-x-43
  - C: 1530 nm 1565 nm
  - **x** L: 1565 nm 1610 nm
    - C+L: 1530 nm 1600 nm

## TYPICAL S21 BANDWIDTH

