

# LMFC Series Fiber Coupled 500mW 785/830/976/1064nm Laser Modules



Narrowed Spectrum  
Fiber Coupled Output

## Features:

- Narrow spectral linewidth - 0.10nm
- Fiber coupled output - 105µm MM Fiber/ 0.22NA
- Remote computer and onboard user controls with integral LCD Display
- Precision temperature and current stabilization
- Ultra-compact footprint 40mm x 42.5mm x 100mm
- Plug and play operation
- NoiseBlock™ narrow-band ASE suppression filters and beamsplitters available in matching wavelengths to further reduce linewidth and ASE noise

## Applications:

- Raman Spectroscopy
- Analytical Instrumentation
- Metrology
- Bio-instrumentation
- Sensing

Ondax's new LMFC Series Fiber Coupled, High Power Laser Modules set a new standard for power and performance. Incorporating an Ondax SureLock™ VHG-stabilized laser diode, the LM delivers steady, high-power, spectrum-narrowed performance in an ultra-compact footprint. With both computer and integrated user controls, the LMFC Series includes precision temperature and current controls to deliver better than 1% power stability with less than 1 minute warm-up. This tightly integrated package makes it the ideal choice for both OEM instrumentation and laboratory applications.

Available in 785nm, 830nm, 976nm, and 1064nm.

## Specifications:

Parameter	Symbol	Value
Center Wavelength (vacuum)	$L_p/nm$	785 830 976 1064
Center Wavelength Tolerances	nm	±0.5
Output Power	$P_o/mW$	500
Fiber Type		105 µm core/ 900 µm tubing
Numerical Aperture	NA	0.22 <sup>1</sup>
Connector Type		FC/PC

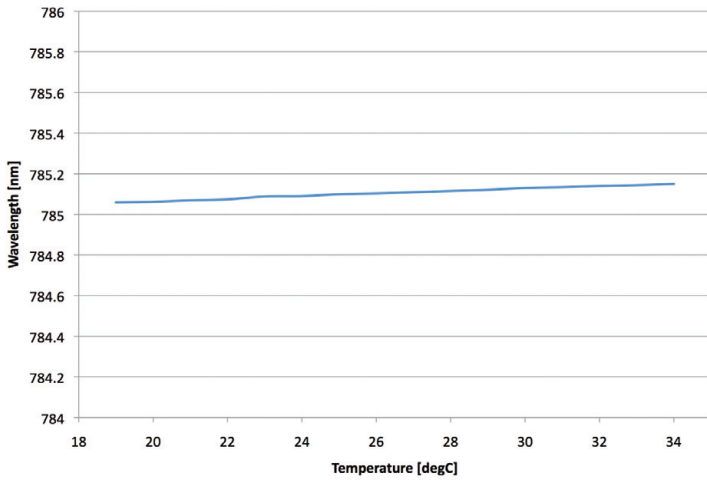
<sup>1</sup> Optional NA of 0.15 available on 976nm version by request

## Operating Specifications

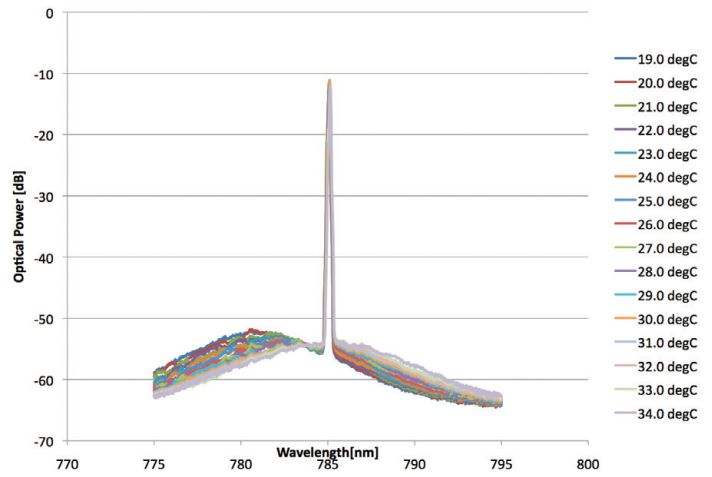
Optical	Min	Typ	Max	Unit
Linewidth ( $\Delta\lambda$ )	0.06	0.10	0.20	nm
Spatial Mode	Multimode			
Noise (RMS, 0-20 MHz)		0.25	0.5	%
Power Stability (1 hr)		0.10	0.5	%
Electrical	Min	Typ	Max	Unit
Operating Current			1.5	A
Operating Voltage		3.3		VDC
Modulation Input (TTL)	0		5	VDC
Modulation Speed			3	kHz
Environmental	Min	Typ	Max	Unit
Storage Temperature	-10		60	°C
Operating Temperature	10	25	40	°C
Operation Humidity	Non-condensing			
Dimensions (D x L)	100 x 80			mm

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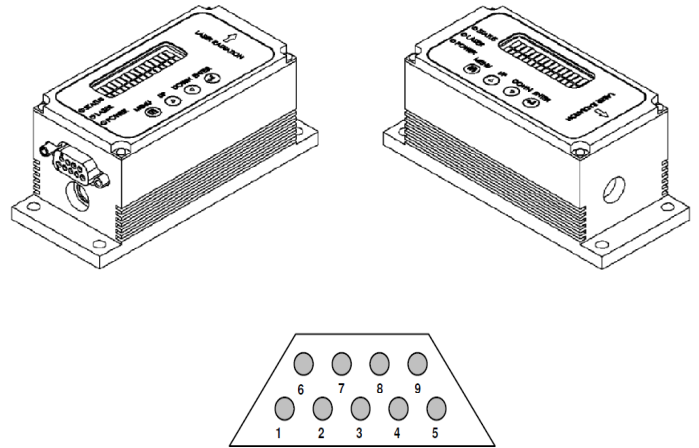
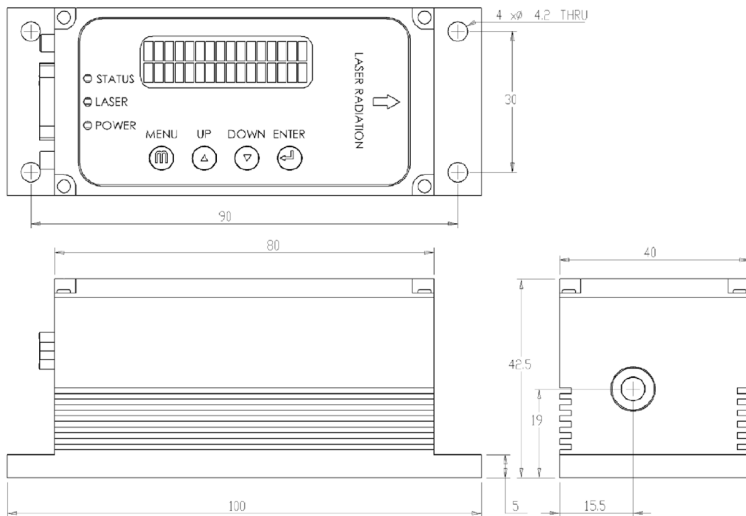
## Wavelength Stability (785nm)



## Optical Spectrum (785nm)



## Outline Drawing



## Model Numbers

LMFC-785-PLR500  
 LMFC-830-PLR500  
 LMFC-976-PLR500  
 LMFC-1064-PLR500

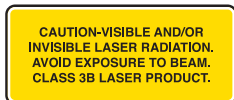
## Connections

Power (+ Red, - Black)

## Pinout

Pin	Definition	Description
1	VCC	Positive Power Pin +3.3V
2	TXD	Send data to computer (RS232)
3	RXD	Receive data from computer (RS232)
4		Not used
5	GND	GND for power and RS232 communication
6	TTL	Outside TTL modulation
7		Not used
8		Not used
9	GND	GND for power and RS232 communication

Note: Pinout is compatible with standard RS232 cable for interfacing with computer port or USB-RS232 adapter



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For more information about Ondax products and the name of a local representative or distributor, visit [www.ondax.com](http://www.ondax.com), email [sales@ondax.com](mailto:sales@ondax.com), or call (626) 357-9600. Specifications subject to change without notice. Each purchased laser is provided with test data and manual. Please refer to this data before using the laser.