

LM Series

Compact 175/225mW 785nm Laser Modules



Single Frequency

Ondax's new LM Series High Power 785nm Laser Module sets a new standard for power and performance. Incorporating an Ondax SureLock™ VHG-stabilized laser diode, the LM delivers steady, high-power, single-frequency performance in an ultra-compact footprint. With both computer and integrated user controls, the LM 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.

Specifications:

Parameter	Symbol	Value
Center Wavelength (vacuum)	λ_p /nm	785
Center Wavelength Tolerances	nm	± 0.5
Output Power	P_o /mW	175 225
Beam Size	mm	0.4 x 0.8
Linewidth, Typical (MHz)		12

Features:

- Single Frequency collimated output
- 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:

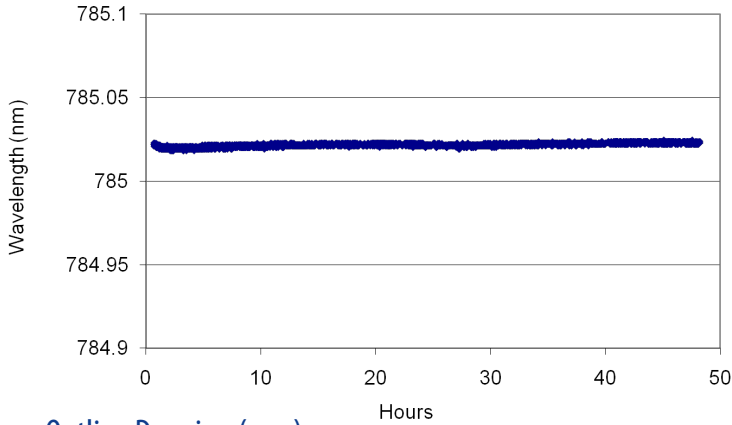
- Raman Spectroscopy
- Metrology
- Bio-instrumentation
- Graphic Arts
- Sensing
- Analytical Instrumentation

Operating Specifications

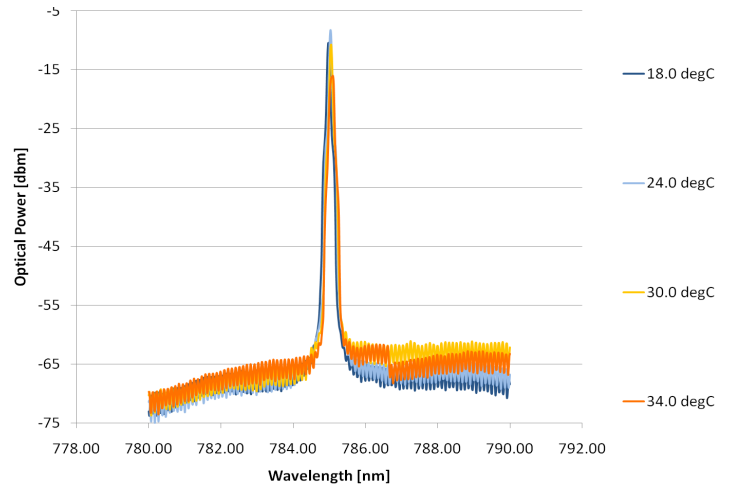
Optical	Min	Typ	Max	Unit
Spatial Mode			Single	
Polarization		100:1		
Beam Divergence		2		mrad
Pointing Stability			± 25	μ rad
Noise (RMS, 0-20 MHz)		0.25	0.5	%
Power Stability (1 hr)		0.10	0.5	%
Electrical	Min	Typ	Max	Unit
Operating Current			1.5	A
Operating Voltage		3.3		VDC
Modulation Input (TTL)	0		5	VDC
Modulation Speed			3	kHz
Environmental	Min	Typ	Max	Unit
Storage Temperature	-10		60	$^{\circ}$ C
Operating Temperature	10	25	40	$^{\circ}$ C
Operation Humidity			Non-condensing	
Dimensions (D x L x H)		100 x 40 x 42.5		mm

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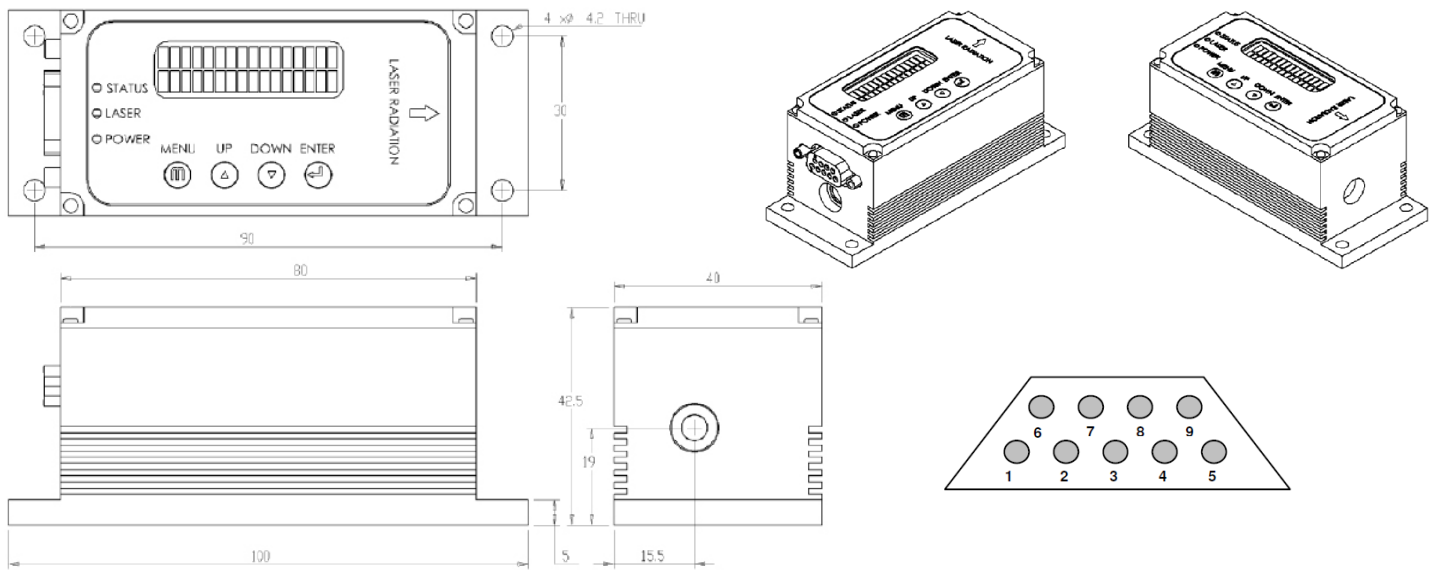
Wavelength Stability



Optical Spectrum



Outline Drawing (mm)



Model Numbers

LM-785-PLR-175 LM-785-PLR-175-1K (Includes Keypad)
 LM-785-PLR-225 LM-785-PLR-225-1K (Includes Keypad)

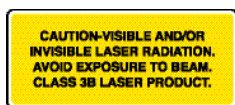
Power Requirements

100V-240 AC, 50-60HZ, Connector: +3.3VDC, 2.1mm dia.

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, email 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.