

RO Series

785nm, 300mW Fiber Coupled Raman Laser Module



Ondax's RO Series Single Frequency Fiber Coupled Laser Module integrates our SureLock™ wavelength-stabilized Raman lasers with active TEC cooling and precision current control circuitry into a compact, cylindrical package. Designed for easy mounting and integration, this rugged self-contained module is ideal for incorporation into precision instrumentation or for laboratory applications. The built-in temperature controller maintains the laser diode temperature within $\pm 0.01^\circ\text{C}$, resulting in excellent power stability that varies less than 1% over the long term.

Features:

- Precision cooling and current control
- Narrow spectral linewidth – 0.15nm
- Wavelength stability across operating range 0.01nm/ $^\circ\text{C}$
- Noise <0.3% RMS
- Compact cylindrical package with fiber-coupled output
- Includes heat-sink mount for turn-key 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
- Sensing
- Analytical Instrumentation

Specifications:

Specification Summary

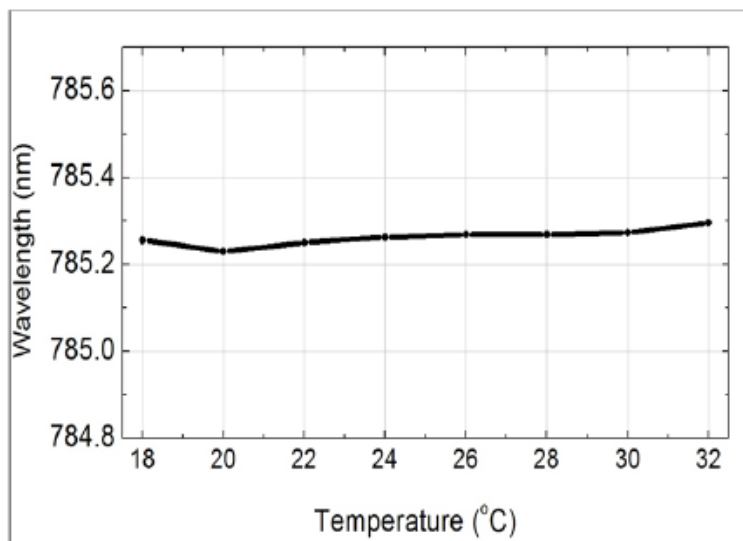
Parameter	Symbol	Min	Typ	Max	Unit
Output Power	P_o			300	mW
Center Wavelength (vacuum)	L_p	784.5	785	785.5	nm
Linewidth	$\Delta\lambda$		0.15	0.25	nm
Central Stabilized Temperature	T_c	20		40	$^\circ\text{C}$
Stabilized Temperature Range	T_r	14			$^\circ\text{C}$

Operating Specifications

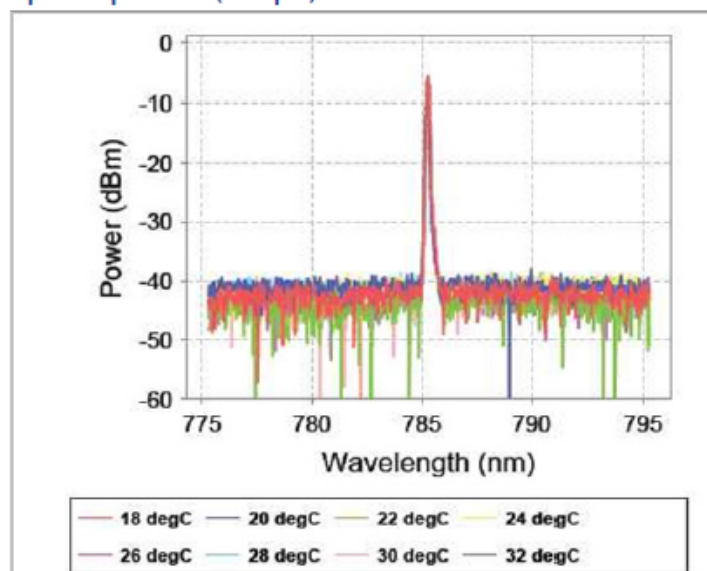
Optical	Min	Typ	Max	Unit
Spatial Mode	Single Mode			
Polarization	100:1			
Noise (RMS, 0-20 MHz)	0.25		0.5	%
Power Stability (1 hr)	0.10		0.5	%
Electrical	Min	Typ	Max	Unit
Operating Current			0.5	A
Operating Voltage	3.3			VDC
Modulation Input (TTL)	0	5		VDC
Modulation Speed			3	kHz
Environmental	Min	Typ	Max	Unit
Storage Temperature ³	0	40		$^\circ\text{C}$
Operating Temperature ³	10	25	40	$^\circ\text{C}$
Operation Humidity	Non-condensing			

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Wavelength Stability

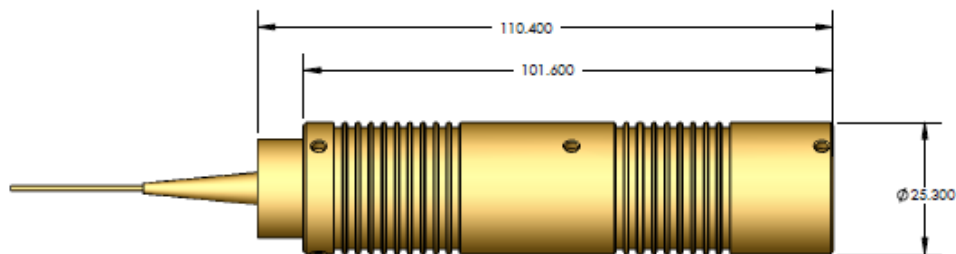


Optical Spectrum (Sample)



Side View

Bottom View

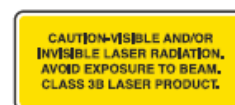


Model Numbers

RO-785-PLR-300-MM

Electrical Connections

Power (+ Red, - Black), TTL (White), GND (Black)



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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 laser.