

Description:

The Ondax series of Single Frequency Collimated Laser Modules feature wavelengths from 405nm to 808nm with an integrated TEC and driver circuit in a compact, self-contained, and rugged package. 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 long term.

The wavelength stabilization with the Ondax Volume Holographic Grating (VHG) PowerLocker® technology guarantees long term wavelength stability.

Features:

- Single frequency
- Compact, rugged package
- Blue, red, and infrared wavelengths
- Custom wavelengths available

Applications:

Raman spectroscopy, flow cytometry, metrology, Bio Instrumentation, graphic arts, analytical instrumentation, sensing, and data storage.



Specifications:

Operating Specifications

	405	638	658	685	785	808	Units
Lasing Wavelengths	405-408, in 1nm increments	636-640 in 2nm increments	656-660, in 2nm increments	683-685, in 2nm increments	780-787, in 2nm increments	808	nm
Typical Power	12, 40	8	30	40	75, 110	150	mW

Optical	Min	Typ	Max	Unit
Polarization Ratio		>100:1		
Linewidth		30, 160 ⁽¹⁾	50	MHz
Noise (RMS) (0 ~ 20MHz)		0.25	0.5	%
Power Stability (1 hr)		0.1	0.5	%
Power Stability (24 hrs)		0.3, 1 ⁽¹⁾	1, 2 ⁽¹⁾	%
Spatial Mode	Single Mode			
Beam Size: (2W ₀)				
	405nm	0.8 x 0.4		mm
	638nm	0.5 x 2		mm
	658nm	0.7 x 1.1		mm
	685nm	0.9 x 1.4		mm
	785nm	0.9 x 1.7		mm
	808nm	0.9 x 1.7		mm
Beam Divergence		1	2	mrad
Pointing Stability			+/- 25	rad
Electrical				
Operating Voltage		3.5, 7 ⁽¹⁾		VDC
Operating Current			0.5	A
Modulation Input (TTL)	0		5	VDC
Modulation Speed			3	KHz
Electrical Connections	Power (+ Red, - Black), TTL (White) GND (Black)			

(1) Applicable to 405nm module

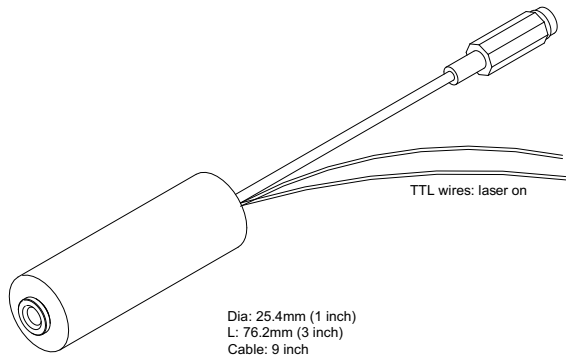
Specifications are subject to change without notice. Each purchased laser is provided with test data. Please refer to this data before using the laser.

115-81029-XXX Rev. 5

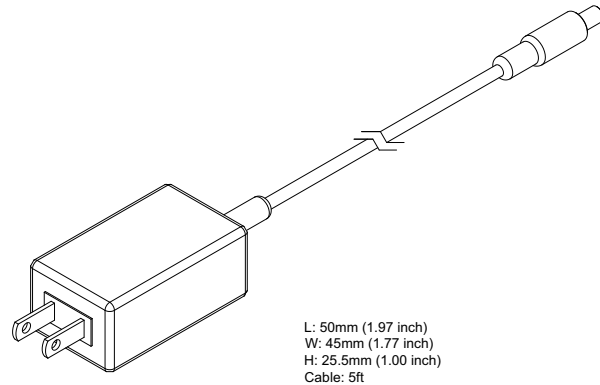
PACKAGE:

Laser

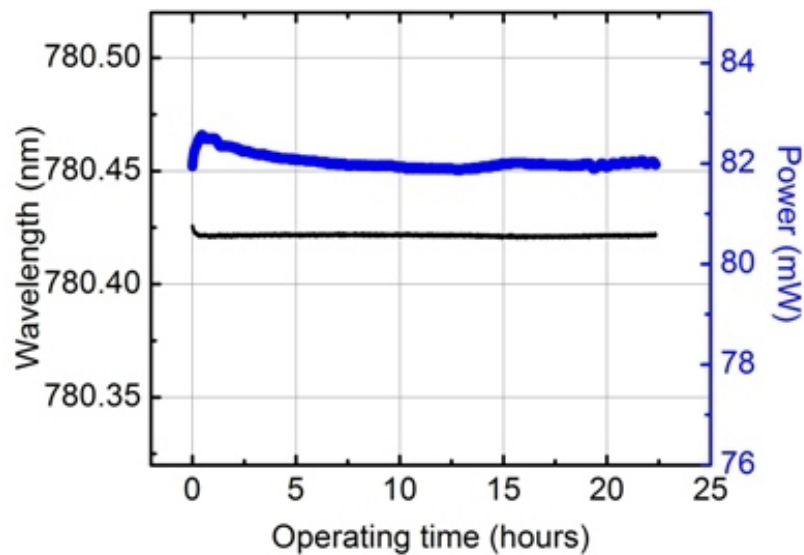
Default: Laser on: (TTL wire - no connection)
To turn laser off: Connect TTL (white) wire to ground (black) wire



Power Supply



Typical Wavelength and Power Stability



Model Numbers:

RO - X X X - PLR - X X - 1

↑
Wavelength:
e.g 785

↑
Power:
e.g 80

↑
With TTL Modulation



LASER RADIATION
AVOID EXPOSURE TO THE BEAM
CLASS 3B LASER PRODUCT

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