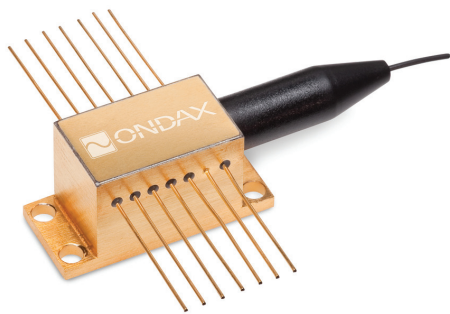


785nm/830nm/976nm/1064nm, 600mW Raman Butterfly Lasers



High Power, Narrow Linewidth
Fiber Coupled Output

Ondax's 785nm, 830nm, 976nm and 1064nm Raman Butterfly Lasers are wavelength-stabilized, high-power, fiber-coupled lasers designed specifically for Raman applications. The narrowed linewidth, low power consumption, and broad stabilized temperature operating characteristics deliver affordable, portable instrument-quality performance.

All SureLock™ Series lasers are stabilized using the Ondax PowerLocker® Volume Holographic Grating (VHG), ensuring precise, ultra-stable center wavelengths, low temperature dependence, and consistent optical performance over the locked region.

Available with FC/PC or FC/APC connectors.

Features:

- Compact 14-pin butterfly footprint
- Narrow spectral linewidth - 0.15nm
- Wavelength stability across operating range 0.01nm/°C
- Fiber coupled output - 105 μm MM fiber
- 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			600	mW
Center Wavelength (vacuum)	L_p	784.5	785	785.5	nm
		829.5	830	830.5	
		975.5	976	976.5	
		1063.5	1064	1064.5	
Linewidth	$\Delta\lambda$	0.06	0.10	0.20	nm
Central Stabilized Temperature ¹	T_c	20		40	°C
Stabilized Temperature Range ¹	T_r	14			°C

Operating Specifications

Parameter	Symbol	Min	Typ	Max	Unit
Threshold Current	I_{th}	785/830nm	325		mA
		1064nm	250		
Operating Current	I_{op}	785/830nm	1100	1500	mA
		1064nm	1200	1600	
Operating Voltage	$V_{op(c)}$	785/830nm	1.9	2.2	V
		1064nm	2.1	2.5	
TEC Current				2	A
TEC Voltage				4	V
Fiber Type		105 μm core/ 900 μm tubing			
Connector		FC/PC (std) / FC/APC (custom)			
Numerical Aperture	NA		0.22 ³		
Operating Temperature ²	T_{op}	0	25	50	°C
Storage Temperature ²	T_s	-20		80	°C

¹ Temperature set point is internal TEC set point. R-T thermistor data is available to determine actual thermistor setting.

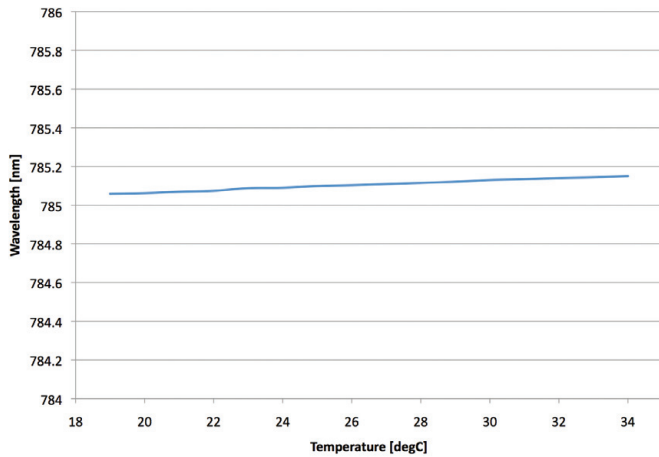
² Non-condensing

³ Optional 0.15NA fiber available for 976nm

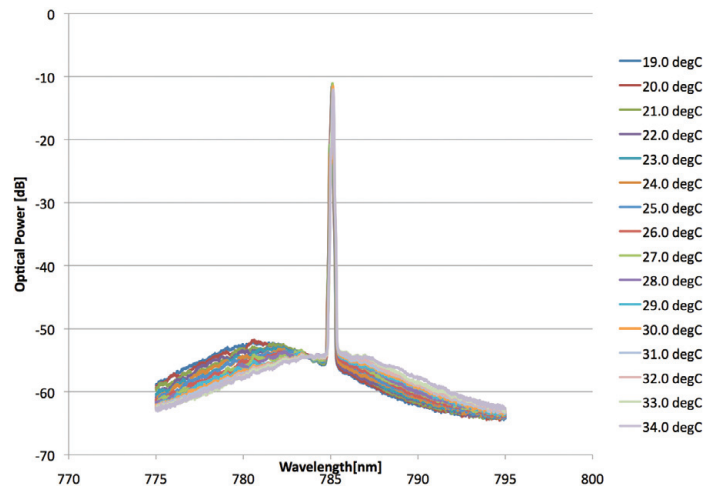
All specifications are at rated power with a case temperature of 25°C unless otherwise noted.

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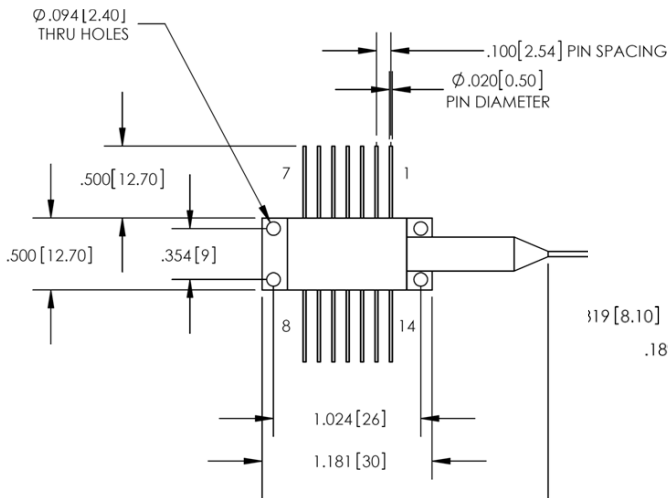
Wavelength Stability (785nm Example)



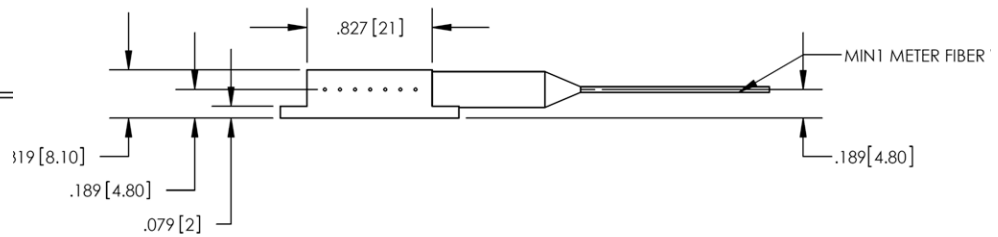
Optical Spectrum (785nm Example)



Top View



Side View



Pinout

Pin	Description	Pin	Description
1	TEC +	8	Not Connected
2	Thermistor	9	Laser Cathode
3	PD Anode	10	Laser Anode
4	PD Cathode	11	Laser Cathode
5	Thermistor ¹	12	Not Connected
6	Not Connected	13	Case Ground
7	Not Connected	14	TEC

1. For a complete Thermistor resistance-temperature table, click here.

