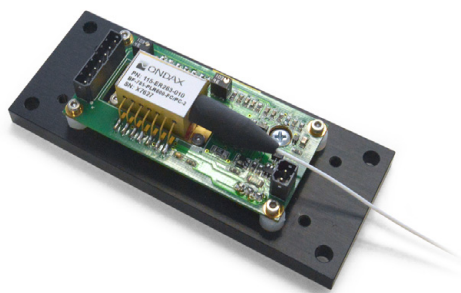


# OEM Butterfly Module

## 785/830/976/1064nm 600mW



High Power, Narrow Linewidth  
Fiber Coupled Output

### Features:

- Compact footprint - only slightly larger than the 14-pin butterfly laser
- High power - up to 600mW
- Narrow spectral linewidth - <0.15nm
- Wavelength stability across operating range 0.01nm/°C
- Fiber coupled output - 105  $\mu$ m MM fiber

### Applications:

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

Ondax's Raman OEM Butterfly Lasers are wavelength-stabilized, high-power, compact fiber-coupled laser modules designed specifically for incorporation into Raman spectroscopy systems. The ultra-compact electronics provide constant temperature control, along with variable analog current control and an interlock connection to simplify integration. An included base plate allows for mounting in virtually any orientation.

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. The narrowed linewidth, low power consumption, and broad stabilized temperature operating characteristics deliver affordable, portable instrument-quality performance.

Available at 785nm, 830nm, 976nm and 1064nm. Comes with an FC/PC connector.

### Specifications:

#### Specification Summary

Parameter	Symbol	Min	Typ	Max	Unit
Output Power	$P_o$			600	mW
Center Wavelength (vacuum)	$L_p$	784.5 829.5 975.5 1063.5	785 830 976 1064	785.5 830.5 976.5 1064.5	nm
Linewidth	$\Delta\lambda$		0.07	0.15	nm
Central Stabilized Temperature <sup>1</sup>	$T_c$	20		40	°C
Stabilized Temperature Range <sup>1</sup>	$T_r$	14			°C

#### Operating Specifications

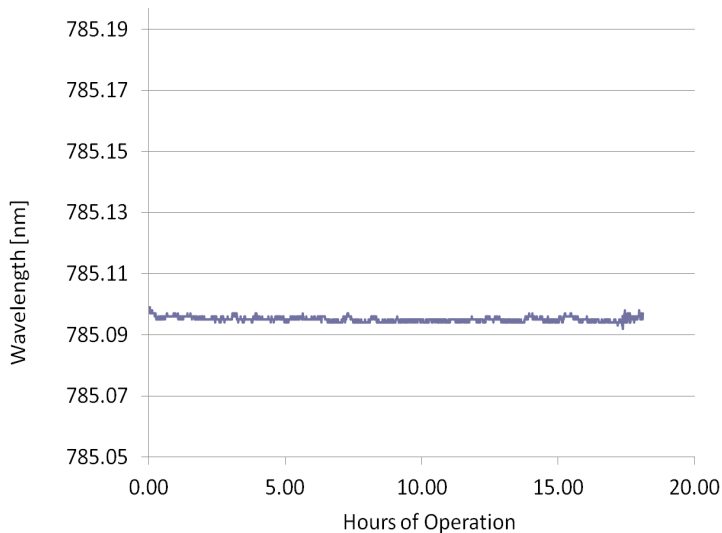
Parameter	Symbol	Min	Typ	Max	Unit
Current	$I_{th}$		1.3		mA
Input Voltage	$V_{op}$		5		V
Fiber Type		105 $\mu$ m core/ 900 $\mu$ m tubing			
Connector		FC/PC			
Numerical Aperture	NA		0.22		
Operating Temperature <sup>2</sup>	$T_{op}$	0	25	50	°C
Storage Temperature <sup>2</sup>	$T_s$	-20		80	°C

<sup>1</sup> Temperature set point is internal TEC set point. R-T thermistor data is available to determine actual thermistor setting. All specifications are at rated power with a case temperature of 25°C unless otherwise noted.

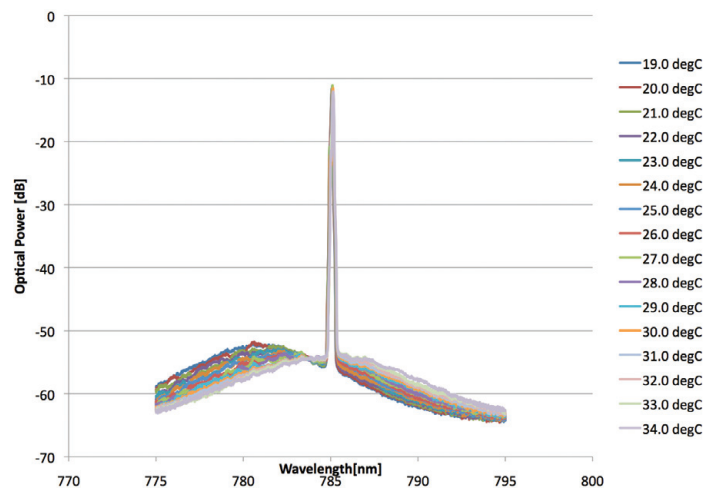
<sup>2</sup> Non-condensing

## 785/830nm, 600mW OEM Butterfly Module

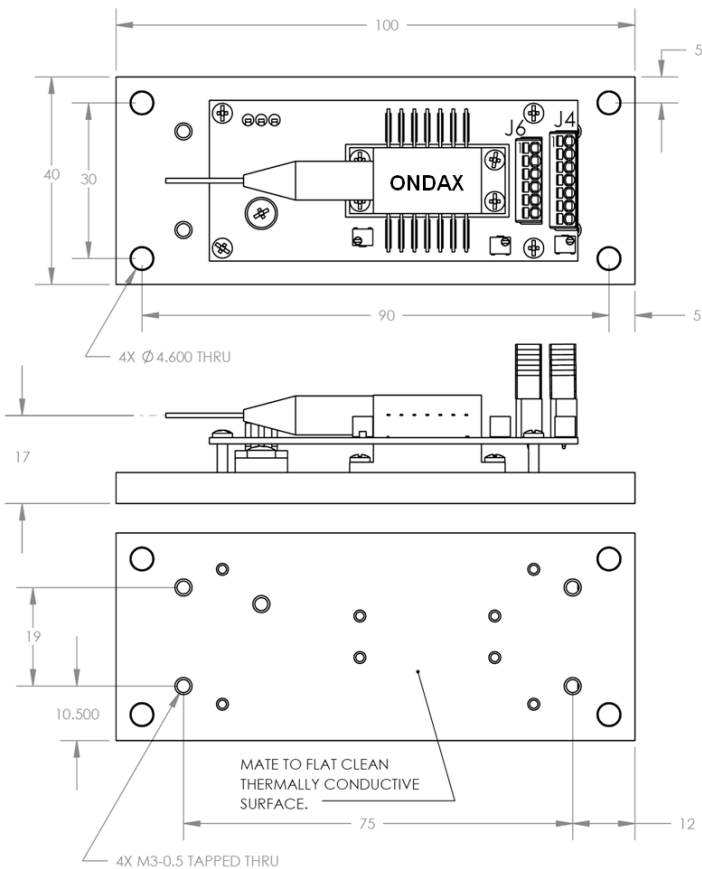
### Wavelength Stability



### Optical Spectrum (Sample)



### Outline Drawing (all dimensions in mm)



### Pinout - J4<sup>1</sup>

Pin	Description
1	Interlock (open circuit : laser off, close circuit: laser on with 20-40 sec delay)
2	Interlock (open circuit : laser off, close circuit: laser on with 20-40 sec delay)
3	TTL+ (0-1.5V Laser Off, 3.5-5V Laser ON)
4	TTL GND
5	Analog Voltage for Maximum Current
6	Analog Voltage Input (DO NOT EXCEED VOLTAGE VALUE ON J4-PINS)
7	Analog Voltage for Threshold Current

<sup>1</sup> Male Mating Connector:  
Phoenix Contact 1778887

### Pinout - J6<sup>2</sup>

Pin	Description
1	4.9-5.25 VDC
2	Power GND
3	Laser Emission Indicator Vout (5v, 50-100mA) output
4	Laser Emission Indicator GND
5	N/A
6	N/A

<sup>2</sup> Male Mating Connector:  
Phoenix Contact 1778874



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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. Please refer to this data before using the laser.