ONDAX

SureLock™

FCLM Series
Fiber Coupled Single Frequency Laser Modules

Single Frequency
Fiber-coupled Module

Features:

- Single frequency, fiber-coupled SM output
- Remote analog user controls
- Precision temperature and current stabilization
- Modulation up to 100kHz
- Compact footprint: 80mm x 61mm x 114mm
- NoiseBlock™ narrow-band ASE suppression filters and beamsplitters available in matching wavelengths to further reduce linewidth and ASE noise

Applications:

- Raman Spectroscopy
- Metrology
- HeNe Replacement
- Bio-instrumentation
- LIDAR
- Graphic Arts
- Sensing
- Analytical Instrumentation

Ondax's FCLM Series Fiber Coupled Single Frequency Laser Module can incorporate any Ondax SureLock™ VHG-stabilized laser diode into a convenient, fiber-coupled package, delivering single frequency performance with exceptional mode quality. Remotely controlled via an analog control interface, the FCLM includes precision temperature and current controls and TTL modulation for excellent power stability and control. The fiber coupled output provides long coherence length and affords easy integration into Raman or OEM instrumentation applications. Available in wavelengths from 405nm to 808nm. Mutimode fiber options available on request.

Specifications:

Parameter	Symbol	Wavelength							
Lasing Wavelengths [1] (vacuum)	Lp	405	638	658	685	690	780.25	785	808
Center Wavelength Tolerance (nm)	Lp	±0.5	±1	±1	±1	±1	±0.2	±1	±1
SM/PM Power at Fiber Output (mW)	Po	6	8	10	13	13	25	25	50
Linewidth (MHz)	Δλ	~160	300	300	50	100	50	50	50

[1]Available in increments of 2nm. Please specify wavelength at time of ordering.

Operating Specifications

Optical	Min	Typ	Max	Unit
Spatial Mode		Single Mode		
Polarization		100:1		
Noise (RMS, 0-20 MHz)		0.1	0.2	%
Power Stability (1 hr)		0.25	0.5	%
Fiber Type (SM/PM)	3/125[2]	4/125	5/125[5]	µm
Connector		FC/APC		
Electrical	**Min**	**Typ**	**Max**	**Unit**
Power Supply Voltage		5		VDC
Power Consumption		3	6	W
Operating Current			1.2	A
Analog Power Control	1		100	%
Modulation - TTL (Optional)[3]		150		MHz
Modulation - Analog (Standard)[3]		100		kHz
Environmental	**Min**	**Typ**	**Max**	**Unit**
Storage Temperature[4]	0		50	°C
Operating Temperature[4]	10		45	°C
Operation Humidity[4]				
Dimensions		114 x 80 x 61		mm

[2]For 405nm diode only [3]Via 9 pin Dsub connector, see pin configuration on reverse [4]Non-condensing [5]For 785nm and 808nm only
Default operation is at maximum output power in CW mode. Power can be manually adjusted via modulation control.

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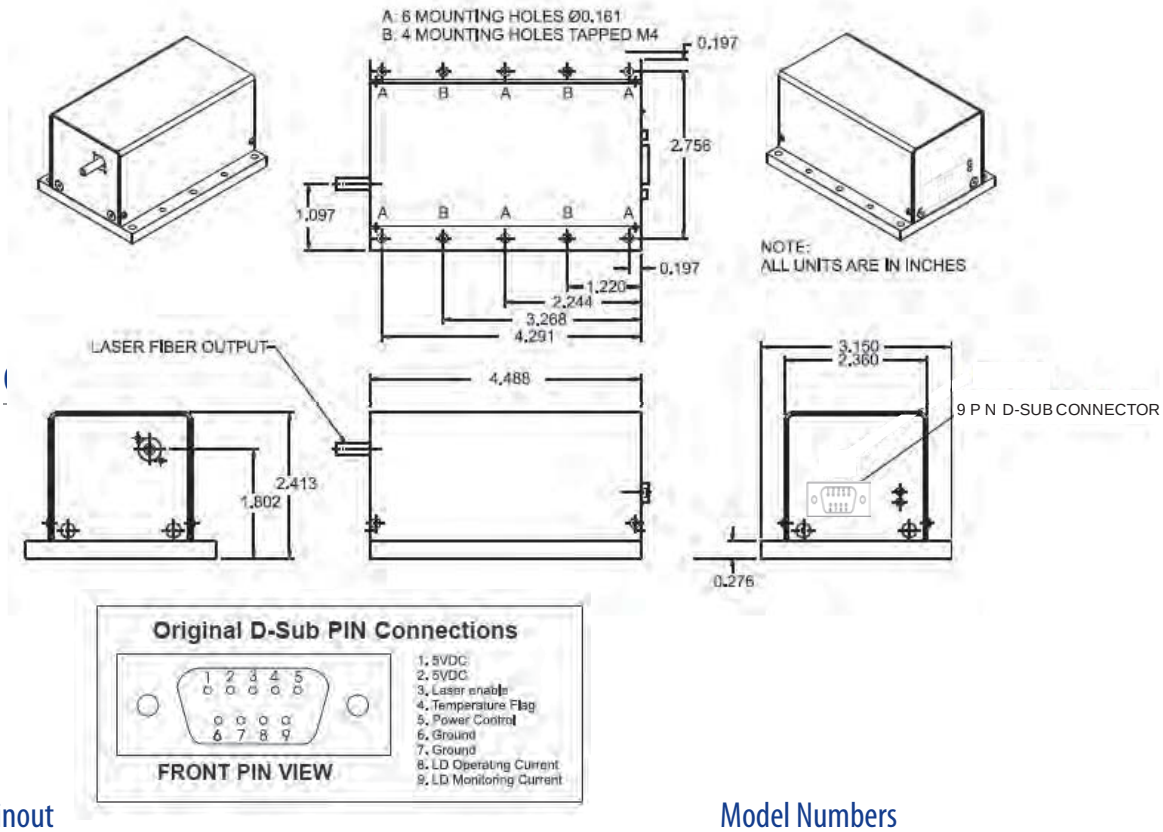
Mechanical Drawing



Pinout

Pin	Description
1	5 VDC
2	5 VDC
3	Laser Enable
4	Temperature Flag
5	Power Control
6	Ground
7	Ground
8	LD Operating Current
9	LD monitoring Current

Note: D-Sub 9 mating connector with dangling wires provided with each unit.

Model Numbers

FCLM-λλλ - PLRXX - M - FF

λ: Wavelength (nm)

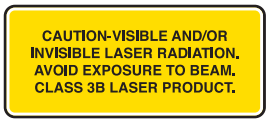
X: Power (mW)

M: Modulation [1]

F: Fiber Type [2]

[1] H = High Speed TTL, 0 = No TTL (Default)

[2] SM = SM Fiber, PM = PM Fiber



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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. Please refer to this data before using the laser.