785 nm FREE SPACE BUTTERFLY PACKAGE

The LuxxMaster® wavelength-stabilized 785nm laser is a free space device packaged in a 14-pin butterfly case. This laser is constructed utilizing PD-LD's patented Volume Bragg Grating® (VBG®) technology. This award-winning technology is used to stabilize and narrow the emission spectra of high-power laser diodes for numerous applications including Raman Spectroscopy, solid-state laser pumping, fiber laser pumping, and other applications requiring a temperature stabilized narrow linewidth high-power laser diode sources.

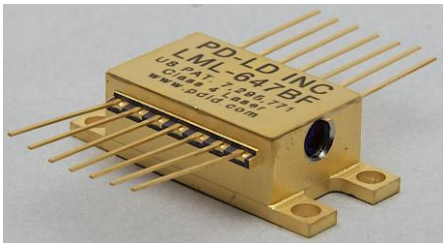


Figure 1: FREE SPACE BUTTERFLY PACKAGE

Major Features:

- ☑ 785 nm
- ☑ λc= ±0.5 nm
- ☑ Line width < 0.15 nm
- ☑ 1500mW free space
- ☑ Simple to use
- ☑ Compact size

OPTICAL & ELECTRICAL SPECIFICATIONS

Parameter	Unit	Minimum	Typical	Maximum
Center Wavelength	nm	784.5	785.0	785.50
Output Power[A]	mW		1500	2000
Peak to Peak Power Stability[B]	%		5	
Operating Voltage	Volts		1.9	2.2
Operating Current	Amps		2.1	2.5
Threshold Current	A		0.4	
Spectral Line width (FWHM)	nm		0.09	0.15
	cm^{-1}		1.3	2.3
Beam Divergence (Fast Axis)	Degrees		0.5	1.0
Beam Divergence (Slow Axis)	Degrees		3.5	4.5
TEC Current	Amps			2
Side mode suppression ratio	dB	40	45	
TEC Voltage	Volts			4
TEC set temperature[C]	°C	20	25	30
NOTES:	*A. Output power can be set to any value up to maximum indicated.* *B. At a set TEC temperature. Based on 100 hrs.* *C. Package must be run with a **SET** TEC temperature. This is the TEC inside the package. Value is expected to be within the range specified. Range does not imply that the TEC can be set to any temperature within the range.*			

Specifications Subject to Change 01/18/17

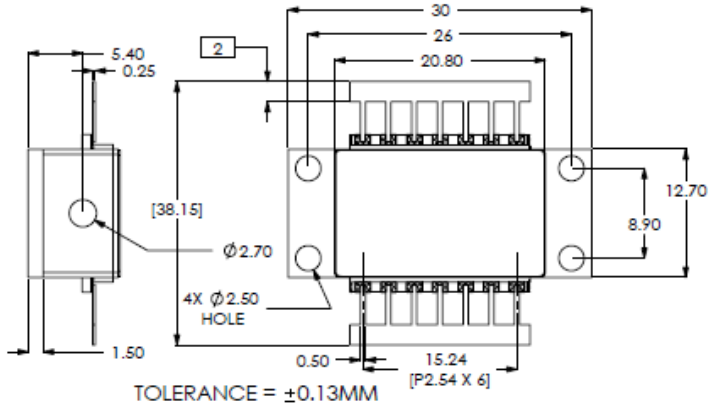
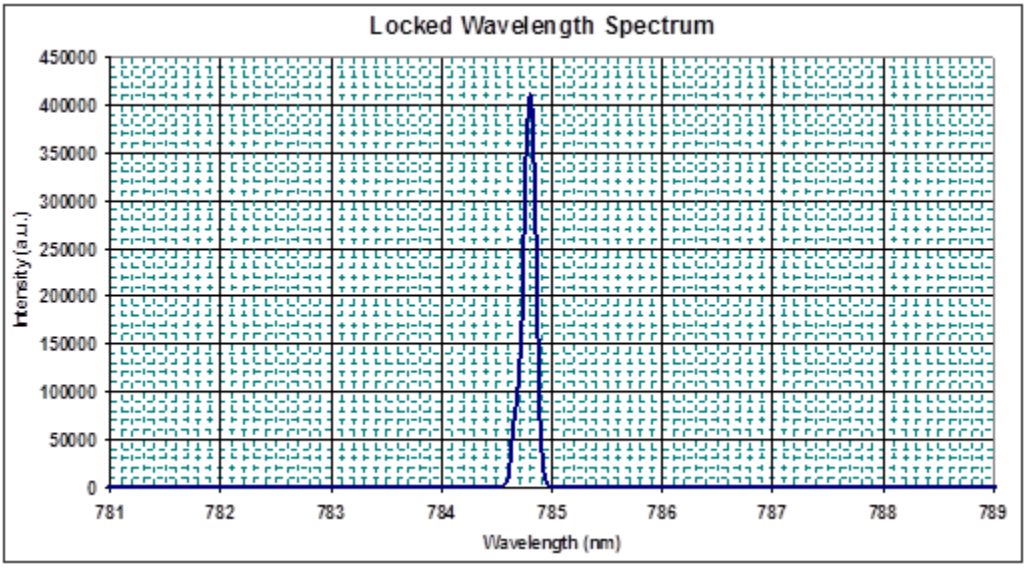


Figure 2: MECHANICAL DIMENSIONS



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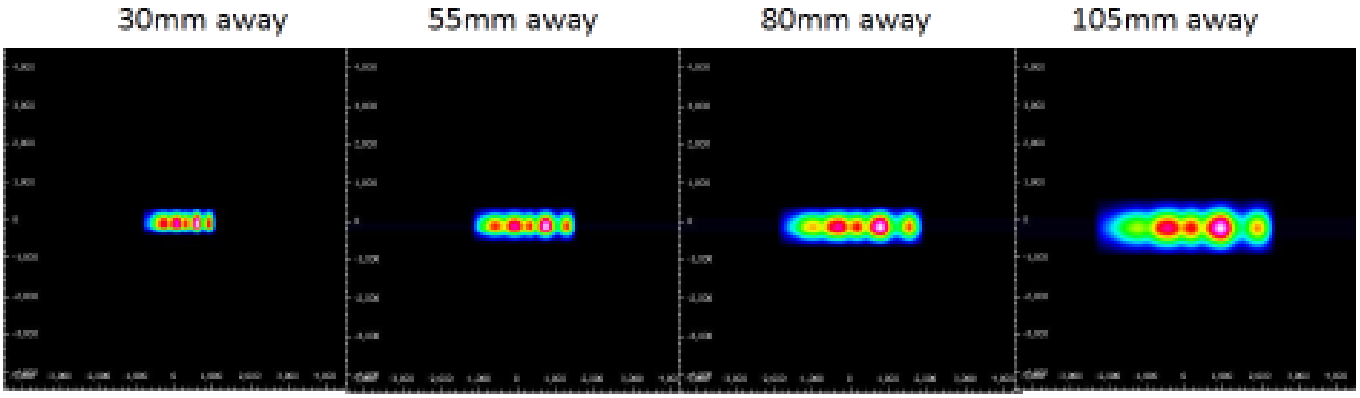
785nm Free Space Butterfly laser Beam Parameters



Position	Horizontal size	Vertical Size
30	3.11394	0.50523
55	4.47803	0.58618
80	5.35554	0.74188
105	5.81368	0.93017

Beam Divergence:
Horizontal: 2.06 deg
Vertical: 0.33 deg

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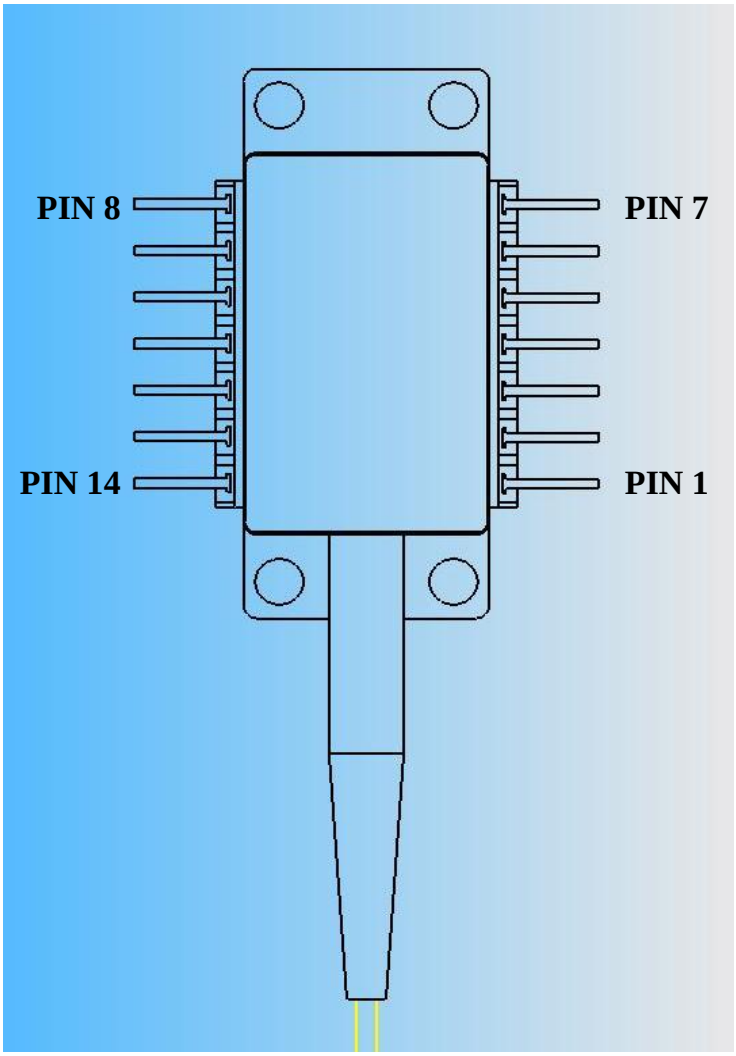
BUTTERFLY PINOUT



Pin 1 – TEC Anode (+)
Pin 2 – Open
Pin 3 – Open
Pin 4 – Open
Pin 5 – Thermistor
Pin 6 – Thermistor
Pin 7 – PD Anode (+)
Pin 8 – PD Cathode (-)
Pin 9 – Laser Cathode (-)
Pin 10 – Laser Anode (+)
Pin 11 – Open
Pin 12 – Open
Pin 13 – Case Ground
Pin 14 – TEC Cathode (-)

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Part Number:

LML-785.0BF-XX

LML refers to Luxxmaster
785.0 is the wavelength
BF refers to Butterfly package
XX – Specific customer reference

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