



## LUXXMASTER® Single Mode Free Space Laser Package

This LuxxMaster® wavelength-stabilized free-space laser is built utilizing PD-LD's patented Volume Bragg Grating® (VBG®) technology. This award-winning technology is used to stabilize and shape the emission spectrum of high power laser diodes for numerous applications including solid-state laser pumping, fiber laser pumping, high-resolution Raman spectroscopy and other applications requiring high-power temperature-stabilized narrow line width laser source.



### Superior Performance:

- Wavelength accuracy:  $\pm 0.5$  nm
- Wavelength stability:  $< 5$  pm
- Line width (FWHM):  $< 1$   $\text{cm}^{-1}$
- Built-in Thermo-Electric Cooler

### Advantages:

- Simple and compact
- Economical

### Applications:

- Raman Spectroscopy
- Sensing
- Military
- Medical

### Optical and Operational Specifications

Parameter	Unit	Minimum	Typical	Maximum
Center Wavelength <sup>A</sup>	nm	784.5	785	785.5
Wavelength Stability <sup>B</sup>	pm			5
Output Power	mW		100	
Output Power Stability <sup>C</sup>	%		1	
Operating Voltage	V	1.9		2.1
Operating Current	A		1	2
Threshold Current	A		0.43	0.5
TEC Current	A			2
TEC Voltage	V			4
Spectral Line Width (FWHM)	nm			0.07
	$\text{cm}^{-1}$			1.13
TEC Set Temperature <sup>D</sup>	°C	10	25	40
Operating Case Temperature	°C	5	25	40
NOTES:	A. Other wavelengths are available. Contact sales.			
	B. Day to day stability at set internal temperature			
	C. Over 8 hours of continuous operation in constant power mode			
	D. This set point is for the TEC inside the package. Package must be run at a specified TEC temperature. Value is expected to be within the range listed here. Quoted temperature range does not imply that the TEC can be set to any temperature within the range.			



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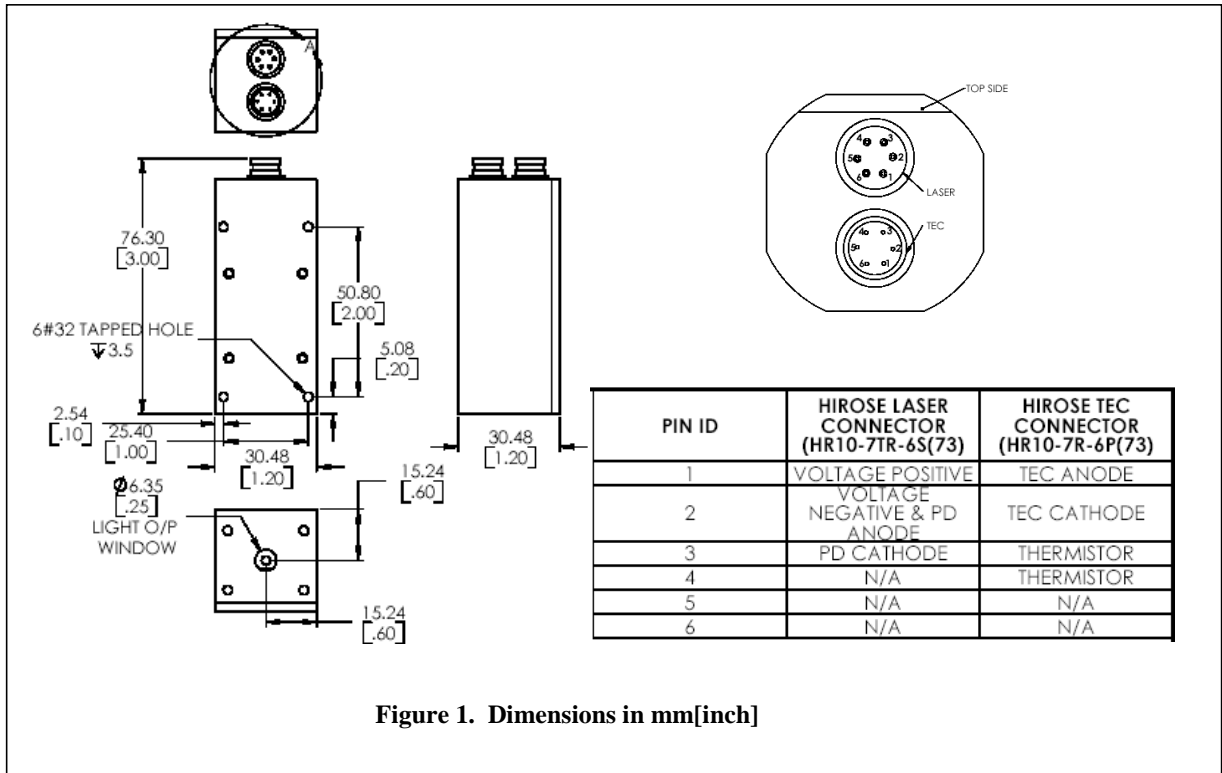
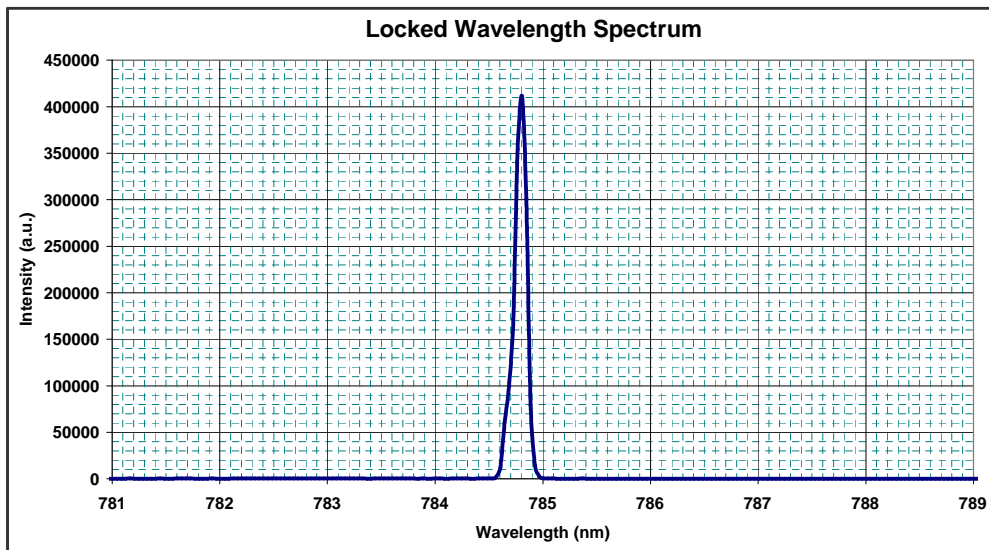


Figure 1. Dimensions in mm[inch]



## Part Number System

LML-\_\_\_-\_\_-BF-XX

- \_\_\_-\_\_ indicates the wavelength.
- BF indicates Butterfly.
- XX is a customer specific reference.



Specifications Subject to Change

12/31/10