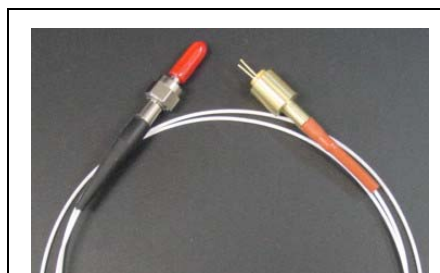


The LML-XXX.XXPT series is a LuxxMaster® wavelength stabilized TO-5 laser that has been fiber-coupled using custom packaging developed by PD-LD. This laser assembly is constructed utilizing PD-LD's patented Volume Bragg Grating® (VBG™). This award winning technology is used to stabilize and narrow the emission spectra of laser diodes for numerous applications including solid-state laser pumping, fiber laser pumping, narrow linewidth Raman Spectroscopy and other applications requiring a temperature stabilized narrow linewidth source. This assembly offers the laser output conveniently coupled into a MM optical fiber for ease of delivering the light where it is needed.



**Figure 1: PIGTAILED TO-5 VBG™ LASER**

**Superior Performance:**

- $\Delta\lambda = \pm 0.5$  nm
- Line Width <0.5nm (FWHM)
- Typically  $5 \text{ cm}^{-1}$

**Advantages:**

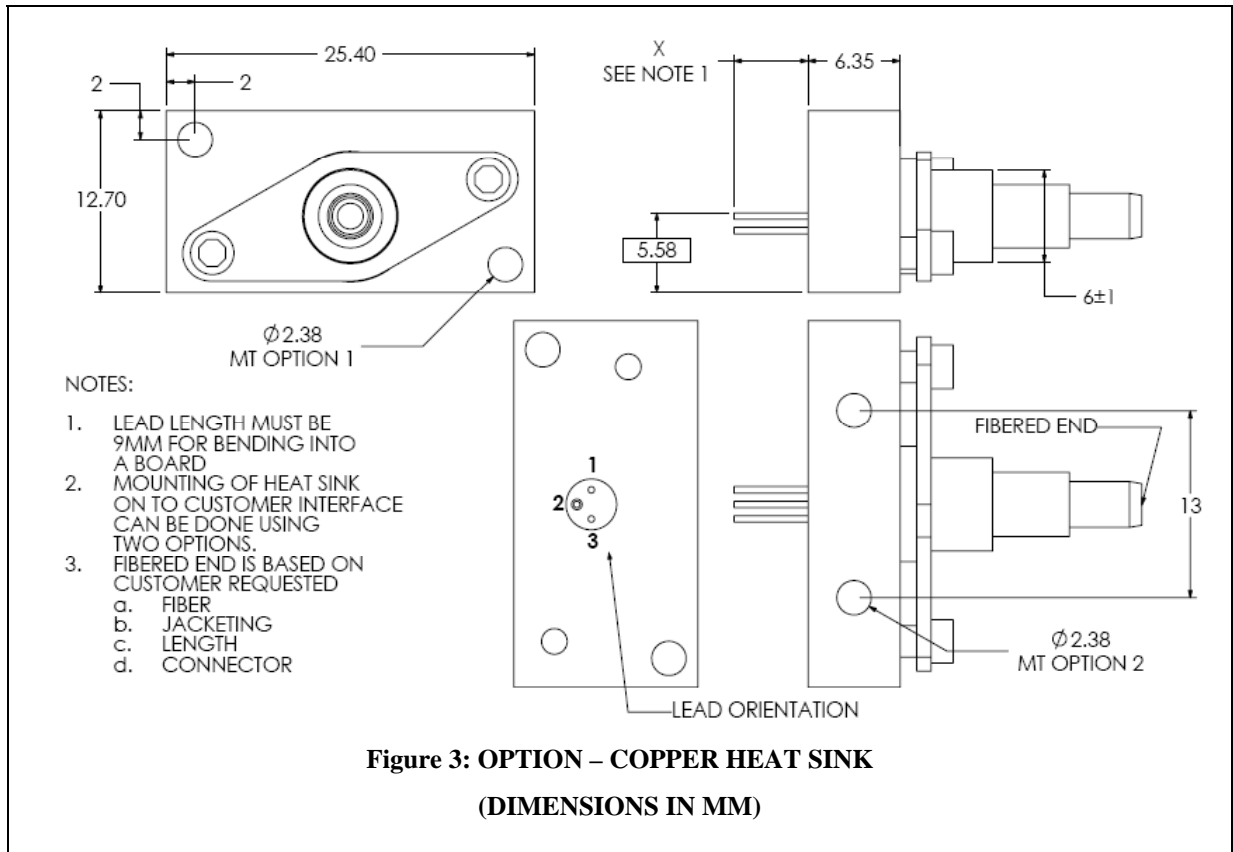
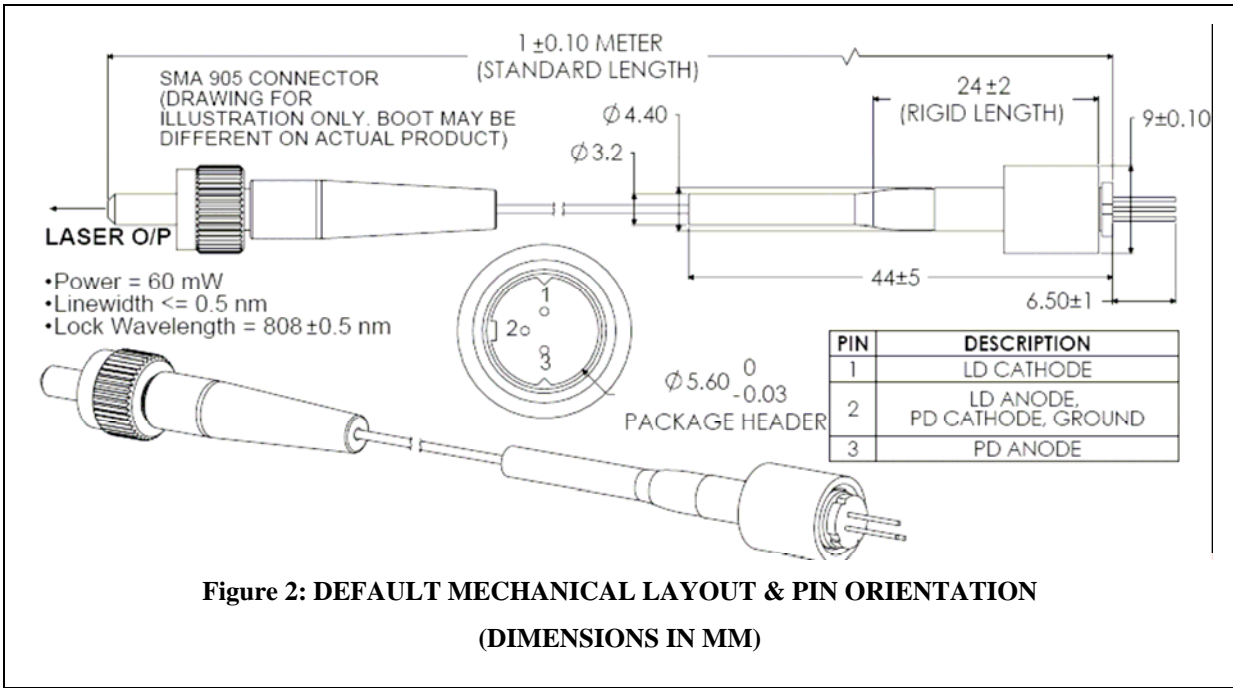
- Simple and compact
- Economical
- Narrow spectral line width

**Applications:**

- Sensing
- Spectroscopy
- Medical
- Military

**Optical and Operational Specifications**

Parameter	Unit	Minimum	Typical	Maximum
Center Wavelength <sup>A</sup>	nm	807.5	808.0	808.5
Output Power	Milliwatts	50	60	70
Operating Voltage	Volts		2.0	2.4
Operating Current	Milliamps		185	240
Threshold Current	Milliamps		50	
Monitor Output Current	Milliamps	0.10	0.5	1.0
Spectral Linewidth (FWHM)	nm		0.3	0.5
Spectral Linewidth (Wavenumbers)	$\text{cm}^{-1}$		4.6	7.7
External TEC Set Temperature <sup>B</sup>	°C	15	25	30
Fiber Type	105 CORE/125 CLADDING/250 JACKET/0.22 na			
Connector Type	SMA 905			
NOTES:	A. Other wavelengths available. Contact sales. FWHM will vary.			
	B. Package must be run at a <b>fixed operating</b> temperature as specified in PD-LD test data accompanying each unit. A TEC is not provided with the package and the user must provide thermal stabilization. The operating temperature value may vary but will be within the specified range.			



WAVELENGTH SPECTRUM OF A TYPICAL 808NM FIBER COUPLED TO-5 VBG LASER

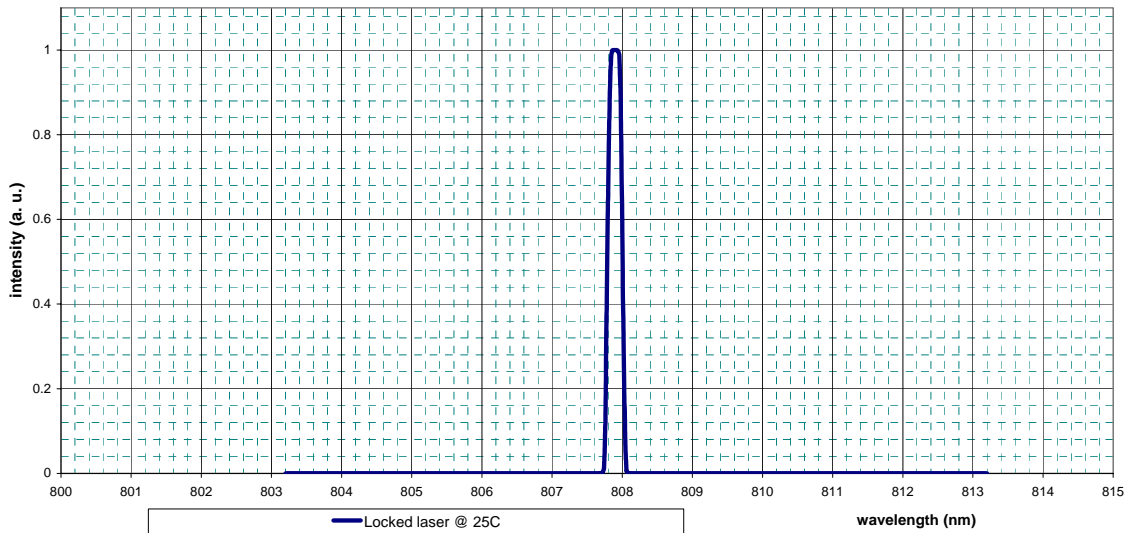


Figure 4: TYPICAL WAVELENGTH SPECTRUM

## Part Number System

### LML-\_\_\_. -PT-XX

- \_\_\_ indicates the wavelength.
- PT indicates fiber coupled TO-5.
- XX is a customer specific reference.

**Example: LML-808.0PT-01.** This is a LuxxMaster® TO-5 Laser with a center wavelength of 808 nm in a fiber coupled PD-LD package.

