

**DATASHEET**

**LUXXMASTER® WAVELENGTH STABILIZED COMPACT RAMAN SOURCE**

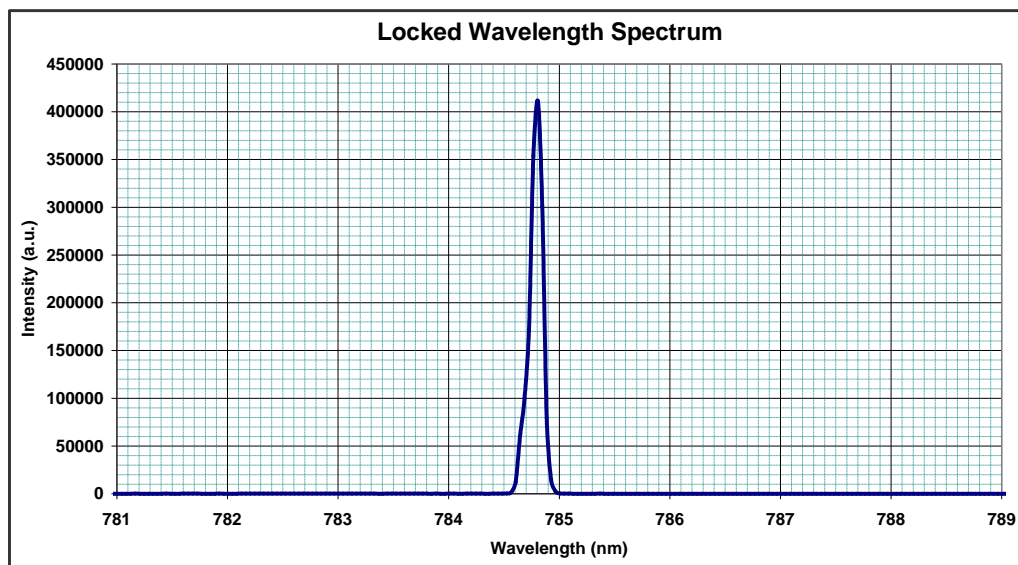
The LuxxMaster® LML series Raman Boxx™ packages PD-LD's award winning LuxxMaster® Volume Bragg Grating® (VBG™) in a rugged box ideally suited for Raman spectroscopy and other narrow linewidth applications. Its small size and simple interface makes the Raman Boxx™ ideal for industrial, military and security applications.



**Figure 1: LUXXMASTER® COMPACT RAMAN BOXX™**

**Major Features:**

- Performance:
  - Custom Wavelengths [785 nm is standard]
  - $\Delta_c = \pm 0.5$  nm
  - Line Width  $1.3$  cm<sup>-1</sup>
  - Thermo Electric Cooler
  - Monitor Photodiode
  - High Power
- Mechanical
  - Simple & Compact
- Cost
  - Economical

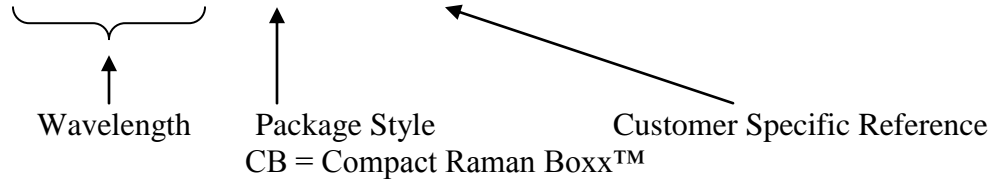


**RAMAN BOXX™ SPECIFICATIONS**

	Other	Min.	Typical	Max.	Units
<b>Electrical Specifications</b>					
DC Input				2A @ 5V	
Warm up Time (from cold start)				10	Seconds
<b>Optical Specifications</b>					
Output Power <sup>A</sup>			500	600	mW
Center Wavelength		784.50	785.00	785.50	nm
Light Mode	Multimode				
Spectral Line Width			0.08	0.10	nm
			1.30	1.70	cm <sup>-1</sup>
Wavelength Stability <sup>B</sup>			± 5		pm
Wavelength Stability <sup>C</sup>			± 5		pm
ASE Suppression (Optical SNR)			40		dB
Optical Power Variations <sup>D</sup>			<1		%pk-pk
Noise			<0.25		%rms
Expected Lifetime			>10000		hrs
<i>Note A</i>	<i>Connector Port Power</i>				
<i>Note B</i>	<i>Over 24 hours with properly stabilized laser</i>				
<i>Note C</i>	<i>Maximum drift due to temperature range and over device lifetime</i>				
<i>Note D</i>	<i>8 hours of continuous operation</i>				
<b>Mechanical Specifications</b>					
Physical Dimensions (L X W X H)	3 x 2.5 x 0.7				inch
Thermal Management	Laser TEC controlled				
Fiber Core Diameter			105		um
Fiber NA			0.22		
Connector Type	FC/PC				
Weight			100		grams
<b>Environmental Specifications</b>					
Ambient Temperature		0		50	°C
Humidity (non-condensing)		5		95	%

**Part Number System**

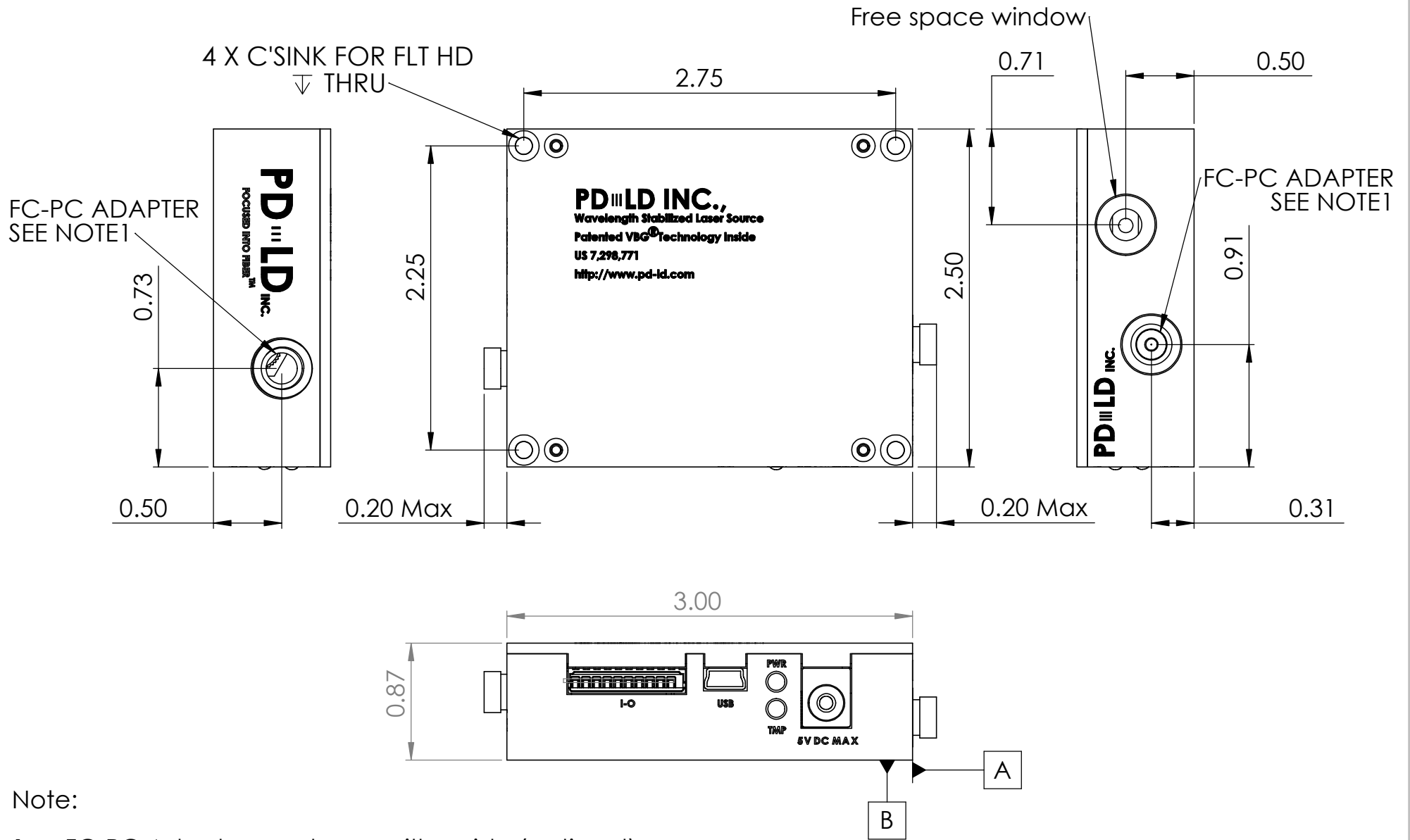
**LML-785.0CB -10**



This is a LuxxMaster® Raman Boxx™ with a center wavelength of 785nm.

*For enquiries/quote contact PDL D Inc.,  
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# BLUE BOXX MECHANICAL DRAWING



Note:

1. FC-PC Adapter can be on either side (optional)
2. Beam's axis pointing error <math>< 0.5^\circ</math> to the A and B