



Diode Lasers

# PLM Series

COMPACT POWER STABILIZED  
SINGLE-MODE SERIES—Red & NIR Wavelengths



Key Performance Features	Applications
<ul style="list-style-type: none"> <li>• Ultra-Stable Power Output</li> <li>• Compact Single Box Design</li> <li>• Low Power Consumption</li> <li>• Several Wavelengths Available</li> <li>• Free-space or Fibered Outputs</li> </ul>	<ul style="list-style-type: none"> <li>• Raman Excitation Source</li> <li>• Flow Cytometry</li> <li>• Semiconductor Processing</li> <li>• Real-time Process Control</li> <li>• Metrology</li> </ul>

Center Wavelength	633 nm ±3 nm	637 nm ±5 nm	660 nm ±5 nm	785 nm ±10 nm
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	Units	633 nm	637 nm	660 nm	785 nm
<b>Operating Specifications</b>					
Free-Space Output Power	mW	90	6	110	110
Fibered Output Power*	mW	35	3	45	45
Spectral linewidth (typical)	nm	1-2			
Wavelength stability (over 8 hours)	nm	±1			
Optical power stability (over 8 hours)**	% pk-pk	<2			
Noise (10Hz-100MHz)	% rms	0.2			
Adjustable Output Power		5-100%			

\*See ordering information for options. Power value given for SMF version.  
\*\*APC mode

	Units	633 nm	637 nm	660 nm	785 nm
<b>Free Space Optical Specifications</b>					
Beam quality (m <sup>2</sup> typical) vertical		1.2			
Beam quality (m <sup>2</sup> typical) horizontal		1.1			
Beam size vertical	mm	1.2	2.4	1.2	1.2
Beam size horizontal	mm	0.6	0.6	0.8	0.6
Beam aspect ratio		2	4	1.5	2
Beam divergence—vertical	mrad	0.8	0.5	0.8	0.8
Beam divergence—horizontal	mrad	1.3			
Beam pointing stability (over 8 hours)	μrad	<50			
Beam pointing accuracy	degrees	1			
Polarization ratio	linear	100:1			

	Units	Value
<b>Electrical Specifications</b>		
DC input (max)		2.1A @ 3.3V
Warm-up time (typical)	sec	10
Power consumption (typical/max)	W	< 7
Interface—USB & 10-pin I/O connectors		

	Units	Value
<b>Environmental Specifications</b>		
Case temperature*	°C	10-40
Humidity (non-condensing)	%	5-95

\*Must be operated on a heat sink

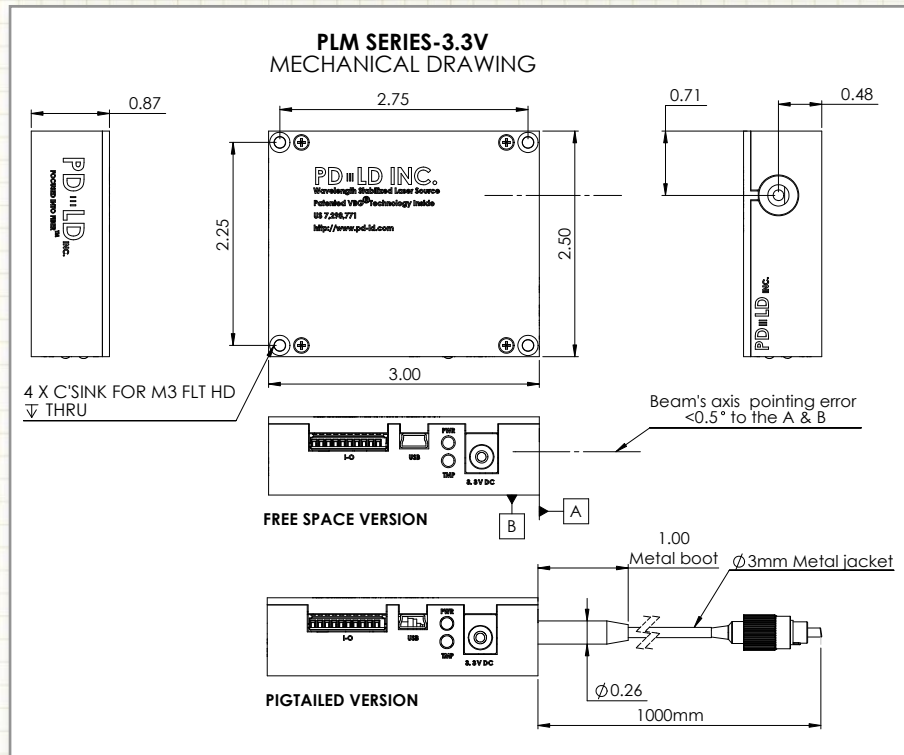


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Weight = 134 grams    Size = 86 cm<sup>3</sup> (5.25 in<sup>3</sup>)



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## Ordering Information

Part Number	Fiber Type	Wavelengths Available
PLM-XXX.X-SMF	4.3µm MFD	633, 637 and 660 nm
PLM-XXX.X-SMF	5.3µm MFD	785 nm
PLM-XXX.X-PMF	4.3µm MFD PANDA	633, 637 and 660 nm
PLM-XXX.X-PMF	5.3µm MFD PANDA	785 nm
PLM-XXX.X-MMF	50, 62.5 and 105µm MMF	All
PLM-XXX.X-FS	(Free-space)	All

Part Number System: **PLM - XXX.X - XXX**

A diagram showing the part number system with brackets under the 'XXX.X' and 'XXX' portions of the example 'PLM - XXX.X - XXX'. The first bracket is labeled 'Specific Wavelength' and the second is labeled 'Fiber Type or Free-space'.  
Specific Wavelength      Fiber Type or Free-space