



Diode Lasers

# PLM Series

COMPACT POWER STABILIZED  
SINGLE-MODE SERIES—Blue & Green 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 (+/-5)	405 nm	488 nm	515 nm	520 nm

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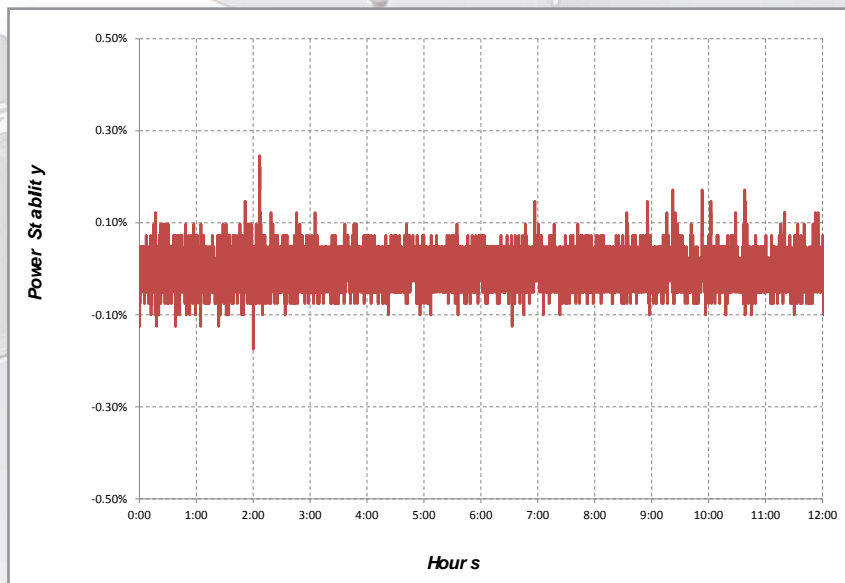


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Units	405 nm	405 nm	488 nm	515 nm	520 nm
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Operating Specifications						
Free-Space Output Power	mW	10	150	50	25	45
Fibered Output Power*	mW	—	—	—	8	15
Spectral linewidth (typical)	nm	1-2				
Wavelength stability (over 8 hours)	nm	±1				
Optical power stability (over 8 hours)**	% pk-pk	<0.4				
Noise (10Hz-100MHz)	% rms	0.2				
Adjustable Output Power		10-90%				

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



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Operating Specifications						
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	1.2	1.8	1.8	1.8
Beam size horizontal	mm	0.6	0.6	0.6	0.6	0.6
Beam aspect ratio		2	2	3	3	3
Beam divergence—vertical	mrad	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				



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	Units	Value
<b>Electrical Specifications</b>		
DC input 1		0.5A @ 9V
DC input 2		2A @ 3.3V
Warm-up time (typical)	sec	10
Power consumption (typical/max)	W	< 12
Interface—USB & 10-pin I/O connectors		

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

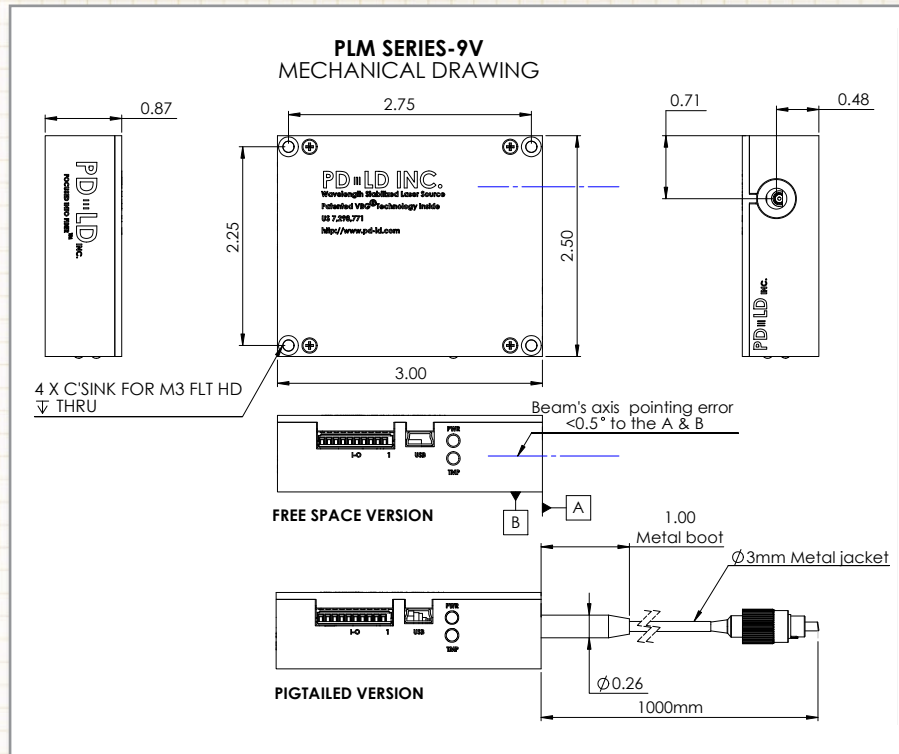
\*Must be operated on a heat sink

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Weight = 134 grams    Size = 86 cm<sup>3</sup> (5.2 in<sup>3</sup>)



### Ordering Information

Part Number	Fiber Type	Wavelengths Available
PLM-XXX.X-SMF	3.5 $\mu$ m MFD	514, 520 nm
PLM-XXX.X-PMF	3.5 $\mu$ m MFD PANDA	514, 520 nm
PLM-XXX.X-MMF	50, 62.5 & 105 $\mu$ m MMF	All
PLM-XXX.X-FS	(Free-space)	All

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

Specific Wavelength    Fiber Type or Free-space