



### Laser Engine

High Power Multi-Mode SemiNex Lasers  
 12xx to 19xx nm  
 Custom Wavelengths Available  
 Low Cost Packaging

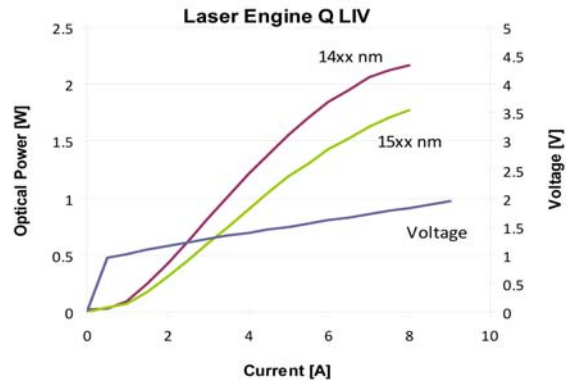
**Applications**

- OEM Medical
- Consumer Medical
- LiDAR
- Range Finding
- Research and Development
- Military / Aerospace

**Features**

- Cost effective
- High Output Power
- High Dynamic Range
- High Efficiency
- Standard Low Cost Package
- "P" and "Q" Packages Available
- Designed for Volume Applications
- Fast axis collimated <2 degrees with f=7.7mm lens.

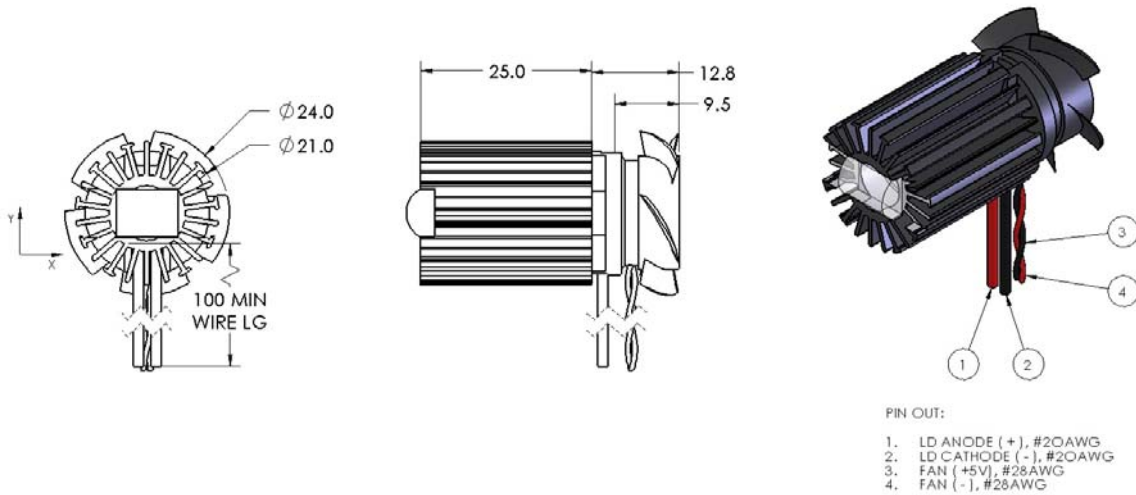
SemiNex delivers the highest available power at infrared wavelengths between 12xx and 19xx nm. When necessary we will further optimize the design of our InP laser chips to meet our customers' specific optical and electrical performance needs. Diodes, bars and packages are tested to meet customer and market performance demands. Typical results and packaging options are shown. Contact SemiNex for additional details or to discuss your specific requirements. Fast axis collimated <2 degrees with f=7.7mm lens.



Laser Engine Q

	Symbol	LEQ-121-172	Units
<b>Optical</b>			
Center Wavelength	$\lambda_c$	1465	nm ( $\pm 20$ )
Output Power (CW)	P	2.00	watts ( $\pm 10\%$ )
Spectral Width	$\delta\lambda$	10	nm 3dB
X Axis Divergence**	$\theta_X$	2	deg FWHM
Y Axis Divergence**	$\theta_Y$	10	deg FWHM
<b>Electrical</b>			
Power Conversion Eff.	$\eta$	21.00	%
Threshold Current	$I_{th}$	0.5	A
Operating Current Max*	$I_{op}$	8	A
Operating Voltage	$V_{op}$	1.4	V
Series Resistance	$R_s$	0.1	ohm
<b>Fan</b>			
Voltage (DC)	VDC	5	VDC
Power	watts	0.4	W
Air Flow	CFM	3	CFM
<b>Mechanical</b>			
Weight		17	g
Operating Temp.		-40 to 60	$^{\circ}$ C
Storage Temp.		-40 to 80	$^{\circ}$ C

Specified values are rated at a constant heat sink temperature of 20°C.  
 \*\*Specified operating conditions are based on 20C heat sink temperature. High temperature operation will reduce performance and MTTF.  
 Unless otherwise indicated all values are nominal.  
 \*\* Divergence is dependent on lens used. It is customized to meet customer requirements.



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