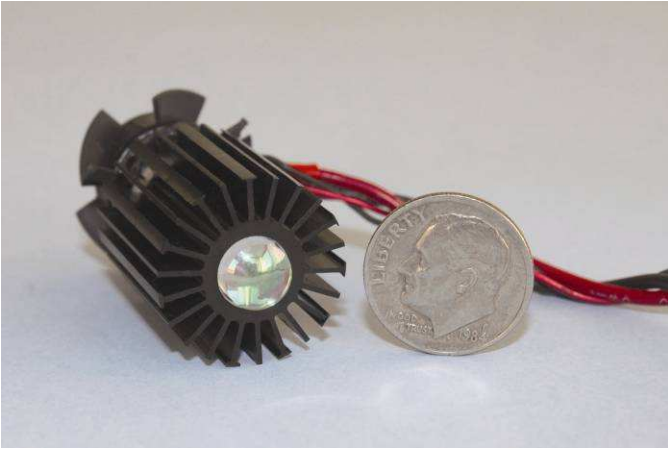




High Power Multi-Mode SemiNex Laser  
 2 Watts of Continuous Operation Power  
 808, 1470, 1532, or 1550 nm Wavelength  
 Laser Engine Packaging



SemiNex delivers the highest available CW power at infrared wavelengths in a low-cost package with integrated cooling and optical lensing. SemiNex will optimize the design of its laser chips and packaging to meet customers' optical, electrical, and mechanical performance specifications. Typical results and packaging options are shown below. Contact SemiNex for additional details or to discuss your application.

**Key Features**

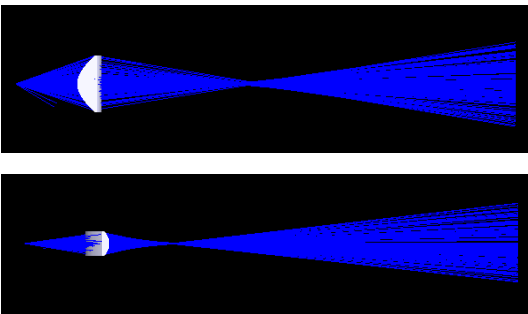
- Ultra low-cost assembly
- Ultra-high volume capability
- High output power
- High dynamic power range
- High efficiency
- Custom packaging

**Applications**

- Medical laser equipment
- Home Laser Applications

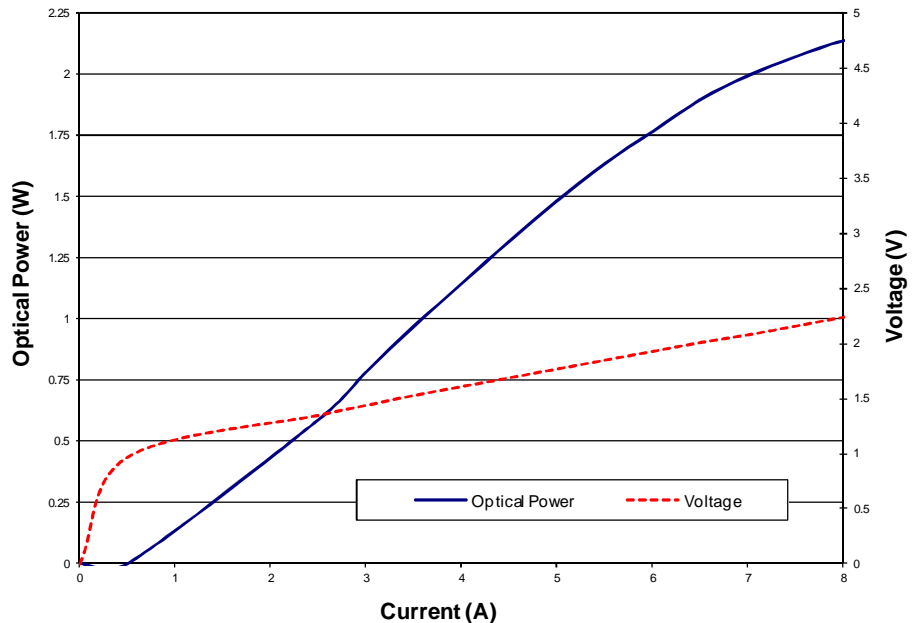
**Optical Design**

- Designed to suite customer needs
- Collimated, converging, or diverging beam profiles available per customer requirements. (examples shown below)

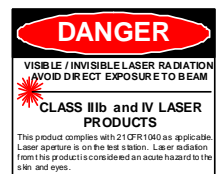


	Symbol	Typical	Units
<b>Optical</b>			
Output Power (CW)	$P_o$	1.5 - 4	watts
Center Wavelength Range	$\lambda_c$	808, 1470, 1532, 1550	nm
Spectral Width	$\Delta\lambda$	10	nm 3dB
X Axis Divergence	$\theta\_X$	6	deg FWHM
Y Axis Divergence	$\theta\_Y$	7	deg FWHM
Wavelength Temp. Coeff.	$\lambda_{coef}$	0.7	nm/C
<b>Electrical</b>			
Power conversion Efficiency	$\eta$	0.15 - 0.4	W/W
Threshold Current	$I_{th}$	0.5	A
Operating Current	$I_{op}$	5 - 6.5	A
Operating Voltage	$V_{op}$	1.5 - 2	V
Series Resistance	$R_s$	0.05	ohm

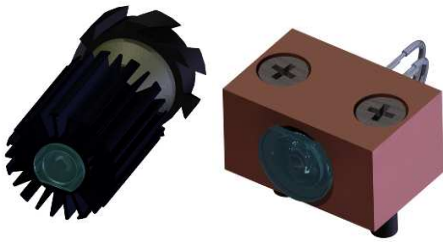
**Typical CW LIV Optical Power Chart**



**SemiNex Corporation**  
 100 Corporate Place  
 Suite 401  
 Peabody, MA 01960  
 Phone: 978-278-3550  
 Email: [info@seminex.com](mailto:info@seminex.com)  
 Web site: [www.seminex.com](http://www.seminex.com)



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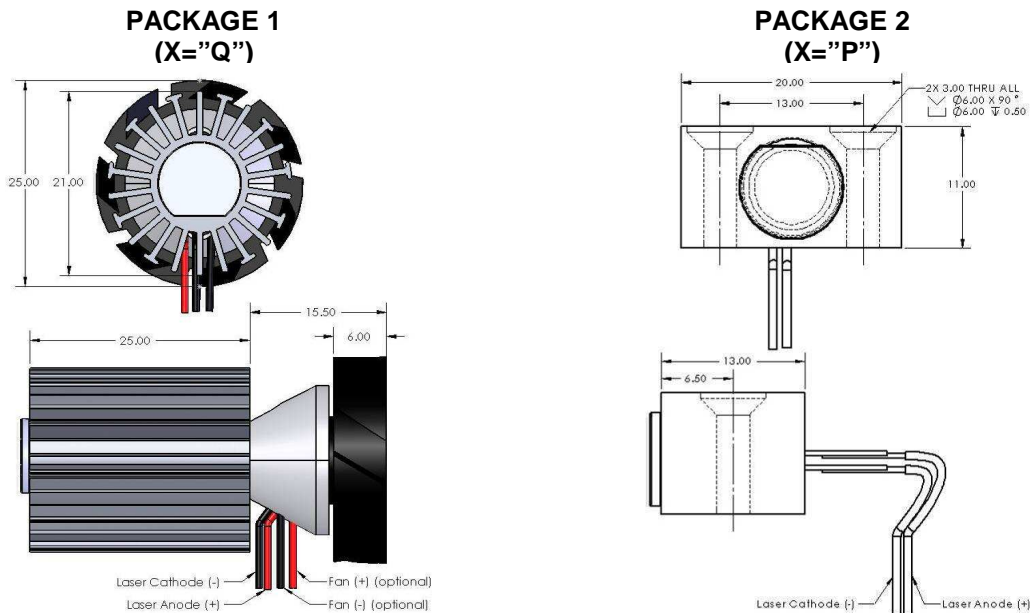


	Symbol	LE-1470-6-X	LE-1532-6-X	LE-1550-6-X	LE-808-6-X	Units
<b>Optical</b>						
Output power (CW)	$P_o$	2	1.5	1.5	4	W
Center Wavelength	$\lambda_c$	1470	1532	1550	808	nm
Spectral Width	$\Delta\lambda$	10	10	10	10	nm 3dB
X Axis Divergence*	$\theta_X$	6	6	6	6	deg FWHM
Y Axis Divergence*	$\theta_Y$	7	7	7	7	deg FWHM

<b>Electrical</b>						
Power conversion Efficiency	$\eta$	0.18	0.15	0.15	0.4	W/W
Threshold Current	$I_{th}$	0.5	0.5	0.5	0.5	A
Operating Current	$I_{op}$	6.5	6.5	6.5	5	A
Operating Voltage	$V_{op}$	1.8	1.5	1.5	2	V
Series Resistance	$R_s$	0.05	0.05	0.05	0.07	ohm

<b>Fan (Optional)</b>						
Voltage (DC)	VDC	5	5	5	5	VDC
Power	watts	0.4	0.4	0.4	0.4	W
Air Flow	CFM	3	3	3	3	CFM

\* Divergence is dependent on the lens used. This can be customized to meet customer requirements.



NOTE: Dimensions are in mm

**SemiNex Corporation**  
 100 Corporate Place  
 Suite 401  
 Peabody, MA 01960  
 Phone: 978-278-3550  
 Email: [info@seminex.com](mailto:info@seminex.com)  
 Web site: [www.seminex.com](http://www.seminex.com)

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