

### 4CM Packaged Laser Diode PRELIMINARY

High Power Multi-Mode SemiNex Lasers  
12xx to 19xx nm  
Custom Wavelengths Available  
Fiber Coupled

**Applications**

- Medical
- Thermal Processing
- DPSS Pump Lasers

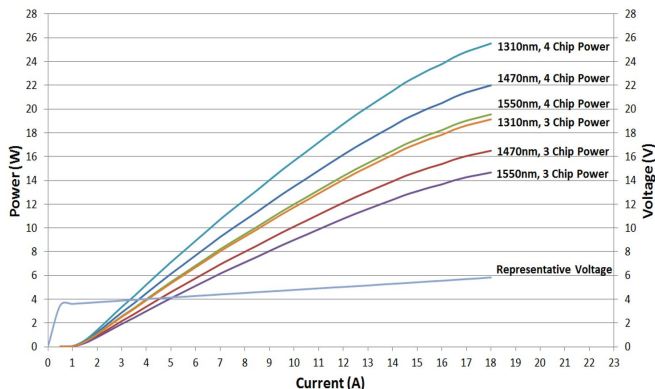
**Features**

- 1470nm wavelength
- Custom Wavelengths Available
- Red Aiming Beam
- Thermistor
- Monitor Photodiode

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.



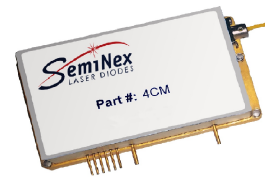
4CM LIV





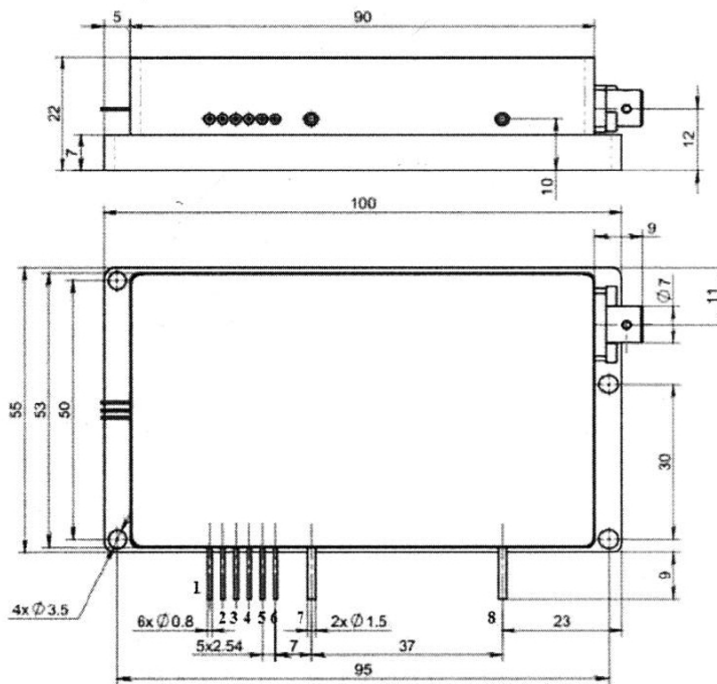


4CM



	Symbol	4CM-111	Units
<b>Optical</b>			
Center Wavelength	$\lambda_c$	1310	nm ( $\pm 20$ )
Output Power (CW)	$P_o$	21.00	watts ( $\pm 10\%$ )
Spectral Width	$\delta\lambda$	20	nm 3dB
Slope Efficiency	$\eta_s$	1.2	W/A
Optical Fiber Core Dia.	$\eta_c$	400	$\mu\text{m}$
Optical Fiber NA		0.22	
Fiber Length		1.5	meters
Connector		SMA905	
<b>Electrical</b>			
Power Conversion Eff.	$\eta$	25.00	%
Threshold Current	$I_{th}$	1.2	A
Operating Current	$I_{op}$	14	A
Operating Voltage	$V_{op}$	5.4	V
Lead Soldering Temp.	$^{\circ}\text{C}$	250	$^{\circ}\text{C}$
<b>Aiming Beam</b>			
Output Power	$P_a$	2	mW
Wavelength	$\lambda_a$	635	nm
Operating Current**	$I_{op}$	50	mA
Voltage Limit	$V_{max}$	5	V
<b>Mechanical</b>			
Weight		550	g
Operating Temp.**		-40 to 60	$^{\circ}\text{C}$
Storage Temp.		-40 to 80	$^{\circ}\text{C}$
<b>Thermistor</b>			
Thermistor Constant	$\beta$	3477	$\beta$
Thermistor Resistance	R	10000	K ohm

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.



Pins	Function
1	PD ( P ) *
2	PD ( N ) *
3	Red Aim ( + )
4	Red Aim ( - )
5	Thermistor*
6	Thermistor*
7	LD ( - )
8	LD ( + )

All statements, technical information and recommendations related to the product herein are based upon information believed to be reliable or accurate. The accuracy or completeness herein is not guaranteed, and no responsibility is assumed for any inaccuracies. The user assumes all risks and liability whatsoever in connection with the use of a product or its application. SemiNex Corporation reserves the right to change at any time without notice the design, specification, deduction, fit or form of its described herein, including withdrawal at any time of a product offered for sale herein. Users are encouraged to visit [www.seminex.com](http://www.seminex.com) for the latest data. SemiNex Corporation makes no representations that the products herein are free from any intellectual property claims of others. Please contact SemiNex for more information. © 2016 SemiNex Corporation

SemiNex Corporation • 153 Andover St • Danvers, MA 01923 • 978-326-7700 • Email: [info@seminex.com](mailto:info@seminex.com) • [www.seminex.com](http://www.seminex.com)

Date Created: Nov 30 2023 10:06PM UTC

