

4CM Packaged Laser Diode

High Power Multi-Mode SemiNex Lasers
10 to 15.5 Watts of CW Power in a single fiber at 1470 nm

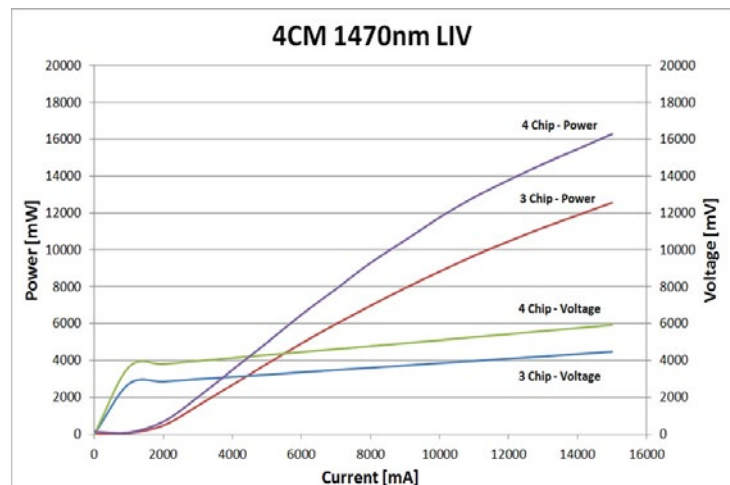
Applications

- Medical
- Thermal Processing
- DPSS Pump Lasers

Features

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

SemiNex delivers the highest available power at infrared wavelengths between 13xx and 17xx 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



	Symbol	4CM-109	4CM-111	4CM-103	4CM-104	4CM-105	4CM-107	Units
Optical								
Center Wavelength	λ_c	1320	1320	1480	1480	1580	1580	nm (± 20)
Output Power (CW)	P-	13.0	15.5	11.5	14.0	10.5	13.0	watts
Spectral Width	$\delta\lambda$	20	20	10	20	20	20	nm 3dB
Slope Efficiency	η_s	1.13	1.5	1.1	1.1	1	1	W/A
Optical Fiber Core Dia.	η_f	400	400	400	400	400	400	μm
Optical Fiber NA		0.22	0.22	0.22	0.22	0.22	0.22	
Fiber Length		1.5	1.5	1.5	1.5	1.5	1.5	meters
Connector		SMA905	SMA905	SMA905	SMA905	SMA905	SMA905	
Electrical								
Power Conversion Eff.	η	28.00	25.00	25.00	23.00	22.00	21.00	%
Threshold Current	I_{th}	0.9	0.9	0.9	0.9	1	1	A
Operating Current	I_{op}	14	14	14	14	14	14	A
Operating Voltage	V_{op}	4.4	5.8	4.4	5.8	4.6	5.8	V
Series Resistance	R_s	0.13	0.2	0.13	0.17	0.13	0.17	ohm
Lead Soldering Temp.	$^{\circ}\text{C}$	250	250	250	250	250	250	$^{\circ}\text{C}$
Aiming Beam								
Output Power	P_a	2	2	2	2	2	2	mW
Wavelength	λ_a	635	635	635	635	635	635	nm
Operating Current**	I_{op}	50	50	50	50	50	50	mA
Voltage Limit	V_{max}	5	5	5	5	5	5	V
Mechanical								
Weight		550	550	400	400	550	550	g
Operating Temp.		10 to 30	10 to 30	10 to 30	10 to 30	10 to 30	10 to 30	$^{\circ}\text{C}$
Storage Temp.		-20 to 80	-20 to 80	-20 to 80	-20 to 80	-20 to 80	-20 to 80	$^{\circ}\text{C}$
Thermistor								
Thermistor Constant	β	3477	3477	3477	3477	3477	3477	β
Thermistor Resistance	R	10000	10000	10000	10000	10000	10000	K ohm

Specified values are rated at a constant heat sink temperature of 20°C

