

4 Pin Laser Module

High Power Multi-Mode SemiNex Lasers
3.8 Watts of CW Power in a single fiber
1320, 1375, 1450, 1470, 1550 and 1560 nm
Custom Wavelengths Available

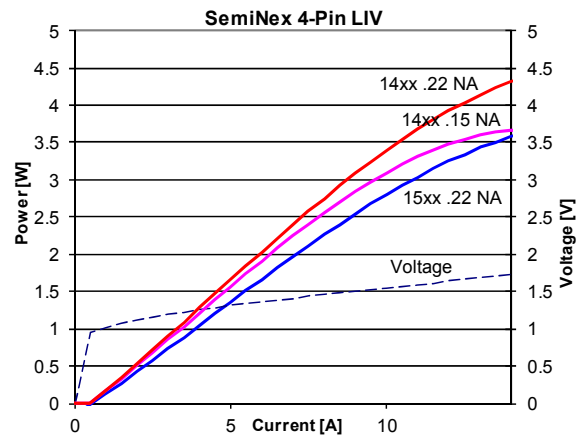
Features

- High output power
- High dynamic power range
- High efficiency
- Standard low cost package

Applications

- Medical laser equipment
- LIDAR
- Free space optical communication
- DPSS pump lasers
- Military / Aerospace

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



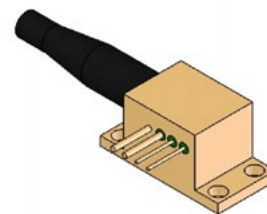
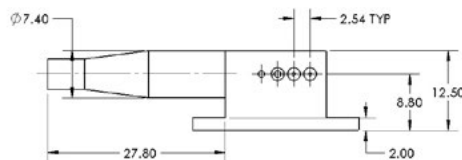
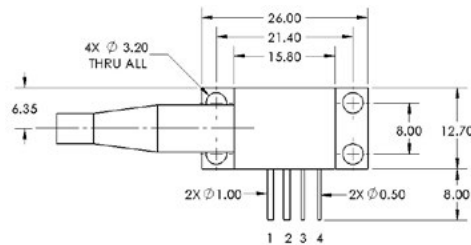
701-920-002- Rev. 2



4 Pin Laser Module

	Symbol	4PN-116	4PN-117	4PN-101	4PN-106	4PN-104	4PN-108	4PN-109	Units
Optical									
Wavelength	λ_c	1320	1375	1450	1470	1470	1550	1560	nm (+/- 20)
Output power (CW)	P_o	4.7	4.7	3.8	3.4	3.8	3.3	3.3	watts
Spectral Width	$\Delta\lambda$	10	10	10	10	10	10	10	nm 3dB
Slope Efficiency	η_o	0.44	0.40	0.35	0.30	0.35	0.30	0.30	W/A
Optical Fiber Core Dia.		105	105	105	105	105	105	105	μ m
Optical Fiber NA		0.22	0.22	0.22	0.15	0.22	0.22	0.22	
Electrical									
Power conversion Eff.	η	0.22	0.20	0.20	0.16	0.20	0.17	0.17	%
Threshold Current	I_{th}	0.6	0.6	0.6	0.6	0.6	0.6	0.6	A
Operating Current	I_{op}	13	12	12	12	12	12	12	A
Operating Voltage	V_{op}	1.7	1.6	1.6	1.6	1.6	1.7	1.7	V
Series Resistance	R_s	0.05	0.06	0.05	0.05	0.05	0.05	0.05	ohm
Lead Soldering Temp.	$^{\circ}$ C	250	250	250	250	250	250	250	$^{\circ}$ C
Mechanical									
Weight		25	25	25	25	25	25	25	grams
Operating Temp.		10 to 30	10 to 30	10 to 30	10 to 30	10 to 30	10 to 30	10 to 30	$^{\circ}$ C
Storage Temp.		-20 to 80	-20 to 80	-20 to 80	-20 to 80	-20 to 80	-20 to 80	-20 to 80	$^{\circ}$ C
Fiber Length		1.5	1.5	1.5	1.5	1.5	1.5	1.5	meters
Connector		SMA-905	SMA-905	SMA-905	SMA-905	SMA-905	SMA-905	SMA-905	
		PD Stand.	PD Stand.	PD Stand.	Thermistor	PD Stand.	PD Stand.	PD Stand.	

Specified values are rated at a constant heat sink temperature of 20 $^{\circ}$ C

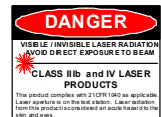


PLEASE NOTE: The 4 Pin laser package is **not** electrically isolated. The package body is the anode connection. Care should be taken in mounting and installation.

PIN OUT: (FOR REFERENCE ONLY, REFER TO DOCUMENTATION SUBMITTED WITH PRODUCT FOR ACTUAL PIN OUT)

1. LD ANODE (+)
2. LD CATHODE (-)
3. PD (-)
4. PD (+)

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