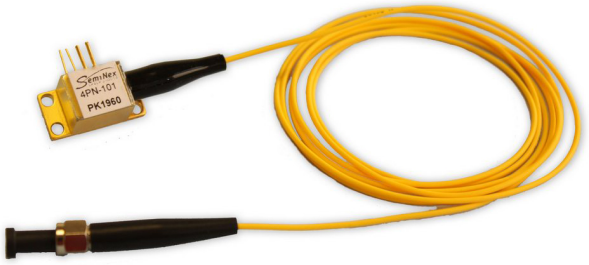
4-pin Fiber Coupled

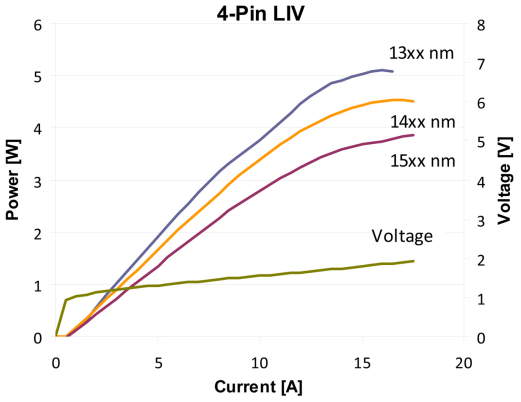
High Power Multi-Mode SemiNex Lasers
12xx to 19xx nm
Custom Wavelengths Available

Applications
- OEM Medical
- DPSS pump source
- LiDAR
- Free Space Communications
- Military / Aerospace

Features
- Cost effective
- High Output Power
- High Dynamic Range
- High Efficiency
- Standard Low Cost Package
- Designed for Volume Applications



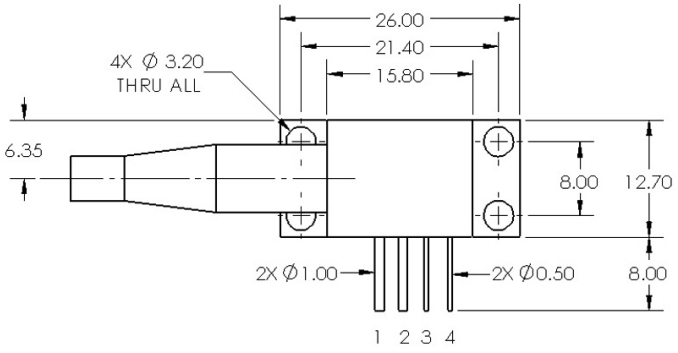
SemiNex delivers the highest available power at infrared wavelengths between 12xx and 19xx nm. When necessary we will further optimize the design of our InP laser chips to meet our customers' specific optical and electrical performance needs. Diodes, bars and packages are tested to meet customer and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

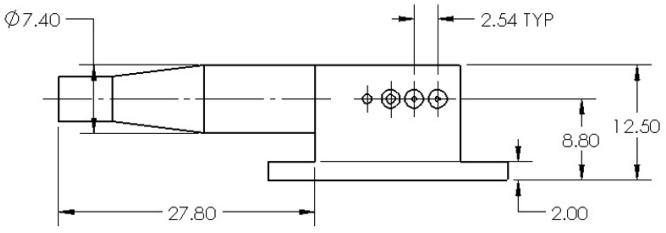


4 Pin Laser Module

	Symbol	4PN-151	4PN-116	4PN-117	4PN-101	4PN-103	4PN-104	4PN-127	4PN-134	4PN-108	4PN-109	Units
Optical												
Wavelength	λ_c	1270	1320	1375	1460	1480	1480	1480	1480	1550	1565	nm (±20)
Output Power (CW)	P_o	3.80	4.50	4.30	4.00	5.00	3.80	3.40	5.00	3.30	3.30	watts
Spectral Width	δλ	10	10	10	10	15	10	10	15	10	10	nm 3dB
Slope Efficiency	η_e	0.3	0.44	0	0	0	0.35	0.3	0	0.3	0.3	W/A
Optical Fiber Core Dia.	η_e	105	105	105	105	200	105	105	200	105	105	µm
Optical Fiber NA		0.22	0.22	0.22	0.22	0.22	0.22	0.15	0.22	0.22	0.22	
Electrical												
Power Conversion Eff.	η	15.00	20.00	22.00	21.00	21.00	19.00	16.00	21.00	16.00	16.00	%
Threshold Current	I_{th}	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	A
Operating Current	I_{op}	12	13	12	12	17	12	12	17	12	12	A
Operating Voltage	V_{op}	1.7	1.7	1.6	1.6	1.6	1.7	1.7	1.6	1.7	1.7	V
Series Resistance	R_s	0.06	0.06	0.06	0.06	0.04	0.07	0.07	0.04	0.07	0.07	ohm
Lead Soldering Temp.	°C	250	250	250	250	250	250	250	250	250	250	°C
Mechanical												
Weight		25	25	25	25	25	25	25	25	25	25	g
Operating Temp.**		-40 to 60	-40 to 60	-40 to 60	-40 to 60	-40 to 60	-40 to 60	-40 to 60	-40 to 60	-40 to 60	-40 to 60	°C
Storage Temp.		-40 to 80	-40 to 80	-40 to 80	-40 to 80	-40 to 80	-40 to 80	-40 to 80	-40 to 80	-40 to 80	-40 to 80	°C
Fiber Length		1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	meters
Connector		SMA905 PD Stand.	SMA905 PD Stand.	SMA905 PD Stand.	SMA905 PD Stand.	SMA905 Thermistor	SMA905 PD Stand.	SMA905 Thermistor	SMA905 PD Stand.	SMA905 PD Stand.	SMA905 PD Stand.	
Thermistor												
Thermistor Constant	β					3477		3477	3477			β
Thermistor Resistance	R					10000		10000	10000			K ohm

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.
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.





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

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

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