

# High Power Laser Diode 4-Pin Fiber Module



## Part Number: 4PN-134

High Power 4-Pin Fiber Coupled Module  
Multi-Mode Fabry-Perot Laser Diode  
CW Wavelength at 1470nm



## Features

- High Output Power
- High Dynamic Range
- High Efficiency
- 4-Pin Fiber Coupled Module
- Cost Effective

## Application

- Professional Medical
- Laser Range Finder
- Target Illumination
- Aerospace



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 & GaSb 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.

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## Specification

4PN-134



Optical	Symbol	Typ.	Units
Center Wavelength	$\lambda_c$	1470	nm ( $\pm 20$ )
Output Power (CW)*	$P_{out}$	5	watts ( $\pm 10\%$ )
Spectral Width FWHM	$\Delta\lambda$	15	nm
Slope Efficiency	$\eta$	0.35	W/A
Optical Fiber Core Dia.		200	$\mu\text{m}$
Optical Fiber NA		0.22	
Electrical	Symbol		Units
Power Conversion Eff.	$\eta$	21	%
Operating Current	$I_{op}$	17	A
Threshold Current	$I_{TH}$	0.5	A
Operating Voltage	$V_{op}$	1.6	V
Mechanical	Symbol		Units
Fiber Length		1.5	meters
Connector Type		SMA905	
Thermistor Constant		3477	$\beta$
Thermistor Resistance		10	K ohm
		Range	
Operating Temp.**		-40 to 60	$^{\circ}\text{C}$
Storage Temp.		-40 to 80	$^{\circ}\text{C}$

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.  
\*Specified values are rated at a constant heat sink temperature of 20°C.  
\*\*High temperature operation will reduce performance and MTTF.  
Unless otherwise indicated all values are nominal.

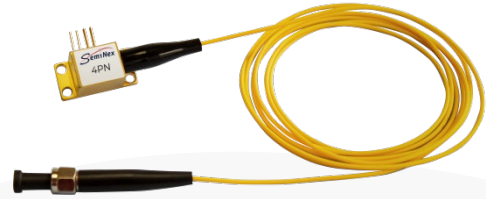
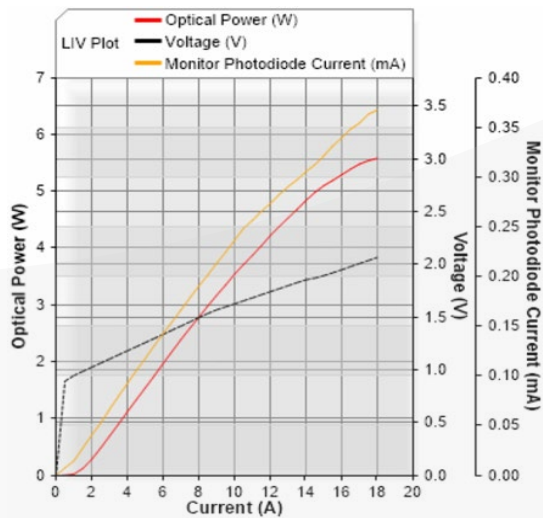
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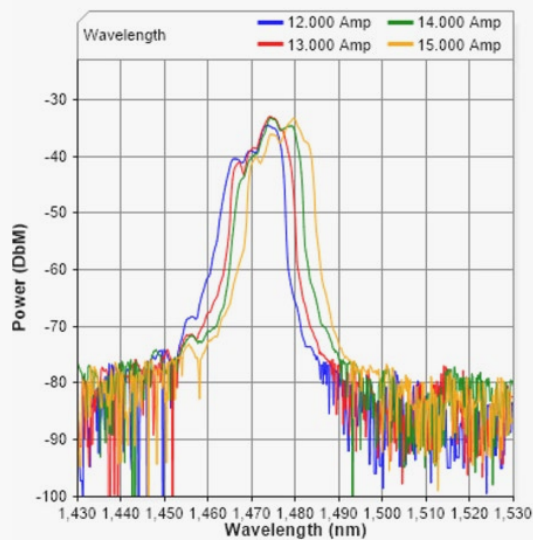
## SemiNex Laser Diodes 4PN-134

### Graphs & Data

#### Typical 4PN L-I-V Characteristics



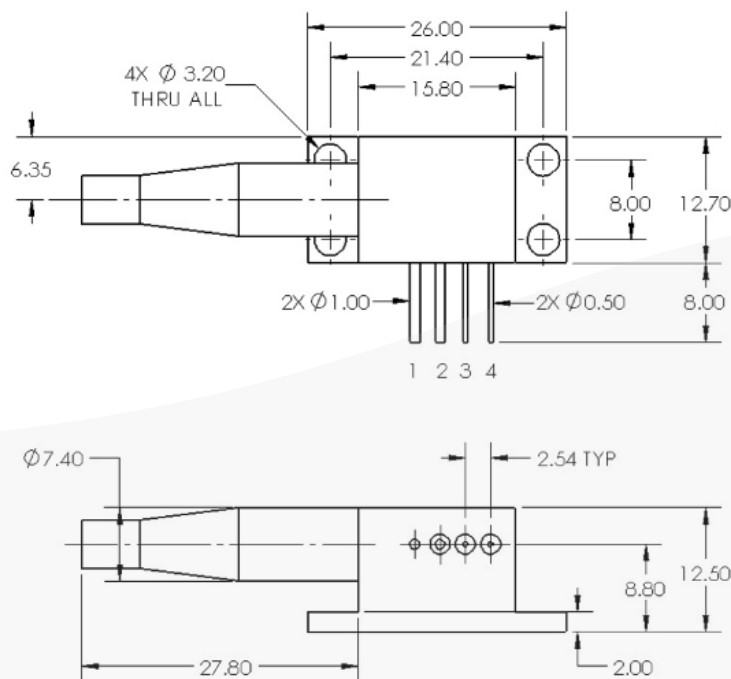
#### Typical 4PN Output Spectrum



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## Mechanical Drawing



Pins	Function
1	LD Anode (+)
2	LD Cathode (-)
3	PD (-) or Thermistor
4	PD (+) or Thermistor

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