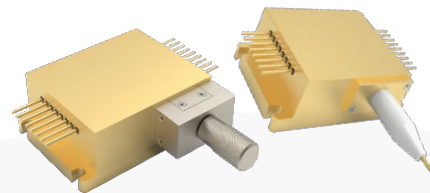


# High Power Laser Diode 4CM Fiber Module



## Part Number: 4CM-404

High Power 4CM Fiber Coupled Module  
Multi-Mode Fabry-Perot  
Detachable Fiber Available  
Wavelength at 1470nm



## Features

- High Output Power
- High Dynamic Range
- High Efficiency
- 4CM Fiber Coupled Module
- Cost Effective
- Red Aiming Beam
- Thermistor
- Custom Wavelengths Available

## Application

- Professional Medical



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.

# High Power Laser Diode 4CM Fiber Module



## Specification

4CM-404



Optical	Symbol	Typ.	Units
Center Wavelength	$\lambda_c$	1470	nm ( $\pm 20$ )
Output Power (CW)*	$P_{out}$	18	Watts ( $\pm 10\%$ )
Spectral Width FWHM	$\Delta\lambda$	20	nm
Slope Efficiency	$\eta$	1.4	W/A
Optical Fiber Core Dia.		400	$\mu\text{m}$
Optical Fiber NA		0.22	
Electrical	Symbol		Units
Power Conversion Eff.	$\eta$	22	%
Operating Current	$I_{op}$	17	A
Threshold Current	$I_{TH}$	2	A
Operating Voltage	$V_{op}$	5.4	V
Aiming Beam	Symbol		Units
Output Power	$P_a$	2	mW
Wavelength	$\lambda_a$	635	nm
Operating Current	$I_{op}$	50	mA
Voltage Limit	$V_{max}$	2.2	V
Mechanical			Units
Connector Type		SMA905	
Fiber Length		1.5	meters
Thermistor			
Thermistor Constant		3477	$\beta$
Thermistor Resistance		10	K ohm
		Range	
Operating Temp.**		-40 to 60	$^{\circ}\text{C}$
Storage Temp.		-40 to 80	$^{\circ}\text{C}$

\*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.

\*Detachable Fiber

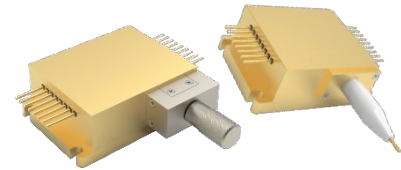
Part Number	Description
4CMDf-404	4CM-404 with detachable fiber

# High Power Laser Diode 4CM Fiber Module

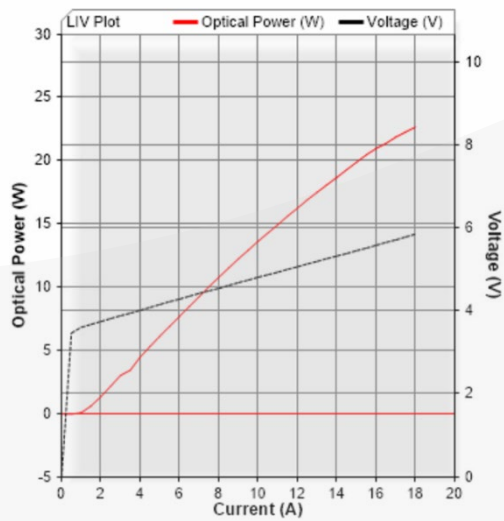


## SemiNex Laser Diodes 4CM-404

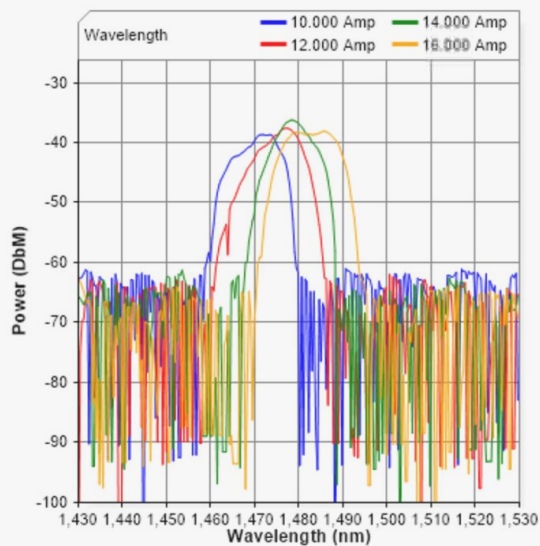
### Graphs & Data



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



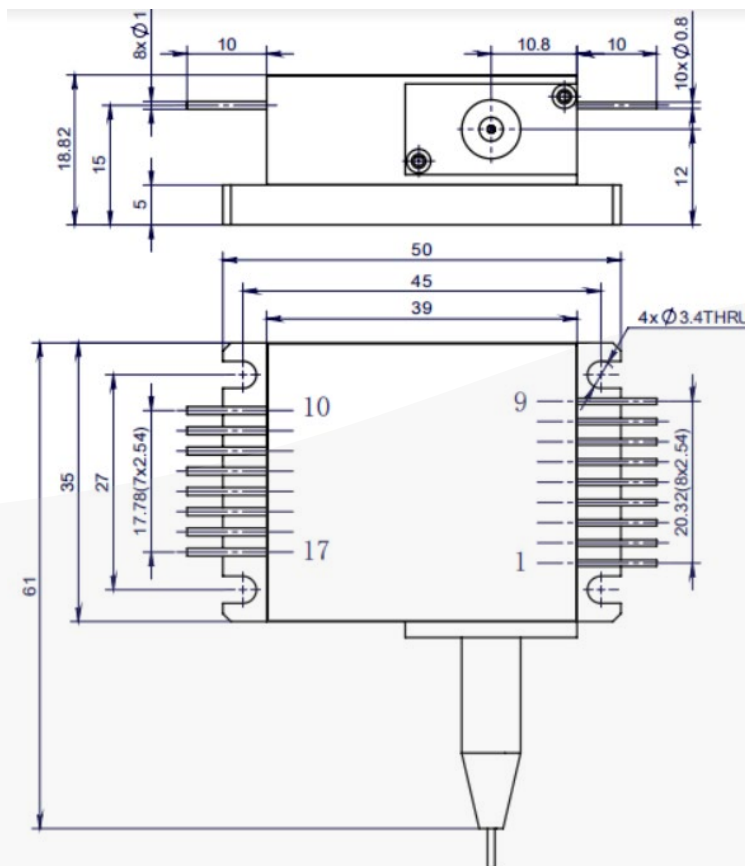
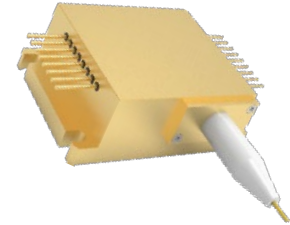
### Typical 4CM Output Spectrum



# High Power Laser Diode 4CM Module



## Mechanical Drawing Part Number: 4CM-404



	4CM pin
PD (+)	#6
PD (-)	#7
Thermistor	#8
Thermistor	#9
LD (+)	#10
LD (-)	#15
Red Aiming Beam (+)	#16
Red Aiming Beam (-)	#17

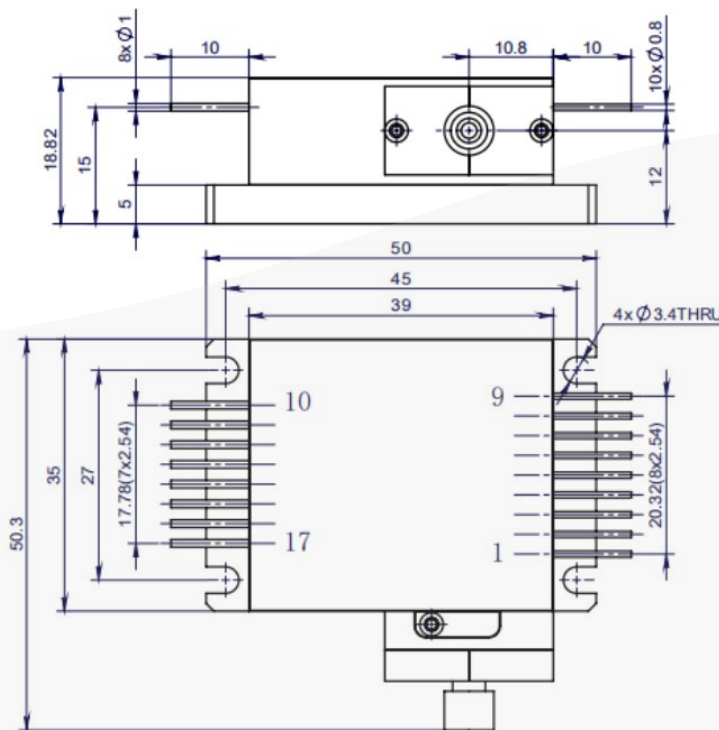
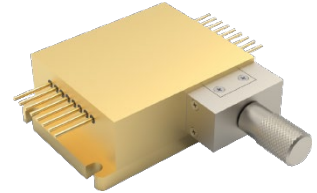
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# High Power Laser Diode 4CM Module



## Mechanical Drawing Part Number: 4CMDF-404



	4CM pin
PD (+)	#6
PD (-)	#7
Thermistor	#8
Thermistor	#9
LD (+)	#10
LD (-)	#15
Red Aiming Beam (+)	#16
Red Aiming Beam (-)	#17

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