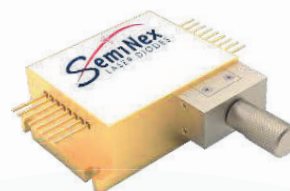


High Power Laser Diode 4CMDF Detachable Fiber Module



Part Number: 4CMDF-404

High Power 4CMDF Detachable Fiber Coupled Module
Multi-Mode Fabry-Perot
Attached 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.

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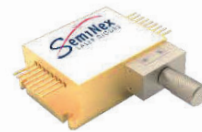
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High Power Laser Diode 4CMDF Detachable Fiber Module



Specification

4CMDF-404



Optical	Symbol	Typ.	Units
Center Wavelength	λ_c	1470	nm (± 20)
Output Power (CW)*	P_{out}	18	Watts ($\pm 10\%$)
Spectral Width FWHM	$\Delta\lambda$	20	nm
Slope Efficiency	η	1.4	W/A
Optical Fiber Core Dia.		400	μm
Optical Fiber NA		0.22	
Electrical	Symbol		Units
Power Conversion Eff.	η	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	λ_a	635	nm
Operating Current	I_{op}	45	mA
Voltage Limit	V_{max}	2.3	V
Mechanical			Units
Connector Type		SMA905	
Fiber Length		1.5	meters
Thermistor			
Thermistor Constant		3477	β
Thermistor Resistance		10	K ohm
		Range	
Operating Temp.**		-40 to 60	$^{\circ}C$
Storage Temp.		-40 to 80	$^{\circ}C$

*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.

*Attached Fiber

Part Number	Description
4CM-404	4CM-404 with attached fiber

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WARNING - FIBER HANDLING

- Do NOT bend the fiber tighter than 26 mm radius during installation or handling.
- Do NOT bend the fiber tighter than 52 mm radius during normal operation or long-term use.
- Exceeding these limits may cause permanent fiber damage and increased optical loss.

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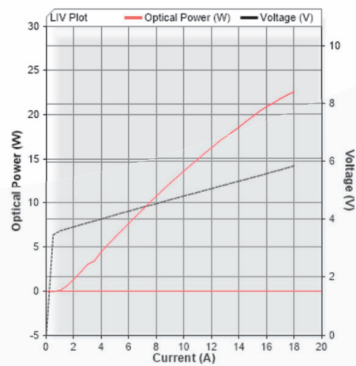
High Power Laser Diode 4CMDF Detachable Fiber Module



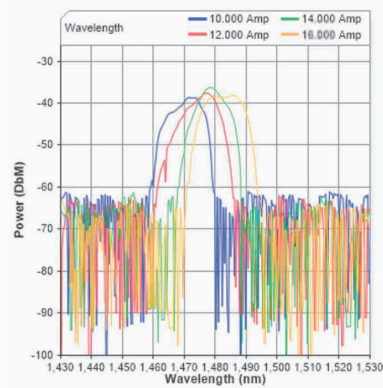
SemiNex Laser Diodes 4CMDF-404

Graphs & Data

Typical 4CM L-I-V Characteristics



Typical 4CM Output Spectrum

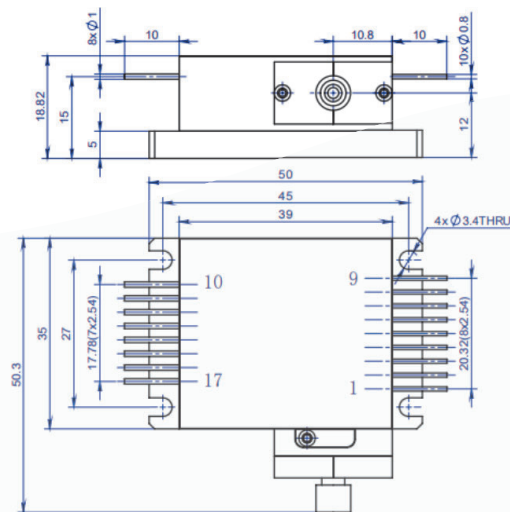


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High Power Laser Diode 4CMDF Detachable Module



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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