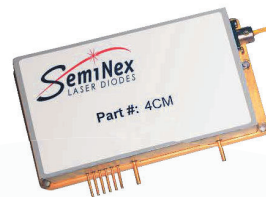


High Power Laser Diode 4CM Fiber Module



Part Number: 4CM-107

High Power 4CM Fiber Coupled Module
Multi-Mode Fabry-Perot
CW Wavelength at 1550nm



Features

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

Application

- Defense / 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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High Power Laser Diode 4CM Fiber Module



Specification

4CM-107



Optical	Symbol	Typ.	Units
Center Wavelength	λ_c	1550	nm (± 20)
Output Power (CW)*	P_{out}	16	Watts ($\pm 10\%$)
Spectral Width FWHM	$\Delta\lambda$	20	nm
Slope Efficiency	η	1	W/A
Optical Fiber Core Dia.		400	μm
Optical Fiber NA		0.22	
Electrical	Symbol		Units
Power Conversion Eff.	η	20	%
Operating Current	I_{op}	14	A
Threshold Current	I_{TH}	1.2	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}	50	mA
Voltage Limit	V_{max}	2.2	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.

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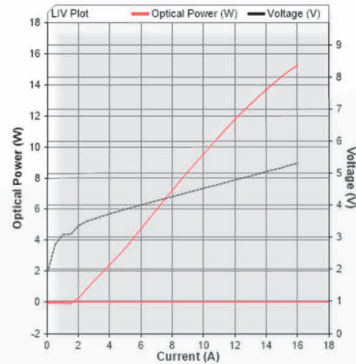
High Power Laser Diode 4CM Fiber Module



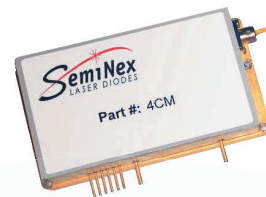
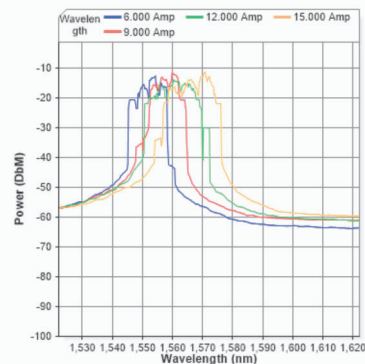
SemiNex Laser Diodes 4CM-107

Graphs & Data

Typical 4CM L-I-V Characteristics



Typical 4CM Output Spectrum

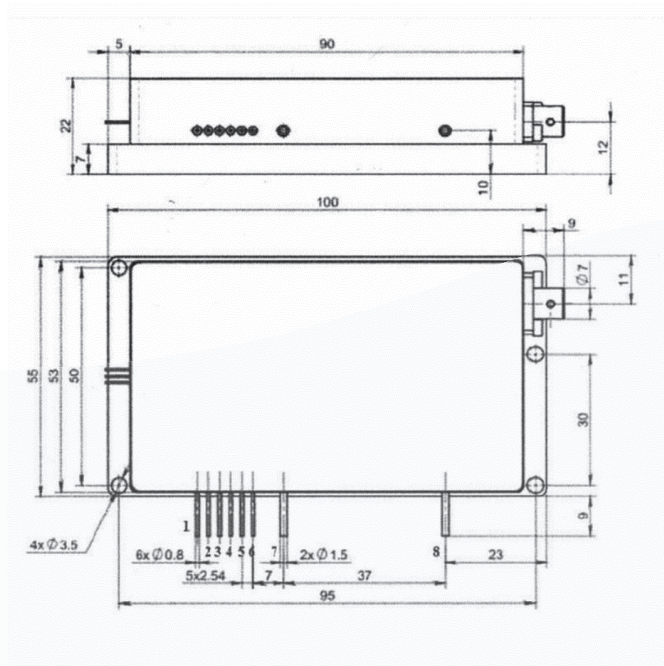


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High Power Laser Diode 4CM Fiber Module



Mechanical Drawing



Pins	Function
1	PD (P) *
2	PD (N) *
3	Red Aim (+)
4	Red Aim (-)
5	Thermistor*
6	Thermistor*
7	LD (-)
8	LD (+)

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