

High Power Laser Diode XCM Fiber Module



Part Number: XCM-101

High Power XCM Fiber Coupled Module
Multi-Mode Fabry-Perot
CW Wavelength at 1470nm



Features

- 50W 1470nm
- Detachable Fiber
- 72.8W @ 18A Maximum Output Power
- Cost Effective Fiber Coupled Design
- High Output Power
- High Dynamic Range
- High Efficiency
- PD & Thermistor Optional

Application

- Professional Medical
- DPSS Pump Source
- 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.

SemiNex Corporation • 153 Andover Street, Suite 201, Danvers, MA 01923 • 978-326-7700 • sales@seminex.com

High Power Laser Diode XCM Fiber Module



Specification

XCM-101



Optical	Symbol	Typ.	Units
Center Wavelength	λ_c	1470	nm (± 20)
Output Power (CW)*	P_{out}	50	Watts ($\pm 10\%$)
Spectral Width FWHM	$\Delta\lambda$	10	nm
Slope Efficiency	η	5.12	W/A
Detachable Optical Fiber Core Dia.		400	μm
Optical Fiber NA		0.22	
Electrical	Symbol	Typ.	Units
Power Conversion Eff.	η	25	%
Operating Current	I_{op}	11	A
Threshold Current	I_{TH}	1.5	A
Operating Voltage	V_{op}	18	V
Optical Fiber (Optional)			Units
Connector Type		SMA	
Detachable Fiber Length		1	meters
Thermistor			
Thermistor Constant	β	3477	β
Thermistor Resistance	R	10	K ohm
		Range	
Operating Temp.**		-20 to 60	$^{\circ}\text{C}$
Storage Temp.		-40 to 80	$^{\circ}\text{C}$

*Peak Power is 72.8W @ 18A. Expected Output Power of 55W @12A.

**High temperature operation will reduce performance and MTTF.
Unless otherwise indicated all values are nominal.

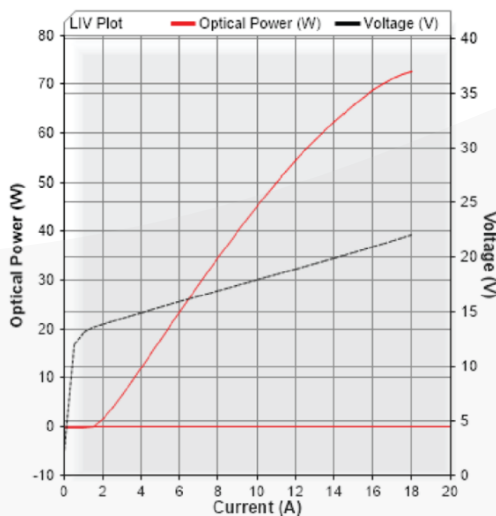
High Power Laser Diode XCM Fiber Module



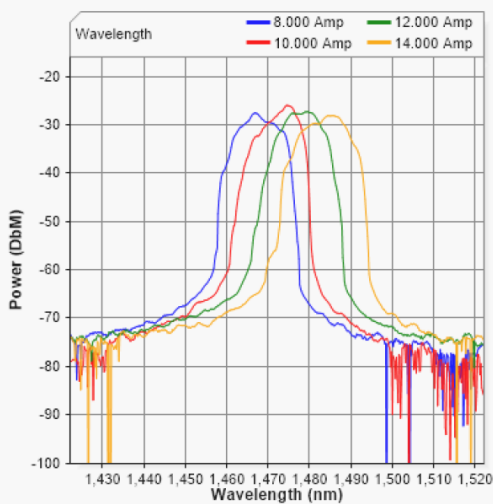
SemiNex Laser Diodes XCM-101

Graphs & Data

Typical XCM L-I-V Characteristics



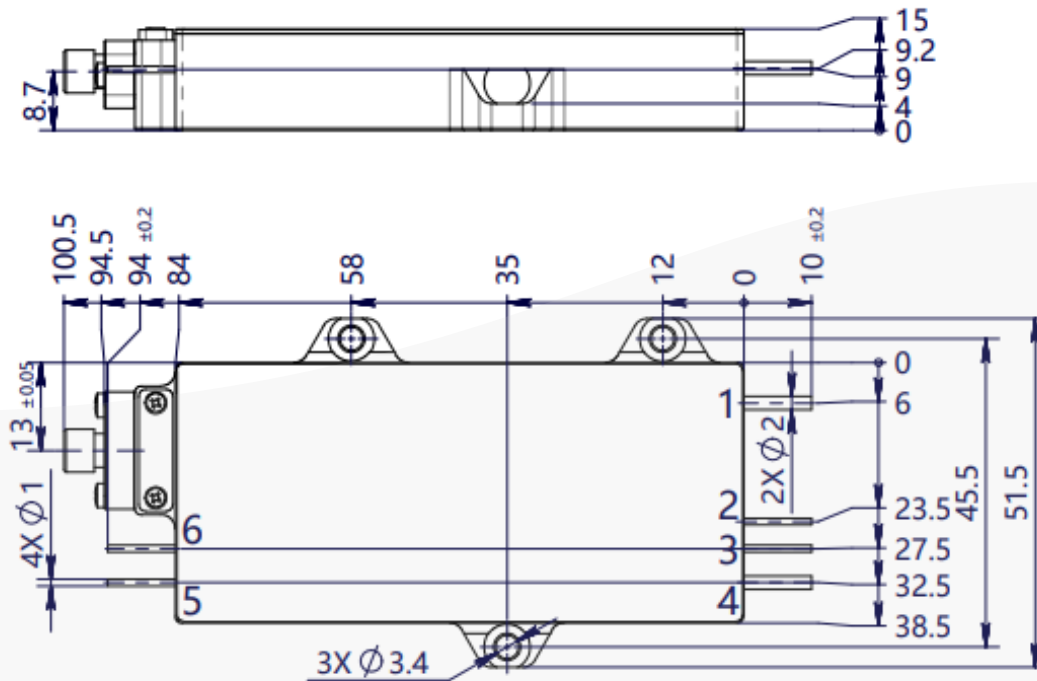
Typical XCM Output Spectrum



High Power Laser Diode XCM Fiber Module



Mechanical Drawing



Pin	Function
1	LD (+)
2	Thermistor
3	Thermistor
4	LD (-)
5	PD (+)
6	PD (-)

All statements, technical information and recommendations related to the product herein are based upon information believed to be reliable or accurate. The accuracy or completeness herein is not guaranteed, and no responsibility is assumed for any inaccuracies. The user assumes all risks and liability whatsoever in connection with the use of a product or its application. SemiNex Corporation reserves the right to change at any time without notice the design, specification, deduction, fit or form of its described herein, including withdrawal at any time of a product offered for sale herein. Users are encouraged to visit www.seminex.com for the latest data. SemiNex Corporation makes no representations that the products herein are free from any intellectual property claims of others. Please contact SemiNex for more information. 2024 SemiNex Corporation



SemiNex Corporation • 153 Andover Street, Suite 201, Danvers, MA 01923 • 978-326-7700 • sales@seminex.com