



High Power Multi-Mode SemiNex Lasers
 10 to 25 Watts of CW Power
 1470, 1532, 1550 nm Wavelength
 Multi-Chip Module

	Symbol	Typical	Units
Optical			
Output Power (CW)	P_o	10 - 25	watts
Center Wavelength Range	λ_c	1470, 1532, 1550	nm
Spectral Width	$\Delta\lambda$	15	nm 3dB
Optical Fiber Core Diameter		375	μm
Optical Fiber NA		0.22	
Wavelength Temp. Coeff.	λ_{coef}	0.7	nm/C

Electrical			
Threshold Current	I_{th}	0.4 - 0.7	A
Operating Current	I_{op}	8 - 11	A
Operating Voltage	V_{op}	6 or 14	V
Series Resistance	R_s	0.25 or 0.5	ohm

SemiNex delivers the highest available CW power at infrared wavelengths. SemiNex will optimize the design of its laser chips to meet customers' optical and electrical performance specifications. Diodes are mounted and tested to meet custom applications. Typical results and packaging options are shown below. Contact SemiNex for additional details or to discuss your application.

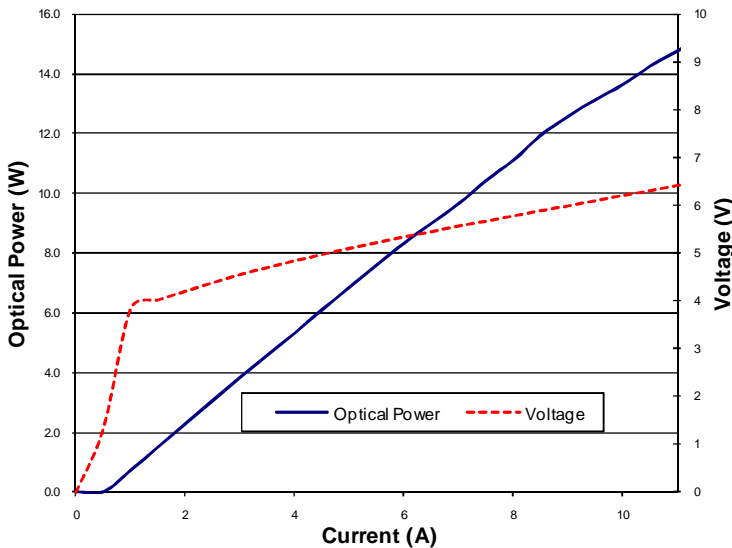
Key Features

- High output power
- High dynamic power range
- High efficiency
- Custom packaging

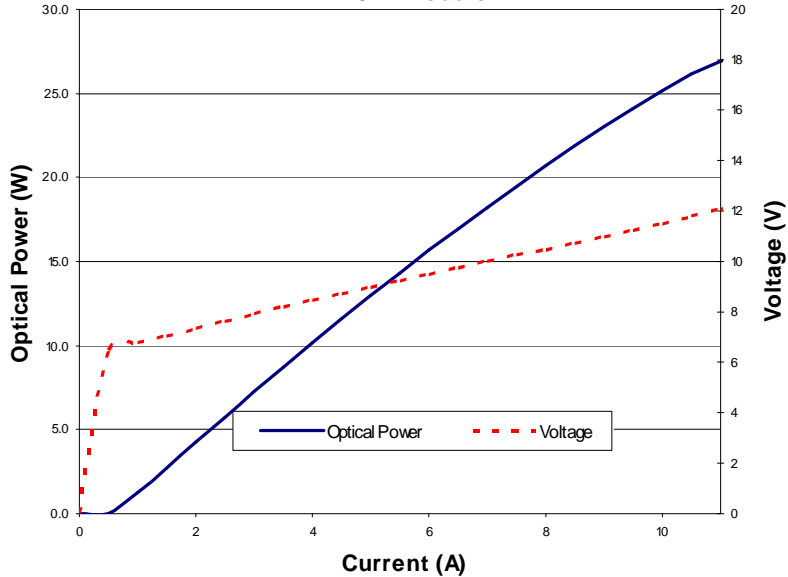
Applications

- Medical laser equipment
- LIDAR
- Free Space Optical Communication
- DPSS pump lasers
- Military / Aerospace

**Typical LIV Optical Power Chart
 10 W Module**

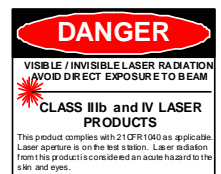


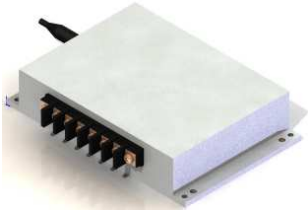
**Typical LIV Optical Power Chart
 25 W Module**



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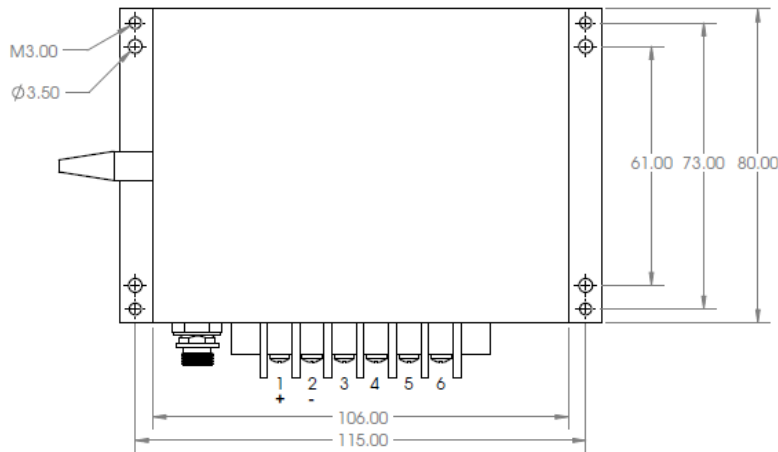




	Symbol	MCM-1470-10	MCM-1470-15	MCM-1470-20	MCM-1470-25	MCM-1550-10	MCM-1550-20	Units
Optical								
Output power (CW)	P_o	10	15	20	25	10	20	watts
Center Wavelength	λ_c	1470	1470	1470	1470	1550	1550	nm
Spectral Width	$\Delta\lambda$	10	10	10	10	10	10	nm 3dB
Slope Efficiency	η_o	1.4	2	2.1	3	2	2	W/A
Optical Fiber Core Diameter		375	375	375	375	375	375	μm
Optical Fiber NA		0.22	0.22	0.22	0.22	0.22	0.22	
Photodiode Current	I_m	1.25	1.25	1.25	1.25	1.25	1.25	mA

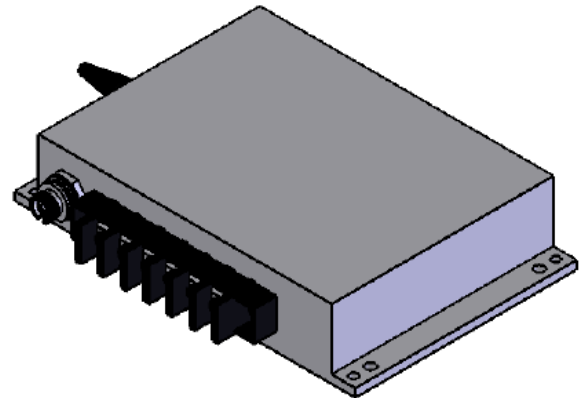
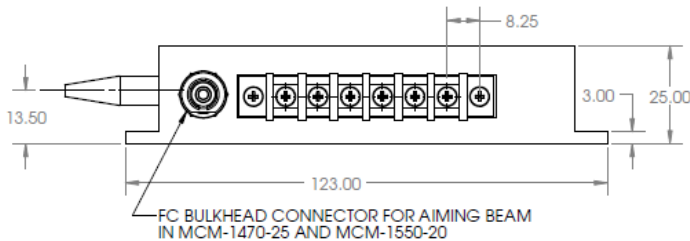
Electrical								
Power conversion Efficiency	η	0.22	0.2	0.19	0.17	0.15	0.15	W/W
Threshold Current	I_{th}	0.5	0.5	0.5	0.5	0.7	0.7	A
Operating Current	I_{op}	7	10.5	9.6	11	9.5	11	A
Operating Voltage	V_{op}	6	7.5	11.4	12	7	14	V
Series Resistance	R_s	0.30	0.30	0.55	0.55	0.30	0.55	ohm
Lead Soldering Temperature	$^{\circ}\text{C}$	250	250	250	250	250	250	$^{\circ}\text{C}$

Aiming Beam								
Output Power	P_a	>2	>2	>2	>2	>2	>2	mW
Wavelength	λ_a	650 +/- 10	650 +/- 10	650 +/- 10	650 +/- 10	650 +/- 10	650 +/- 10	nm



PIN CALLOUT: (FOR REFERENCE ONLY, REFER TO DOCUMENTATION SUBMITTED WITH PRODUCT FOR ACTUAL PIN CALLOUTS)

1. LASER ANODE (+)
2. LASER CATHODE (-)
3. PD (N)
4. PD (P)
5. AIMING BEAM (+5V)(OPTIONAL)
6. AIMING BEAM (-)(OPTIONAL)



NOTE: Dimensions are in mm

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