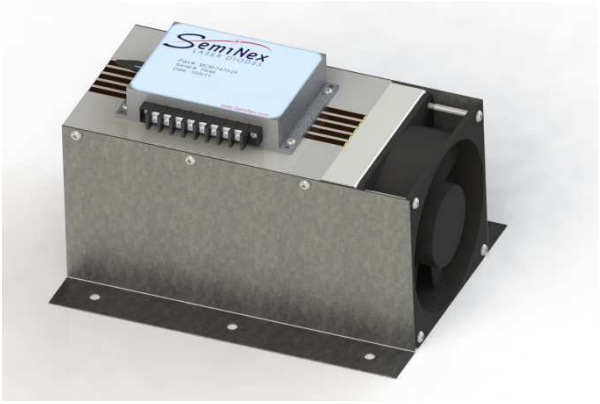


SemiNex LASER DIODES

High Power Multi-Mode SemiNex Lasers
12 to 25 Watts of CW Power
1470, 1532, or 1550 nm Wavelength
Multi-Chip Module with Integrated Cooling System

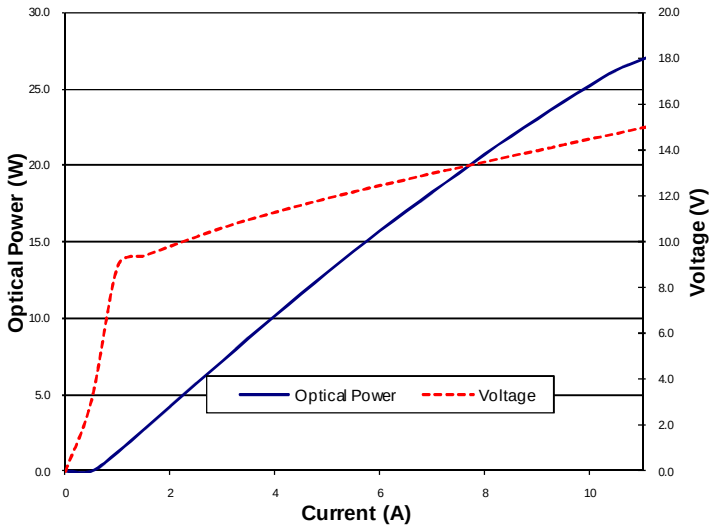
SemiNex offers our high power multi-chip module with an integrated cooling solution for optical output powers up to 25 watts while extracting up to 200 watts of thermal heat. This compact cooling system can be easily integrated with your existing controls and laser driver to reduce design time required to manage the heat.

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

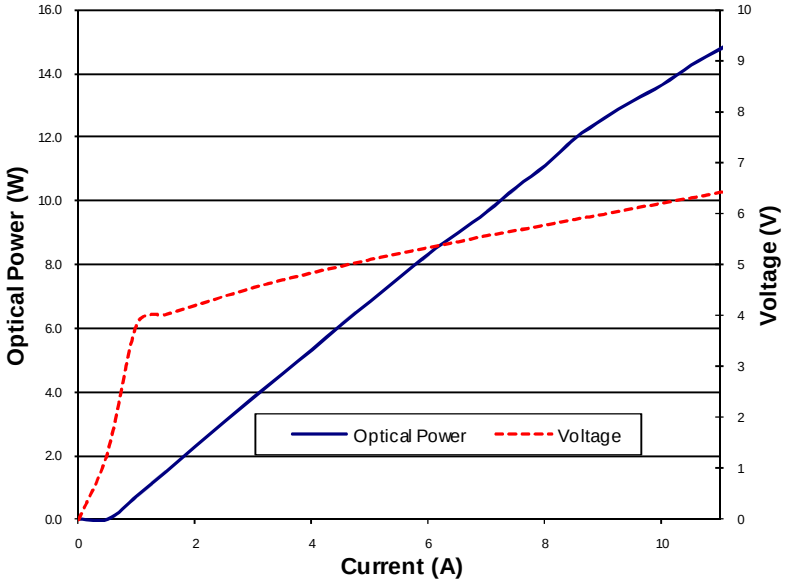
Applications
- Medical laser equipment
- DPSS pump lasers
- Military / Aerospace
- Industrial
- Material Processing

	Symbol	Typical	Units
Optical - MCM			
Output Power (CW)	P_o	12, 15 or 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 - MCM			
Threshold Current	I_{th}	0.4 - 0.7	A
Operating Current	I_{op}	8 - 10	A
Operating Voltage	V_{op}	6 or 14	V
Series Resistance	R_s	0.25 or 0.5	ohm
Electrical - Fan			
Operating Current	I_{op}	2	A
Operating Voltage	V_{op}	12	V
Air Flow Discharge Area	A_{dis}	≥144	cm²

Typical LIV Optical Power Chart
25 W Module

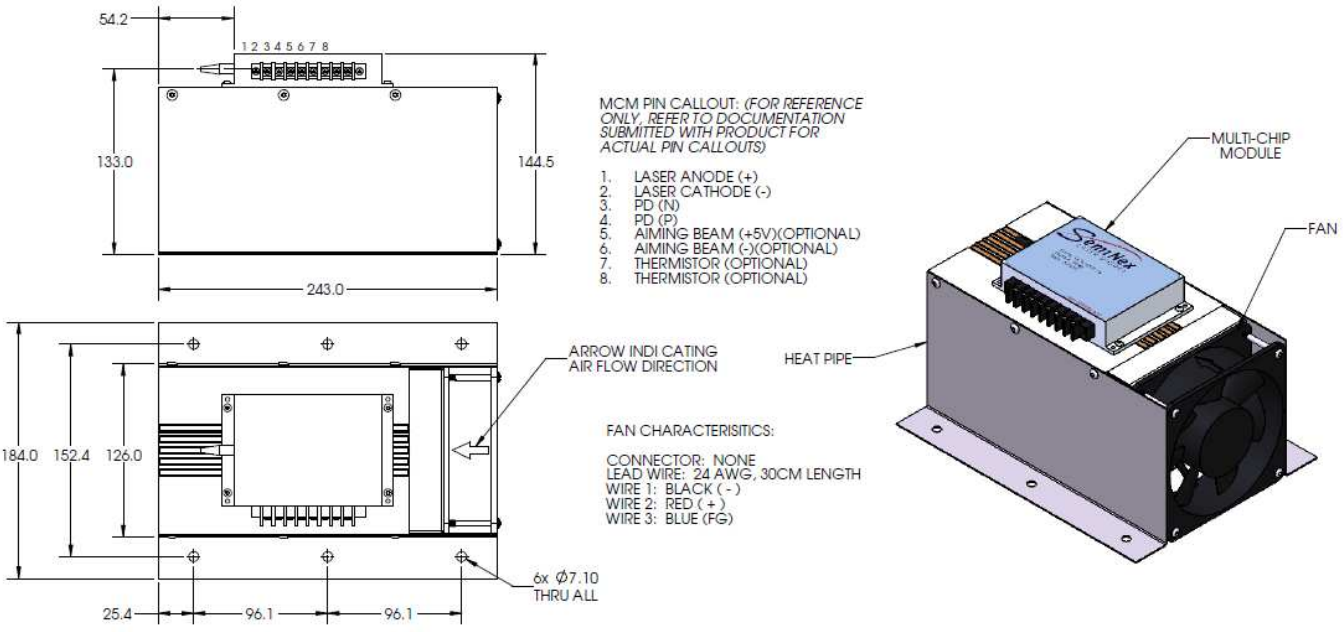


Typical LIV Optical Power Chart
10 W Module



SemiNex Corporation
100 Corporate Place
Suite 401
Peabody, MA 01960
Phone: 978-278-3550
Email: info@seminex.com
Web site: www.seminex.com

	Symbol	MCM-1470-10-ICS	MCM-1470-15-ICS	MCM-1470-20-ICS	MCM-1470-25-ICS	MCM-1550-10-ICS	MCM-1550-20-ICS	Units
Optical - MCM								
Output power (CW)	P_o	12	15	10	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	2.12	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 - MCM								
Power conversion Efficiency	η	0.22	0.22	0.19	0.22	0.22	0.22	
Threshold Current	I_{th}	0.4	0.5	0.5	0.7	0.4	0.7	A
Operating Current	I_{op}	8	9	9.6	10	8	10	A
Operating Voltage	V_{op}	6	7.5	11.4	12	6	14	V
Series Resistance	R_s	0.25	0.40	1.19	0.58	0.25	0.58	ohm
Lead Soldering Temperature	℃	250	250	250	250	250	250	℃
Electrical - Fan								
Operating Current	I_{op}	2	2	2	2	2	2	A
Operating Voltage	V_{op}	12	12	12	12	12	12	V
Air Flow Discharge Area	A_{dis}	≥144	≥144	≥144	≥144	≥144	≥144	cm²
Aiming Beam								
Output Power	P_a	>2	>2	>2	No Aiming Beam	>2	No Aiming Beam	mW
Wavelength	λ_a	650 +/- 10	650 +/- 10	650 +/- 10	Available	650 +/- 10	Available	nm



NOTE: Dimensions are in mm

SemiNex Corporation
100 Corporate Place
Suite 401
Peabody, MA 01960
Phone: 978-278-3550
Email: info@seminex.com
Web site: www.seminex.com