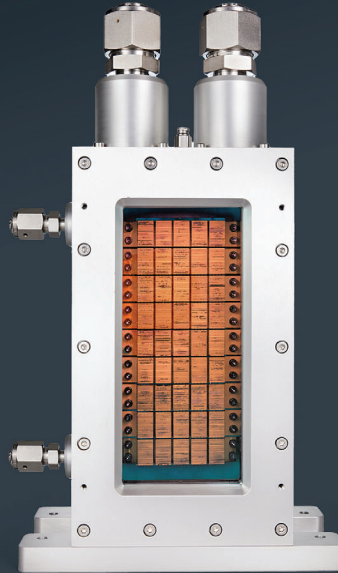


MEGAWATT-CLASS LASER DIODE MODULES



Leonardo's megawatt-class laser diode modules deliver a peak power of up to 2 MW. With a compact, rugged, and modular design, this product operates from around 800 nm to 1000 nm with advanced beam shaping and conditioning options for customizable solutions. The diode arrays are packaged securely in a closed environment and offer provisions to be individually powered, allowing for fine-tuning of the beam profile and spectral properties which will enhance the overall versatility and performance of the laser system.

KEY FEATURES

- Multiple peak wavelengths available from 800 nm to 1000 nm
- Built with monolithic, fully soldered arrays
- Cooling path isolated from the electrical path
- Non-water alternative cooling fluids
- Small bar-to-bar pitch for increased brightness
- Close-packed 2D arrangement
- Lowest bar-bar pitch available on the market
- Stackable micro-optics plates for beam conditioning and wavelength stabilization

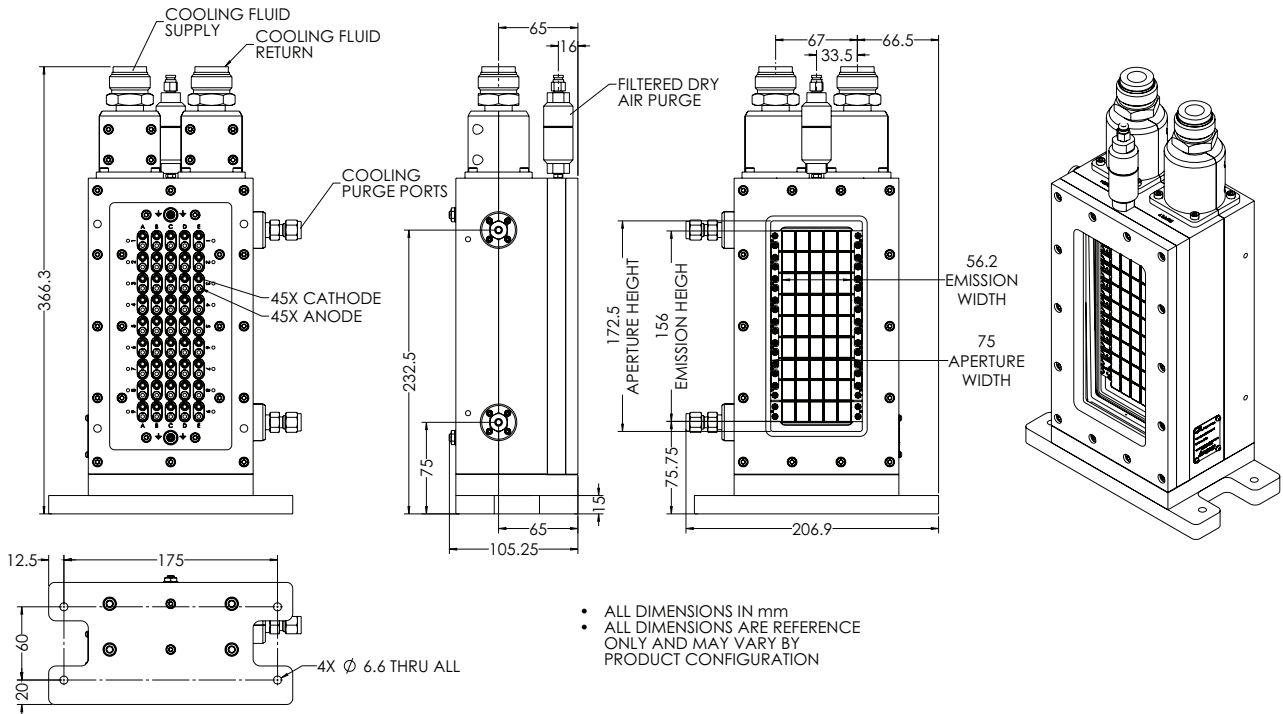
KEY BENEFITS

- Pump source tailored for typical gain media in high-power amplifiers
- Compatible with multiple cooling fluids and schemes
- Individually addressable arrays allow for fine-tuning of the beam profile
- Compact form factor enables a small system footprint

TYPICAL MEGAWATT-CLASS LASER DIODE MODULE SPECIFICATIONS

Typical Parameters	Units	500W Bar Performance	1kW Bar Performance
Optical			
Peak Output Power	kW	900	1800
Number of Bars	-	1800	1800
Center Wavelength	nm	890	890
Spectral Width (FWHM)	nm	5	5.5
Power Conversion Efficiency	%	50	52
Emission Area	mm	57 x 156	57 x 156
Vertical Beam Divergence (FW @ 1/e ²)	°	32	32
Horizontal Beam Divergence (FWHM)	°	12	12
Electrical			
Threshold Current	A	42	62
Operating Current	A	520	1070
Operating Voltage	V	72	68
Maximum Pulse Width	µs	500	500
Maximum Duty Cycle	%	0.5	0.5
Thermal			
Wavelength Temperature Coefficient	nm/°C	0.3	0.3
Cooling Fluid			
Operating Temperature (non-condensing)	°C	20	20
Filtered Particle Size	µm	10	10
Flow Rate	lpm	20	20
Pressure	psi	40	40

MECHANICAL SPECIFICATIONS



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