

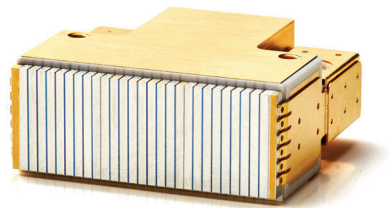


Fluid Cooled Laser Diode Arrays

Leonardo's fluid cooled laser diode arrays utilize a patented monolithic design that requires only filtered water (not deionized). This eliminates the most common failure mechanisms associated with microchannel cooled laser diodes. Requiring no o-rings or rubber gaskets, our laser diode arrays perform reliably in harsh environments.

KEY FEATURES

- 760 nm to 1700 nm
- Filtered water, not deionized
- Non-water alternative cooling fluids
- Scalable building block format
- Small bar-to-bar pitch for increased brightness
- Hard soldered construction
- Advanced beam conditioning
- Low pressure and water flow requirements
- Multi-wavelength in a single array



CUSTOMIZABLE PACKAGES



T6



Scalable Modules

TYPICAL SPECIFICATIONS

760 nm - 1100 nm					
Typical Parameters (at 25°C)	Units	Typical Value			
Array Peak Output Power	W	1,920	2,400	2,880	50,000
Bar Emission Length	mm	10			
Operation Mode		CW			Pulsed
Operating Current	A	90	105	125	1,100
Number of Bars	#	Up to 24			Up to 50
Operating Voltage per Bar (760 nm - 830 nm)	V	1.9			2
Operating Voltage per Bar (850 nm - 1,100 nm)	V	1.7			1.8
Power Conversion Efficiency	%	58			56
Bar to Bar Pitch	mm	1.0			0.35
Beam Divergence					
Fast Axis (FWHM)	°	36			32
Slow Axis (FWHM)	°	10			

1400 nm - 1700 nm		
Typical Parameters (at 25°C)	Units	Typical Value
Array Peak Output Power	W	430
Bar Emission Length	mm	10
Operation Mode		CW
Operating Current	A	80
Number of Bars	#	Up to 24
Operating Voltage per Bar	V	1.5
Power Conversion Efficiency	%	25
Bar to Bar Pitch	mm	1.0
Beam Divergence		
Fast Axis (FWHM)	°	27
Slow Axis (FWHM)	°	10

ABOUT US

Leonardo Electronics US enables next-gen technologies in defense, security, medical, automotive and industrial segments. For over 20 years, the Tucson, AZ based facility has driven robust laser design and innovation resulting in enabling technology to support market leaders worldwide.

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Patent Numbers:

US 7,660,335 | US 7,864,825
 US 6,352,873 | US 6,295,307

Certifications:

AS9100D including ISO 9001:2015
 ISO 13485:2016 Medical
 IATF 16949:2016 Automotive
 ISO14001:2016 Environmental Management System

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