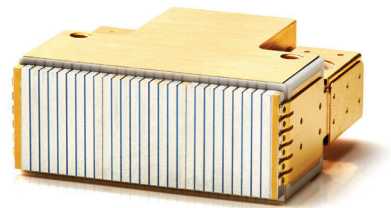


Fluid Cooled Laser Diode Arrays

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



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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 This product is proudly made in the USA

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

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