

SPARKLIGHT `

## ARIES-2™

## High Power, Fixed Wavelength

DRS Daylight's years of experience and field-proven performance in high-power mid-IR lasers come together in the Aries-2 family of products. The Aries-2 is a fixed-wavelength, high-power laser that offers a user-specified center wavelength and output power up to 2 W. Aries-2 provides CW or pulsed operation with internal or or external amplitude modulation. It is CDRH compliant and CE certified.

All Aries-2 systems come with a SideKick™laser controller, GUI, and SDK to give you everything you need for productivity out of the box.

#### **HIGHLIGHTS**

- · Optical power of up to 2 W
- $\cdot$  Center wavelength choices include 4.0 and 4.6  $\mu m$
- · CW or pulsed output
- Superb TEM<sub>00</sub> beam quality allows fiber coupling
- Superior power stability (< 2% rms, 1 hr)
- Amplitude modulation up to 1 MHz
- Proprietary™ circuitry to protect your chips



# HIGH POWER, FIXED WAVELENGTH

#### **APPLICATIONS**

- · Stand-off Explosive Detection
- · Chemical Agent Detection
- · Infrared Detector Testing
- Multispectral Active Imaging
- · Infrared Countermeasures
- Free-Space Communications
- · Infrared Scene Generation
- · Optical Fiber Testing

#### **SPECIFICATIONS**

Operation Mode	Pulsed or CW
Center Wavelength Avalability	4-11 μm*
Beam Divergence	< 4 mrad** (full angle, 1/e² intensity width)
Beam Diameter	< 5 mm <sup>2</sup> (1/e <sup>2</sup> intensity width)
Ellipticity	< 1.5
Pulse Repetition Frequency	CW to 1 MHz
Rise/Fall Time (10-90%)	< 100 ns
QCL Compliance Voltage	< 17 VDC
QCL Operating Current	< 3 A
Operating Range (Case Temp)	15 - 55 °C
Dimensions	14 × 7 × 8.6 cm

#### PERFORMANCE EXAMPLES

Center Wavelength	Optical Power (W)
4.0	1.0
4.6	2.0

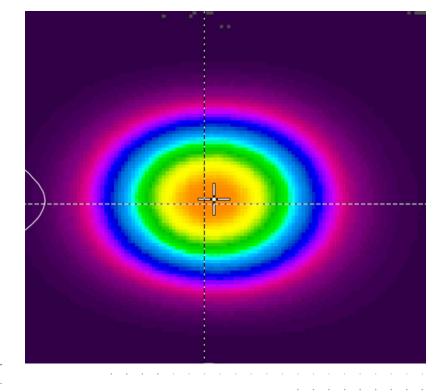
<sup>\*</sup>Call for specific wavelength availability

Forced air and liquid cooling accessories required for higher duty cycles  $% \left( 1\right) =\left( 1\right) \left( 1\right)$ 

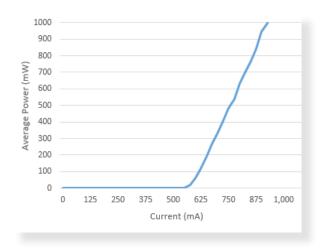
Water cooling required for CW operation or pulsed duty cycles > 5%

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### **POWER CURVE**



INVISIBLE LASER RADIATION
AVOID EXPOSURE TO THE BEAM
CLASS 3B LASER PRODUCT



COMPLIES WITH 21 CFR 1040.10 AND 1040.121 EXCEPT FOR DEVIATIONS PURSUANT TO LASER NOTICE NO. 50, DATED JUNE 24, 2007. COMPLIES WITH IEC 60825-01



<sup>\*\*</sup> Measured at 4 µm; scales with wavelength-please inquire