

AL50-GQ-WC



Laser Power

Wavelength	9.2-10.8 μm
CW Power	13 W
Peak Power	1000 W
Power Stability	$\pm 5\%$
Pulse Energy	$\leq 500 \mu\text{J}$

Pulse Repetition Frequency	$\leq 60 \text{ kHz}$
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Dimensions & Weight

Laser Weight	33.8 lbs
Dimensions L x W x H	33.1 x 3.9 x 5.0 inch
RF Driver Weight	11.5 lbs

Water Cooling

Min Flow Rate	3.8 LPM (1GPM)
Recommended Flow Rate	9.5 LPM (2.5 GPM)
Max Pressure	10bar (150 psi)
Required Chiller Stability	$\pm 0.1^\circ\text{C}$
Storage Temp Range	5-50 $^\circ\text{C}$

Beam Characteristics

Beam Waist Diameter	2.8mm
Waist Location	Output Coupler
Mode Quality	$M^2 \leq 1.2$
Full Divergence Angle	6 mrad
Pulse Length	$< 500 \text{ ns}$
Polarization	$\geq 100:1$ Linear Vertical

DC Power Requirements

Laser RF	28 V
AOM RF	12 V

Heat & Cooling

Heat Dissipation	$\leq 600\text{W}$
Cooling Requirement	Water Cooled
Working Temperature	5°C to 40°C

Notes

Power Stability calculated in CW at thermal equilibrium

$$+ \frac{P_{max} - P_{min}}{P_{max} + P_{min}}$$

Beam specifications measured at: $\frac{1}{e^2}$

Average power may exceed listed value. All specifications are measured at the strongest line and are subject to change without notice. Guarantee for minimum of 60 lines over the 9R, 9P, 10R, 10P bands. Stability measured after 30 minute warm-up to allow laser head to reach thermal equilibrium, specification guaranteed for 1 hour.



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