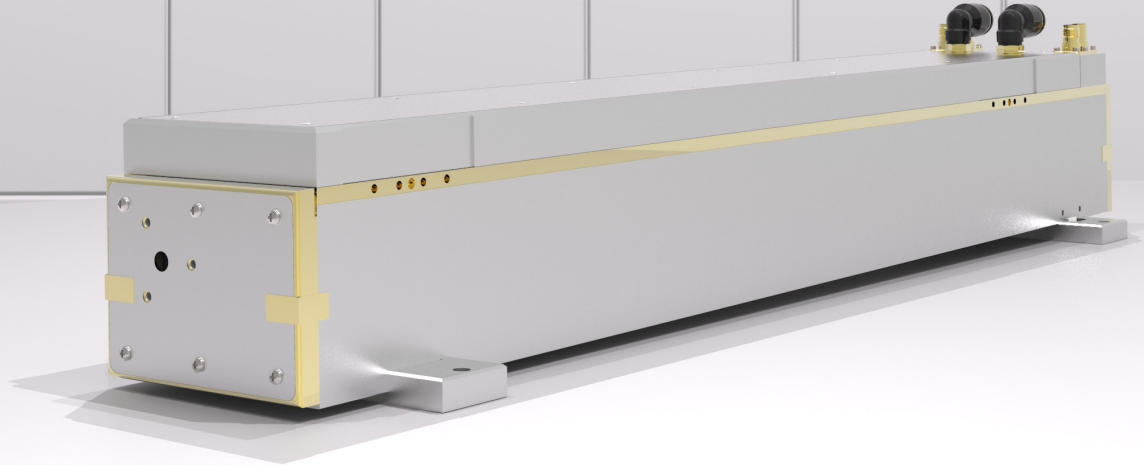


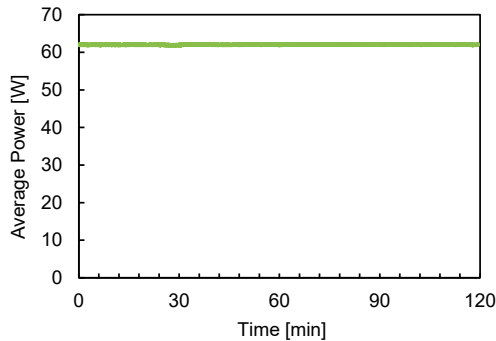
AL50S WCCL



Laser Power

Wavelength	~ 10.6 μm
CW Power	50 W
Power Stability	$\pm 2\%$
Duty Cycle	0 - 100 %
Pulse Repetition Frequency	0 - 100 kHz
Rise and Fall Time	200 μs
Peak Power	50 W

Typical performance:



Dimensions & Weight

Laser Weight	34 lbs
Dimensions L x W x H	29 x 4 x 5 in
RF Driver Weight	11.5 lbs

Beam Characteristics

Beam Waist Diameter	2.4 mm
Waist Location	Output Coupler
Mode Quality	$M^2 \leq 1.1$
Full Divergence Angle	5.5 mrad
Polarization	$\geq 20:1$ Linear Vertical

Heat & Cooling

Heat Dissipation	≤ 750 W
Cooling Requirement	Water Cooled Closed Loop
Working Temperature	5 - 40 $^{\circ}\text{C}$ (non-condensing)
Min Flow Rate	3.8 LPM (1 GPM)
Recommended Flow Rate	9.5 LPM (2.5 GPM)
Max Pressure	10 bar (150 psi)
Required Chiller Stability	± 0.1 $^{\circ}\text{C}$
Storage Temp. Range	5 - 50 $^{\circ}\text{C}$ (non-condensing)

DC Power Requirements

Laser RF Driver (U I)	28 V < 28 A
Temperature Controller	12 V

Notes

Power Stability calculated by: $\pm \frac{P_{max} - P_{min}}{P_{max} + P_{min}}$

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

Average or pulsed power may exceed listed value. All specifications are measured at the strongest line and are subject to change without notice. Stability measured after 45 minute warm-up to allow laser head to reach thermal equilibrium.

