

# Grating Lasers



Model	L4GS	L5GS	AL20GS	AL30GS	AL50GS
Technology Feature	Diffraction Grating (-G), Stabilized (-S)				
<b>Laser Power</b>					
Wavelength	9.2 - 10.6 $\mu\text{m}$		9.2 - 10.8 $\mu\text{m}$		
CW Power	0.1 - 0.2 W	0.5 - 2 W	1 - 8 W	2 - 15 W	4 - 25 W
Power Stability (-FCCL <sup>*1</sup> )	$\pm 3\%$	-	$\pm 2\%$	$\pm 2\%$	-
Power Stability (-WCCL <sup>*2</sup> )	$\pm 2\%$	$\pm 2\%$	$\pm 2\%$	$\pm 2\%$	$\pm 2\%$
Duty Cycle	0 - 100 %				
Modulation Frequency	0 - 100 kHz				
Rise and Fall Time	200 $\mu\text{s}$				
Peak Power	0.2 W	2 W	8 W	15 W	25 W
<b>Beam Characteristics</b>					
Beam Waist Diameter	2.4 mm				
Waist Location	Output Coupler				
Mode Quality	$M^2 \leq 1.1$				
Full Divergence Angle	5.5 mrad				
Polarization	> 20:1 Linear Vertical		> 50:1 Linear Vertical		
<b>Heat &amp; Cooling</b>					
Cooling Options	Fan Cooled Closed Loop (-FCCL) or Water Cooled Closed Loop (-WCCL)				
Heat Dissipation	$\leq 100$ W	$\leq 200$ W	$\leq 400$ W	$\leq 600$ W	$\leq 750$ W
Working Temperature	5 - 40 °C (non-condensing)				
<b>DC Power Require.</b>					
Laser RF Driver (U   I)	12 V   4 A	28 V   7 A	28V   14 A	36 V   16.5 A	28 V   28 A
<b>Dimensions &amp; Weight</b>					
Laser Weight	9.5 lbs	10.0 lbs	20.5 lbs	20.5 lbs	34 lb
Dimensions L x W x H	12.5 x 2.5 x 2 in	12.5 x 3 x 3 in	25 x 4 x 5 in	25 x 4 x 5 in	29 x 4 x 5 in

<sup>\*1</sup> Fan Cooled Closed Loop. <sup>\*2</sup> Water Cooled Closed Loop. Further customization and configurations are available. 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.

