

Gigashot™ L

FEATURES AND BENEFITS

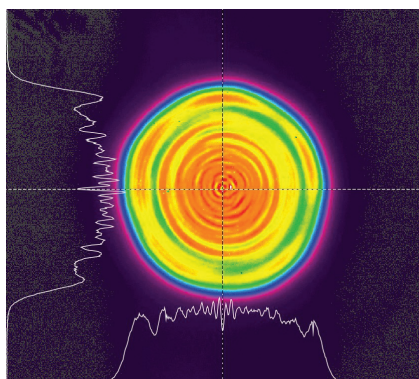


DPSS LASER SYSTEM

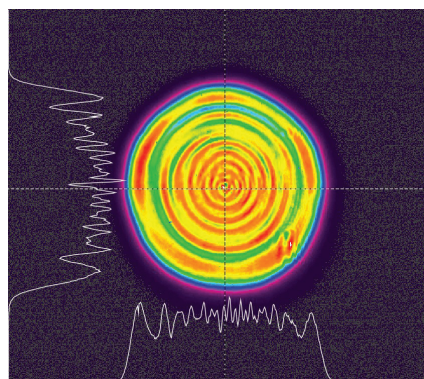
- Rugged design
- Ideal for LIDAR
- 125 mJ at 355 nm, 100 Hz.
- 1064 nm / 532 nm available
- Pulse width < 10 nsec
- Long life diode bars
- Low maintenance
- Rack mounted chiller included

The Gigashot™ L diode-pumped solid-state (DPSS) Nd:YAG laser delivers 125 mJ per pulse at 355 nm or 180mJ at 532 nm with an operating laser repetition rate of 100 Hz. The Gigashot-L is a Master Oscillator Power Amplifier (MOPO) utilizing several opto-mechanical design practices found in CEO's ruggedized airborne laser products resulting in a laser that is highly resistant to optical misalignment – requiring no user adjustments. This makes the laser well suited for laboratory use, mobile and remote LIDAR applications, and applications where having to re-optimize laser alignment is not desired or practical.

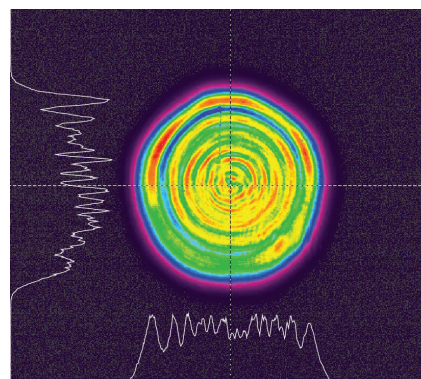
Diode pumping delivers excellent pulse-to-pulse and long term stability in addition to long operating lifetime. The Gigashot-L comes with a 2-year/10,000 operating hour warranty on the pump diodes.



Near field beam profile,
1064 nm at 100 Hz



Near field beam profile,
532 nm at 100 Hz

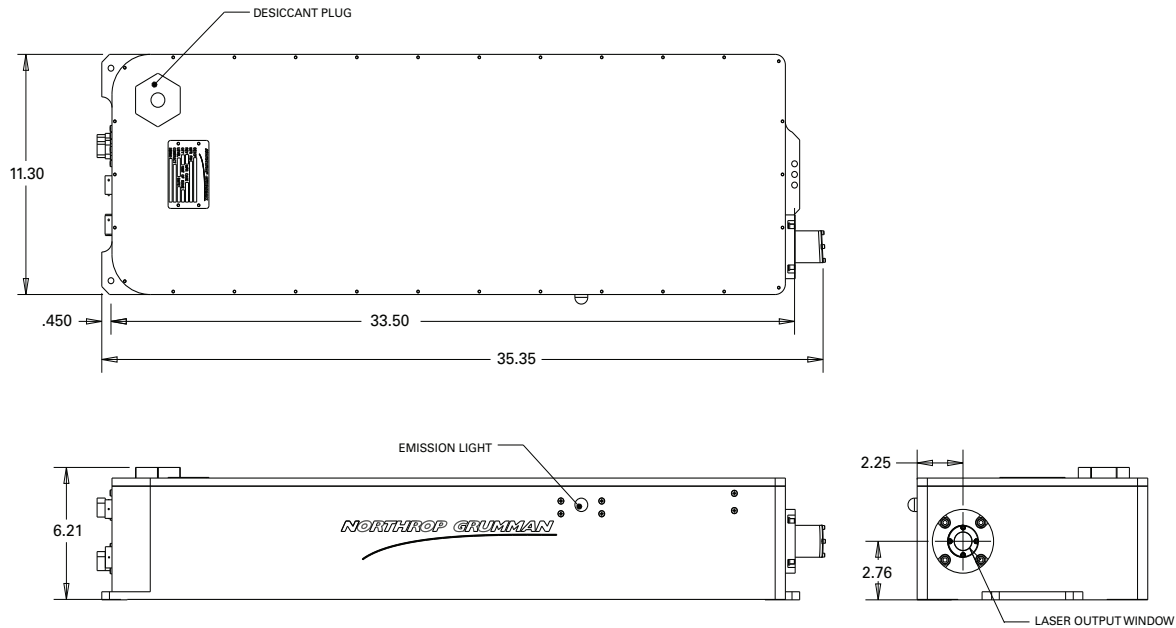


Near field beam profile,
355 nm at 100 Hz

Gigashot™ L

GIGASHOT™ L SPECIFICATIONS

Specifications				
Parameter	Configurations			Units
Model	GSL-025-QTI	GSL-018-QTG	GSL-012-QTU	—
Laser Type	DPSS Nd:YAG	DPSS Nd:YAG	DPSS Nd:YAG	—
Wavelength	1064	532	355	nm
Repetition Rate	100	100	100	Hz
Energy per Pulse	> 250	> 180	> 125	mJ
Average Power	25	18	12	% rms
Pulse Width (FWHM)	< 10	< 10	< 10	nsec
Beam Diameter @ Output Window	6 ± 1	5.5 ± 1	5.5 ± 1	mm
Beam Divergence (Full Angle)	< 1.8	< 1.0	< 1.0	mrad
Beam Quality	< 3	< 4	< 5	M ²
Pulse-to-Pulse Energy Stability	< 1.5	< 1.5	< 1.5	% rms
Jitter*	< 2	< 2	< 2	ns
Long Term Stability Over 8 hr	< 2	< 2	< 2	% rms
Polarization	Linear	Linear	Linear	—
Operating Temperature (Non-Condensing)	18 - 30°C	18 - 30°C	18 - 30°C	°C
Cooling	Chiller (rack mounted)	Chiller (rack mounted)	Chiller (rack mounted)	—
Electrical @ 50/60 Hz (Auto Ranging)	120/220, 3-Phase, 30A	120/220, 3-Phase, 30A	120/220, 3-Phase, 30A	VAC
Laser Dimensions	34.2 x 11.3 x 6.21	34.2 x 11.3 x 6.21	34.2 x 11.3 x 6.21	in
Control Electronics Dimensions	30.75 x 22.0 x 47.31	30.75 x 22.0 x 47.31	30.75 x 22.0 x 47.31	in
Cable Length	~10	~10	~10	ft
* With respect to external trigger.				



Dimensions in Inches

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This Product is covered by one or more of the following Patents: 5,898,211 5,985,684 5,913,108 6,310,900 Other US and Foreign Patents Pending.

