

Gigashot™ HE

NORTHROP GRUMMAN

> **FEATURES AND BENEFITS**

PULSED Nd: YAG DPSS LASER SYSTEM

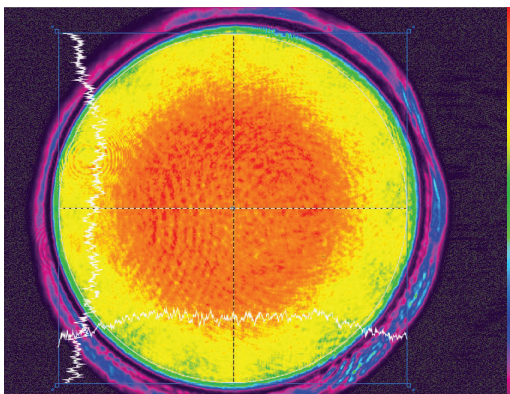


- 4 J @ 1064 nm,
2 J @ 532 nm
< 10 nsec, 10 Hz
- Diode pumped
- Low maintenance
- High efficiency
- Long life diode bars
- Output beam characteristics maintained over operating power range
- eDrive™ control electronics with digital remote control
- Near field flat top beam profile

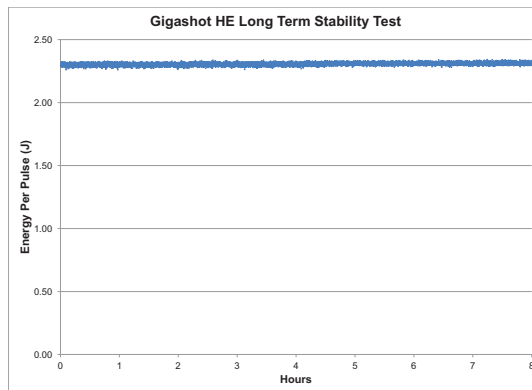
The Gigashot HE laser system is a high energy, short pulse diode-pumped solid-state (DPSS) Nd:YAG laser system. High efficiency, ultra-long life quasi-continuous-wave (QCW) pump diodes allows the laser to operate for billions of shots. The laser uses a Master Oscillator-Power Amplifier (MOPA) configuration to obtain a near field flat top beam profile. The laser delivers more than 2 J at 532 nm; Injection seeding of the oscillator is optional.

The Gigashot HE laser features long life laser diode bars and is ideally suited for use in scientific, industrial, and medical applications. The laser is supplied with a 2 year/10,000 operating hour diode warranty.

Customized versions of the Gigashot are also available (including oscillator/amplifier configurations for increased pulse energy). The technology is scalable to operate at more than 100 Hz. Please contact CEO® for more information.



Beam Profile at 2 J output energy at 532 nm



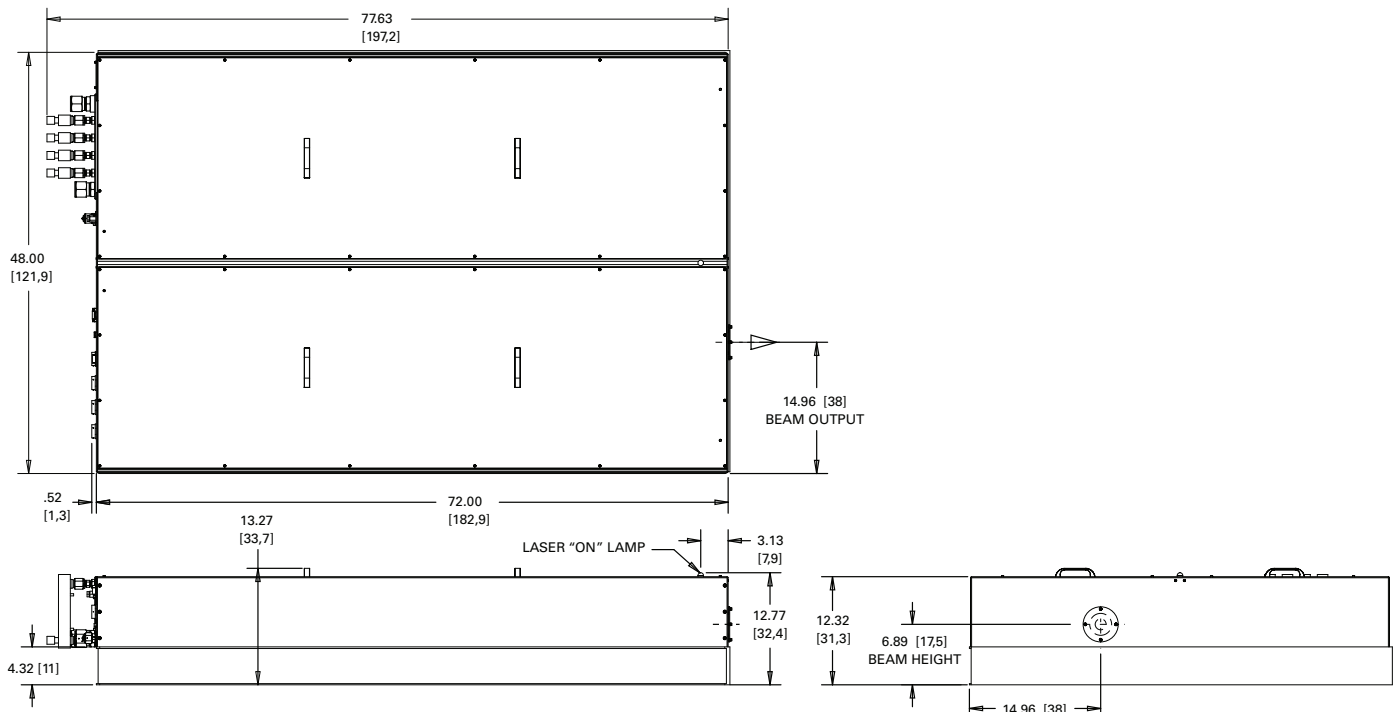
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GIGASHOT HE SPECIFICATIONS

Specifications			
Parameter	Configurations		Units
Model	GS-4000-QMI	GS-2000-QMG	—
Laser Type	DPSS Nd:YAG	DPSS Nd:YAG	—
Wavelength	1064	532	nm
Repetition Rate	10*	10*	Hz
Pulse Energy	4	2	J
Spatial Mode**	Flat top	Flat top	—
Beam Diameter @ Output Window	15.5	15.5	mm
Pulse Width (FWHM)	< 10	< 10	nsec
Pulse-to-Pulse Energy Stability	< 0.5%	< 0.5%	% rms
Jitter***	< 1.0	< 1.0	ns (rms)
Output Stability Over 8 hr	< 1	< 1	% rms
Polarization	Horizontal	Vertical	—
Electrical @ 50/60 Hz (Auto Ranging)	85 - 264	85 - 264	VAC
Operating Temperature (non-condensing)	18 - 30°C	18 - 30°C	°C
Laser Dimensions	77.63 x 48.00 x 13.27	77.63 x 48.00 x 13.27	in

*Scalable up to 100 Hz. **At image relay plane. ***With respect to Q-switch trigger.



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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.

DANGER

VISIBLE
LASER RADIATION

*AVOID EYE OR SKIN EXPOSURE TO DIRECT
OR SCATTERED RADIATION.

Wavelength	Energy	Pulsewidth	PRF
1064 nm	4.2 J	10 ns	10 Hz
532 nm	2.1 J	8 ns	10 Hz
355 nm	1 J	7 ns	10 Hz

CLASS IV LASER PRODUCT

ISO 9001:2008 REGISTERED
Rev. A, 01/15
15-0134 1/26/2015