

# SHRIKE

Compact diode-pumped pulsed Nd:YAG laser



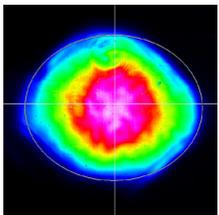
## MAIN FEATURES

- Highly ruggedized diode-pumped solid-state laser
- Laser head and control electronics embedded into one housing
- Ultra compact and portable
- Operation requires only 24 V DC power supply or battery
- Excellent beam quality for focusability and ranging
- MIL-810 standard tested to withstand harsh environments

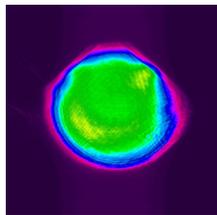
## MAIN APPLICATIONS

- LIBS
- RANGING
- ABLATION
- LiDAR
- PUMPING
- MATERIAL PROCESSING

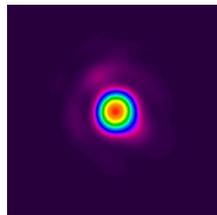
## Typical beam profile



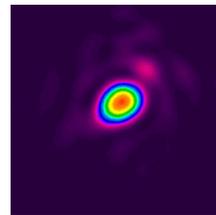
Near field 130 mJ @ 1064 nm  
Stable resonator



Near field 100 mJ @ 1064 nm  
GRM resonator



Far field 100 mJ @ 1064 nm  
GRM resonator



Far field 60 mJ @ 532 nm  
GRM resonator

[www.quantel-laser.com](http://www.quantel-laser.com)

Many options and configurations are available. Please contact Lumibird to find the best match for your needs and compatibility between options.



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## Compact diode-pumped pulsed Nd:YAG laser



### SPECIFICATIONS

		SHRIKE C-S4	SHRIKE C-G4
Resonator type		Stable	GRM
Repetition rate (Hz)		To 60	60
Energy per pulse (mJ)	1064 nm	130	100
	532 nm	65	60
	355 nm	40	30
	266 nm	On request	
Pulse duration (ns) <sup>(1)</sup>	1064 nm	< 10	< 7
	532 nm		
	355 nm		
Beam diameter (mm) <sup>(2)</sup>	1064 nm	< 5	< 5
Beam divergence (mrad) <sup>(3)</sup>	1064 nm	< 7	< 1
	532 nm	< 6	
	355 nm	< 6	
Polarization ratio (%) <sup>(4)</sup>	1064 nm	> 50:1	> 50:1
Pulse to pulse energy stability (%) <sup>(5)</sup>	1064 nm	0.5	< 1
	532 nm	< 1	< 2
	355 nm	< 2	< 3

Power drift (%) <sup>(1)</sup>	1064 nm	+/- 5
Pointing stability (µrad) <sup>(2)</sup>	All wavelengths	< 100
Jitter (ns) <sup>(3)</sup>	All wavelengths	+/- 1.5
Linewidth (cm-1) <sup>(4)</sup>	1064 nm	< 1

(1) Over 8 hours, 18 °C < T < 28 °C, for ΔT < ± 3 °C

(2) Angle containing 86.5 % energy. Other methods can predict lower values for GRM systems

(3) With respect to Q-Switch in trigger

(4) Measured at FWHM

Power requirements		24 ± 10 % VDC, 450 VA
Cooling		Conductive
Temperatures	Operating	+ 15 °C to + 35 °C
	Storage	- 10 °C to + 70 °C
Laser head sealing		IP 66
Vibration and shocks		Complies with MIL-STD-810H
Thermal load (W)		< 200
Max. altitude (m)		2000
Diodes warranty		2 billion shots
Weight (kg)	1064 nm	4
	532, 355 or 266 nm	4.5

(1) Measured at FWHM with fast photodiode and 1 GHz oscilloscope

(2) D4σ at output window

(3) D4σ, full angle

(4) Polarization is horizontal @ 1064 nm and vertical @ 532, 355 & 266 nm (given for final wavelength)

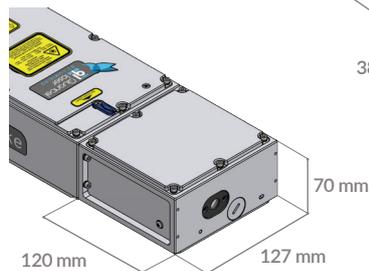
(5) 99% of pulses +/- 1 %, 1 minute, at nominal pulse repetition rate

### OPTIONS

#### Remote box



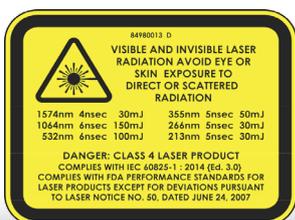
#### Harmonic generators (2ω, 2ω/3ω, 2ω /4ω)



#### Laser head & electronics



#### Water cooled plate



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