VShot series

Flash lamp-pumped PIV lasers

VShot series provide flashlamp pumped PIV lasers with a unique design of the suspended oscillator and high structural stability. The series of lasers can adapt to outdoor working in high and low temperature environment without need for re-coupling adjustment after long-distance transportation.

FEATURES

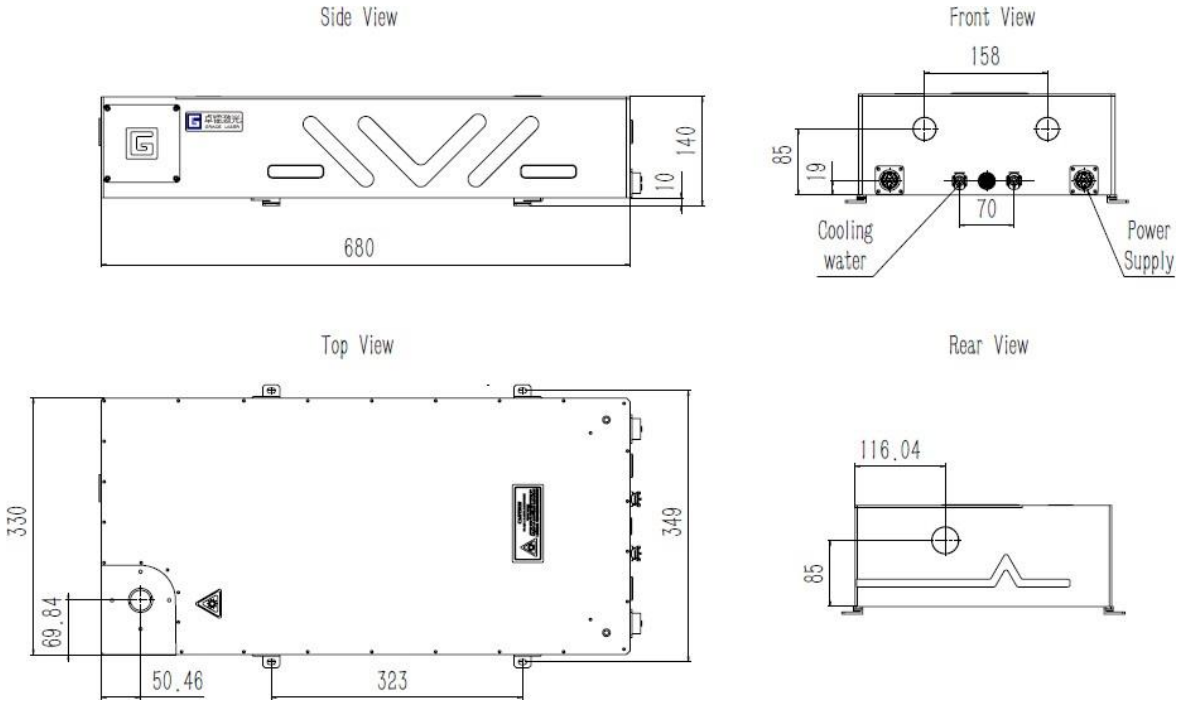
- **Pulse-pair** output **200-800mJ** at 1064nm **/ 100-450mJ** at 532nm, 3rd and 4th harmonics available
- **10Hz/15Hz** (up to 100Hz) repetition rate / **6-8 ns** pulse duration
- Diffraction ring eliminating by Gaussian Mirror to provide outstanding Top hat spatial profile with **uniform transverse field distribution**
- **Low timing jitters** configuration
- Compact and reliable two independent resonators structure ensures long-term thermal and mechanical stability

APPLICATIONS

- PIV applications
- LIF applications

VShot-450 Laser Head

Mechanical Specifications Unit:mm



VShot Specifications

Flashlamp-pumped PIV lasers

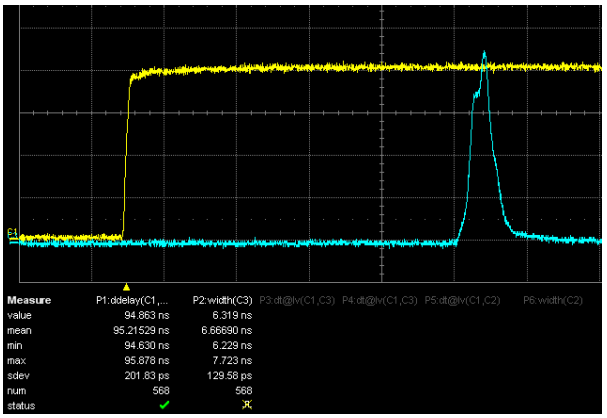
Beam Parameter

Version	VShot-200	VShot-450	VShot-H100	VShot-H200
Repetition Rate[1] (Hz)	10Hz/15Hz	10Hz	100Hz	100Hz
Energy (mJ)	Each rail			
1064nm	360	800	200	360
532nm	200	450	100	200
Energy Stability RMS (%)				
1064nm	0.7%		1.7%	
532nm	1.2%		3%	
Power Drift[2] (%)				
1064nm	3%			
532nm	5%			
355nm	8%			
Pulsewidth FWHM[3] (ns)	6-8ns @532nm		10-12ns @532nm	
Divergence[4] (mrad)	<0.6mrad(VRM mode) <3mrad(Multimode)			
Beam Pointing Stability[5] (μrad)	±50μrad		±70μrad	
Timing Jitter RMS[6] (ns)	<0.3ns		<0.5ns	
Beam Diameter (mm)	~7	~8	~6	~6.5
Beam Spatial Profile	VRM mode or Multimode			
Polarization	linear			

General Parameter

AC Input	220 VAC ±5% 50 -60Hz
Power Consumption	<1.5kW (typical 450mJ at 532nm/10Hz)
Operating Conditions	Temperature 5-35℃ Humidity <80%

NOTES
1.All specifications at 532nm and 10Hz repetition rate unless otherwise noted.
2.Average in 8 hours with room temperature variation δT<3℃.
3.Full width at half maximum.
4.Full angle for 86.5% of energy.
5.Maximum deviation from beam mean centroid.
6.With respect to external trigger.



Timing Jitter & Pulsewidth

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