

## LAMBER series

### High energy flashlamp-pumped Nd:YAG ns-laser

#### FEATURES

- **8-30J** at 1064nm / Harmonics from 532nm to 355nm
- **10 / 5 / 1Hz** repetition rate / **8-25 ns** pulse duration
- Incorporate Gaussian Mirror to provide outstanding Top hat spatial profile
- Compact, hermetic and robust mechanical design
- Injection seeded single longitudinal mode (SLM) option
- Output Faraday rotation isolator option

#### APPLICATIONS

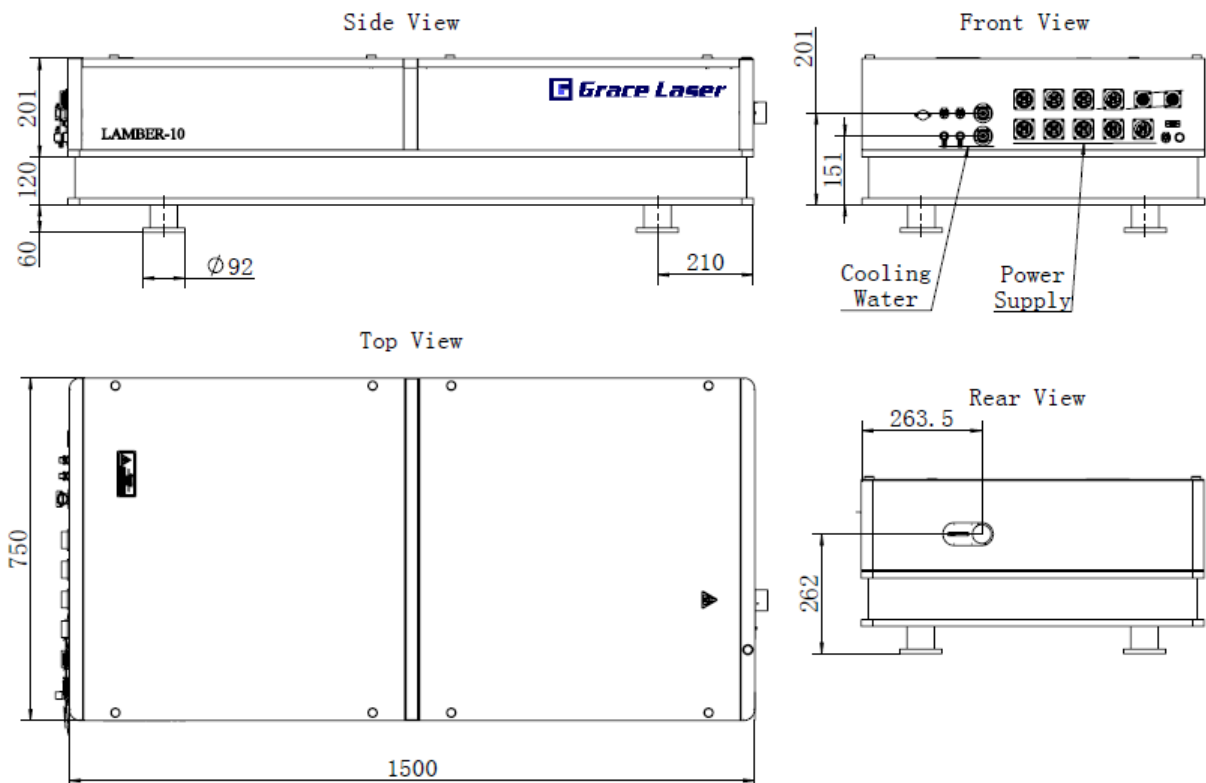
- Laser shock peening processing
- Material damage threshold research
- Large area ablation
- Plasma physics
- Silicon annealing
- Pumping source



*LAMBER laser systems can achieve up to 30J Q-switched linear polarized output with RS232 software control. High energy and nanosecond pulse duration provide high intensity pulses, low transverse field modulations make sure to get rather uniform energy distribution.*

LAMBER-10 Laser Head  
Mechanical Specifications

Unit:mm



# LAMBER Specifications



## High energy flashlamp-pumped Nd:YAG ns-laser

### Beam Parameter

Version	LAMBER-08	LAMBER-10	LAMBER-12	LAMBER-15	LAMBER-H30
Repetition Rate <sup>1</sup> (Hz)	1-10Hz			1-5Hz	
Energy (J)	Single lane output				
1064nm	8J	10J	12J	15J	30J
532nm	5J	7J	8J	10J	20J
355nm	2J	2.5J	3J	4J	8J
Energy (J)	Dual lane output (nominally for TW/PW pumping)				
1064nm	2×4J	2×5J	2×6J	2×7.5J	2×15J
532nm	2×2.5J	2×3.5J	2×4J	2×5J	2×10J
Energy Stability RMS (%)					
1064nm	0.7%				
532nm	1.2%				
355nm	1.7%				
Pulsewidth FWHM <sup>2</sup> (ns)	8-12ns @1064nm (18-25ns optional for LSP application with rise time<5ns)				
Divergence <sup>3</sup> (mrad)	<0.5mrad				
Transverse field Peak to Average	<1.5@1064nm <1.7@532nm				
Pointing Stability <sup>4</sup> (μrad)	±50μrad				
Timing Jitter RMS <sup>5</sup> (ns)	<0.5ns				
Beam Diameter (mm for single lane output)	~20	~22	~25	~27	~36
Beam Spatial Profile	Top hat				
Near Field Fit to Gaussian<1m	70%				
Far Field Fit to Gaussian (∞)	95%				
Polarization	linear				
Linewidth (cm <sup>-1</sup> )					
Standard	1				
Injection Seeded SLM <sup>6</sup>	0.005				

### General Parameter

AC Input	220V or 380 VAC ±5% 50-60Hz
Power Consumption	<10kW (typical 12J at 5Hz)
Operating Conditions	Temperature 5-35°C Humidity < 80%

#### NOTES

- 1.All specifications at 1064nm and maximum repetition rate unless otherwise noted.
- 2.Full width at half maximum.
- 3.Full angle for 86.5% of energy.
- 4.Maximum deviation from beam mean centroid.
- 5.With respect to external trigger.
- 6.Injection seeded version reduces energy by 10%.

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