

## TINY series

### Diode-pumped Nd:YAG ns-laser



#### FEATURES

- Air cooled compact design and no water required
- 30-80mJ at 1064nm / Harmonics from 532nm to 266nm
- 10-50 Hz repetition rate / 8-10 ns pulse duration
- Compact hermetic and robust resonator structure ensures long-term thermal and mechanical stability
- Long lifetime is over 1 billion shots
- RS232 interface for remote operation

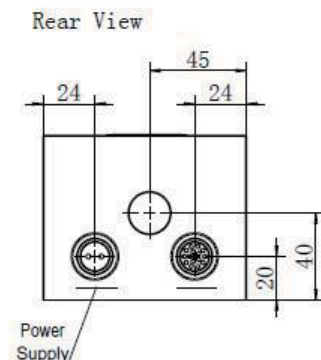
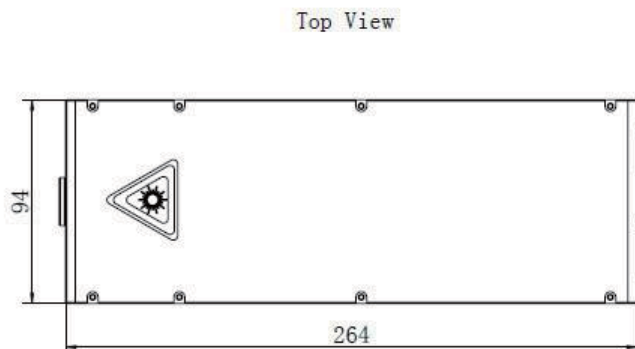
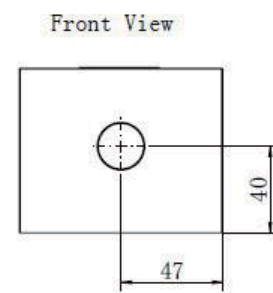
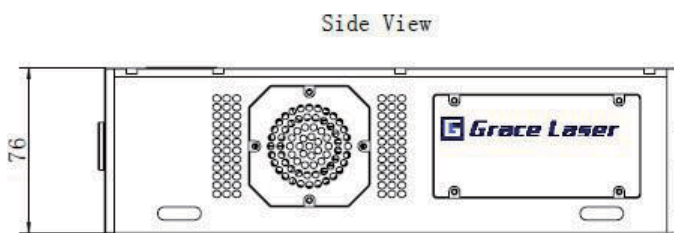
*TINY series provide most compact and portable diode pumped and air cooled nanosecond lasers with high performance and at a very reasonable price. Diode pumping reduces size, improves lifetime, and reduces maintenance.*

#### APPLICATIONS

- LIDAR
- LIBS
- Remote sensing
- Ablation
- Mass spectroscopy

TINY-80 Laser Head  
Mechanical Specifications

Unit:mm



## Diode-pumped Nd:YAG ns-laser

### Beam Parameter

Version	TINY-30	TINY-50	TINY-80
Repetition Rate <sup>1</sup> (Hz)	10-50Hz	10-30Hz	10-20Hz
Energy (mJ)			
1064nm	30	50	80
532nm	18	30	50
355nm	7	12	20
266nm	4	6	10
Energy Stability RMS (%)			
1064nm		0.7%	
532nm		1.2%	
355nm		1.7%	
266nm		2.8%	
Power Drift <sup>2</sup> (%)			
1064nm		3%	
532nm		5%	
355nm		8%	
266nm		10%	
Pulsewidth FWHM <sup>3</sup> (ns)		8-10ns @1064nm	
Divergence <sup>4</sup> (mrad)		<3mrad	
Beam Pointing Stability <sup>5</sup> (μrad)		50μrad	
Timing Jitter RMS <sup>6</sup> (ns)		<1ns	
Beam Diameter (mm)	~5	~5	~6
Transverse Mode <sup>7</sup>		Multimode (GRM mode option)	
Polarization		linear	
Warm Up Time (min)		<10min	

### General characteristics

AC Input	220 VAC ±5% 50 -60Hz
Power Consumption	<200W(typical 80mJ at 10Hz)
Operating Conditions	Temperature 10-30°C Humidity < 60%

#### NOTES

- All specifications at 1064nm and 10Hz repetition rate unless otherwise noted.
- Average in 8 hours with room temperature variation  $\delta T < 3^{\circ}\text{C}$ .
- Full width at half maximum.
- Full angle for 86.5% of energy.
- Represents RMS value deviation from beam mean centroid.
- With respect to external trigger.
- GRM resonator mode or stable multimode option. Stable version may operate over a wider range of repetition rate and higher output energy compared with GRM mode.



### Grace Laser Technology Co., Ltd.

Ju Hong BLDG B, Area B, Airport Industrial Park, Shunyi District, Beijing, China  
 Postcode: 101318  
 Tel: +86 010-60401920 Fax: +86 010-60401720 Email: sales@gracelaser.com  
 Web: www.gracelaser.com

**PHOTO  
TECHNICA** www.phototechnica.co.jp  
 フォトテクニカ株式会社  
 〒336-0017 埼玉県さいたま市南区南浦和 1-2-17  
 TEL:048-871-0067 FAX:048-871-0068  
 e-mail:voc@phototechnica.co.jp