

NLSO Series Single-Mode Narrow Linewidth Diode Laser Module



Key Features

- ◆ Power stability < $\pm 2\%$
- ◆ Low power consumption, typical < 5W
- ◆ Compact design, easily integrated

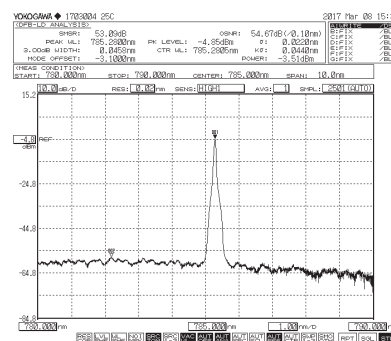
Applications

Raman spectroscopy
Laser-induced fluorescence (LIF)
Fluorescence Spectrometer
Particle size analysis
Flow cytometer
Confocal microscopy

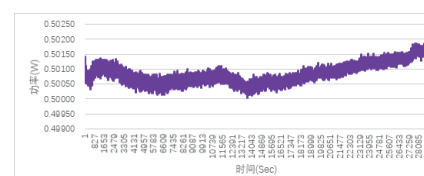
Technical Specifications

Optical Parameters			
Center Wavelength (nm)	532*	785	1064
Output Power (mW)	100	100	300
Wavelength Tolerance (nm)	±0.5		
Linewidth (nm)	<0.1		
Power Stability (typ., @4h)	<3%(RMS)	±2%(P-P)	
Wavelength Stability (typ., @4h)	±5 pm	±7 pm	
SMSR (dB)	-	35~45	
System Parameters			
Adjustbility % Full Power	0~100%		
Warm up Time (min)	15		
Control Interface	PH2.0~10P, USB		
Supply Voltage	5VDC/2A		
Power Consumption (typ., W)	<5		
Storage Humidity	0~70% RH		
Storage Temperature (℃)	-25~55		
Operating Temperature (℃)	10~35 (heat sink is required)		
Weight (g)	<150		
Dimensions (mm)	76.2×63.5×22		

1. *532nm is diode pumped solid-state laser.
2. Higher power options available upon request.
3. All the data in the above table are the typical values obtained from the tests at room temperature of 25°C , and the final data is subject to the final test report.



785nm laser spectrum (SMSR > 40dB)

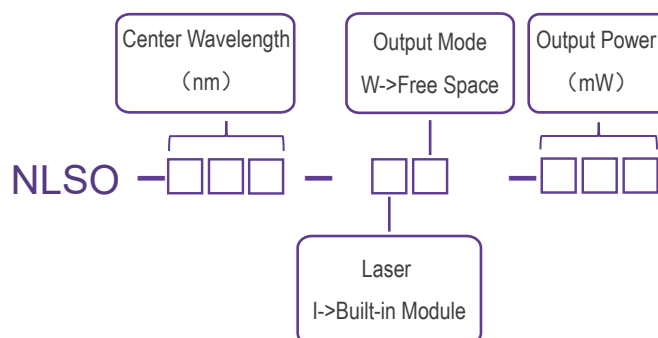


785nm power stability@4h

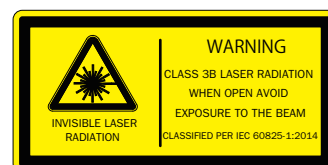
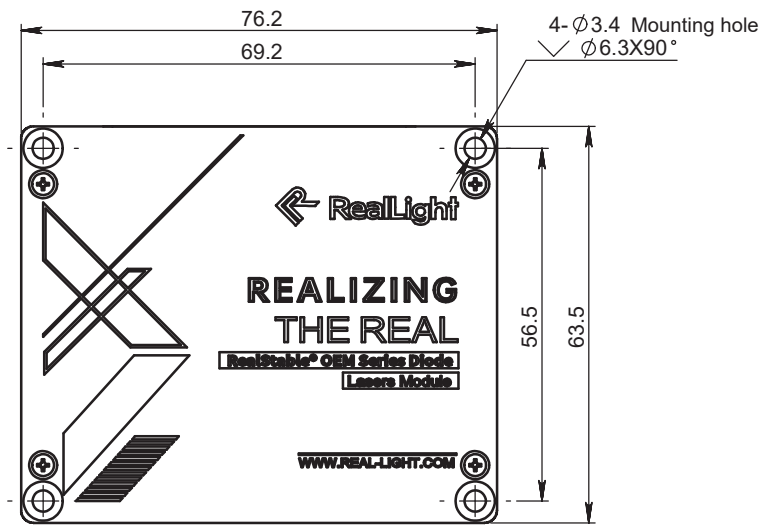
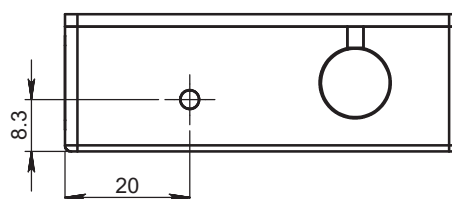
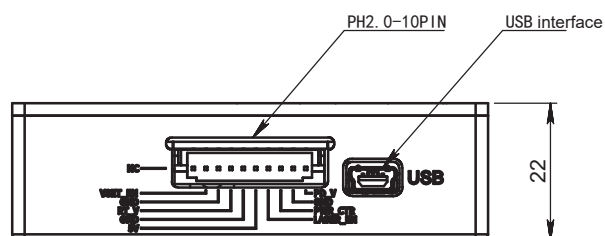
Ordering Information

Wavelength (nm)	Output Power (mW)	Part Number
532	100	NLSO-532-IW-100
785	100	NLSO-785-IW-100
1064	300	NLSO-1064-IW-300

Part Numbering Schema



Mechanical Drawings (mm)



Pin Descriptions		
PIN	Function	Description
1	NC	NC
2	VSET_ENABLE	Set to low-level to control power through PIN8, high level or left floating: the laser outputs at rated power
3	GND	Signal Ground
4	RTV	Rt signal level, 1.5V for 25°C
5	GND	Input Power Ground
6	+5V	5VDC/2A
7	LASER ENABLE	Set to high-level to enable the laser, low-level or suspend to disable LD
8	Power Control	Apply 0-1.2V to control output power (0-100% full power adjustability)
9	GND	Signal Ground
10	PDV	PD feedback signal