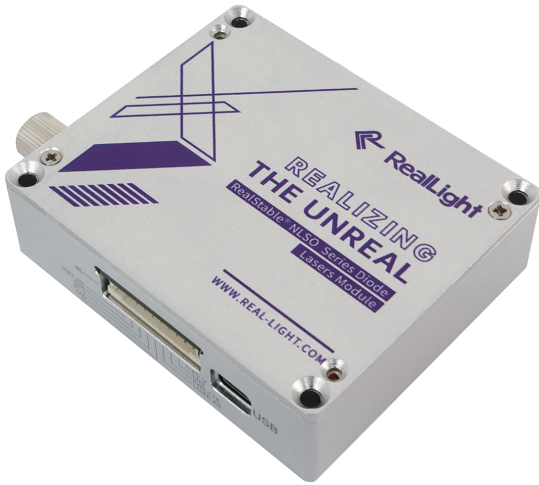


NLSO Series Single Mode Narrow Linewidth Laser



Key Features

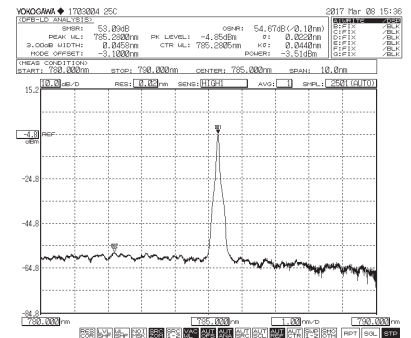
- ◆ Power stability $\pm 2\%$
- ◆ Low power consumption, typical <math>< 5W</math>
- ◆ Compact design, easily integrated

Applications

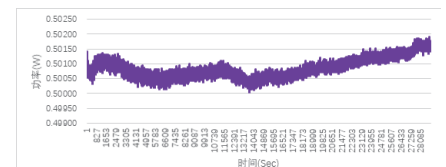
- Raman spectroscopy
- Laser-induced fluorescence
- Laser-induced fluorescence (LIF)
- Particle size analysis
- Flow cytometer
- Confocal microscopy
- Laser holography
- Laser indicator

Technical Specifications

Optical Parameters							
Center Wavelength (nm)	405	450	520	638	650	785	1064
Output Power (mW)	100	100	100	100	100	100	300
Wavelength Tolerance (nm)	± 5	± 10				± 0.5	
Linewidth (nm)	<math>< 2</math>	<math>< 2</math>	<math>< 3</math>	<math>< 3</math>	<math>< 3</math>	<math>< 0.1</math>	
Power Stability	$\pm 2\% @ 4h \text{ typ.}$						
Output Fiber ($\mu\text{m}/\text{NA}$)	105/0.22					-	
Connector	FC/PC , SMA905					-	
Wavelength Stability	-					$\pm 7\text{pm}@4h \text{ typ.}$	
SMSR (dB)	-					35-45	
System Parameters							
Adjustability % Full Power	0~100%						
Warm up Time (min)	15						
Control Interface	PH2.0-10P , USB						
Supply Voltage	5VDC/2A						
Power Consumption	<math>< 5W \text{ typ.}</math>						
Storage Humidity	0~70% RH						
Storage Temperature ($^{\circ}\text{C}$)	-10~60						
Operating Temperature ($^{\circ}\text{C}$)	10~35 (heat sink is required)						
Weight (g)	<math>< 150</math>						
Dimensions (mm)	76.2×63.5×22						



785nm laser spectrum (SMSR > 40dB)



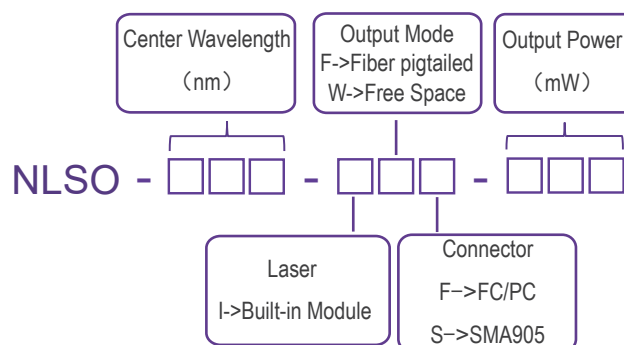
785nm power stability@4h

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.

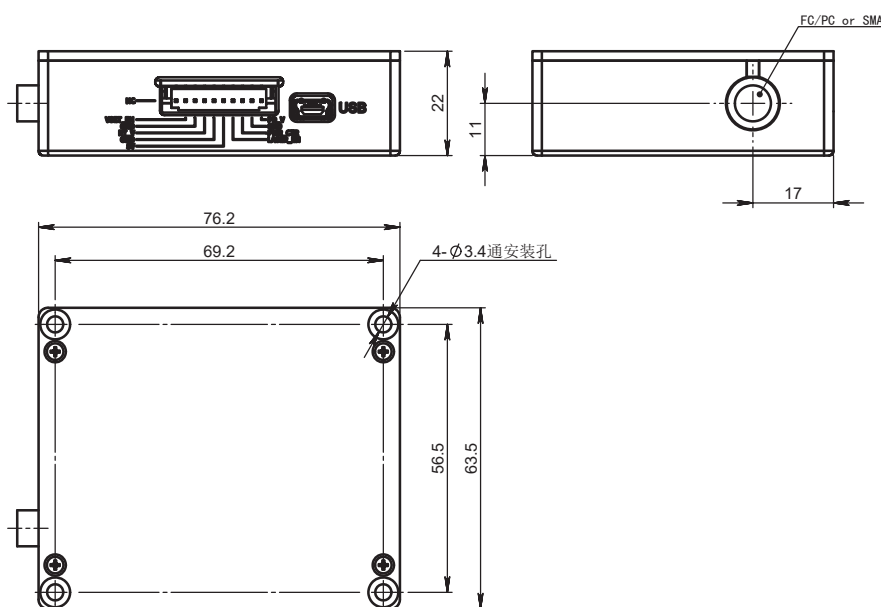
Ordering Information

Wavelength (nm)	Output Power (mW)	Part Number	Connector
405	100	NLSO-405-IF(F)-100	FC/PC
	100	NLSO-405-IF(S)-100	SMA905
450	100	NLSO-450-IF(F)-100	FC/PC
	100	NLSO-450-IF(S)-100	SMA905
520	100	NLSO-520-IF(F)-100	FC/PC
	100	NLSO-520-IF(S)-100	SMA905
638	100	NLSO-638-IF(F)-100	FC/PC
	100	NLSO-638-IF(S)-100	SMA905
650	100	NLSO-650-IF(F)-100	FC/PC
	100	NLSO-650-IF(S)-100	SMA905
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 suspend to disable LD
3	GND	Input Power Ground
4	RTV	Rt signal level, 1.25V 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, 0.5V for 100mW/350mW

Note: This dimensional drawing applies to products with wavelengths of 785/1064 nm. For products with other wavelengths, please contact the sales team for validated dimensional specifications.

