

NLS Series Single mode Narrow Linewidth Laser



The NL series narrow linewidth diode lasers are Reallight's self-developed wavelength-stabilized lasers, deliver high output power and excellent stability at 532nm, 638nm, 784nm, 785nm, 808nm, 830nm, 981nm or 1064nm output wavelengths, with power ranging from 100mW to 800mW.

Key Features

- ◆ Linewidth < 0.1nm
- ◆ Excellent wavelength stability $\pm 7\text{pm}@4\text{h}$
- ◆ SMSR is better than 40dB
- ◆ Built-in TEC, power stability $\pm 2\%$
- ◆ Contains PC control, emergency stop button, short circuit protection functions
- ◆ Raman analysis software available

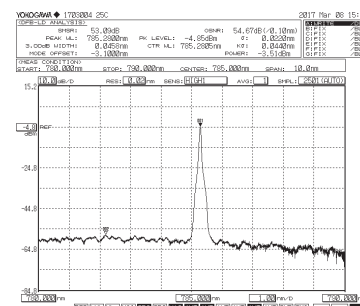
Applications

- Raman spectroscopy
- Laser-induced fluorescence
- Pumping source

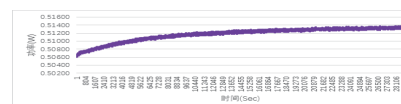
Technical Specifications

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)	<3			<0.1			
Wavelength Stability	$\pm 7\text{pm}@4\text{h typ.}$						
Power Stability	$\pm 2\% @ 4\text{h typ.}$						
SMSR	-					35-45	
System Parameters							
Adjustability % Full Power	0~100%						
Warm up Time (min)	15						
Modulation Input	Analog signal 100Hz						
Control Interface	USB , BNC						
Connector	SMA905 , FC/PC						
Output Fiber	105 μm , 0.22 NA						
Supply Voltage	5VDC/2A						
Power Consumption	<7 W typ.						
Storage Humidity	10~60						
Storage Temperature ($^{\circ}\text{C}$)	0~70% RH						
Operating Temperature ($^{\circ}\text{C}$)	10~35						
Weight (kg)	1.2						
Dimensions (mm)	180 \times 90 \times 180						

1. All the data in the above table are the typical values obtained from the tests at room temperature of 25 $^{\circ}\text{C}$, and the final data is subject to the final test report.



785nm laser spectrum (SMSR>40dB)

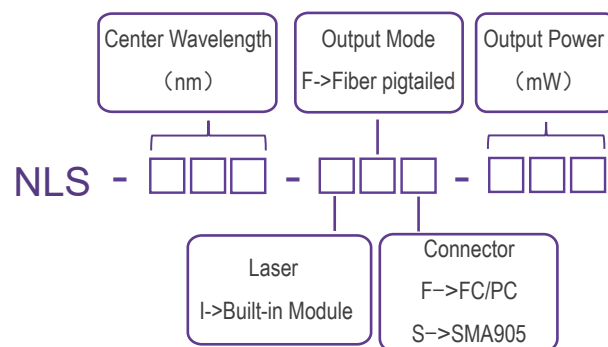


785nm power stability@4h

Ordering Information

Wavelength (nm)	Output Power (mW)	Part Number	Connector
405	100	NLS-405-IF(F)-100	FC/PC
	100	NLS-405-IF(S)-100	SMA905
450	100	NLS-450-IF(F)-100	FC/PC
	100	NLS-450-IF(S)-100	SMA905
520	100	NLS-520-IF(F)-100	FC/PC
	100	NLS-520-IF(S)-100	SMA905
638	100	NLS-638-IF(F)-100	FC/PC
	100	NLS-638-IF(S)-100	SMA905
650	100	NLS-650-IF(F)-100	FC/PC
	100	NLS-650-IF(S)-100	SMA905
785	100	NLS-785-IF(F)-100	FC/PC
	100	NLS-785-IF(S)-100	SMA905
1064	300	NLS-1064-IF(F)-300	FC/PC
	300	NLS-1064-IF(S)-300	SMA905

Part Numbering Schema



Mechanical Drawings (mm)

