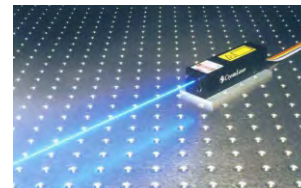
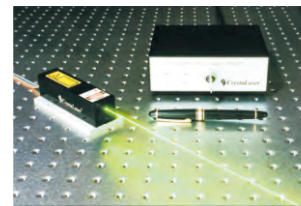


## Crystal系列

### 特点：

- 波长473 nm-1342 nm，功率高达3 W
- 低噪音、单纵模、超稳定
- 优异的光束指向稳定性与功率稳定性
- 空气冷却
- TTL调制
- 自由空间出射、光纤耦合出射

**应用：**拉曼光谱、激光雷达、荧光光谱、共聚焦显微分析、种子激光、干涉、神经生物学、光镊、流式细胞学



### 指标参数

#### CW DPSS Blue/Green Lasers

Wavelength(nm)	473, 532		
Laser version	SLM version	Low noise version	Standard version
max. power(mW), 473 nm	20	70	150
max. power(mW), 532 nm	200	500	500
Transverse mode	Single mode, TEM <sub>00</sub> , M <sup>2</sup> < 1.2		
Longitudinal mode	Single	Multiple	Multiple
Linewidth, 473 nm	< 0.0001nm	1 nm	0.1 nm, nominal
Coherence length, 532 nm	> 300 meters	0.5 - 3 mm	0.5 - 3 mm
Beam diameter (1/e <sup>2</sup> )	473 nm: 1.1 mm	1.1 mm	0.7 mm
Beam divergence	473 nm: 0.65 mrad	0.65 mrad	1 mrad
	532 nm: 0.36 mm	Option: 2X - 5X laser beam expanders are available to change beam size and divergence e.g. 0.7 mm beam with 1 mrad divergence; or 1.4 mm beam with 0.5 mrad divergence	
	2 mrad		
Output stability (rms)	473 nm: 2% over 2 hours	1% over 8 hour, Ultra-stable option 0.25% 24 hours	
	532 nm: < 2% over 2 hours; Ultra-stable option: 0.5% or 0.25% over 24 hours	2% over 2 hours	
Beam pointing stability	< 0.005 mrad/°C		
Polarization ratio	473 nm: Vertical 100:1		
	532 nm: 50:1, >100:1 option available; 45° off vertical, for ≥ 300 mW laser, vertical linear polarization		

#### CW DPSS Green Lasers

Wavelength	Standard version, Model No.				SLM version, Model No.		
523.5 nm		CL523-400	400 mW	CL523-100	100 mW	CL523-025-S	25 mW
	Vertical polarization	CL523-300	300 mW	CL523-050	50 mW	CL523-010-S	10 mW
		CL523-200	200 mW	CL523-025	25 mW	45° off vertical polarization*	
526.5 nm	Horizontal polarization	CL527-400	400 mW	CL527-100	100 mW	CL527-025-S	25 mW
		CL527-300	300 mW	CL527-050	50 mW	CL527-010-S	10 mW
		CL527-200	200 mW	CL527-025	25 mW	45° off vertical polarization*	
542 nm	Vertical polarization	CL542-075	75 mW			CL542-025-S	25 mW
		CL542-050	50 mW			CL542-010-S	10 mW
		CL542-025	25 mW			45° off vertical polarization*	
Longitudinal mode	Multiple				Single longitudinal mode		
Coherence length	0.5 - 3 mm				> 300 meters		
Spectrum linewidth	0.15 nm, nominal				< 10 <sup>-5</sup> nm		
Output noise (rms)	2% from 1Hz to 10 kHz, ~20% at 500 kHz				1% from 1 Hz to 100 MHz		
Output stability (rms)	< 2% over 2 hours; Ultra-stable option: 0.5% or 0.25% over 24 hours						
Transverse mode	Single mode, TEM <sub>00</sub> , M <sup>2</sup> = 1.1 - 1.2						
Beam diameter (1/e <sup>2</sup> )	0.25 mm	Option: 2X - 5X laser beam expanders are available to change beam size and divergence e.g. 0.7 mm beam with 1 mrad divergence; or 1.4 mm beam with 0.5 mrad divergence					
Beam divergence	3 mrad						
Beam pointing stability	< 0.005 mrad/°C						
Polarization ratio	50:1, >100:1 option available; 45° off vertical, for ≥ 300 mW laser, vertical linear polarization						

## 小型半导体/固体激光器---连续激光器Crystal系列

### CW DPSS Yellow Green Lasers

Wavelengths(nm)	561/585	593/594
Output power(mW)	250,200,150, 100, 50, 25	50, 25, 10
Transverse mode	Single mode, TEM <sub>00</sub> , M <sup>2</sup> = 1.1 - 1.2	
Beam diameter(1/e <sup>2</sup> )	0.7 mm(2X, 3X or 5X laser beam expander options available)	
Beam divergence, full angle	~ 1.1 mrad (can be reduced with a beam expander)	
Output noise, rms	2%(1 Hz ~10 kHz), ~20%(500 kHz)	
Output stability, rms	<2% over 8 hours; Ultra-stable options: 0.5% or 0.25% over 24 hours	
Beam pointing stability	<0.005 mrad/°C	
Polarization ratio	Linear; Ratio 50:1; >100:1 option available	

### CW DPSS Red Lasers

Wavelengths(nm)	657, 660, 671	
Laser version	SLM version	Standard version
671 nm power(mW)	250,200, 150, 100, 50	300, 200, 150, 100, 50
657 nm 660 nm power(mW)	25	300, 200, 150, 100, 50
Longitudinal mode	Single	Multiple
Linewidth	<10 <sup>-5</sup> nm	<0.15 nm, nominal
Coherence length	> 30 meters	0.5 - 3 mm
Transverse mode	Single mode, TEM <sub>00</sub> , M <sup>2</sup> = 1.1 - 1.2	
Beam diameter(1/e <sup>2</sup> )	~ 0.3 mm(2X, 3X,5X or 10X laser beam expander options available)	
Beam divergence, full angle	~ 2.5 mrad(can be reduced with a beam expander)	
Output stability, rms	< 2% over 2 hours; Ultra-stable option: 0.5% or 0.25% over 24 hours	
Beam pointing stability	< 0.005 mrad/°C	
Polarization	50:1, >100:1 option available; vertical linear polarization	

### CW DPSS Infrared Lasers

Wavelengths(nm)	946, 1030, 1047, 1053, 1064		
Laser crystal	Nd:YAG		
Laser version	Low noise version	SLM version	Standard version
946 nm power(mW)	200, 100	200, 100, 10	
1030 nm power(mW)		200, 100, 50	200, 100
1047 nm power(mW)		300, 150	2.5,2,1.5,1W;800,500,300,150 mW
1053 nm power(mW)		300, 200, 150, 100, 50	2.5,1.5,1 W; 700,400,300,200,100 mW
1064 nm power(mW)		700, 500, 400, 300, 100, 50, 10	3,2.5,2,1.5,1 W; 800,500,300,100 mW
Longitudinal mode spectrum	Multiple	Single; frequency tunable option available	
Coherence length	1 - 5 mm	> 300 meters	
Linewidth	0.3 nm, nominal	< 10 <sup>-5</sup> nm	
1030 nm power(mW)		< 10 <sup>-5</sup> nm	
Modulation options	TTL 1kHz, 3 kHz, 10 kHz, 50kHz Analog control, Analog modulation	TTL on/off option	TTL 1kHz, 3 kHz, 10 kHz, 50kHz Analog control, Analog modulation
Output stability (rms)	946,1030 nm	< 2% over 2 hours; ultra-stable option: 0.5% over 24 hours	
	1064 nm	< 1% over 24 hours; ultra-stable option: 0.25% over 24 hours < 1.5% over 24 hours; ultra-stable option: 0.5% or 0.25% over 24 hours	
Transverse mode	Single mode, TEM <sub>00</sub> , M <sup>2</sup> = 1.1 - 1.2		
Beam diameter (1/e <sup>2</sup> )	0.3 mm	0.4 mm	Option: 2X - 5X laser beam expanders are available to change beam size and divergence e.g. 0.6 mm beam with 2.5 mrad divergence; or 2 mm beam with 0.8 mrad divergence
Beam divergence	5 mrad	4 mrad	
Beam pointing stability	< 0.005 mrad/°C		
Polarization ratio	100:1; Vertical linear polarization		

Wavelength	Standard version, Model No.	SLM version, Model No.
1313 nm Vertical polarization	CL1313-1W0 1 W	CL1313-300 300 mW
	CL1313-500 500 mW	CL1313-100 150 mW
1319 nm Vertical polarization	CL1319-1W0 1 W	CL1319-300 300 mW
	CL1319-500 500 mW	CL1319-100 150 mW
1342 nm Horizontal polarization	CL1342-1W5 1.5 W	CL1342-300 300 mW
	CL1342-1W0 1 W	CL1342-150 150 mW
	CL1342-500 500 mW	CL1342-075 75 mW
Longitudinal mode spectrum	Multiple	Single; frequency tunable option available
Coherence length	1 - 5 mm	> 300 meters
Linewidth	0.3 nm, nominal	< 10 <sup>-5</sup> nm
Modulation options	TTL 1k, 3k, 10 kHz, 50kHz; Analog modulation	TTL on/off option
Output stability (rms)	< 1.5% over 24 hours; ultra-stable option: 0.5% or 0.25% over 24 hours	
Transverse mode	Single mode, TEM <sub>00</sub> , M <sup>2</sup> = 1.1 - 1.2	
Beam diameter (1/e <sup>2</sup> )	0.3 mm	Option: 2X - 5X laser beam expanders are available to change beam size and divergence
Beam divergence	6 mrad	e.g. 0.6 mm beam with 3 mrad divergence; or 1 mm beam with 2 mrad divergence
Beam pointing stability	< 0.005 mrad/°C	
Polarization ratio	100:1; linear polarization	

### CW Lasers Electrical and Environmental Specifications

Size and weight of laser head	Type 1: LxWxH, 12x3x3 cm <sup>3</sup> with a fixed 6 mm thick base plate, 0.3 kg For most CW laser systems Type 2: LxWxH, 18.5x5x3.6 cm <sup>3</sup> , 0.4 kg Type 3: LxWxH, 18.5x7x3.6 cm <sup>3</sup> , 0.5 kg Type 4: LxWxH, 13.5x3x3.6 cm <sup>3</sup>
Size and weight of power supply	AC: 5x14x15 cm <sup>3</sup> (2x5.5x6 in <sup>3</sup> ), 0.5 kg (1 lb); Option CL-2005 power display AC: 5 x 16 x 15 cm <sup>3</sup> DC: 8.5x3.5x12.7 cm <sup>3</sup> (3.3x1.4x5 in <sup>3</sup> ), 0.2 kg (0.5 lb);
Operating temperature	10 °C to 35 °C
Warm-up time	<1 minute
Operating voltage	90-250 VAC or 12 VDC OEM version 11-16 VDC; Typical power consumption: 10 W



CL2005电源

### 客户可选功能：

- TTL调制
- 超稳定
- 光纤耦合
- 升级到CL2005带功率调节和显示器的电源
- 模拟功率控制
- 光束扩展
- RS-232串行控制