



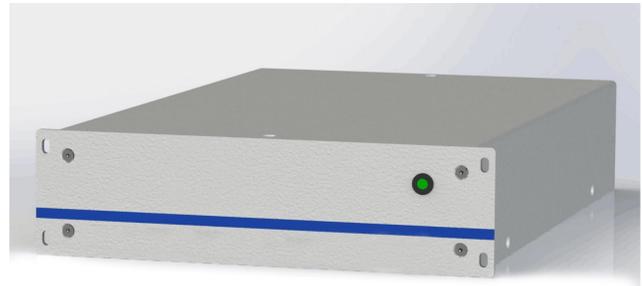
# 405nm Laser Diode

## ■ Features

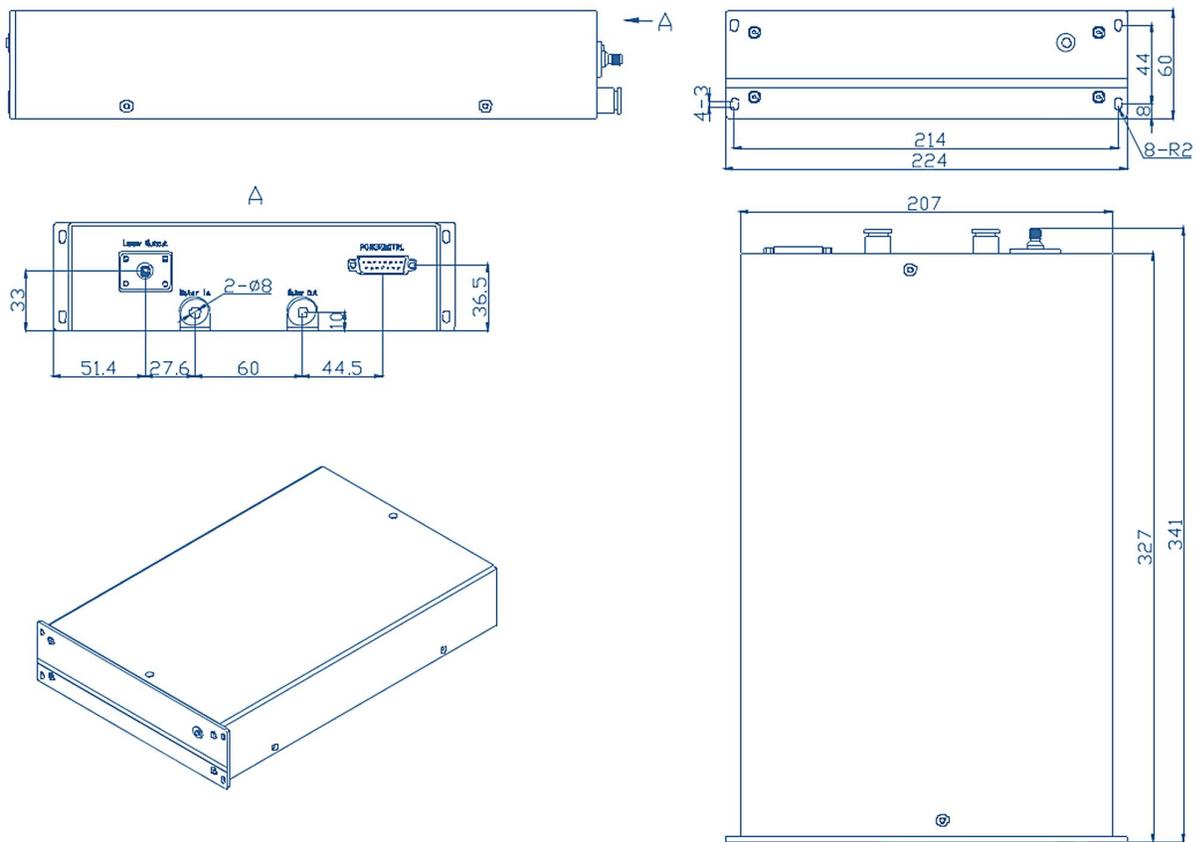
- ◆ High output power of 60W
- ◆ 600 $\mu$ m/0.22NA special optical fiber
- ◆ Center wavelength 400-405nm

## ■ Applications

- ◆ LDI
- ◆ Medical Application
- ◆ Scientific Research



## Outline Dimension (mm)



\*This type of laser system can only use the special optical fiber of our company, and cannot use the ordinary optical fiber.

## Typical Device Performance (20°C)

	Typical	Unit
<b>Optical</b>		
CW Output Power	60	W
Center Wavelength	400-405	nm
Spectral Width (90% of Power)	<6.0	nm
<b>Fiber*</b>		
Fiber Core Diameter	600	μm
Fiber Length	2	m
Fiber Connector	SMA905-SMA905	-
<b>System Control Mode and Function</b>		
Control Interface	D-sub-15	-
Control Model	Analog voltage and RS232/RS485	-
Power Regulation Range	0-60W	-
Protection	Over Voltage/Over Current/Over Temperature	-
<b>Electrical Parameter</b>		
Voltage	DC24	V
Current	12.5	A
Electric Power	300	W
<b>Water cooling</b>		
Refrigerating Capacity	300	W
Minimum Flow Rate	4.5	L/min
Water Pressure	0.3	MPa
Operating temperature	20-25	°C
Water Quality	RO/DI/DH2O	

\* Customized fiber and connector available.

\* Measuring specifications.

All figures in this specification are measured by CNI's method and may contain measurement deviations.

The above specifications are for reference purpose only and subjected to change without prior notice.



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## Appendix

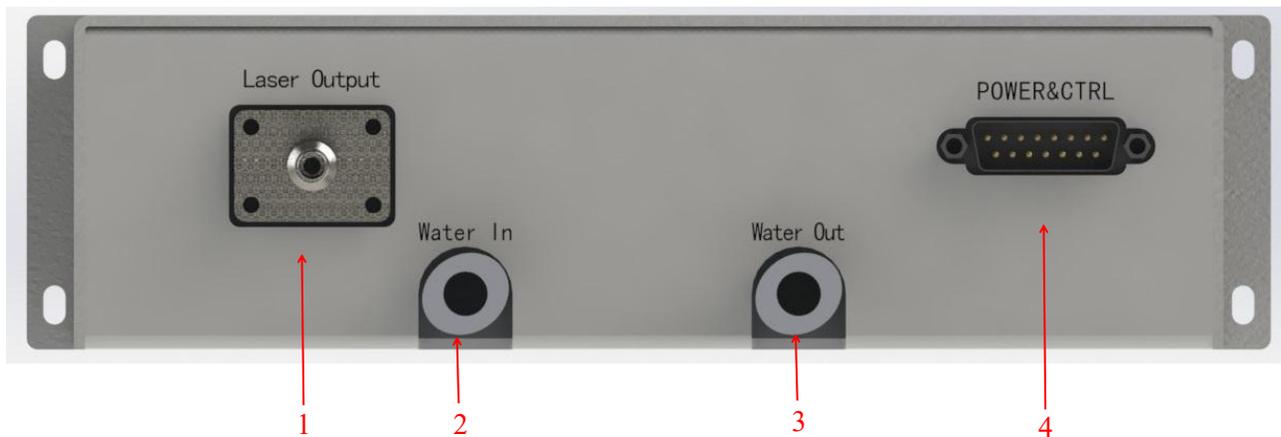
### ◆ Front panel function illustration



### ◆ Front panel function description

	Component	Function	Note
1	Laser status indicator	Indicating laser status	Green light-Normal Red light-Abnormal

### ◆ Back panel function illustration



◆ Back panel function description

	Name of each part	Function
1	Laser output	SMA905 Fiber socket
2	Water in	Quick-screw connector, pipe specifications: $\phi 8-\phi 5$ mm
3	Water out	Quick-screw connector, pipe specifications: $\phi 8-\phi 5$ mm
4	POWER & CTRL	DB15, pins are defined as follows.

DB15 interface pins definition

	Pin definition	I/O	Function description
1	24V_DC	I	System power supply 24V+
2	24V_DC	I	System power supply 24V+
3	24V_DC	I	System power supply 24V+
4	24V_DC	I	System power supply 24V+
5	GND	-	System power supply 24V-
6	GND	-	System power supply 24V-
7	GND	-	System power supply 24V-
8	GND2	-	Singal ground
9	DRV_LD	I	Laser power control signal positive pole, 0-2.3V corresponds to 0-100% power output. 2.3-2.4V reserves power.
10	-	-	-
11	MON_TMP	0	Thermistor signal
12	SHUT_DWN	0	System status feedback signal. SHUT_DWN signal is lowered when the system is normal, and Open-Drain when the system is abnormal.
13	RX	I	RS232_RX/RS485A
14	TX	0	RS232_TX/RS485B
15	GND	-	System power supply 24V-

MON\_TMP signal is defined as follows:

LD temperature	MON_TMP (Thermister output)
10° C	3.7V
20° C	3.3V
30° C	2.9V
40° C	2.4V

When the voltage of 11 pins is less than 3.0V (The temperature is higher than 28°C), laser temperature alarm, automatically turn off the laser system and alarm.

When the voltage of 11 pins returns to higher than 3.0V (The temperature is lower than 28°C), the alarm can be removed after the laser is powered off and restarted.