



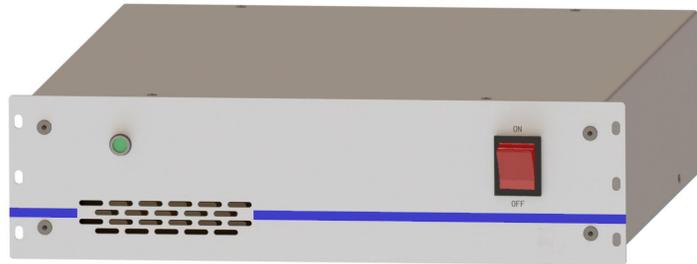
# 405nm Laser Diode

## ■ Features

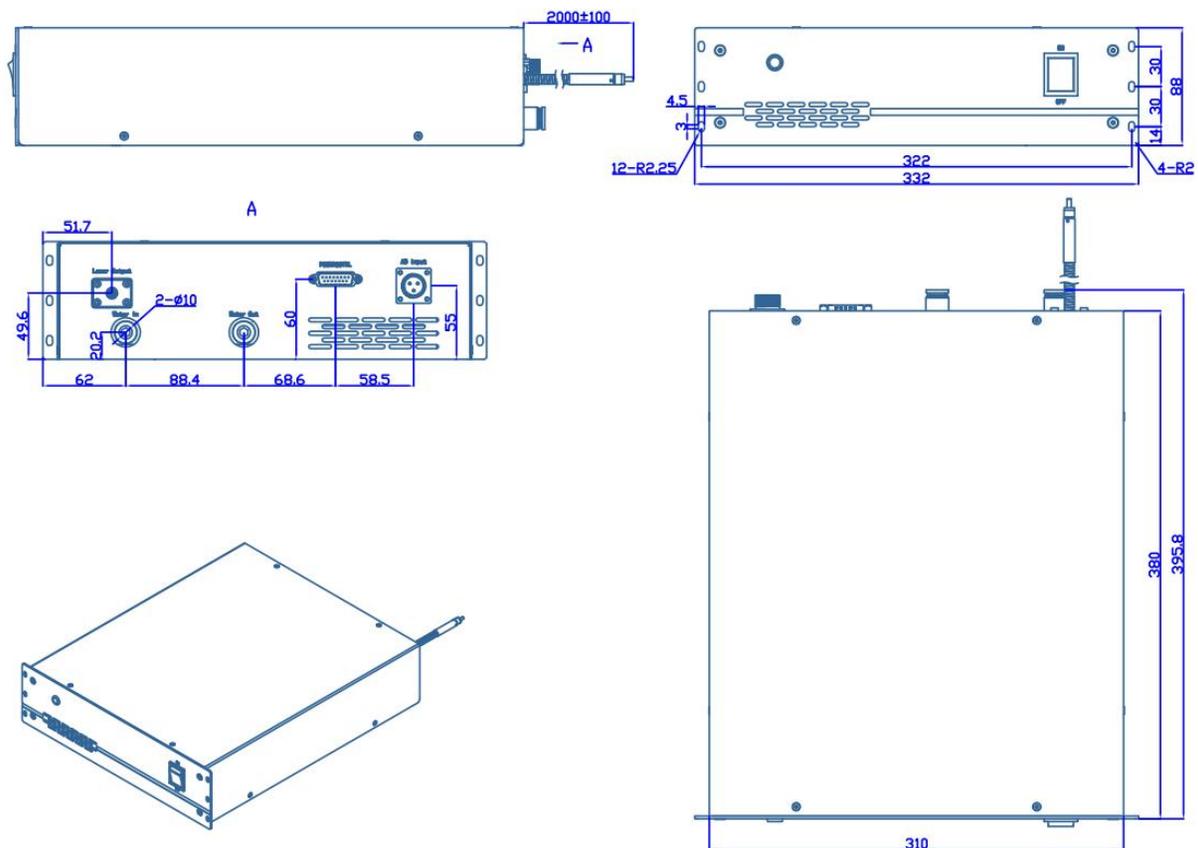
- ◆ High output power of 150W
- ◆ 800μm/0.22NA special optical fiber
- ◆ Center wavelength 400-405nm

## ■ 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	150	W
Center Wavelength	400-405	nm
Spectral Width (90% of Power)	<6.0	nm
<b>Fiber*</b>		
Fiber Core Diameter	800	μm
Fiber Length	2	m
Fiber Connector	Fixed-SMA905	-
<b>System Control Mode and Function</b>		
Control Interface	D-sub-15 and WS16K3Z	-
Control Model	Analog voltage and RS232/RS485	-
Power Regulation Range	0-150W	-
Protection	Over Voltage/Over Current/Over Temperature	-
<b>Electrical Parameter</b>		
Voltage	AC220	V
Current	3.5	A
Electric Power	750	W
<b>Water cooling</b>		
Refrigerating Capacity	550	W
Minimum Flow Rate	8.0	L/min
Water Pressure	0.5	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

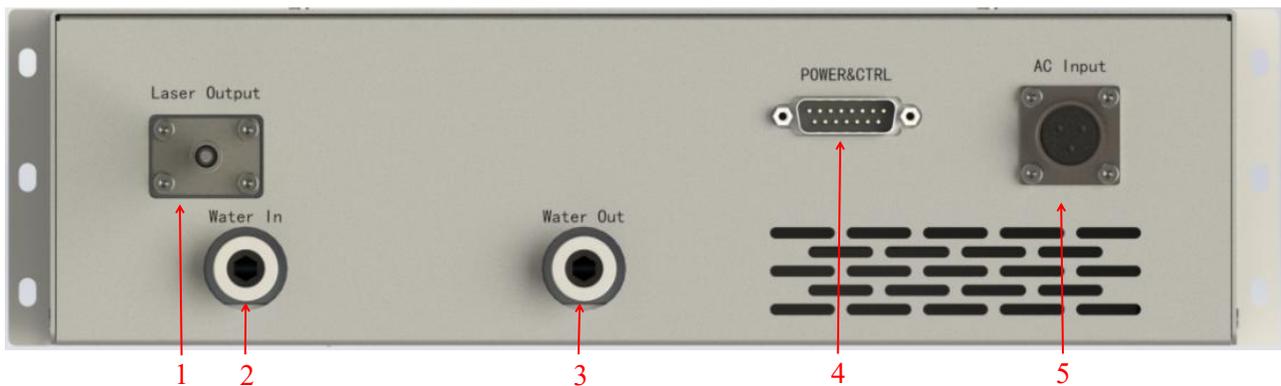
### ◆ Front panel function illustration



### ◆ Front panel function description

	Component	Function	Note
1	Laser status indicator	Indicating laser status	Green light-Normal Red light-Abnormal
2	Power switch	Power switch is the main power unit of the power supply.	The power supply will turn off when the power switch is set to "off".

### ◆ 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: $\phi 10-\phi 6.5$ mm.
3	Water out	Quick-screw connector, pipe specifications: $\phi 10-\phi 6.5$ mm.
4	POWER & CTRL	DB15, pins are defined as follows.
5	AC Input	System power supply aviation plugs sockets.

DB15 interface pins definition

	Pin definition	I/O	Function description
1	-	-	-
2	-	-	-
3	-	-	-
4	-	-	-
5	-	-	-
6	-	-	-
7	-	-	-
8	DRV_LD-	-	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	-	-	-

Aviation plugs sockets definition

Number	Pin definition
1	LINE
2	NEUTRAL
3	EARTH

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 2.8V, laser temperature alarm, automatically turn off the laser system and alarm.