

## **Laser Specifications**

**Product name (PRODUCT): 5.5W blue light fixed focus  
laser**

**Product model (PART No.): D-B5500**

**Product Specifications (PRODUCT SPEC.): See table**

# Shenzhen Optlaser Technologies Co., Ltd

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## 1. Product Overview

### Features

1. Good spot quality, stable performance and high modulation efficiency
2. Lightweight, convenient and easy to integrate
3. Blue light 445nm,  
Continuous output power greater than 5200mW

## 2. Main technical parameters of the product

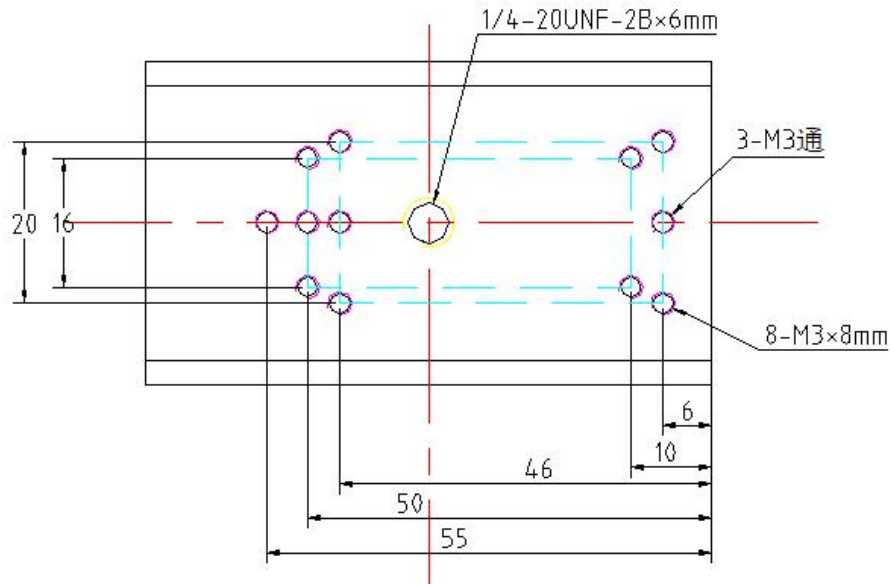
Serial number	project	Technical Parameters
1	Laser wavelength	445 ± 5nm
2	Output Power	> 5200mW ★
3	Laser class	C class 4
4	TTL output power	> 1K HZ working output power = continuous power x 40% ★
5	Output stability	± 5%
6	Spot mode	Square flare
7	Focal distance	22mm
8	Focus spot size	≅ 0.2mm
9	Lens material	Professional focusing optical glass
10	Power board input voltage	DC 12V ★
11	LD input voltage	5V
12	LD input current	4.2A
13	Modulation mode	TTL
14	TTL trigger method	Active high (> DC 2.0V)
15	working frequency	<30KHz
16	Operating temperature	15 °C --50 °C
17	Service life	> 8000 hours
18	Product Size	40 * 40 * 75
19	product weight	245g

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## 3. Product size

### 1. Laser head installation size

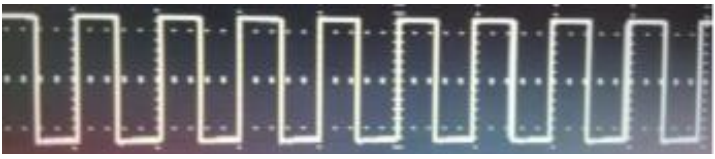


## 4. Product electrical parameters

Serial number	project	Technical Parameters
1	Input voltage	DC 12V
2	input power	50.4W (12V / 4.2A)
3	Output current	LD > 4A
4	Constant current accuracy	Output current is stable less than 1%, output ripple is less than 100mV
5	Drive and power connection	22 # AWG
6	TTL input maximum voltage	DC 5V
7	TTL input response voltage	DC2.0V

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8	LD output waveform	
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## 5. Test requirements and test methods of key technical indicators

Serial number	Test items	Test Methods	Testing standards
1	external assessment	Visual inspection	No obvious scratches on the surface, no obvious gaps in assembly, correct label
2	Continuous power	The laser spot is fully incident on the power meter probe	Continuous test for more than 1 hour, record a power of more than 5200mW, stability within 10%
3	Modulation power	The laser spot is fully incident on the power meter probe	1K frequency test in TTL mode for more than 1 hour, record once, the power is higher than the continuous average worth 40%
4	Light spot	Visual inspection	There is no obvious stray light around the output spot, and the spot size is the same
5	Thermal test	Visual inspection	No other heat dissipation device in ventilated environment, continuous test for half an hour temperature <math><50^{\circ}</math>

## 6. Matters needing attention:

★ 1. The laser is potentially harmful to the human body and eyes. It is strictly prohibited to irradiate others with the laser, especially the eyes.

★ 2. The power supply itself has no key switch, and the power board and input line head are exposed. When the laser is connected to or removed from the circuit, it must be operated in a power-off state to prevent electric shock.

★ 3 It is necessary to ensure that the temperature of the laser head housing is close to the

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appropriate operating temperature before the laser is allowed to turn on, so as to avoid excessive temperature difference, affect the laser performance or damage the device.

★ 4. This product should be used in a dry, clean and static-free environment, the working environment temperature is 15-50 °C, avoid high temperature, high humidity and violent vibration and impact.

★ 5. Please do not adjust the potentiometer on the power board at will, so as to avoid excessive current and burn out the circuit board or laser.

★ 6. Please take good measures to dissipate heat from the outside of the case, and try to keep the case cooling air path the same as the module cooling air path, so as not to overheat the temperature and affect or damage the laser.

★ 7. The power supply of this product is DC-12V, please do not connect other power supply, so as not to damage the laser.