

DS3 Fiber Coupled Diode Laser Subsystem

DS3-51522-LD NO.



Features :

- ◆ 976nm wavelength or Customized
- ◆ 50W output power
- ◆ 105/200 μ m core diameter
- ◆ 0.22NA

Applications:

- ◆ Plastic welding
- ◆ 3D Printing
- ◆ Soldering

BWT, founded in 2003, is committed to the mission of "let the dream drive the light", the vision of becoming the "Global leader in laser solutions", and the value of "Outstanding innovation", providing diode laser, fiber laser, ultra-fast laser products and solutions to global customers.

The company pursues continuous innovation and insists on autonomous and controllable advanced process and technology. With Beijing headquarters as the core, BWT has successively established production and R&D centers in Jiangsu, Shanghai and Shenzhen, and invested in the construction of intelligent and digital production base in Tianjin. In order to build the world's highest level of technical strength and product quality, BWT set up a German subsidiary in 2020, introducing European quality standards, and taking a solid step for the internationalization of R&D, production and technological innovation.

Up to now, BWT has traded more than 10 million lasers worldwide. BWT's products are available in more than 70 countries and regions, applications involving industry, medical, commercial, scientific research, information and many other fields.

Version number	Change content	Change date
1.0	First edition	2021.09.17

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Specifications (25°C)		Unit	DS3-51522-LD
Optical Data ⁽¹⁾	CW Output Power	W	50
	Center wavelength	nm	976±10
	Spectral width(FWHM)	nm	< 6
	Wavelength shift with temperature	nm/°C	0.3
	Output power instability (25°C)	%	±3 (5 hours)
	Power Range	%	10~100
Fiber Data ⁽¹⁾	Core diameter	µm	105/200
	Numeric aperture	-	0.22
	Fiber length	m	2-10
	Fiber termination	-	SMA905 / Customized
Electrical Data	Power supply	V	100~240 (50-60Hz)
	Power consumption	W	<400
	Drive mode	-	Constant current
	Emission mode	-	CW or Modulated 1 Hz to 20kHz,
	Control mode	-	Touch screen, RS232, I/O
	Modulation frequency	Hz	1~20K (DC>0.01%)
	Modulation Pulse Width	-	20µs -950ms (Pulse)/20µs-999ms (Single Pulse)
Aiming Beam Data ⁽²⁾	Modulation Rise/Fall Time (Min. Value)	µs	≤10
	Center wavelength	nm	635±10nm
Mechanical Parameters	CW Output Power	mW	2
	Dimensions (LxWxH) ⁽³⁾	mm	S size 260*360*125
Others	Weight	kg	<15
	Cooling method	-	Air cooling
	Storage temperature ⁽⁴⁾	°C	5~50
	Temperature Ambient in Operation ⁽⁴⁾	°C	15~30
	Cooling requirement		Air cooling
	Relative Humidity	%	5~80
	Safety class	-	4 (EN 60825-01)

(1) Consult BWT for other available options.

(2) The aiming beam can be customized according to customer requirements.

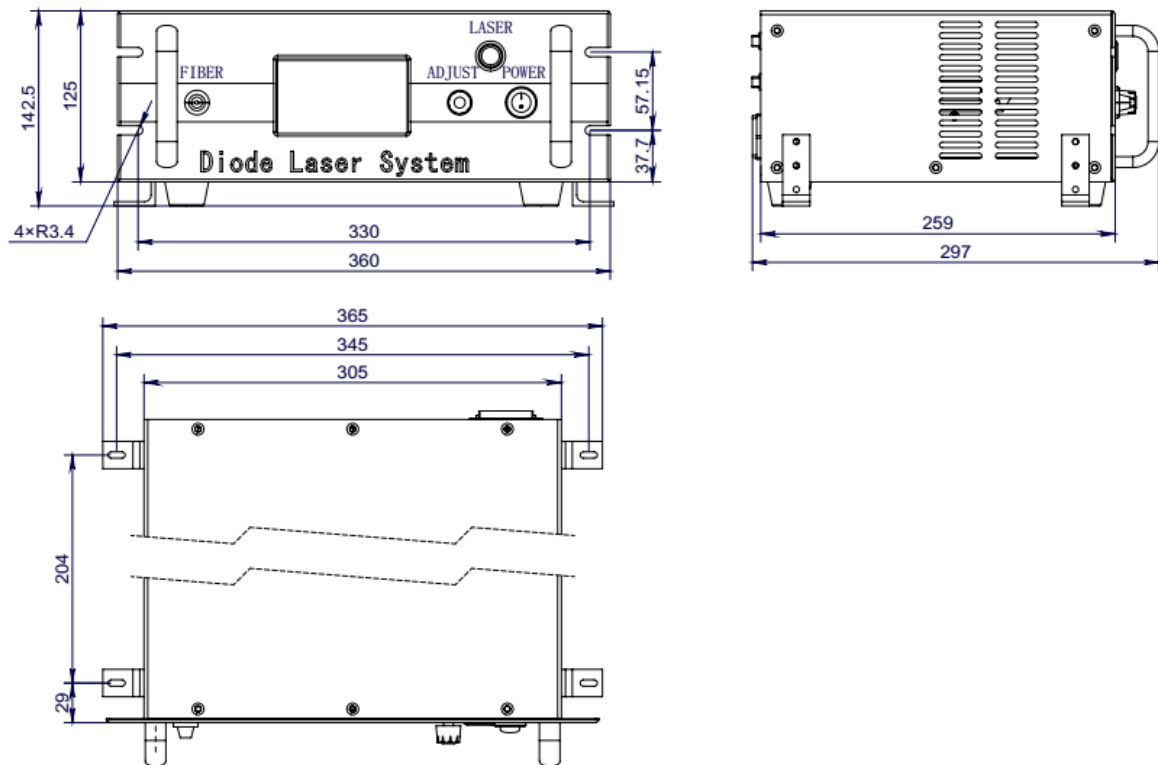
(3) The mechanical dimensions depends on the laser power and cooling mode.

(4) A non-condensing environment is required for operation and storage

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Package Dimensions (mm)-- S size



OPERATING NOTES

- ◆ Avoid eye and skin exposure to direct radiation during operation.
- ◆ Make sure the fiber output end is properly cleaned before operation of laser. Follow safety protocols to avoid injury when handling and cutting the fiber.
- ◆ Laser diode must be used according to the specifications.
- ◆ Temperature Ambient in Operation ranges from 15°C to 30°C.
- ◆ Storage temperature ranges from 5°C to 50°C.



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Declaration: information and specifications contained herein are deemed to be reliable and accurate. BWT Beijing reserves the right to change, alter or modify the design and specifications of these products at any time without notice.21-10