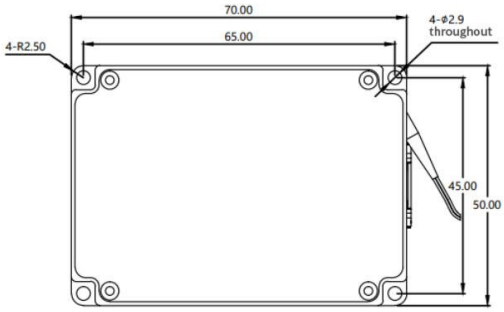
Small pulsed fiber laser 1550nm



● Product Description

This product is an eye-safe 1.5μm pulsed fiber laser light source developed by Idealphotonics. It can produce high peak power output, has high electro-optical conversion efficiency, low ASE and nonlinear effect noise, and a wide temperature operating range. This product is suitable for use as a LiDAR emission light source.

● Part Number

LSP-FLMP-1550-02

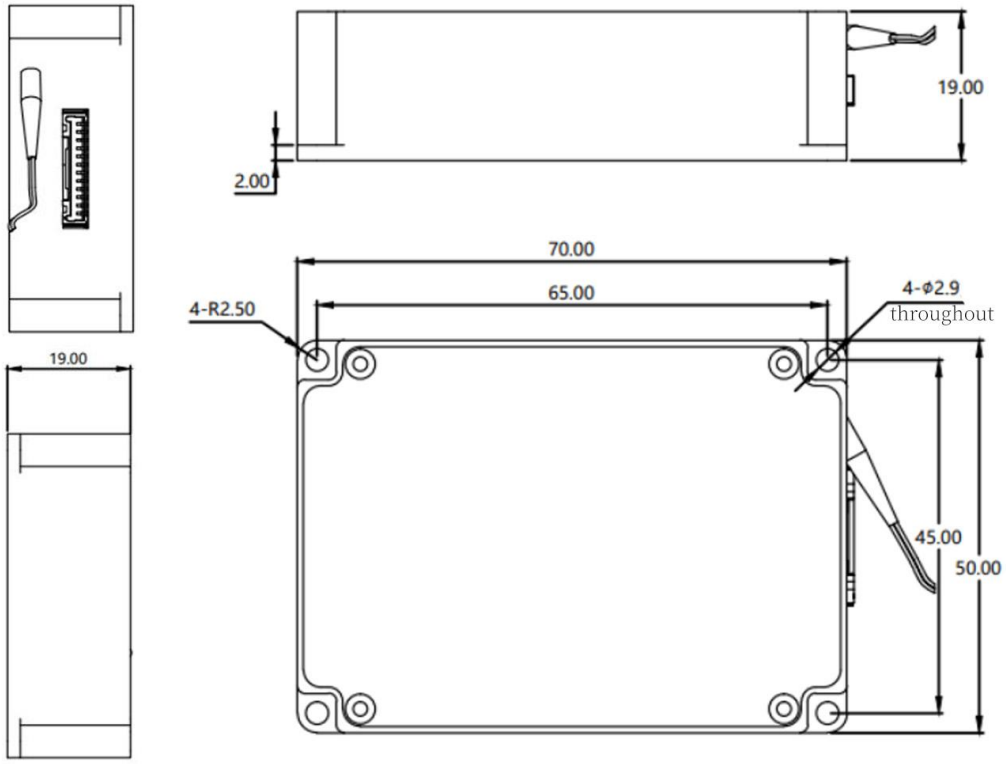
● Product features

Compact structure、 High power、 Excellent beam quality

● Application area

LiDAR、 Bio-medicine、 Optical communications

Dimensional Drawing



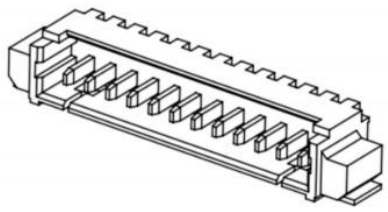
Parameter	Unit	Min.	Typical Value	Max	Note
Working Mode			Pulse		
Central wavelength	nm	1547	1550	1553	Customizable CWL 1535±3nm
Pulse width(FWHM)	ns	1		10	Adjustable
Repetition frequency	MHz	0.1	0.5	2	Adjustable
Average power	W	0.95	1	2	@3ns, 500kHz, 25C
Peak power	kW		1.5 ①	2.0 ②	Varies according to repetition frequency

Spectral distribution	%	90			CWL±1nm Inner spectrum ratio @3ns, 500kHz
Polarization state	NA	Random			
Trigger mode	NA	External trigger			
Pulse trigger signal and light output delay time	ns	20		100	Adjustable
Pulse light output delay jitter	ps			150	
Electrical power consumption	W			13	@Typical output 1W
Operating voltage	V	9	12	13	
Operating temperature(@housing)	℃	-40		85	Laser shut off at 95°C
Storage temperature	℃	-40		105	
Package size	mm	50x70x19			
Weight	g			100	
Optical output mode		FC/APC head or fiber collimated output			
Output fiber length	m		0.5		900T casing
Electrical interface model		CJT A1251WRA-S-12P			

Note: ①Typical value@3ns, 500khz, 1W, 25C. ②Peak power Pp> 2.5kW@CWL 1535, 50kHz.
According to customer needs, in-depth customization can be provided, such as output peak power, size, pulse width, repetition rate, etc.

Electrical parameters

Electrical interface definition



The laser uses a 12-pin socket with CJT conn model A1251WRA-S-12P, with a pin spacing of 1.25mm. The pin definitions are shown in the following table:

Pin	Name	INPUT/OUTPUT	Function Description
1	GND	Power	GND

2	GND	Power	GND
3	POWER	Power	+12V power supply
4	POWER	Power	+12V power supply
5	UART TX	output	LVTTL，UART TX output
6	UART RX	Input	LVTTL，UART RX input
7	NA	NA	NA
	Trigger Clock_ in	Input	LVTTL3.3V
9	Pump Enable	Input	LVTTL input 1:Enable pump laser 0:Close pump laser Internal latched down to GND level with 100KQ.
10	NA	NA	NA
11	NA	NA	NA
12	NA	NA	NA

Note: Some lasers are customized to use scattered wires, and their pin function definitions are as shown in the table above.