




LASER TREE LT-4LDS-V2 20W Optical Power Laser Module User Manual

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LT-4LDS-V2 20W Optical Power Laser Module



User Manual

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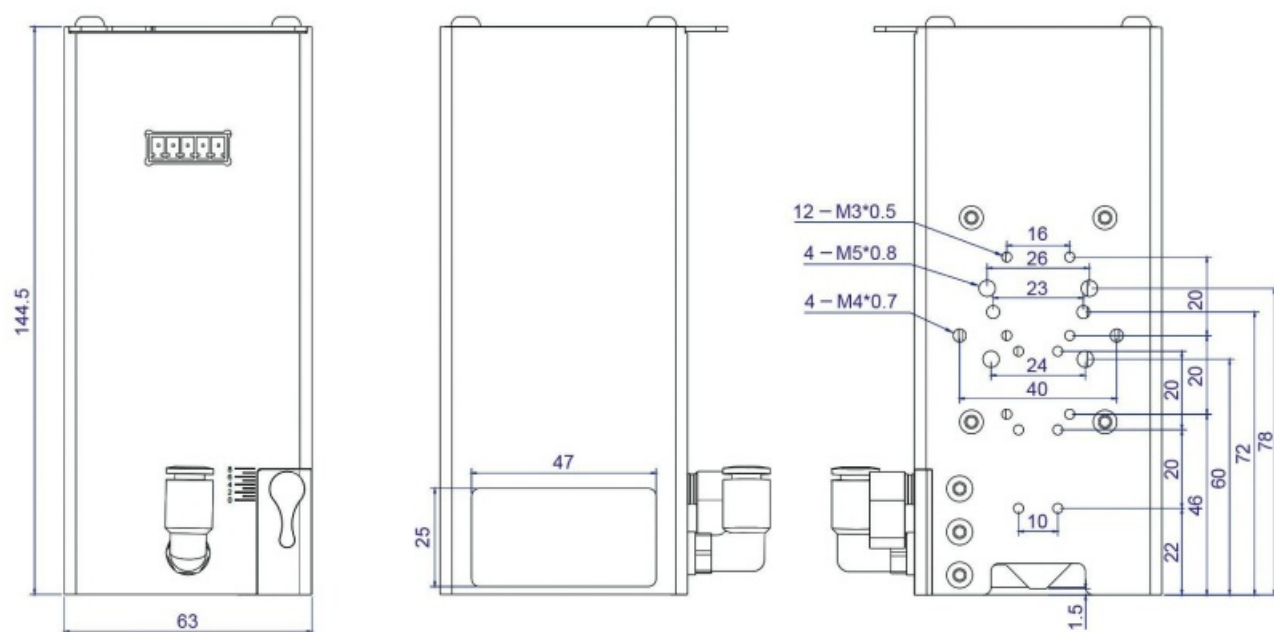
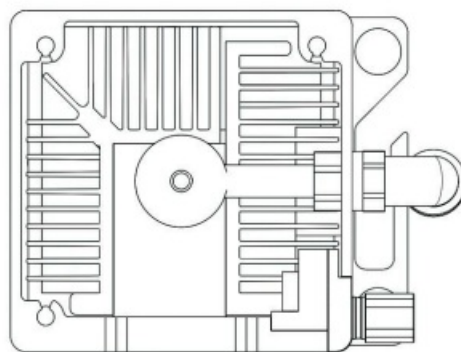
PRODUCT INTRODUCTION

Parameters

Optical power:	19W- 21W
Input:	24V4A
Wavelength:	455nm (±1 Onm)
Focus length:	40mm
Air assistance:	Built-in
Power adjustable:	TTL/PWM
PWM modulation:	0/3-12V, 0-SkHz
Fan speed:	10000rpm
Operating temperature:	0-60°C
Interface:	2EDG-3.81
Cable:	3PIN, 80cm
Material:	Aluminum & Copper
Module weight:	620g
Function:	Engraving & Cutting



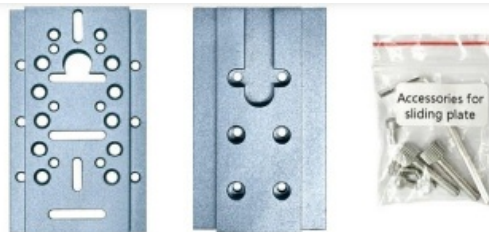
Outline dimension (Unit: mm)



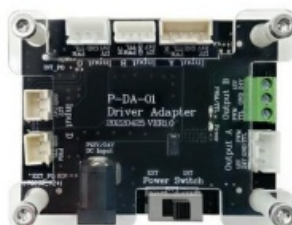
Packing list



Laser module



Sliding plate



Driver adapter



24V5A power supply



Spare protective lens



1.5m Air tubex1



80cm Input cable



60cm Adapter cable

PRODUCT DESCRIPTION



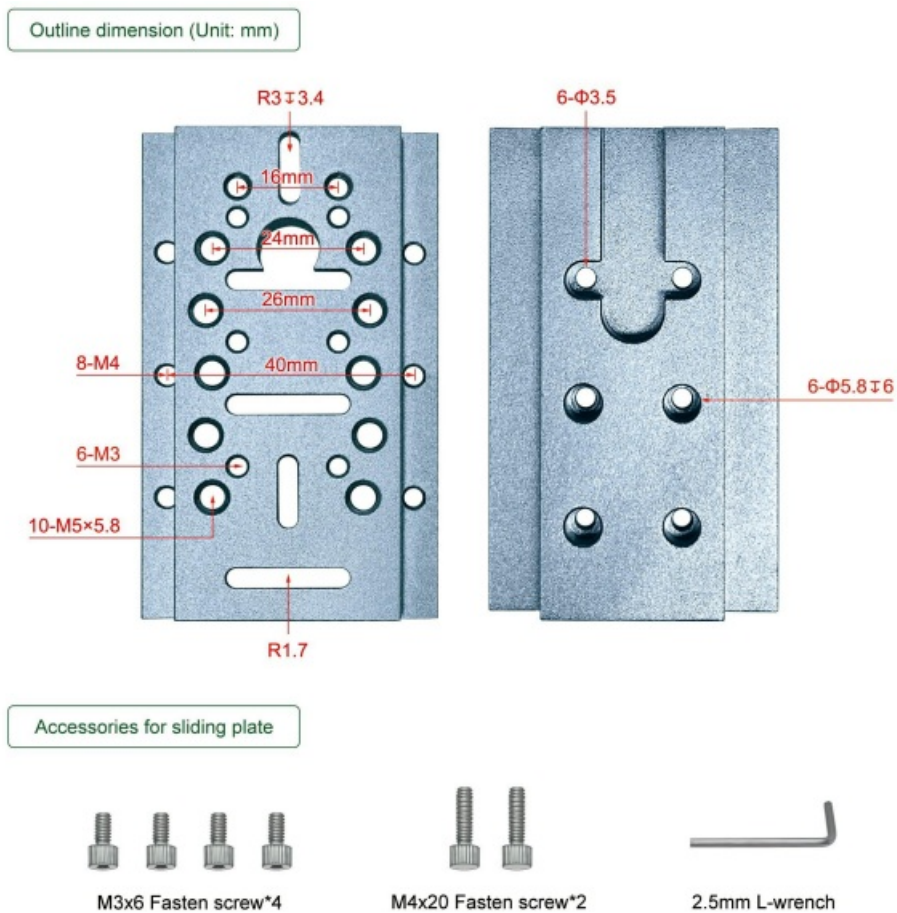
Overview

3. Input A: 4PIN connector
4. Input 8: 4PIN connector
5. Input C: 3PIN connector
6. Input D: 2PIN connector
7. DC Input: 12V or 24V power adapter
8. Power Switch: • EXT-+External power supply • INT-+Internal power supply
9. Power indicator: It is red when the power cable is connected correctly.
10. TTL/PWM indicator: It is green when the TTL/PWM cable is connected correctly.



Sliding plate

Multiple holes bring you widely installation compatibility.



Installation for sliding plate



PIN definition



80cm Input cable



60cm Adapter cable

Yellow wire: PWM

Black wire: GND

Red wire: Power (24V)

CONNECTION DESCRIPTION

Please check whether the laser module is compatible with your engraving machine before connection.

A. Check the voltage parameter of your engraving machine.

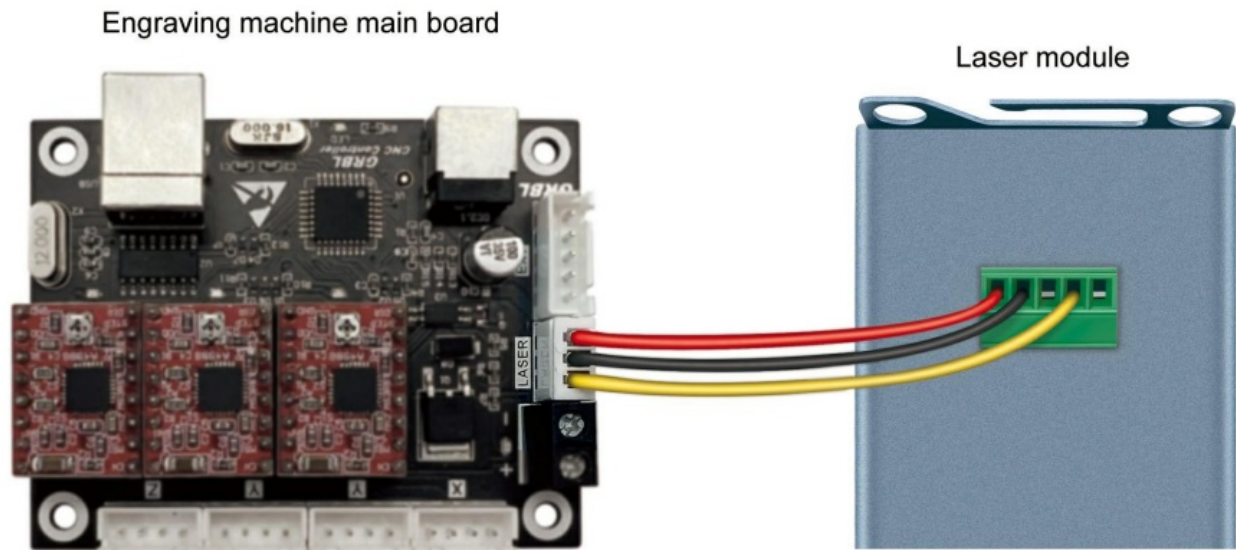
Please ensure your engraving machine can provide at least 24V 4A power supply.

B. Check the port of the main control board on your engraving machine.

Please find the PWM port, GND port and VCC port on the main board of your engraving machine. Then connect this laser module to the main board accordingly.

“A”&“B” are both Compatible.

Connect the laser module to the main board of your engraving machine directly.



Reference picture

Only voltage is not matched.

The voltage parameter of your machine are not matched to the module.

Machine	Laser Module	Solutions
4V4A	24V4A	Driver Adapter + 24V Power Supply
24V4A	24V4A	Plug and Play

Step 1

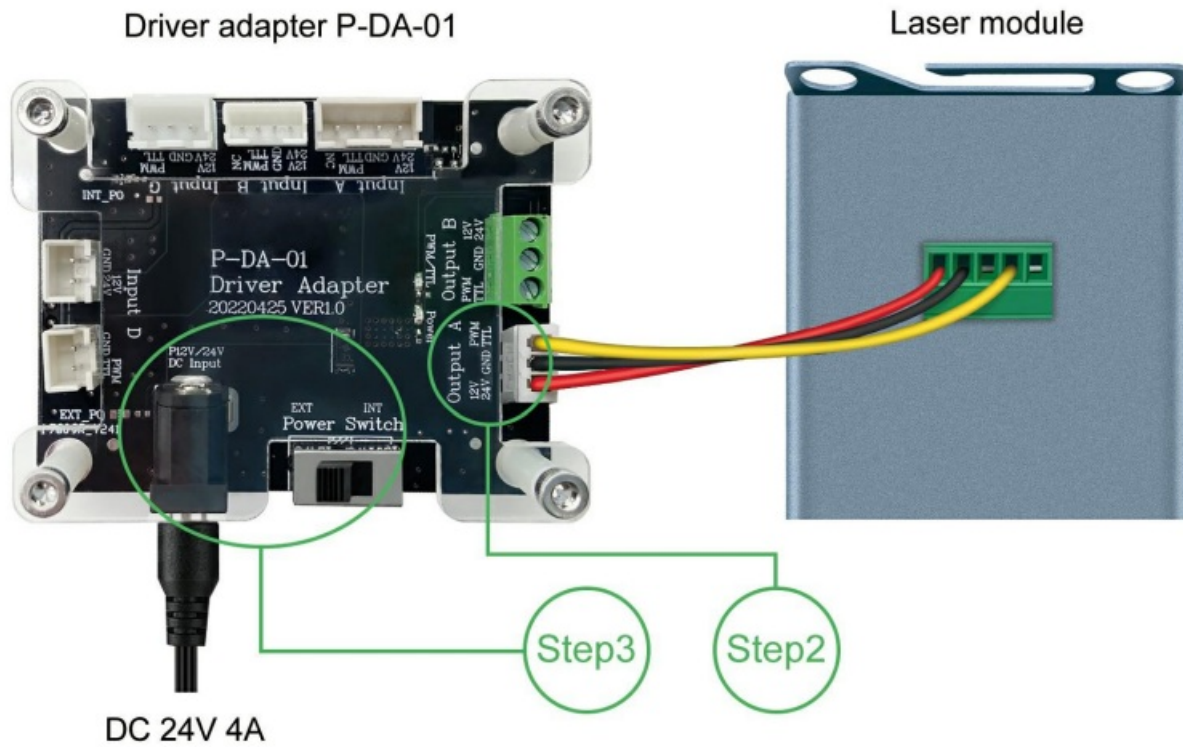
Connect the cable of your engraving machine to the corresponding input connector on P-DA-01.

Step2

Connect the cable of the laser module to the Output A connector on P-DA-01.

Step3

Connect the 24V power adapter to the DC Input connector on P-DA-01. Push the switch to EXT position and the power is provided by external power adapter.



Reference picture

Only control board pin definition is not matched.

Situation 1: The definition of connector on the engraving machine main board is not pin-to-pin.

Please rearrange the wire sequence of the cable to make each wire is well matched with the pin definition on the engraving machine main board.



Red wire and yellow wire
connection error

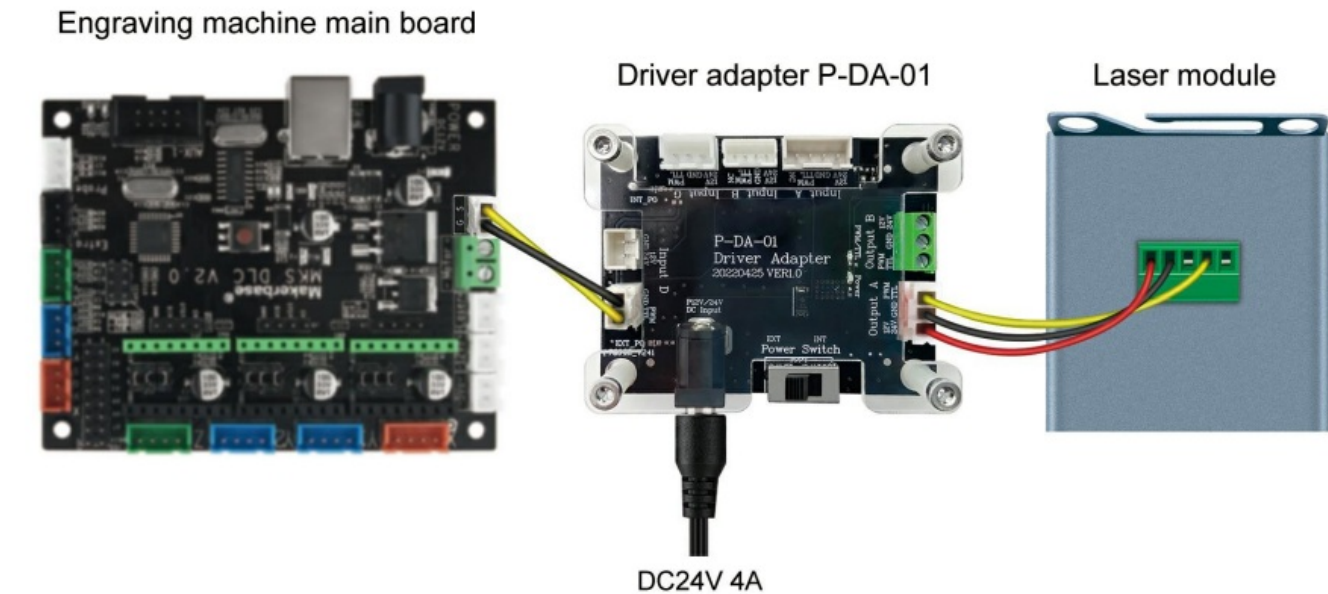


Red wire and yellow wire
connection correctly

Situation 2: Please use P-DA-01 if the main board of your engraving machine is not 3pin, such as 2pin.

Laser Module	Machine	Solutions
3PIN	2PIN	Driver Adapter
	Other pins	Driver Adapter

- Step 1** Connect the cable of the your engraving machine to the corresponding input connector on P-DA-01.
- Step 2** Connect the cable of the laser module to the Output A connector on P-DA-01.



FOCUS REFERENCE SETTINGS

The focal length of the L T-4LDS-V2 laser module is 40mm.



For cutting

Please make the focus locate lower than the cutting material surface according to the following.

Reference settings for cutting



Fixed focus lever usage reference	
Material Thinkness	Fixed focus lever using lengh
< 5mm	0mm
5mm	2mm
6mm	3mm
8mm	3mm
10mm	4mm
12mm	5mm
15mm	6mm

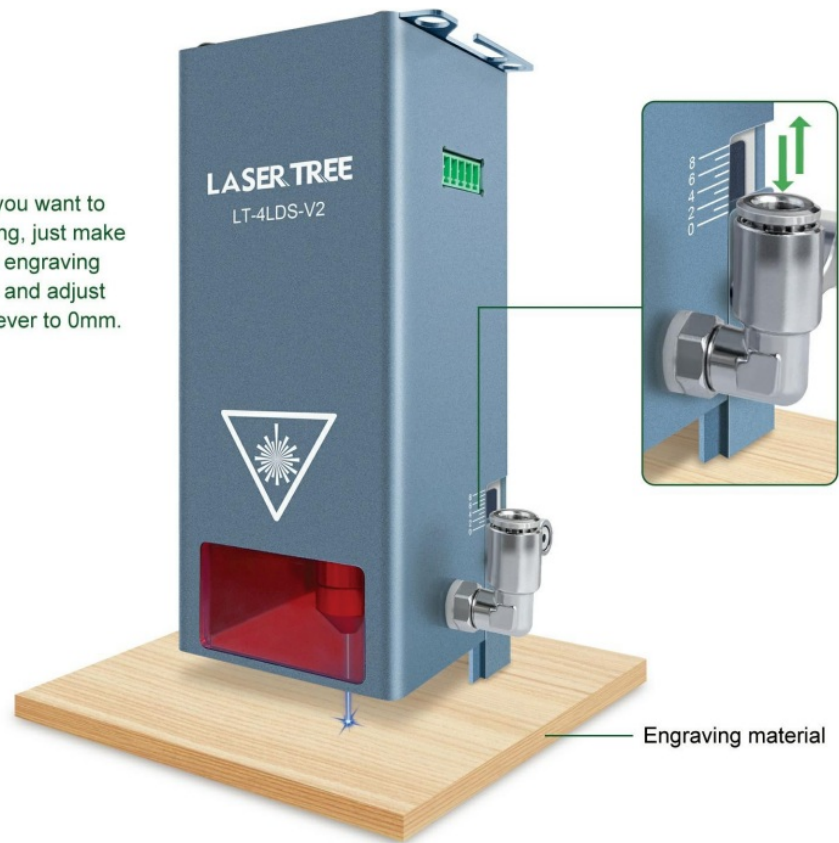


For engraving

Please make the focus locate on the engraving material surface.

Reference settings for engraving

For example, if you want to perform engraving, just make the focus on the engraving material surface and adjust the fixed focus lever to 0mm.



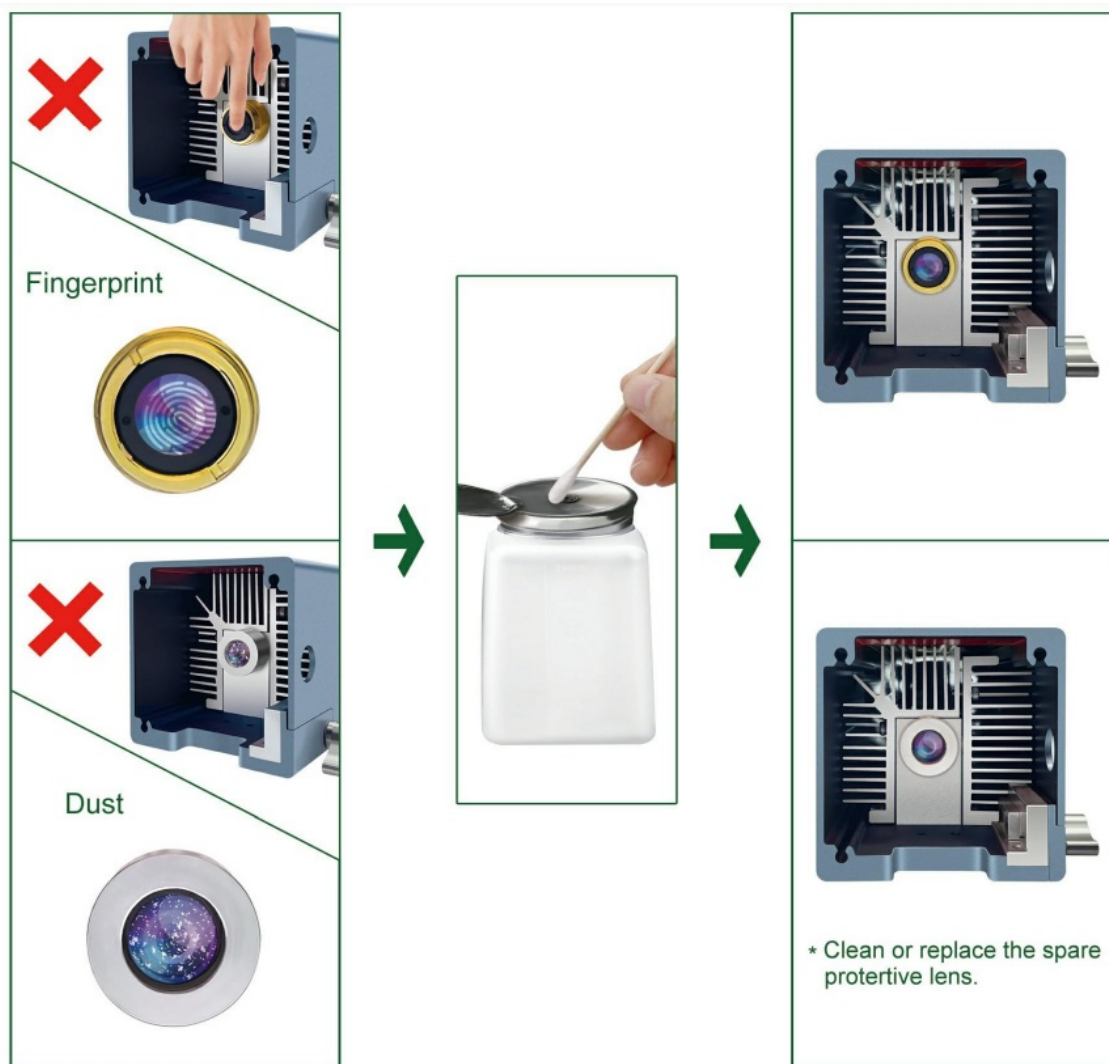
PRECAUTIONS

- ⚠ Laser may cause damage to your skin. Please do not expose your skin directly to the laser.
- ⚠ Please wear laser goggles to protect your eyes when you use this laser module.
- ⚠ Please ensure that the air pump is turned on before you start cutting. If not, the smoke will contaminate the lens.
- ⚠ This laser module doesn't support hot plug, hot plug may cause damage to the laser module.


MAINTENANCE

- 🔧 When the laser module is not used for a long time, please ensure that the lens is not polluted by dust.
- 🔧 When you replace the air nozzle, please ensure that your operation will not pollute the lens. Finger prints or dust on the lens will weaken the output power of the laser module, or even damage the lens.
- 🔧 When you find the cutting ability decreases, the lens might be not clean. Please use a clean alcohol swab to clean it according to the following figure.

* For more information about maintenance, please contact us at lasertree@micost-optotech.com.



Documents / Resources

 <p>LT-4LDS-V2 USER MANUAL</p>	<p>LASER TREE LT-4LDS-V2 20W Optical Power Laser Module [pdf] User Manual</p> <p>LT-4LDS-V2 20W Optical Power Laser Module, LT-4LDS-V2, 20W Optical Power Laser Module, Optical Power Laser Module, Power Laser Module, Laser Module, Module</p>
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References

- [User Manual](#)

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