

ULDC-500



Universal Laser Diode Controller

The Optilab ULDC-500 is a fully integrated Universal Laser Diode Controller designed for 14 pin butterfly package. This compact, easy to use laser diode driver module operates under a single +5 V power supply. ULDC-500 offers LD current and temperature control that comes with a built in LCD display and a USB port for external PC control. The module is equipped with an adapter board, thus making it compatible with 14 pin butterfly LD module for any laser manufacturers by switching the daughter boards provided in the package. It provides a LD current range of 0 – 500 mA with a setting resolution of 1 mA and Temperature range of 10 to 40 °C with a setting resolution of 0.1 °C.

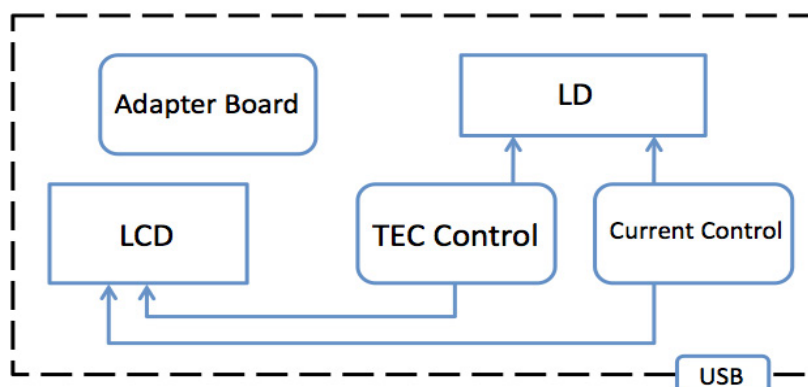
Features

- LD current and Temperature Control
- Zero Insertion Force (IF) socket
- On board LCD display
- USB port for external PC Control
- Compatible with any pinout
- 500 mA LD current w/ resolution of 1 mA
2000 mA is available
- 1.5 A TEC current w/ resolution of 1 mA

Applications

- Laser diode characterization
- Research and development
- Laboratory use
- Failure analysis

Functional Diagram



Universal Laser Diode Controller

OPTIONS

ULDC-xxx(x)

LD Current Setting (mA)

500

2000

TECHNICAL INFO

For technical info and support:

sales@optilab.com

www.optilab.com

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Optilab Advantage

- Innovation
- Performance
- Quality
- Customization
- Warranty

Optical Specifications	
Laser Diode Module Type	14 pin Butterfly Package
Drive Method	ACC
LD Connection Form	Floating, Cathode GND
LD Current Setting	0 ~ 500 mA; 2000 mA available
Setting Resolution	1 mA
Measurement Resolution	0.1 mA
LD Current Limiter Setting	10 ~500 mA
Setting Resolution	10 mA
LD Voltage	0 ~3 V
LD Voltage Representation/Determination Resolution	0.01 V / 0.001 V
Drive Mode	Pulse Width Modulation (PWM)
Current Setting	100 ~ 1500 mA
Setting Resolution	100 mA
Drive Current	0 ~ +/- 1.5 A
Current Measurement Resolution	1 mA
Representation/Determination Resolution	0.01 V / .001 V
Setting Range	10 ~ 40 °C
Setting Resolution	0.1 °C
Monitor Range	9 ~ 43 V

Mechanical Specifications	
Operating Temperature	10 °C to + 40 °C
Storage Temperature	0°C to + 60 °C
Operating Humidity	0% to 85% Relative Humidity
Display	Monochrome LCD
Power Supply	5 VDC, 1 A

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Pin Out Options

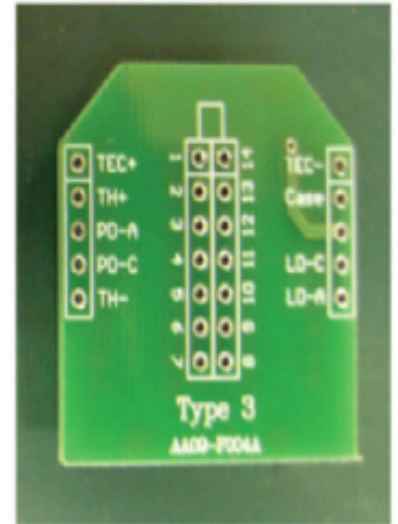
Laser Diode Pinout Type 1

1	TEC+	TEC-	14
	TH+	CASE	
	PD-A	NC	
	PD-C	LD-C	
	TH-	LD-A	
	TH+	NC	
7	PD-A+	PD-C+	8

Laser Diode Pinout Type 2

1	TH+	TEC-	14
	TH-	NC	
	LD-C	NC	
	PD-A	LD-A	
	PD-C	NC	
	TEC+	CASE	
7	TEC-	CASE	8

Laser Diode Pinout Type 3



Accessories

1. Universal Laser Diode Controller - 1
2. Daughter Board - 3 (Type 1, 2 and 3)
3. Insulation Sheet - 1
4. Plastic Screws - 4
5. AC Adapter - 1