

The LDR1500E laser driver module provides a versatile and user friendly platform for stable current and TEC control of Raman and 980nm pump lasers etc. The fully integrated digital Eurocard modules are designed for device characterisation, prototype development and experimental systems and offer easy device integration, full PC control and monitoring, or set & forget operation utilising the on-board EPROM.

The LDRE module includes ZIF mount & heatsink for 14-pin butterfly package, plug-in power supply, USB interface, PC communications cable and full V-Drive control software for easy operation straight out of the box.

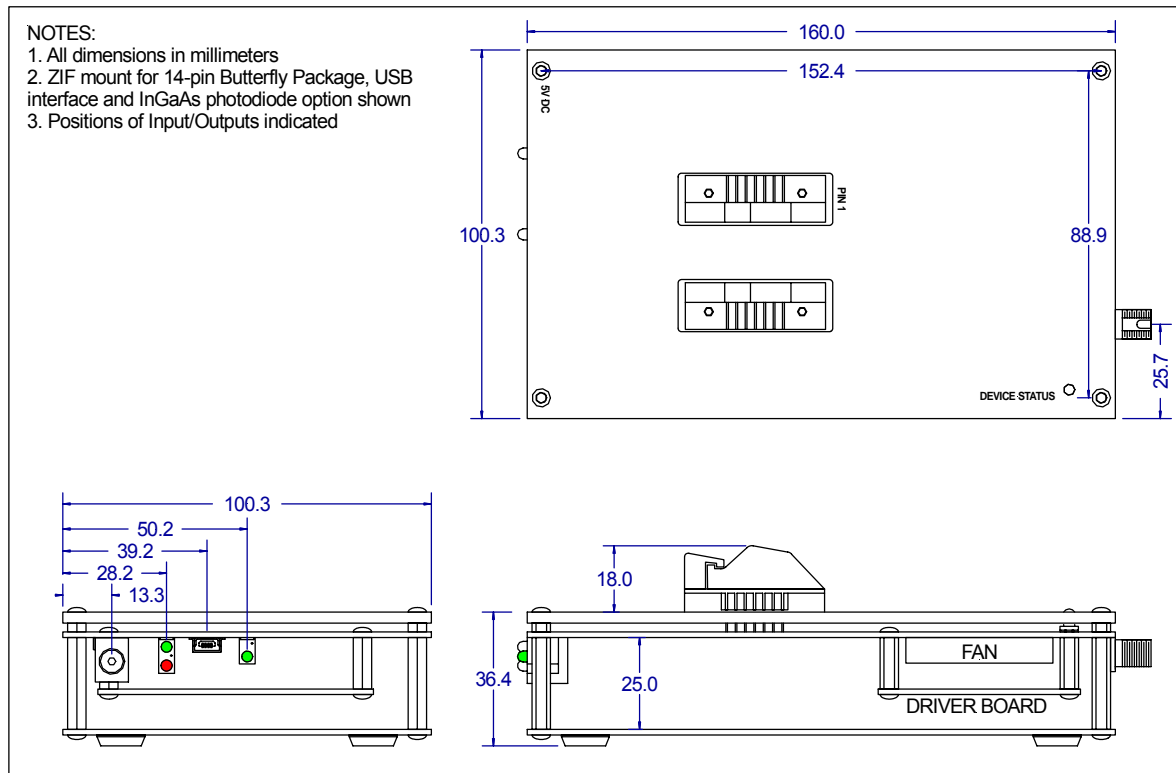
Features

- Device Drive Current up to 1.5A and TEC to 4A to ensure precise and stable device current and temperature control for a wide range of devices.
- Integrated heatsink & cooling fan with demountable 14-pin Butterfly connectors as standard for easy device connection or changeover.
- User reconfigurable pin connections to suit various device pin out arrangements.
- Comprehensive driver software (V-Drive) supplied for full PC control and monitoring of the device.
- Continuous traces of device drive parameters (power, current, forward voltage and temperature) are available on screen to enable ongoing monitoring of the device.
- V-Drive software includes LVI plotter allowing direct device characterisation with test data readily available in CSV format.
- Device current & temperature settings can be saved to driver EPROM for set & forget operation with no need for connection to a PC.
- Optional V-Drive add-on Multi-Instrument Browser (MIB) for monitoring up to 5 LDR units simultaneously via USB interface.
- Optional LabVIEW (beta) VI's allowing independent temperature / current control of the LDR units via client's own LabVIEW interface.
- Custom modules available. Contact OptoSci to discuss custom device drivers with different specifications or other features.

Specification

ITEM	SPECIFICATION	COMMENT	
Current Source Subsystem			
Drive Current	10 – 1500 mA	User adjustable in 0.1mA increments	
Current stability (CC mode)	≤ 0.05%	8 hours @ 20°C, after warm up	
Forward Voltage	≤ 4 V		
TEC Subsystem (Temperature specifications assume a standard 10k NTC thermistor)			
TEC Current	≤ 4 A		
TEC Temperature set-point range	10 – 40°C	User adjustable in 0.1°C increments	
TEC Temperature control stability	±0.02°C	8 hours @ 20°C, after warm up	
External Power Monitor (optional)			
Input Optical Power	≤ 2.0 mW		
PC Communications			
Protocol	USB	Mini-B connector	
General Data			
Supply Voltage	5.5 – 6.5 V	DC	
Supply Current	≤ 4.5 A	Depends on TEC draw	
Update Rate	3 Hz		
Ambient Temperature	0 – 35°C		
Storage Temperature	-10 – 60°C		
Dimensions (LxWxH)	160 x 100 x 55 mm	Including 18mm height of 14-pin device connector	
Weight	0.340 kg		
V-Drive Software Compatibility	Windows XP / 7 / 8 / 10		
Common Device Suitability	Raman & 980nm Pump Laser	14-pin Butterfly	
Device Pin Compatibility ¹	<p style="text-align: center;">LD = GK PD = GA</p>	<p style="text-align: center;">LD = GK PD = FL</p>	<p style="text-align: center;">LD = FL PD = FL</p>

1. LD – Laser Diode, PD - Photodiode, GK – Grounded Cathode, GA – Grounded Anode, FL – Floating



Ordering Information:

Driver:	LDR1500E 1500mA LDR Eurocard Driver Module
with Photodiode (optional):	LDR1500E - IF LDR1500E with an external InGaAs photodiode in FC receptacle
Custom Module:	LDR1500E - CU Non-standard / customised LDR1500E module

Included Items

The LDR laser current and TEC controller modules are supplied with the following items as standard to allow quick and easy operation straight out of the box.

- Full V-DRIVE control software
- ZIF mount & heatsink for 14pin butterfly package
- USB interface & PC communications cable
- Hex key, screwdriver & device fixing screws
- 6V mains power supply
- Operators manual

For other options and device mounts please contact OptoSci.

Operation

A full operating manual is supplied describing the set-up and operation of the LDR1500E module and the V-DRIVE software.

Since OPTOSCI are committed to continuously improving the design and performance characteristics of our products, these specifications are subject to change without notice.

Date: April 2016