

The LDR1000E laser driver module provides a versatile and user friendly platform for stable current and TEC control of laser diodes, SOAs, SLDs, 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.

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

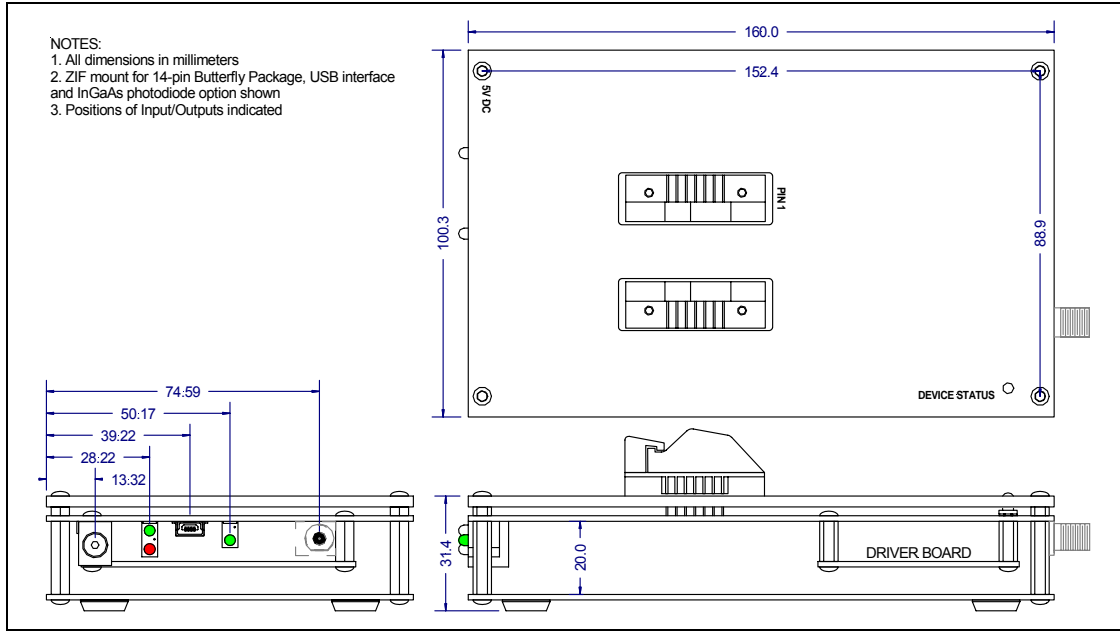
### Features

- Device Drive Current up to 1A and TEC to 2.5A to ensure precise and stable device current and temperature control for a wide range of devices.
- Comprehensive driver software (V-DRIVE) supplied for full PC control and monitoring of the device. Optional V-DRIVE add-on for monitoring of up to 5 units simultaneously via USB interface.
- Microcontroller operation allows remote setting of device drive parameters via USB and eliminates the problems associated with manual setting of analogue potentiometers.
- 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.
- Integrated heatsink 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
- Custom modules available. Contact us to discuss custom device drivers with different specifications or other features.

## Specification

ITEM	SPECIFICATION	COMMENT
<b>Current Source Subsystem</b>		
Drive Current	10 – 1000 mA	User adjustable in 0.1mA increments
Current stability (CC mode)	≤ 0.05%	8 hours @ 20°C, after warm up
Forward Voltage	≤ 4 V	
<b>TEC Subsystem</b> (Temperature specifications assume a standard 10k NTC thermistor)		
TEC Current	≤ 2.5 A	
Temp. set-point range	10 – 40°C	User adjustable in 0.1°C increments
Temp. control stability	±0.02°C	8 hours @ 20°C, after warm up
<b>External Power Monitor (optional)</b>		
Input Optical Power	≤ 2.0 mW	
<b>PC Communications</b>		
Protocol	USB	USB connector
<b>General Data</b>		
Supply Voltage	4.5 – 5.5 V	DC
Supply Current	≤ 3.5 A	Depends on TEC draw
Update Rate	3 Hz	
Operating Temperature	0 – 35°C	
Storage Temperature	-10 – 60°C	
Dimensions (LxWxH)	160 x 100 x 50 mm	Including 14-pin device connector
Weight	0.325 kg	
V-Drive Software Compatibility	Windows 98SE/NT/2000/XP	
Common Device Suitability	SOA, SLED, 980nm Pump Laser	14-pin Butterfly
Device Pin Compatibility <sup>1</sup>	<p>CASE</p> <p>LD = GK PD = GA</p>	<p>CASE</p> <p>LD = GK PD = FL</p>

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



**Ordering Information:**

**LDR 1000 E-**

**Driver:**

1000                      1000mA LDR Driver

**Photodiode:**

IF                      External InGaAs photodiode in FC receptacle  
 NO                      None  
 CU                      Custom Option

**Example: LDR1000E-IF** - LDR, 1000mA Eurocard LDR controller, with ZIF mount & heatsink for 14-pin Butterfly package, USB interface and InGaAs photodiode in FC receptacle

**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
- 5V 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 LDR1000E 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: November 2010