## **Constant Power Laser Diode Drivers**

## Features



- Constant Power (CP) Operation 0 - 250 mA Drive Current
- Pin-Programmable Feedback Gain
- Supports Monitor Photodiode
- Currents from 5 µA to 5 mA
- 12-Turn Power Adjustment (On-Board)
- Output Current Monitor
- External On/Off Control Compact 1.00" x 1.00" (25.4 mm x 38.1 mm) SIP Package
- Single Supply Operation (8 12 VDC)

## Laser Diode Drivers

The LD1100 and LD1101 Laser Diode Drivers are constant-power, laser driver modules that feature an onboard, 12-turn trim pot for continuous laser power output adjustment, programmable feedback gain, on/off control input, and a current monitor output for observing the laser drive current. With dimensions of only 1.27" x 1.50" (32.3 mm x 38.1 mm) including the connector, they are compact and can be embedded into custom designs. The compliance voltage, which is the maximum output voltage, is ~6.5 V (~8 V) for the LD1100 (LD1101) when using a 9 V (12 V) power supply, which must be provided separately. All input and output signals are provided on a 12-pin SIP connector, which allows simple integration into a printed circuit design.

ΕW roduct LD1101

SECTIONS V Laser Diode Controllers **Temperature/TEC LD/TEC Controllers LD/TEC Platforms LD** Mounts **LED Drivers** 

**LED Mounts** 

The LD1100 and LD1101 can support laser diode drive currents up to 250 mA in a constant-power mode. Different laser diode pin configurations are supported: the LD1100 supports A, B, D, and F styles, while the LD1101 supports C, D, and F styles (see pin

diagrams below). Both drivers use the internal monitor photodiode as a feedback signal for a proportional-integral controller to stabilize the output power to within 1.5%. To accommodate a wide range of laser diodes, the feedback gain can be programmed by using jumpers. This allows lasers with monitor currents from 5 µA to 5 mA to be used with a single driver.

## **Evaluation Kits**

The EK1100 Series of Evaluation Kits consist of an LD1100 Laser Diode Driver soldered onto a PCB that features an on/off switch and a dip switch bank for controlling the gain on the feedback signal. A 3-pin laser socket cable (S8060, see page 441) is also soldered onto the PCB board (this determines the pin configuration supported by the kit).

In addition to driving laser diodes, the EK1101 and EK1102 are also suggested for operating LEDs that contain a monitor photodiode with an A or B style pin configuration, respectively. A power supply cable for 9 V batteries is included but not attached. The EK1101 and EK1102 can be used with pin configurations D and F if the included socket is replaced with a suitable 4-pin socket, such as the S8060-4 (see page 441). The socket must be wired correctly in order to support the pin style; please contact tech support for details on making this modification.



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693.39

EK1102

Light

CHAPTERS

Electronics

Accessories

**Drivers/Mounts** 

\$

\$

129.00

87.00

92.88

62.64

£

€

€

112,23

75,69

EK1102

LDS2

Driver Kit Pre-Wired to Pin Style B

9 VDC Power Supply for EK1101 and EK1102