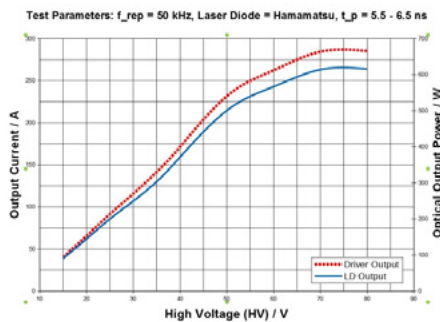
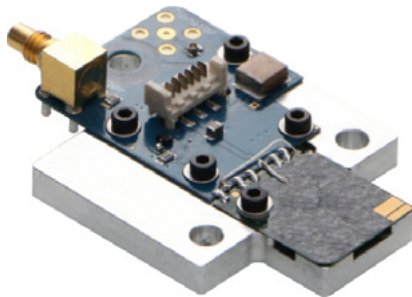


LDP-AV 1N50-450

Rev. 2004

LIDAR - Ultra compact Driver Module for pulsed Lasers



Product Description

The LIDAR (Light Distancing and Ranging) driver LDP-AV 1N50-450 is a nanosecond range driver which is capable of driving more than 650 W. The driver is designed to mount the laser diode or similar emitters directly onto the PCB to minimize inductance. LD pads and pulse duration can be customized for your application. The driver consists of two parts: The stamp sized front part which contains the complete driver electronics and the larger evaluation board which contains only the connectors for an easy access to the necessary control and input signals. The advantage of this compact and small design makes it possible to achieve a high power density of 1.71 W/mm^2 and offers output currents up to 450 A with fixed pulse durations of several ns.

- Ultra compact driver: $19 \times 20 \text{ mm}^2$
- 20 to 450 A output current
- Fixed pulse duration e.g. 5 ns
- Repetition rates from single shot to 200 kHz
- Easy setting of the output current via an external HV voltage
- Applications: LIDAR, Measurements, Ignition, Rangefinding, Biochemistry, ...
- Flexible platform to install and test laser diodes
- Advanced minimal inductance layout
- High power density

Technical Data*

Output current	20 .. 260 A* 20 .. 450 A (typ.)
Pulse duration	Fixed e.g. 5 ns
Repetition rate	Single shot to 200 kHz**
Max. duty cycle	0.1 %
Trigger input	5 V into 50 Ω
Supply voltage	+5 V 0.1 A
Charging voltage	HV: 190 V / 0 .. 0.5 A
Dimensions in mm	19 x 20
Weight	26 g
Operating temperature	0 .. 55 °C

* Tested with Hamamatsu laser diode 4 Emitter and Triple Stack
 ** See manual for detailed information

Ordering Options

- HV: Integrated HV module
- EVA: With evaluation board is standard (Without EVA is only available for volumes > 1000 units)
- B: Laser diode pads are suitable for wire-bonding