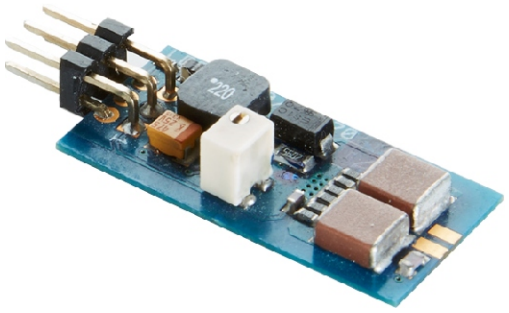
PicoLAS
FOCUSSING POWER TO THE POINT

Rev. 1905

LDP-V 10-70

Mini Driver for Short Pulse Laser Diodes



- Ultra compact OEM module: 32 x 15 mm
- 2.5 to 13 A output current
- < 4 ns rise time
- Pulse width control via trigger input (10 ns to 1 µs)
- Rep. rates from single shot to 100 kHz
- Single +15 V supply
- Current monitor
- Applications: LIDAR, Measurements, Ignition, Rangefinding, Biochemistry, ...

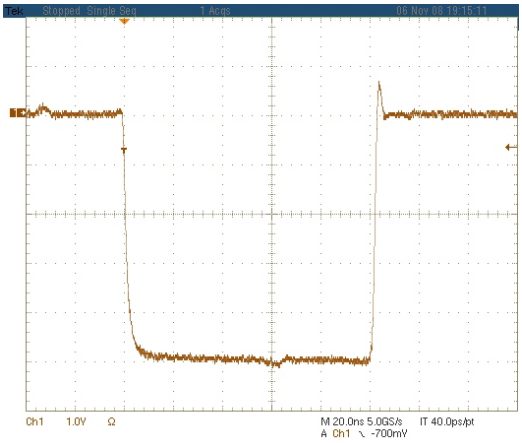


Figure: Current monitor output, scale: -2 A/Div

Product Description

The LDP-V 10-70 is the smallest available driver for nanosecond pulses. The device is optimized for size and functionality, integrating a HV-DC source and the pulsing stage into only 4.8 cm². Its typical application is driving pulsed laser diodes. Those can be mounted directly onto the LDP-V, eliminating the need for strip lines. The diode must be electrically isolated from earth (chassis) ground.
Despite its small size, the LDP-V is designed for ease of use. It eliminates the need for multiple peripheral supply units. A single 15 V DC supply and a trigger signal are all that is required for operation.

Technical Data*

Output current	2.5 .. 13 A
Max. output voltage	70 V
- int. high voltage	15 .. 70 V, 0.1 A, 3 W
Rise time	Typ. 3 ns, max. 4 ns
Trigger delay	Typ. 36 ns, max. 40 ns
Min. pulse width	10 ns
Max. pulse width	1 µs
Trigger range	Single shot to 100 khz** (refer to diagram with operating limits)
Max. duty factor	0.1 %
Trigger input	5 V into 50 Ω
Current monitor	2 A / V into 50 Ω
Supply voltage	+15 V 0.2 A
Max. power dissipation	2 W
Dimensions in mm	32 x 15 x 8
Weight	4 g
Operating temperature	-20 to +55 °C

* Measured into a short instead of laser diode. Technical data is subject to change without further notice.
** See manual for detailed information.

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