

LDP-V 03-100 V3.3

Driver Module for Pulsed Lasers

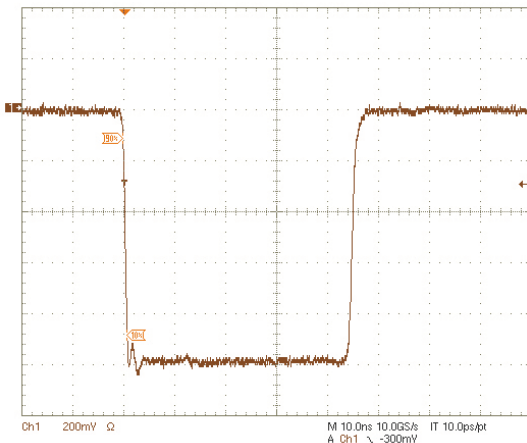
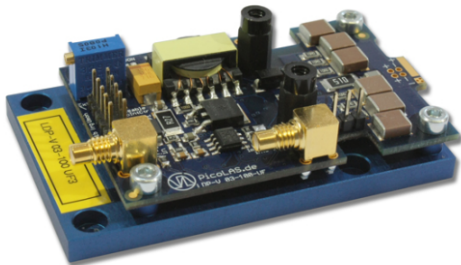


Figure: Current monitor output, scale: -0.4 A/Div

Product Description:

The LDP-V 03-100 V3.3 is a small and inexpensive source for nanosecond pulses. The device is optimized for pulse-repetition from single-shot up to MHz-repetition with duty-cycles up to 100%**. 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. Compatible packages: TO-18, TO-5, TO-52, 5.6 mm, 9 mm and similar. 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.. 24 V DC-supply and a triggering signal are all what is required for operation.

Additionally, the LDP-V can be extended with the PLCS-21 controller to enable USB2.0-communication with a PC or the operating unit PLB-21. **Do not use PLCS-21 with higher supply voltage than 15V. If you use the PLCS-21 with higher voltage than 15 V, the device will be damaged.**

- Compact OEM-module
- 0.3 to 3A diode current
- < 1.2 ns rise time
- Pulse width control via SMC trigger input (1 ns to >10 μ s)
- Rep. rates from single shot to 35 Mhz
- Single supply
- Current monitor and isolated monitor
- Applications: LIDAR, Measurements, Ignition, Ranging, Biochemistry, ...

Technical Data:*

Output current	0.3 .. 3 A (max 3.5 A)**
Max. output voltage	100 V
- int. high voltage:	0 .. 100 V, 1 A, 15 W
Rise time	typ. 800 ps, max. 1.2 ns
Trigger delay	typ. 2.5 ns, max. 4 ns
Min. pulse duration	1 ns
Max. pulse duration	> 10 μ s**
Trigger range	single-shot to 35 Mhz** (refer to diagram with operating limits)
Trigger input	5 V into 50 Ω via SMC-jack
Trigger output	galvanically isolated Rogowski-coil
Current monitor	2.0 A / V into 50 Ω
Supply voltage	15 .. 24 V DC, 2.2 A optional: 0 .. 100 V, 15 W (external high voltage)
Max. power dissipation	15 W
Dimensions	75 x 44 x 20 mm
Weight	76 g
Operating temperature	-20 to + 55 $^{\circ}$ C

* Measured into a short instead of laser diode. Technical data is subject to change without further notice.

** See manual for detailed information.

PicoLAS strongly recommends the use of the PLCS-21 to achieve best results.

Optional Accessories: PLCS-21
PLB-21
LDP-V-BOB
LDP-V-KIT