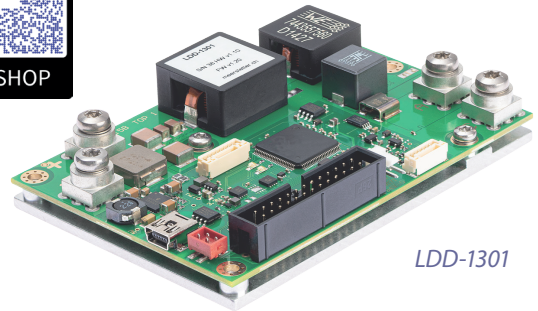


Laser Diode Drivers

Meerstetter laser diode drivers (LDD) are precise OEM current sources that are designed to cover a variety of operation modes from low ripple CW modulation to fast pulses in the kHz range. Equipped with optional laser power measurement circuitry and specialized firmware, LPC variants allow for closed-loop light power control. The latest generation of LDDs harnesses GaN technology and supports higher voltages. The LDD-1303 additionally implements a buck-boost topology to allow output voltages higher than the input voltage.

The included PC software facilitates configuration, control, monitoring, and live diagnosis of the LDD (via USB/RS485).



LDD-1301

Included Features:

- High current stability
- Low ripple output current
- PID-controlled current, adjustable
- CW and/or pulse modulation (up to few kHz)
- Internal signal generator
- Stand-alone operation
- High efficiency ($\eta > 92\%$)
- Passive cooling possible
- Comprehensive safety features
- Fast pulses up to several tens of kHz, any duty cycle (pulse choppers only)
- Pulse rise times in the 100 ns range
- Versatile communication via digital interface (USB, RS485)
- CANopen for LDD-1301 and LDD-1303

Optional Pay-for Features:

- Light Power Control (LPC) for better control of the laser power
- Feedforward Control for faster response or modulation

Device	DC Input	Max Output Current (Ripple)	Max Output Voltage	Operation Modes, Minimal Pulse Width
LDD-1137	18 – 75 V	75 A ($< 0.2\%$)	70 V	CW or modulated
LDD-1301	10.5 – 60 V	20 A ($< 0.5\%$)	45 V	1 ms – CW
LDD-1303	10.5 – 60 V	20 A ($< 0.4\%$)	120 V	1 ms – CW, modulated, square modulated
LDD-1321	12 – 24 V	1.5 A (t.b.a)	14 V	CW
LDD-1121	12 – 24 V	15 A ($< 0.1\%$)	15 V	CW, pulse chopping or modulated
LDD-1125	12 – 36 V	30 A ($< 0.2\%$)	27 V	CW, pulse chopping or modulated