

[OELDD-MCU-35A-64V]

## High Power Programmable Laser Diode Driver with Overheat Protection

### Features:

- Driving current up to 35A
- Forward voltage of laser diode up to 48V
- Maximum DC power supply 64V
- Power efficiency of more than 90%
- Current stability of less than 1%
- Slow-start current ramp
- Up to 3 Laser overheat protections with fast shut-down
- CW or pulse mode operation, with internal/external triggering
- Display of the current level in real time
- Computer controlled or stand-alone operation
- Control software (GUI) included
- Time-scheduled operation (can be turn on and off in scheduled times automatically)

### Applications:

- CW Fiber Laser
- Pulse Fiber Laser
- Fiber Amplifier
- Fiber Sensing
- Biomedical
- Instrumentation
- Industry
- Material Process



OELDD-MCU-35A-64V

### Product description:

The new laser diode controller from O/E Land Inc. with model number **OELDD-MCU-35A-64V** is a compact, highly efficient programmable driver, capable of providing large current for high power laser diodes. Thanks to the use of a high-quality 24-bits A/D converter, the output current is very stable, which makes the device highly reliable for long-term operations.

The driver utilizes a microprocessor (MCU), and thus providing a fully programmable solution. It can be operated in continuous or pulsed modes, both delivering high current to supply laser diodes. The pulse mode can be enabled using the provided control software (GUI), or manually, with external triggering.

With the minimum and maximum output current defined in all modes, **OELDD-MCU-35A-64V** is an ideal driver for laser diode acting as CW pump, or for a pulse-mode pump to reduce the ASE noise level and achieve high laser signal-to-noise ratio.

Our driver includes build-in slow-start ramp of the current increase, up to its set-point, which reduces the potential for thermal shock to the laser when the power is turned on, and potential damage of the laser diode.

Also, to prevent over-temperature operation, the driver features a reliable overheat protection with a laser shutdown function, which triggers automatically when temperature goes over the pre-set limit point. This protection is obtained by totally four thermistors (one build-in, and 3 additional external inputs).

The driver can be either operated in a stand-alone (manual) mode, or using the provide control software (GUI), through a USB port.

The **OELDD-MCU-35A-64V** driver is suitable for a wide range applications, such as CW and pulsed fiber laser, fiber amplifier and fiber sensing.

### Product specifications:

Parameters	Unit	OELDD-MCU-35A-64V
Laser diode output current (max) (CW)	A	35
Laser diode output voltage (max) (CW)	V	48
Laser diode current range (min/max)	-	Adjustable
Slow start	s	0-100
Power efficiency	%	> 90
Current stability	%	< 1
Pulse width range	ms	5 to CW
Pulse repetition rate range	Hz	200 to CW
Duty Cycle	%	10 to 90
Laser Diode overheat protection with shutdown function	-	Yes, one build-in thermistor (PCB), and with up to 3 external NTC thermistors
Input triggering	-	Yes, TTL (5V DC)
Power supply requirements (DC)	V	up to 64
Computer control	-	Yes, with user interface and USB
Stand-alone mode (manual operation)	-	Yes, with toggle switch
Time-scheduled operation (optional)	-	Yes, with separate interface
Dimensions (LxWxH)	mm	120 x100x35

### User Interface:

