



Transmitter modules for LIDAR: OPM-LDb-5/10

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Features

- Optical transmitter for LIDAR applications
- A compact and robust OEM module for variety of applications, including automotive
- Peak current up to 25A and peak power up to 75W
- Programmable pulse-width setting from 1ns to 10ns
- Operating frequency from DC to over 5MHz*
- Operates on a single 12V power supply
- A built-in step up power supply
- LVTTTL / TTL trigger input
- Selection of laser diodes in TO can, SMD package or LD chip.
- Selection of wavelengths: 905nm, 1550nm or custom.
- Enhanced thermal design to maximize performance
- Four mounting holes to fit the module in your system and attach optics

(* With reduced peak power)

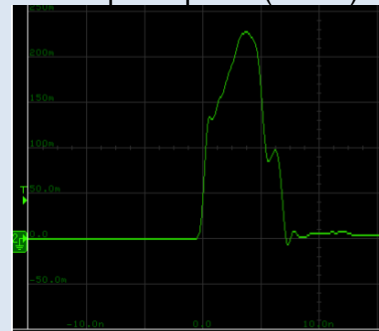
Top view: 30mm X 28mm



Pin-out

I_mon	1
12V_Power	2
GND_LD	3
GND	4
	5
HV_cntr	6
PW_fine	7
Enable	8
	9
Trig_in	10

5ns optical pulse (I=25A)



Description

The OPM-LDb series modules were designed for systems requiring a short optical pulse source with high peak power. The modules operate in frequencies of DC up to 5MHz. The peak current is up to 25A and the optical peak power (at 905nm) is up to 75W – depending on the selected laser diode. In order to protect the laser diode, the average optical power is limited to 0.1W.

The modules operate on a single 12V power supply and a trigger input signal in LVTTTL or TTL levels (rising edge).

Optical pulse-width is programmable in two ranges:

Part number OPM-LDb-5: Range of sub-nanosecond to 5ns.

Part number OPM-LDb-10: Range of 3ns to 10ns.

The peak power is programable too.

Pulse-width and peak power programming is done either by on-board potentiometers or by external analog voltage controls. A monitor signal indicates the average laser current. The module was designed to be integrated in real-life systems that operate for years.

Product applications

- LIDAR for Automotive
- 3D terrain mapping
- Augmented reality
- Gesture recognition
- High resolution LRF

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