Low-Power RGB Laser Diode Driver

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2. Description
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- **Supply voltage VIN:** 12V DC
- **Output voltages at the laser diodes:**
  - Red channel: 5V
  - Green & Blue channels: 9V
- **Maximum current at the laser diodes**
  - Red channel: 230 mA
  - Green + Blue channels together: 530 mA
- **Modulation:** Analog 0V - 5V/3.3V/2.5V/1.8V
- **Frequency:** 0KHz - 50KHz

2. Description

- The low-power RGB laser diode driver supplies red, green and blue laser diodes with current ranging from 0mA up to several hundred mA depending on the settings. The laser diode current is set by via analog modulation. The maximum permissible voltage level of the modulation is 5V. The board is compatible with modulation sources of 5V/3.3V/2.5V/1.8V and the maximum current is set by means of onboard potentiometers (trimmers). The working voltage of the laser diodes is fixed at 5V for the red laser diode and at 9V for the green and blue laser diodes.
- The board has ESD-protection, reverse polarity protection and over-voltage protection.

Configuration Settings

- **PR, PG and PB** potentiometers set the maximum current of respectively the red, green and blue laser diodes. The red channel supports a maximum current of 230 mA. The green and blue channels share a maximum current of up to 530 mA, which makes 265 mA per channel. If only one of the green or blue channels is used, its maximum current may be set at up to 530 mA.
- **LDR, LDG and LDB** terminals are used to connect respectively the red, green and blue laser diodes. The polarity of the connection is indicated on the board.
- **AR, AG and AB** terminals are used to connect the analog modulation for the red, green and blue laser diodes. The polarity of the connection is indicated on the board.
Dimensions

There are four mounting holes – one at each end of the board for 3mm screws.

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