

## UHP-M-LED-DRV High Current LED Controller / Driver Board

Ver. 4

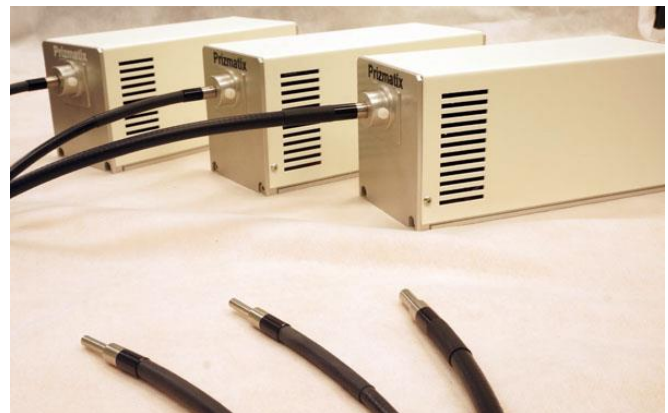
### Introduction

Lumiworks-Photonics Ltd. specializes in ultra-high-power LED illumination systems for scientific and industrial applications.

Most Lumiworks products are based on high current Luminus Devices LEDs such as CBT-90 CBT-120 and many others. Currently, Lumiworks offers the high current driver boards developed for microscopy illumination products for OEM integrators.



**UHP-M-LED:** Dual LED Illuminator for Mercury lamp replacement



**UHP-F-LED:** Light-guide coupled LED light source

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# Lumiworks

## Key Features

- Support Luminus new (Gen 4) common cathode copper coreboard packages.
- The board can be assembled in 4 versions depending on max. current: 8A, 14A, 19A and 27A
- Max current can be fine-tuned by limiting trimmer
- Optically-Isolated TTL input for fast switching
- Optically-Isolated Analog input for power control by external DAC.
- Standard input range 0-5V (Can be customized to 0-10V by removal of a single resistor)
- Fast Rise / Fall time ~10us.
- Cooling Fan control circuit (by LED thermistor)
- LED Protection circuits: LED over temp., Thermistor disconnected, Fan On at all cases.
- Optional LED current control by 12bit DAC via I2C
- Optional LED power control by PWM via I2C (2nd DAC and LTC6992)
- Optional Photosensor connection (I2C, 3.3V)

## Electrical Specifications

Digital modulation (TTL Input)	Hz	DC-30000
Rise / Fall time	us	~10
Analog modulation (Analog Input)	Hz	DC-100
Analog power control	%	0-100
ON/OFF		Power switch or by TTL signal
Input Voltage	V	12

## General Specifications

Operation temperature range	°C	10 - 35
Storage temperature range	°C	-10 - 55
Operating relative humidity (Non-condensing)	%	<90
Dimensions		See drawing below

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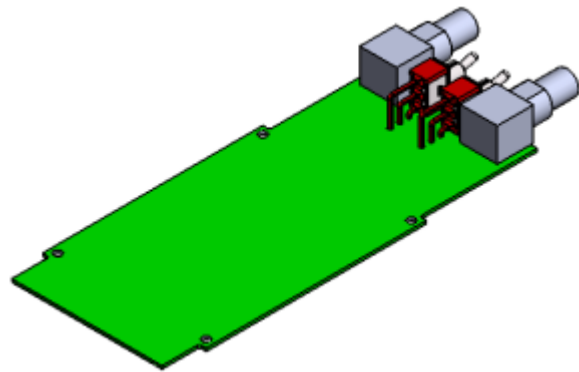
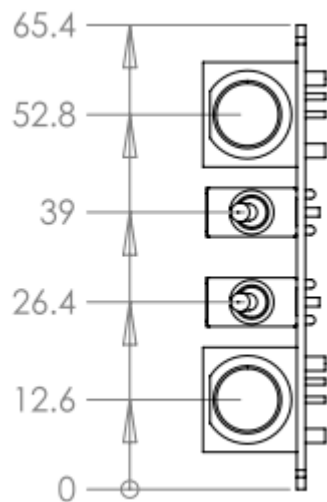
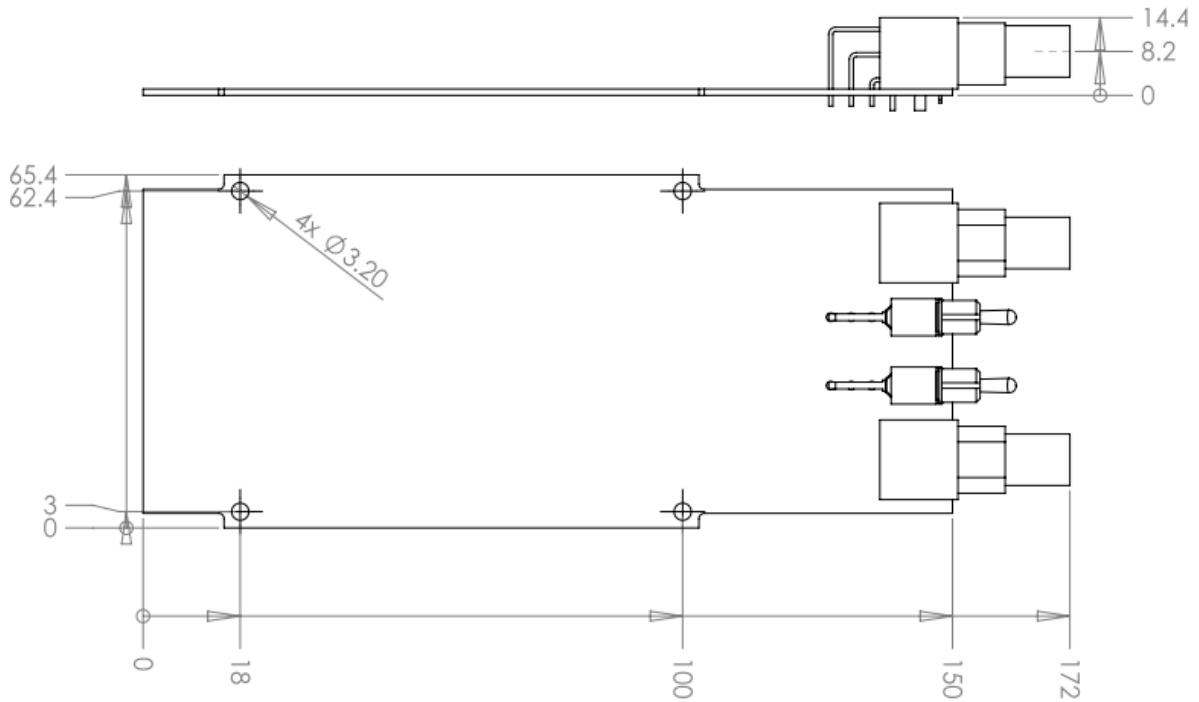
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## Mechanical Drawings



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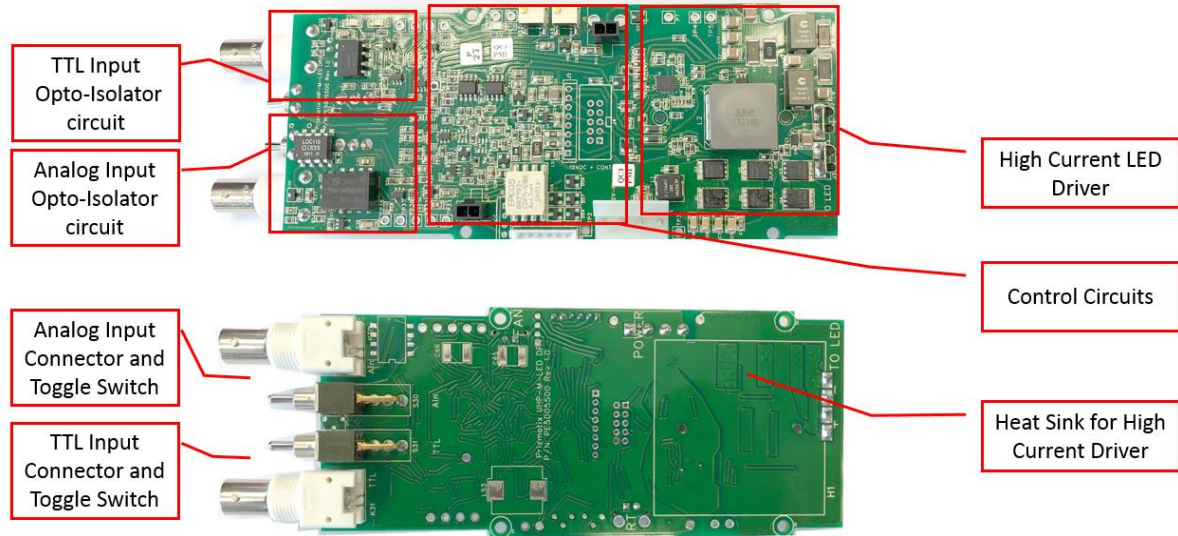
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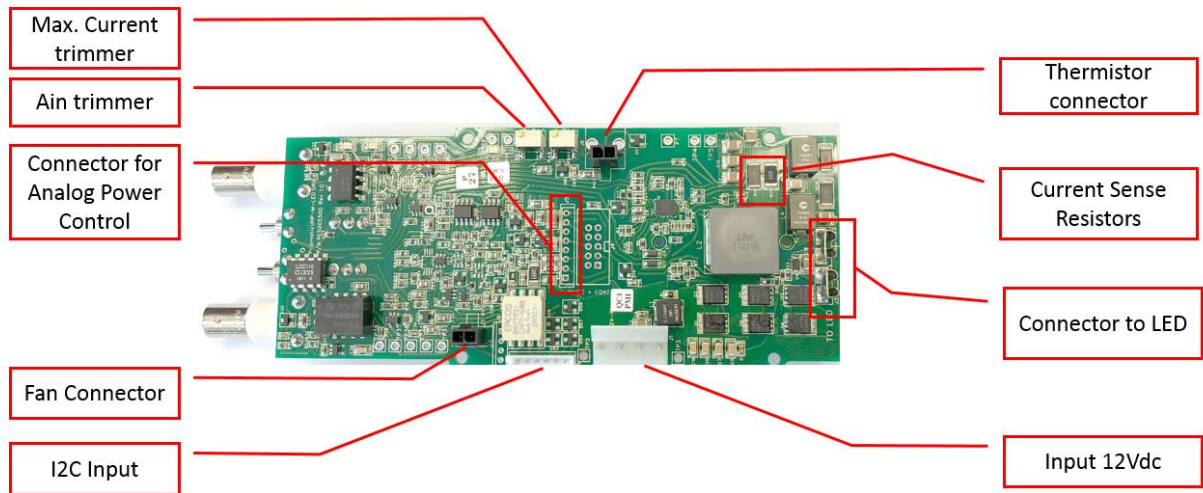
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## UHP-M-LED-DRV Board Main Circuits:



## UHP-M-LED-DRV Connectors:



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