

Prizmatix

Mic-LED-635

High Power Collimated Red LED Light Source for Fluorescence Microscopy

Featuring Prizmatix Modular Design for Multi-Wavelength and Fiberoptic Setup

Ver. 01

Introduction

The compact Mic-LED-635, High Power UV LED light source is an effective replacement of Mercury and Xenon lamps in many power demanding applications, such as fluorescence microscopy.

The LED source provides **>240 mW** of **collimated RED** power on its output. The LED driver supports CW or pulsed operation.

As a member of the modular OptiBlocks family the Mic-LED-635 can be easily converted to numerous configurations including fiber coupled LED configuration providing outstanding versatility (see Accessories section).



Key Features

- Compatible with Prizmatix modular Microscope-LED Light-Source products family – for **Multi-Wavelength, fiberoptic** applications and more. See all accessories on page 3.
- Easy connection to Olympus, Nikon, Zeiss or Leica microscopes by direct adaptor connection, Liquid Light Guide or Optical fiber
- Single chip High Brightness RED LED
- TTL external triggering (no mechanical shutter needed)
- Analog input, USB and LabView software (Optional features)
- Easy illumination field adjustment by XY and Focus (collimation)
- Very Stable. Precisely adjustable power
- Passive cooling without a fan

Applications

- Fluorescence microscopy
- Fluorescence excitation Alexa Fluor 633, 635, Cy5, SYTOX Red
- Spectroscopy
- Bio analysis
- Component test and inspection

Main Office

Phone: +972-72-2500097

Fax: +972-72-2500096

sales@prizmatix.com

European Sales Office

Phone: +44 (0)77-9172-9592

Fax: +44 (0)20-7681-2977

sales.europe@prizmatix.com

North America Sales Office

Phone: +1-(248)-436-8085

Fax: +1-(248)-281-5236

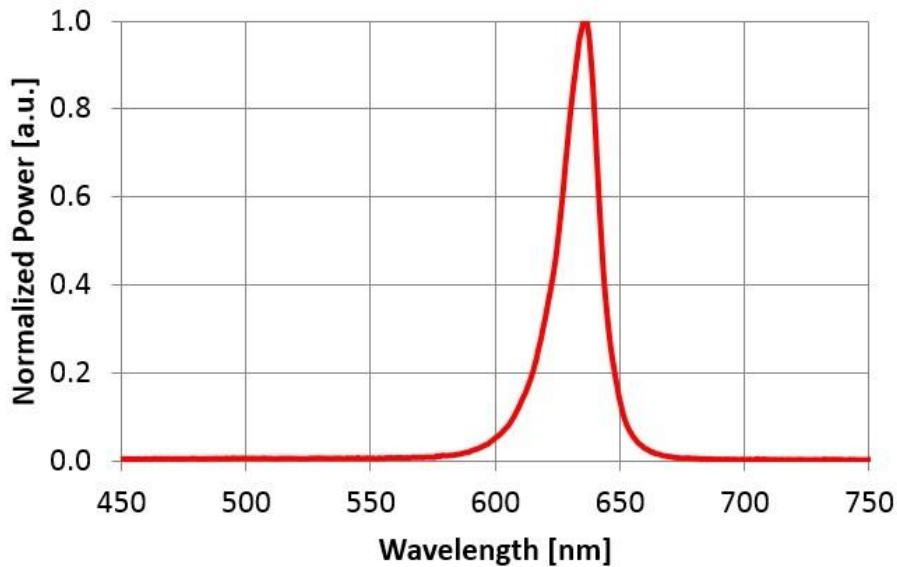
sales.usa@prizmatix.com

P.O.B. 244 Givat-Shmuel 5410102, Israel

Prizmatix

Optical Specifications

Peak Wavelength	nm	635 ± 4
Emission Spectrum FWHM	nm	18
Collimated optical power output	mW	>240
Beam Diameter	mm	~22
Beam Divergence (full angle at collimation)	mrاد	55 x 87



Mic-LED-635 spectrum

BLCC-02 Benchtop LED Current Controller Specifications

Features

- Constant current or chopping modes
- Precise LED current setting by 10 turn dial
- TTL external trigger input (TTL high level – LED ON)
- Compact and robust enclosure
- Analog Input and USB control (options)

Digital modulation input		TTL
Connector for TTL input		BNC
Digital modulation frequency	Hz	DC-10000
Rise / Fall time (10% - 90%)	µs	20
Input Voltage	V	24
Max Input current	A	1
Power Adaptor Input		100-240 VAC, 50-60Hz, 1.5A

Main Office

Phone: +972-72-2500097
 Fax: +972-72-2500096
 sales@prizmatix.com

European Sales Office

Phone: +44 (0)77-9172-9592
 Fax: +44 (0)20-7681-2977
 sales.europe@prizmatix.com

North America Sales Office

Phone: +1-(248)-436-8085
 Fax: +1-(248)-281-5236
 sales.usa@prizmatix.com

P.O.B. 244 Givat-Shmuel 5410102, Israel

Prizmatix

General Specifications

Operation temperature range	°C	10 - 40
Storage temperature range	°C	-10 - 55
Operating relative humidity (Non condensing)	%	<90
Head dimensions		See drawing below
BLCC-02 Controller dimensions (W x H x L)	mm	75 x 40 x 120
Power adaptor dimensions (W x H x L)	mm	60 x 35 x 10

Accessories for Mic-LED-635

Microscope Adaptor

The Mic-LED-635 can be directly connected to standard epi-fluorescence port of Olympus, Nikon, Zeiss or Leica microscope. The user can exchange microscope adaptor easily by simple screwing the adaptor to the Mic-LED-635 head.

Beam Combiner Module

The output beam of Mic-LED-635 can be collinearly combined with additional Mic-LEDs by Dichroic Beam Combiners. The Beam Combiner is connected to the Mic-LED by means of four connection pins.

Light Guide Adaptor and Liquid Light Guide (LLG)

The Light Guide Adaptor can be easily screwed into the Mic-LED-635 converting the Mic-LED into a LLG coupled light source. Prizmatix can supply the LLG or adapt the Light Guide Adaptor to match your light guide

Fiber Adaptor and Optical Fiber

The Fiber Adaptor can be easily screwed into the Mic-LED-635 converting the Mic-LED into a Fiber Coupled LED light source. Prizmatix can supply a variety of fiber patch cords and custom fiber optic assemblies as well as Fiber Collimator for high NA fibers

Filter Wheel and Filter Adaptor

The Mic-LED-635 can be connected to a 6 positions Filter wheel or to a filter adaptor to provide additional filtration of LED output spectrum.

Remark: Most accessories can be connected in series to create complex system.

For more detailed information please see: www.prizmatix.com

Main Office

Phone: +972-72-2500097

Fax: +972-72-2500096

sales@prizmatix.com

European Sales Office

Phone: +44 (0)77-9172-9592

Fax: +44 (0)20-7681-2977

sales.europe@prizmatix.com

North America Sales Office

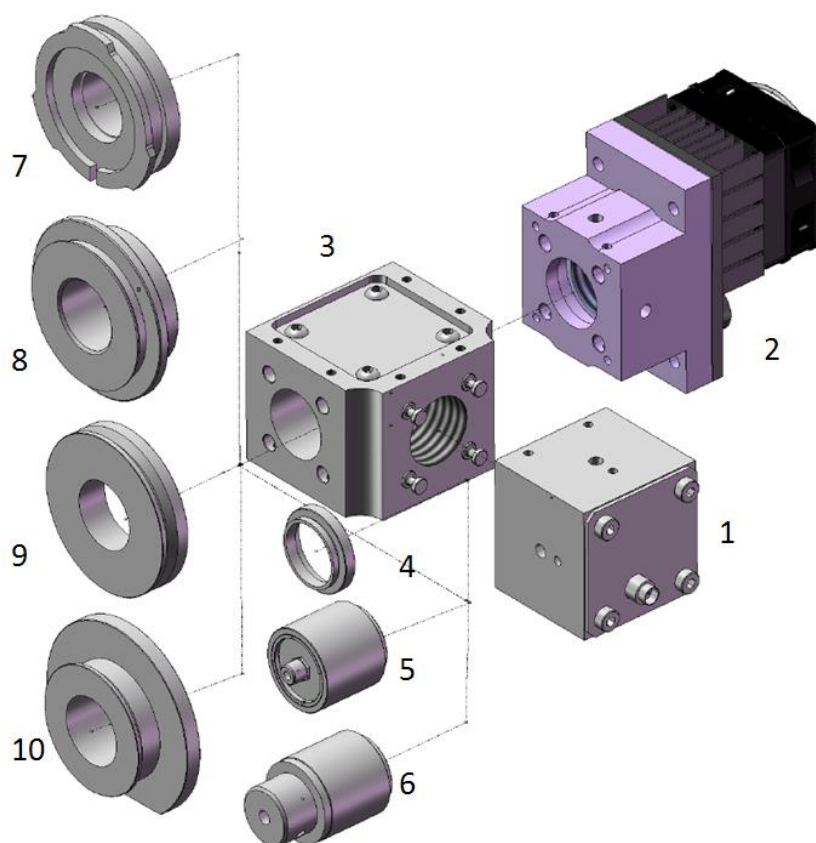
Phone: +1-(248)-436-8085

Fax: +1-(248)-281-5236

sales.usa@prizmatix.com

P.O.B. 244 Givat-Shmuel 5410102, Israel

Prizmatix



#	Part	Description
1	Mic-LED-635	Microscope LED 635 nm
2	UHP-Mic-LED-???	Ultra high power LED at ??? nm
3	Multi-LED-BC	Beam Combiner with dichroic mirror
4	SM1 adaptor	Adaptor to SM1 thread
5	FCA	Fiber coupler adaptor
6	LLGA	Light guide adaptor
7	Nikon adaptor	Adaptor for Nikon fluorescence microscope
8	Zeiss adaptor	Adaptor for Zeiss fluorescence microscope
9	Olympus adaptor	Adaptor for Olympus fluorescence microscope
10	Leica adaptor	Adaptor for Leica fluorescence microscope

Main Office

Phone: +972-72-2500097

Fax: +972-72-2500096

sales@prizmatix.com

European Sales Office

Phone: +44 (0)77-9172-9592

Fax: +44 (0)20-7681-2977

sales.europe@prizmatix.com

North America Sales Office

Phone: +1-(248)-436-8085

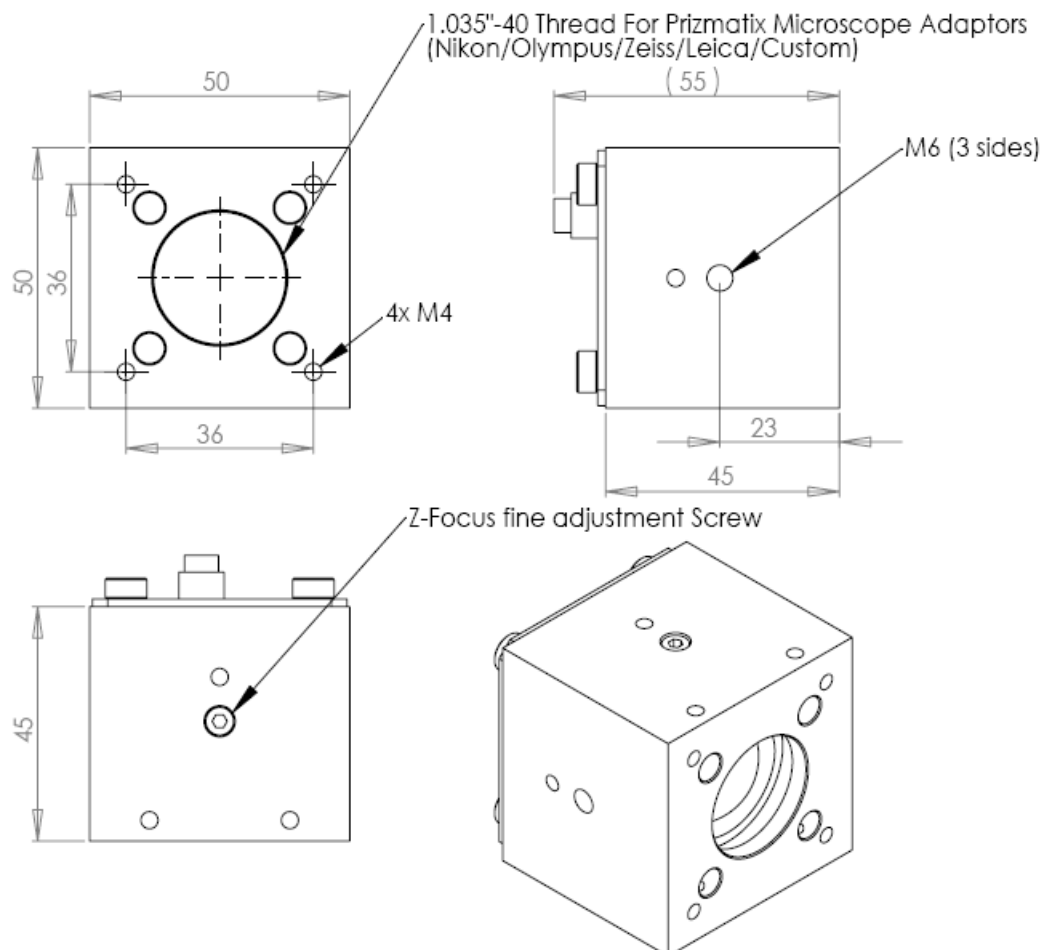
Fax: +1-(248)-281-5236

sales.usa@prizmatix.com

P.O.B. 244 Givat-Shmuel 5410102, Israel

Prizmatix

Mic-LED-635 Head Mechanical Drawings



Main Office

Phone: +972-72-2500097

Fax: +972-72-2500096

sales@prizmatix.com

European Sales Office

Phone: +44 (0)77-9172-9592

Fax: +44 (0)20-7681-2977

sales.europe@prizmatix.com

North America Sales Office

Phone: +1-(248)-436-8085

Fax: +1-(248)-281-5236

sales.usa@prizmatix.com

P.O.B. 244 Givat-Shmuel 5410102, Israel
