

HB-FC-White High Brightness Fiber Coupled White Light Source

Ver. 3.0

Introduction

Prizmatix HB-FC-White series of High-Brightness Fiber-Coupled light sources are designed especially for OEM illumination applications in life science instrumentation, machine vision, and other application requiring high brightness fiber coupled light source. The HB-FC-White housing is self-contained light source including all necessary driver electronics and thermal management, no special controller box is required to operate the module if used at preset power.



Key Features

- Single chip High Brightness White light source
- High power white light from small core fiber
- Simple integration for OEM
- Isolated TTL and Analog Input
- Optional Fast TTL switching (200ns Rise / Fall time)
- Optional Remote Controller for Power and ON/OFF control
- Optional control form computer via USB or RS232
- Remote control by I²C protocol for OEMs
- Long life (no lamp or laser tube replacement required)



Applications

- Illumination through very small apertures
- Bio-instrumentation

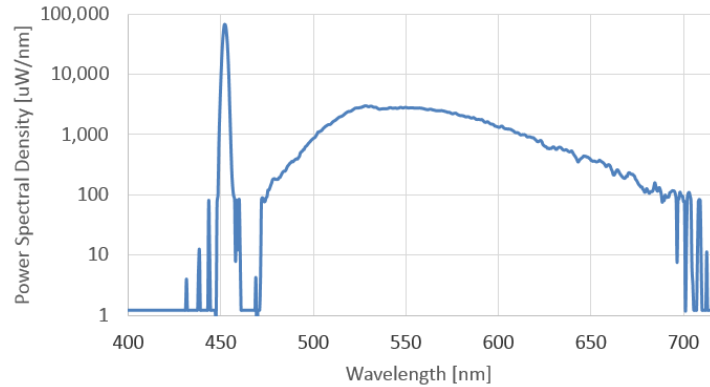
Optical Specifications

Wavelength		Cool-White Light
Output power from 1000um fiber NA=0.63, L=1m	mW	400
Output power from 600um fiber NA=0.5, L=1m	mW	180
Output power from 400um fiber NA=0.22 L=1m	mW	25
Output power from 50um fiber NA=0.2, L=1m	mW	0.3

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* The data is for 1000um Polymer Fiber NA 0.63 L=1m

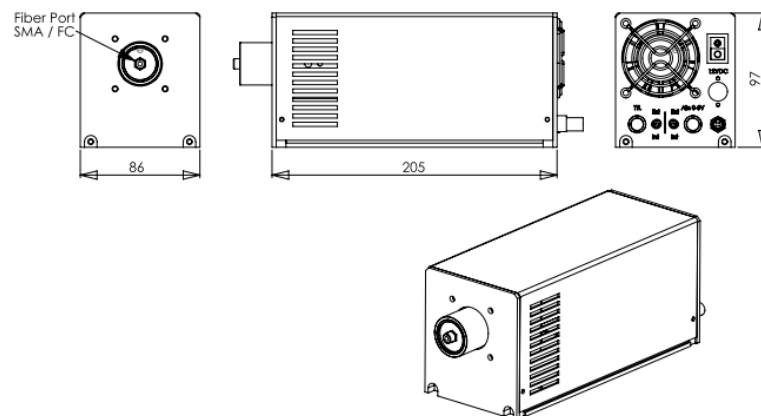
Electrical Specifications

Digital modulation (TTL Input)	Hz	DC-30000
Analog modulation (Analog Input)	Hz	DC-100
Analog power control	%	0-100
ON/OFF		Power switch or by TTL signal
Input Voltage	V	12
Power Adaptor Input		85-264 VAC, 47-63 Hz, 1.5 A

General Specifications

Operation temperature range	°C	10 - 35
Storage temperature range	°C	-10 - 55
Operating relative humidity (non-condensing)	%	<90
Head weight	Kg	1.3
Power adaptor dimensions (L x W x H)	mm	125 x 30 x 31.5
Power adaptor weight	g	300
Power Adaptor Safety		

Mechanical Drawings



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Ordering Information

Item Description	P/N
Fiber-Coupled High-Brightness light source for spectroscopy and various specialty illumination applications. XX – Please specify output connector SMA or FC Power adaptor is included. Optical Fiber not included, see below. HB-FC-CTRL not included, see below	HB-FC-White-XX
Fiber-Coupled High-Brightness light source for spectroscopy and various specialty illumination applications. FP - Fast Pulse, TTL input accept fast pulses up to 1us pulse at low repetition rate (200ns Rise/Fall time). XX – Please specify output connector SMA or FC Power adaptor is included. Optical Fiber not included, see below. HB-FC-CTRL not included, see below	HB-FC-White- FP -XX
High NA Optical Fibers: • Core: 100um / 200um / 250um /500um / 1000um • NA: 0.5 or NA: 0.63. • Length: 0.2m - 2m • Connectors: SMA or FC	Please specify requirement
Optional wired remote-control unit for manual control of the HB-FC-White illuminator. Cable included.	HB-FC-CTRL
USB interface to control HB-FC-White from Windows or Mac (from Chrome browser). Can be controlled also from uManager etc. LabVIEW, MATLAB, Python and other. Example code and API is available. Cable included.	HB-FC-USB
RS232 interface to control HB-FC-White from Windows software. Can be controlled also from uManager etc. LabVIEW, MATLAB, Python and other. Example code and API is available. Cable included.	HB-FC -RS232
Ø1 inch Fiber collimator for High NA fibers up to NA=0.53	FCM1-0.5
Ø0.5 inch Fiber collimator for High NA fibers up to NA=0.53	FCM05-0.5
Ø1 inch Fiber collimator for High NA fibers up to NA=0.63	FCM1-0.6
Ø1 inch Focuser to be used with FCM1-0.X fiber collimator. Please specify requirement	FOC1

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