

COB



Fiber coupled LED Light Source

The COB series comprises high power LED light sources with peak wavelengths that range from UV to NIR. They are conceived as user friendly, compact and silent tools, being ideal for fluorescence, spectroscopy and general fiber illumination applications.

These light sources have been designed to obtain a high coupling efficiency to optical fiber through a selectable SMA/FC connector. In addition, they can be operated either in continuous (CW) or pulse width modulation (PWM) modes.



Characteristics

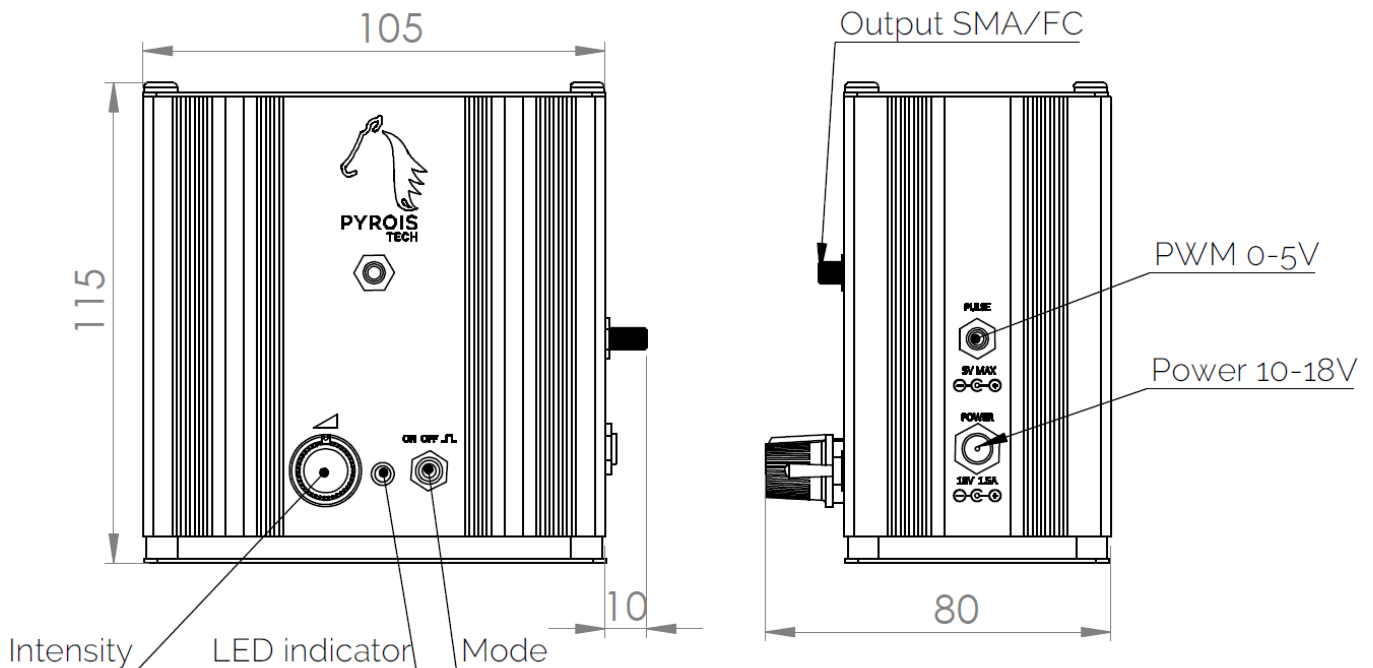
Electrical characteristics		
Power input (1)	Input Voltage	10-18 V
	Input Current	1A max
	Connector type	DC female 2.1mm
Signal input for pulse mode	Input Voltage	5V
	Input Current	5mA typ.
	Connector type	SMA female

(1) AC/DC adapter is included with the source. Input 100-240V 50-60Hz.

Other characteristics	
Working Temperature	0-50°C
Humidity	<80% HR
Equipment Surface Temperature	40°C
Stabilization time	25 min typ.
Size	10.5x11.5x8cm
Weight	500 g

Optical characteristics	
Output connector	SMA 905/FC

COB



Operation Mode

Connect a proper power source (included with the light source) prior to operation.

The light source includes two controls on the front. The MODE switch on the right sets the operation mode between ON (left), OFF (center) and PULSED (right).

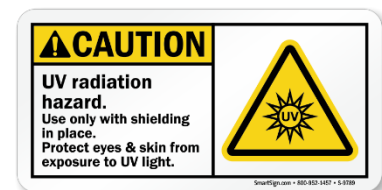
The left knob controls the intensity in ON mode (switch on the left position). The intensity can be adjusted between 20% (fully counter-clockwise) and 100% (fully clockwise) of maximum intensity.

In PULSED mode (switch on the right position), the intensity can be controlled using a PWM (Pulse width modulation) signal through the PWM input connector on the right side of the case. The intensity can be adjusted between 0% and 100% of maximum intensity changing the duty cycle of the PWM signal.

The PWM signal must vary between 0 and 5 V. Voltages out of this range can damage the PWM input and disable the PWM mode. Voltages below 1.5 V will be recognized as low level while tensions above 2.8 V will be considered high level. Pulsed frequencies up to 100 kHz can be used.

Safety Notes

- Do not remove or modify any installed safety device on this equipment. Doing so will void your warranty and create an unsafe operating environment.
- Dangerous currents are present in this device. There are NO user serviceable parts inside.
- Only allow qualified personnel to service this unit.
- Inspect this unit and its power supply before using it for the first time.
- Do not use the unit if it is damaged in any way. Contact your dealer for repair or replacement information.
- During operation do not cover the source or obstruct the air flow for its refrigeration.
- Optical radiation can damage your eyes. Do not stare directly at the light source output..

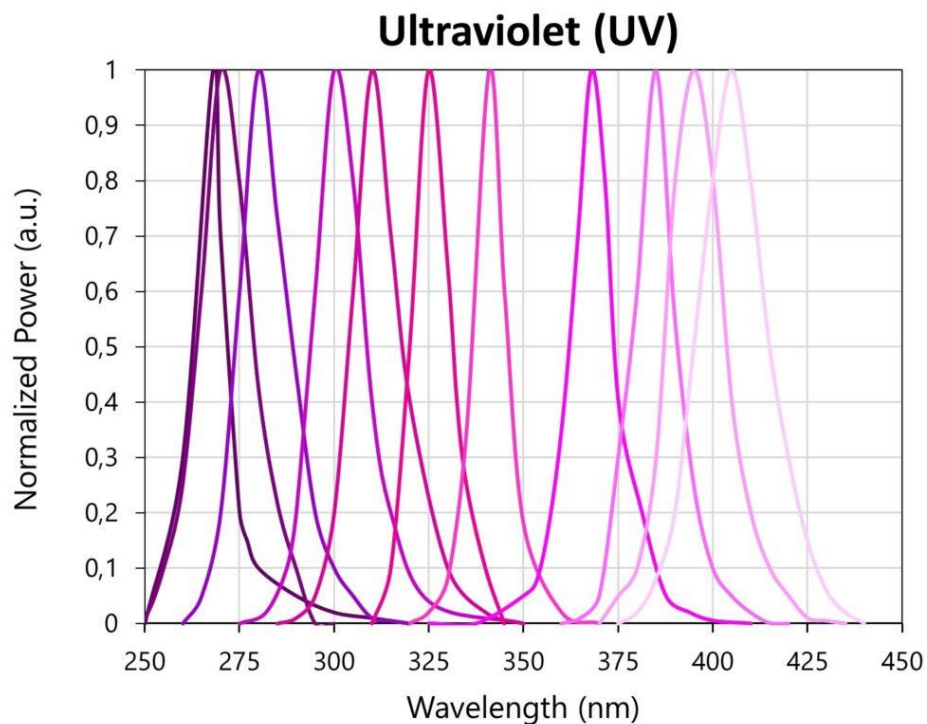


- Only applies to UV sources

Fiber coupled LED Light Source- Ultraviolet (UV)

Name	Optical characteristics		Typical optical power output (2)
	Peak wavelength	Spectral range FWHM	
COB-265	265 nm	11 nm	TBD
COB-270	270 nm	15 nm	0.12 mW
COB-280	280 nm	15 nm	0.11 mW
COB-300	300 nm	20 nm	TBD
COB-310	310 nm	15 nm	0.50 mW
COB-325	325 nm	12 nm	TBD
COB-340	340 nm	10 nm	TBD
COB-365	365 nm	12 nm	11.8 mW
COB-385	385 nm	12.5 nm	10.6 mW
COB-395	395 nm	16 nm	11.0 mW
COB-405	405 nm	20 nm	11.4 mW

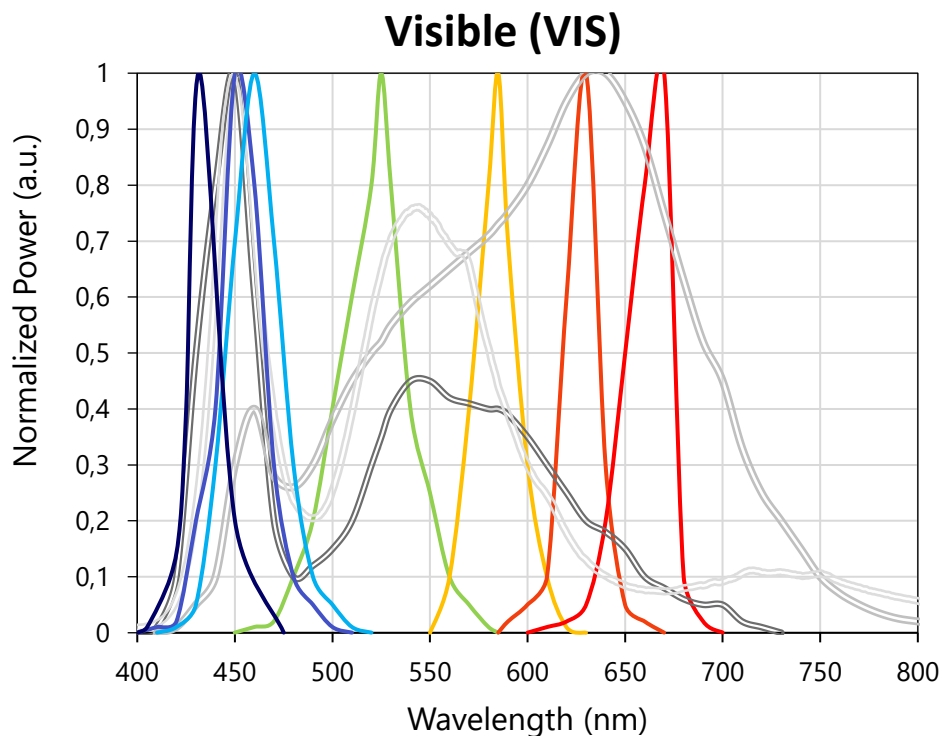
(*) Measured with an optical fiber with a core diameter of 600 μm and 0.22 NA



Fiber coupled LED Light Source- Visible (VIS)

Optical characteristics			
Name	Peak wavelength	Spectral range FWHM	Typical optical power output (2) (*)
COB-430	430 nm	17 nm	TBD
COB-457	457 nm	20 nm	13.2 mW
COB-460	460 nm	24 nm	10.7 mW
COB-523	523 nm	36 nm	4.8 mW
COB-590	590 nm	15 nm	2.0 mW
COB-623	623 nm	17 nm	10.3 mW
COB-660	660 nm	18 nm	10.6 mW
COB-EX White	EX White	TBD	0.75 mW
COB-3000 White	3000 White	TBD	2.4 mW
COB-6500 White	6500 White	TBD	16.5 mW

(*) Measured with an optical fiber with a core diameter of 600 μm and 0.22 NA



Fiber coupled LED Light Source- Infrared (IR)

Name	Optical characteristics		Typical optical power output (2) (*)
	Peak wavelength	Spectral range FWHM	
COB-740	740 nm	18 nm	7.3 mW
COB-840	840 nm	33 nm	13.1 mW
COB-940	940 nm	40 nm	29.0 mW
COB-1050	1050 nm	55 nm	58.1 mW (**)
COB-1100	1100 nm	50 nm	TBD
COB-1200	1200 nm	65 nm	TBD
COB-1300	1300 nm	80 nm	TBD
COB-1450	1450 nm	95 nm	TBD
COB-1550	1550 nm	102 nm	TBD
COB-1650	1650 nm	120 nm	TBD

(*) Measured with an optical fiber with a core diameter of 600 μm and 0.22 NA

(**) Measured with a VIS-NIR optical fiber with a core diameter of 1000 μm and 0.5 NA.

