photonfy

by LEDMOTIVE

Bluetooth Handheld spectrometer

DS 450006-09

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DESCRIPTION

photonfy is the most advanced handheld spectrometer from LEDMOTIVE to analyze and record any light spectra in the visible range, showing flickering, CCT, CRI and dozens more parameters related to it. Moreover, it is prepared to be connected with our Internet of Things (IoT) ecosystem of spectrally tunable light sources.

Enjoy your moments, record any light spectra at any time, and share it in the Cloud. With this Bluetooth portable spectrometer, it's easy!

Make static measurements or explore with spectral sequences.

At LEDMOTIVE, we are passionate about spectral fidelity and *photonfy* is the perfect solution to capture, share and analyze spectral lighting parameters directly on your smartphone.

photonfy is a flexible device that includes an internal compact and versatile ultra-compact spectrometer head integrating MEMS sensor technology.

photonfy is light and compact. It has a casual good look, soft, and comfortable design. It includes a neck holder and neoprene sleeve to facilitate easy carrying and an insert to fit a camera tripod.

Figure 1. Photonfy. Front and side view & App

APLICATIONS

- Color measurements
- IoT Lighting networks
- Quality lighting inspection for health, horticulture or artwork
- Photography and Film makers
- Flickering measurements
- Artificial light meter/analyzer
- Natural light recorder
- Instant spectral copy-paste or real-time spectral streaming (to any LEDMOTIVE technology-based luminaire)

TECHNICAL SPECIFICATIONS

Absolute maximum ratings

	MIN	MAX	UNIT
Voltage operation	4.5	5.5	V
Battery capacity	500	550	mAh

Operating conditions

	MIN	TYP	MAX	UNIT
Nominal voltage operation	4.5	5	5.5	V
Power operation	450	500	550	mW
Battery charge current	80	100	200	mA
Temperature range	5	-	50	°C
Spectral range	380	-	780	nm
Spectral resolution		12		nm
wavelength accuracy *		+- 1		nm
Integration time	5	-	5000	ms
Illuminance range	10	-	55000	
Illuminance accuracy		±10*		%
x,y Color accuracy CIE 1931		± 0.0025*		%
CCT accuracy		±3		%
CRI (Ra) accuracy		±1		%
Measurement mode		Single, continuous, subtract background		
Flicker Frequency Range	2	-	100	Hz
Wavelength temperature dependence		-0.1 / + 0.1 nm		°C

*(assumes stable input light source and beam normal incidence, not cosine-corrected)

COMMUNICATION SPECIFICATIONS

Wireless Communication protocol	Bluetooth 4.2 Smart Ready Compliant
Certifications Bluetooth module	Bluetooth, CE, FCC and IC, Japan and South-Korea qualified
Control software for smartphones	*photonfy* Android APP. This APP is compatible with Android OS 9.0 and newer https://play.google.com/store/apps/details?id=com.photonfy .app

MECHANICAL SPECIFICATIONS

Dimensions (mm)	92.8 (H) x 38.2 (W) x 20.5 mm (D)
Weight	55 g
Screw thread adapter for tripod	Standard 1/4"-20 UNC Thread size

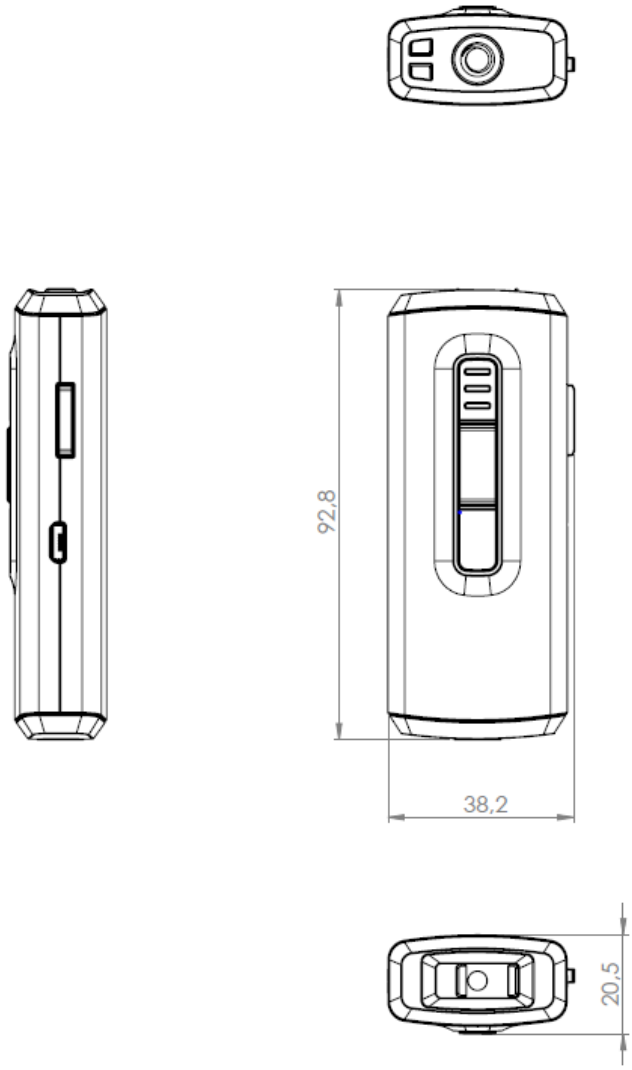

Figure 2. Photonfy mechanical dimensions. All dimensions are in millimeters (mm)

MAINTENANCE

- If a fingerprint mark or dirt is observed at the diffuser, you may clean it. Before cleaning, disconnect/turn-off the device. Wipe the surface of the diffuser gently with a dry cloth.
- Do not open, disassemble or manipulate the device.

WARNING AND SAFETY

- *Photonfy* is designed for use in dry indoor and outdoor spaces. It is not resistant to water and must be protected from adverse weather conditions (heat and humidity).
- To avoid damage, do not expose it to spray, liquids, dust, or chemical products.
- Keep in a dry place and store in the soft pouch.
- Maneuver the spectrometer carefully. It has sensitive electronic components inside.
- This device contains a certified rechargeable LiPo battery in conformity with IEC 62133-2:2017 and UN38.3, do not attempt to replace the battery yourself to avoid damaging the battery or the device.
- Charge this device only with the included micro USB cable Type-B in a PC, laptop or certified USB smartphone charger.
- Use only a certified USB smartphone charger for the country of use to ensure that safety and performance requirements are met.
- After charging is complete, disconnect the USB cable from the device. Do not charge the device longer than 12 hours.

DISPOSAL

- In accordance with EU Directive WEEE (Waste Electrical and Electronic Equipment), the device must not be disposed of with another household waste.
- At the end of their life, it must be taken to the appropriate local facility available for the disposal or recycling of the electronic parts.

WARRANTY

- This product has passed the proper EU regulations and directives. LEDMOTIVE offers a two-year limited warranty.

DISCLAIMER

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