

# **Smart Module**

Versalume's Smart Module is a controlled integrated device that comes in three individual colors - red, green or blue - or multi-color. This compact and versatile module has an integrated laser and a full suite of sensor platforms that can be used to control the laser output. The integrated capabilities include: power intensity adjustment; sync to sound via microphone; blink and fade; temperature, humidity, and pressure measurement; external light sensor; accelerometer,



gyroscope and magnetometer. Each Versalume Smart Module comes with 2 meters of detachable, LC-connectorized Corning® Fibrance® Light-Diffusing Fiber. The mode of operation can be controlled manually via push button or through a downloadable App on your iOS smart phone or device. Once the Smart Module is paired to the App via Bluetooth, you can play and interact with the various operating parameters. The module is powered by a rechargeable battery with a micro-USB type-B connector that is compatible with 5V and 12V power supplies.

## **Product Attributes**

## **Optical and Electrical**

Laser Color Red Green Blue Multi-Color

Nominal Wavelength 639 nm 515 nm 450 nm

Laser Mode Continuous Wave

Fiber Coupled Power <20 mW <10 mW <20 mW <60 mW

Fiber Connector LC

Electrical Connector Micro-USB type-B male / Rechargeable LiPo Battery

Control Interface Bluetooth enabled iOS App (Android App planned for future release)

Intensity Adjustment Continuous (32 bits)

Fiber Length 2 m

Circuit Protection Static, Surge, Reverse Polarity

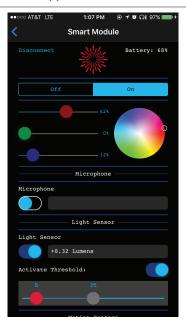
## **Environmental and Regulatory**

Regulatory (pending) CDRH Class IIIa (IEC Class 3R) Laser, ROHS Compatible

MTBF 6000 hrs at 25°C Nominal

Case Operating Temp Range  $-10 \text{ to } + 50^{\circ}\text{C}$ Storage Temperature Range  $-20 \text{ to } + 60^{\circ}\text{C}$ 

#### **Control App and Functions**



The Versalume Smart Module App offers the following indicators, controls, and sensors with optional threshold responsivity:

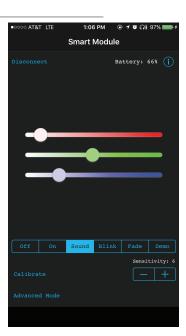
Laser Color Battery Charge Percentage Laser Mode - Off, On, Sound, Blink, Fade, and Psychedelic Demo Mode Laser Intensity

Microphone toggle with indicator Light Sensor with value indicator and threshold

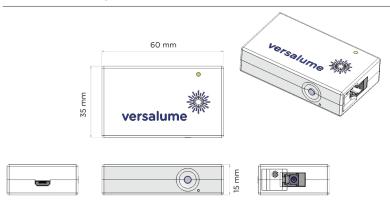
Motion Sensors (accelerometer, gyroscope, and magnetomer) with value indicators and threshold response

Environmental Sensors (thermometer, barometer, and hygrometer) with value indicators and threshold response

Application is compatible with iOS version 10.0



### **Mechanical Drawings**



### Note

Fiber must be attached at all times during module operation. Avoid intentional exposure to direct or reflected light from fiber tip. To avoid damage to fiber on module, do not pinch or bend fiber around sharp corners. This laser product does not produce a collimated beam.



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