



# Enor EU

Third-Party Integration Gateway

# Product Overview

Enor EU is an enterprise gateway that seamlessly connects an AV system to the Lumos Controls’ secure and intelligent BLE mesh network via RS232 serial communication. With this AV integration, Lumos and AV devices can be controlled together from both AV system and Lumos system.

In addition, it also includes the Astronomical time clock feature for automatic lighting schedule adjustments based on the natural daylight cycle. Its built-in RTC (Real Time Clock) keeps the network date and time up to date even after a power outage or without cloud connectivity, ensuring uninterrupted scheduling. The device also connects the Lumos Controls ecosystem to the cloud using Wi-Fi or Ethernet and helps in remote control, configuration, and monitoring of the Lumos Controls ecosystem.

# Specifications

## Electrical

Specifications	Value	Remarks
Input voltage	5V	Mini-USB / DC Adaptor
Input current	2A	Mini-USB / DC Adaptor

## Ethernet

Specifications	Value
Number of ports	1
Data transmission rate	10/100 Mbps

## WiFi

Specifications	Value	Remarks
Frequency band	2412-2462 MHz	IEEE 802 Part 11b/g/n

# Features

- Easily configure up to 16 AV "ASCII String" commands and setup the lighting systems to interact with AV system via Lumos Controls mobile application.
- A standard 9-pin D style female socket is utilized for connection to AV system.
- Real-Time Clock(RTC) keeps track of the current time without cloud connectivity or after a power outage
- Support 802.11b/g/n modes
- Automatic switching for daylight saving time
- Daily astronomical calculation of the sunrise/sunset times based on the location
- Quick and easy configurations of the astronomical schedules from Lumos controls mobile application
- Offset for sunrise and sunset times can be adjusted up to ± 120 min. These time differentials are set separately for sunrise and sunset
- CR2032 coin-cell battery powered RTC with 10 years life
- LED indications for power, BLE, WiFi, AV and Error status
- Support Zero downtime Over-the-Air firmware updates for mesh devices

## Bluetooth

Specifications	Value	Remarks
Frequency range	2400-2480 MHz	
Max output power	8dBm	
Receive sensitivity	-95dBm	
Connection distance (device to device)	45m(147.6 ft)	Vary depending on the installation enviornment

## RTC

Specifications	Value	Remarks
Input voltage	3VDC	CR2032 coin cell battery
Battery life	10 years	

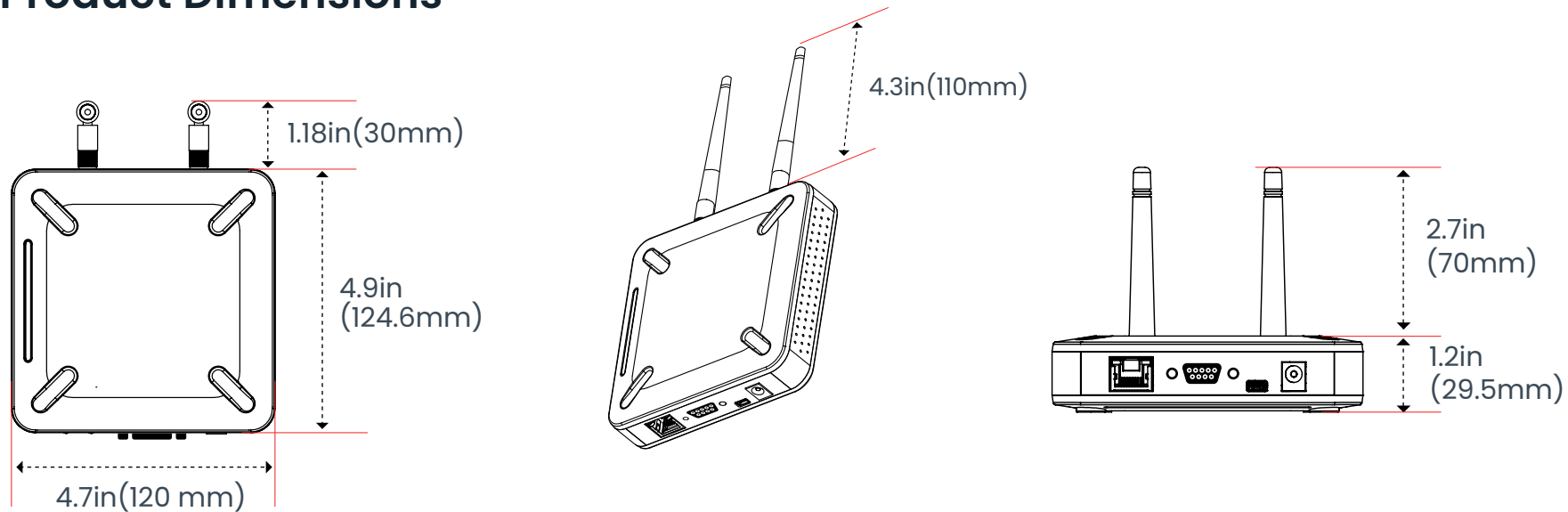
Environmental

Specifications	Value
Operating temperature	-20 to 55°C (-4 to 131°F)
Storage temperature	-20 to 85°C (-4 to 185°F)
Relative humidity	85%

Mechanical

Specifications	Value	Remarks
Dimensions	4.9 x 4.7 x 1.2in (124.6 x 120 x 29.5mm)	L x W x H

Product Dimensions



Use Case



Integrate Lumos Controls with AV system



Remote device operation



Sends the sensor and device data to cloud



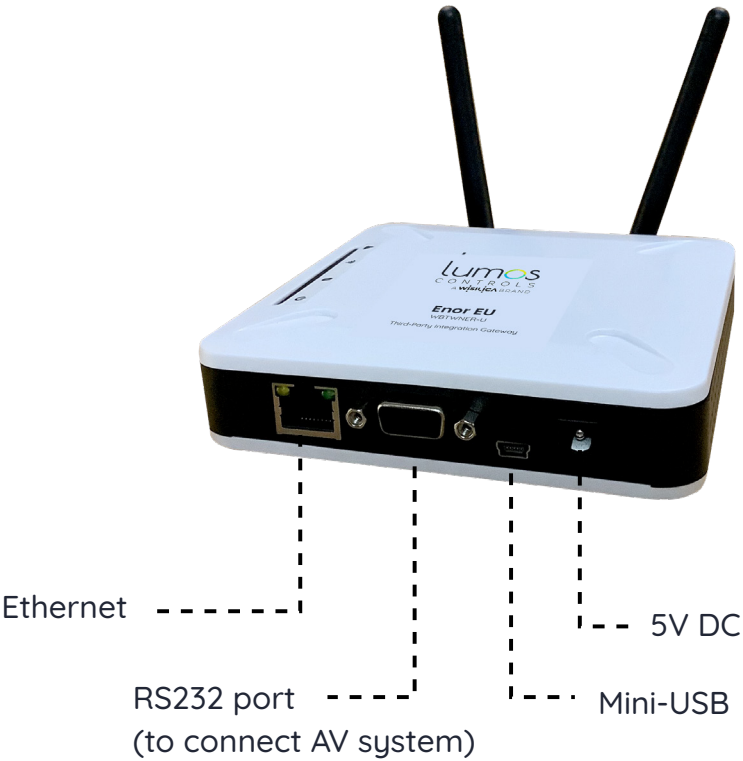
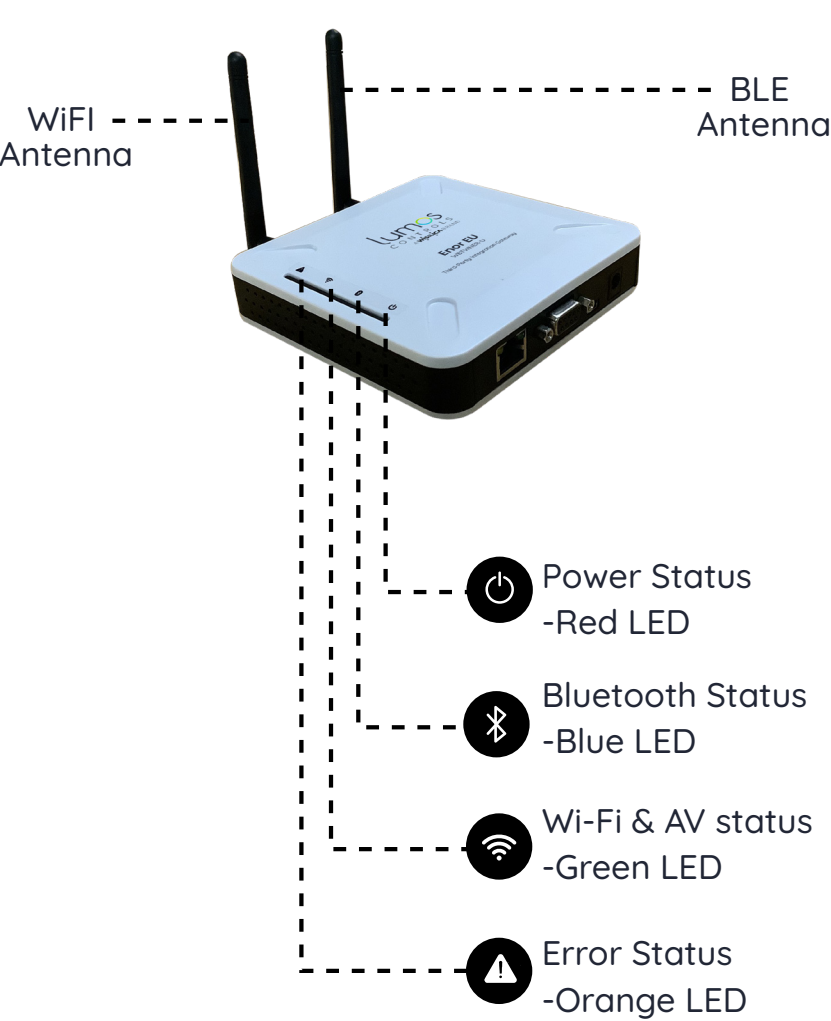
Astronomical Clock for sunset/sunrise schedules



Real time clock for uninterrupted scheduling

**Note** If the Gateway is not connecting with the cloud then, please ensure ports 443 and 8883 are open.

# Interface Description



## Antenna Information

Stick antenna



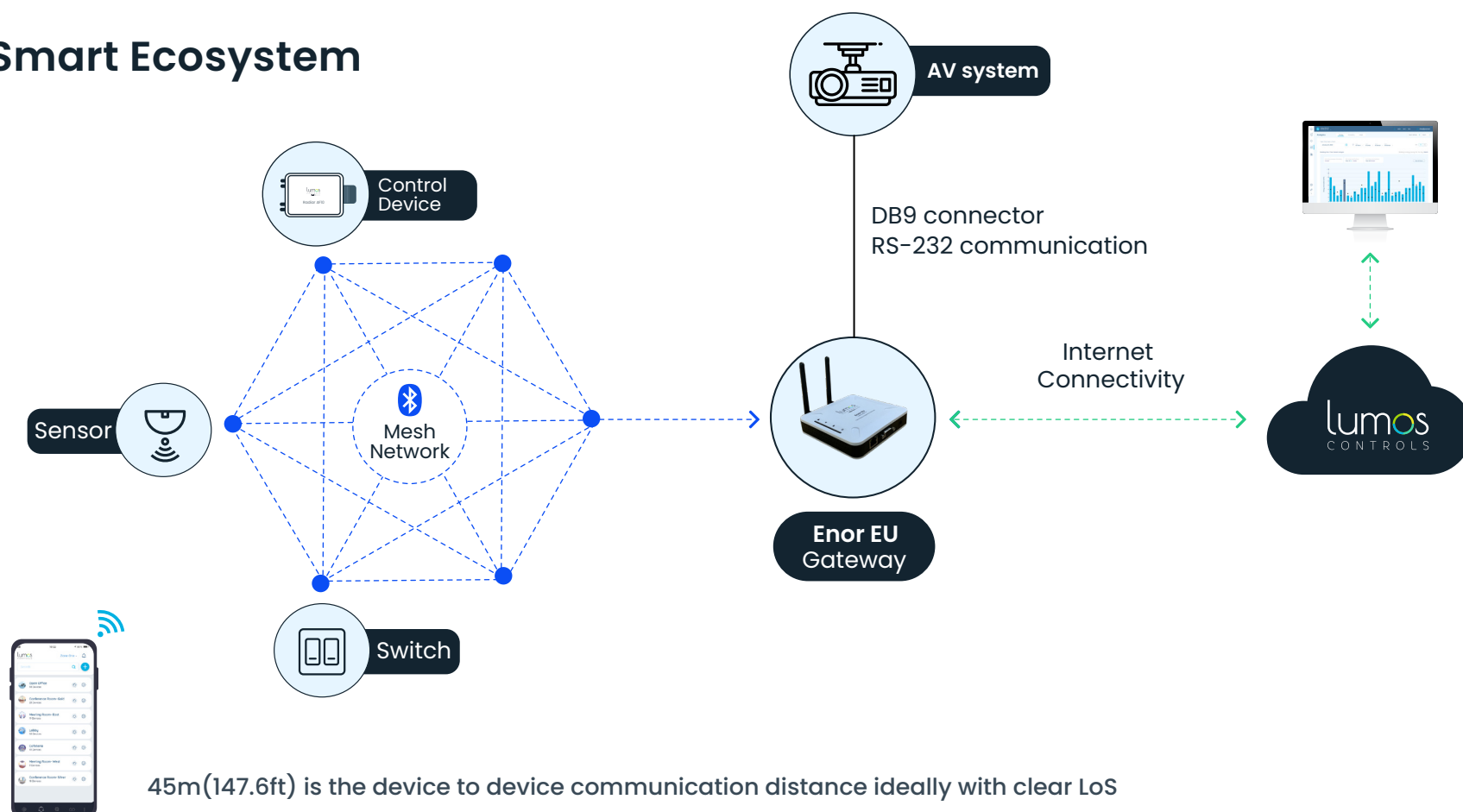
Antenna Properties	
Frequency range	2.4GHz-2.5GHz
Impedance	50Ω
VSWR	≤ 1.8
Return loss	≥12dB
Gain(peak)	2dBi
Power handling	10W
Polarization	Vertical
Radiation pattern	Omni-directional

## Wiring

The Enor EU is connected to the AV control system via a DB9 connector and communicates using RS-232 protocol. All the configurations from protocol settings to how light devices respond to commands from AV systems can be effortlessly done using the Lumos Controls mobile app.



## Smart Ecosystem



# Items included in the package box

- Enor EU
- User manual
- Stick antenna
- Adapter
- Screws
- Wall plug



# Ordering Information

Product Code	Product Name	Product Description	Communication	Voltage Rating	RTC	Ethernet	Astronomical Clock	Serial Port
WBTWNER-U	Enor EU	Third-Party Integration Gateway	BLE5.2/WiFi	5V/2A (mini-USB or DC adaptor)	Yes	Yes	Yes	Yes (RS-232)

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