



# Enor E

WiFi-BLE Gateway with RTC, Ethernet & Astronomical Clock



## Product Overview

Enor E is an enterprise gateway that seamlessly connects the Lumos Controls ecosystem to the cloud using WiFi or Ethernet and includes the Astronomical time clock feature for automatic lighting schedule adjustments based on the natural daylight cycle.

It has a built-in RTC (Real Time Clock) that keeps the network date and time up to date even after a power outage or without cloud connectivity, ensuring uninterrupted scheduling. It 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

- WiFi/BLE 5.2 Gateway providing ubiquitous connectivity to BLE devices
- 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  $\pm 120$  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 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 environment |

### RTC

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

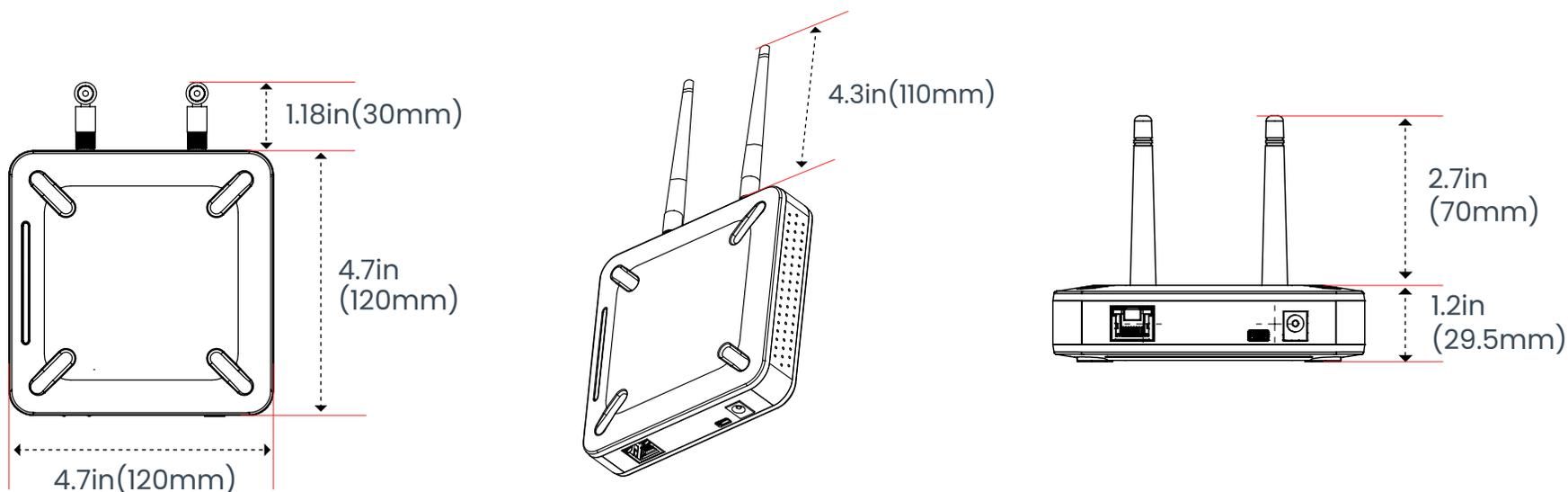
## Environmental

| 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     | 4.7 x 4.7 x 1.2in<br>(120 x 120 x 29.5mm) | L x W x H |

## Product Dimensions



## Use Case



Remote device operation



Sends the sensor and device data to cloud



Astronomical Clock for sunset/sunrise schedules

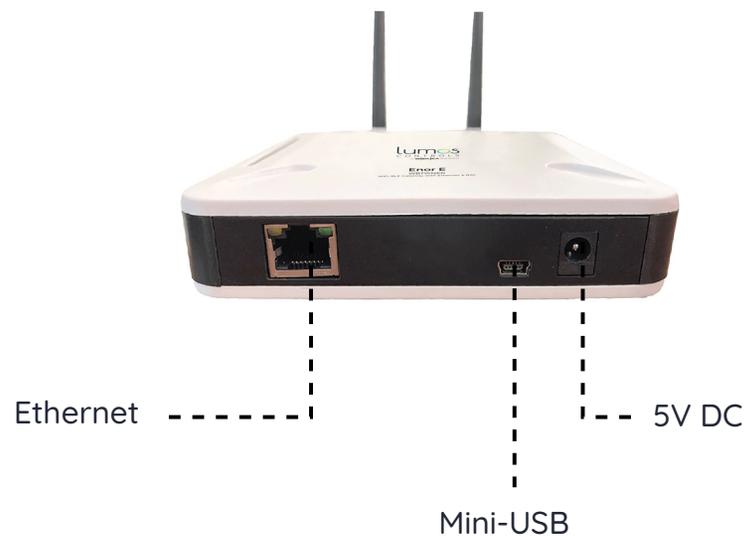
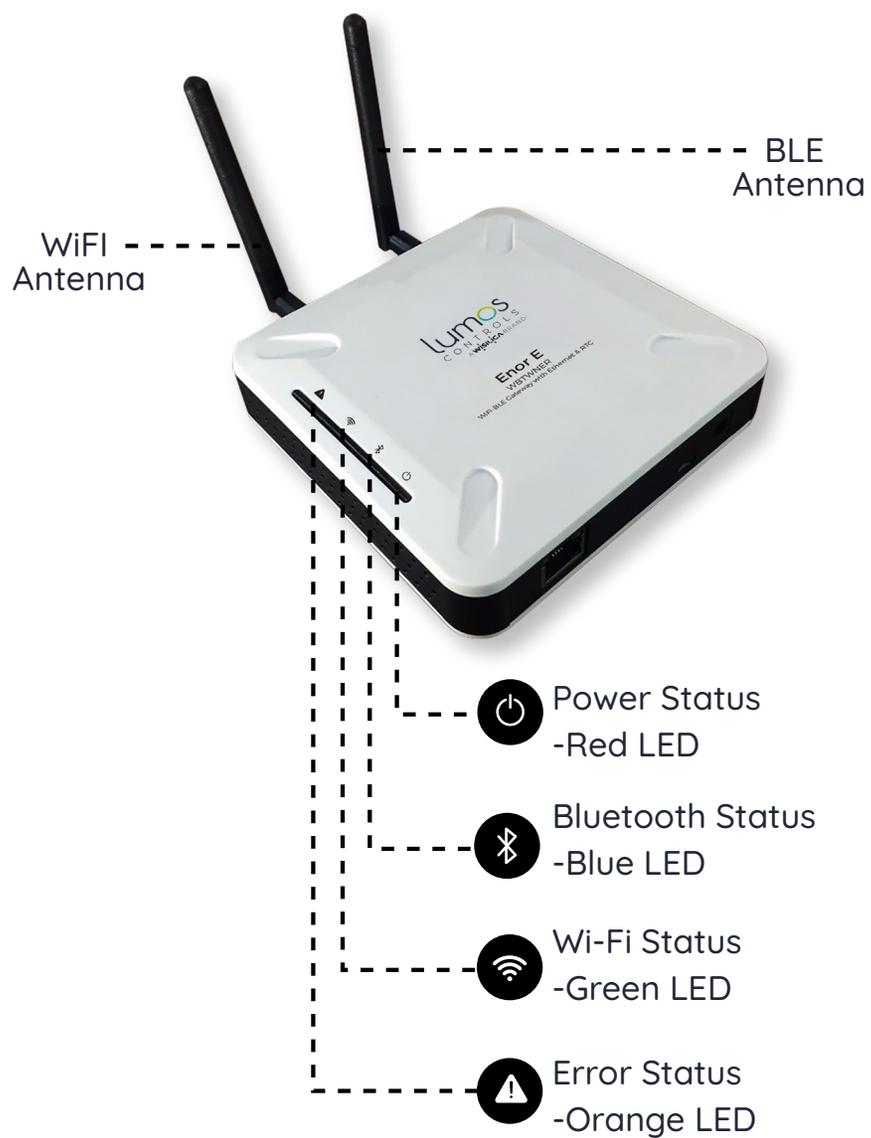


Real time clock for uninterrupted scheduling

### Note

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

## Interface Description



## Antenna Information

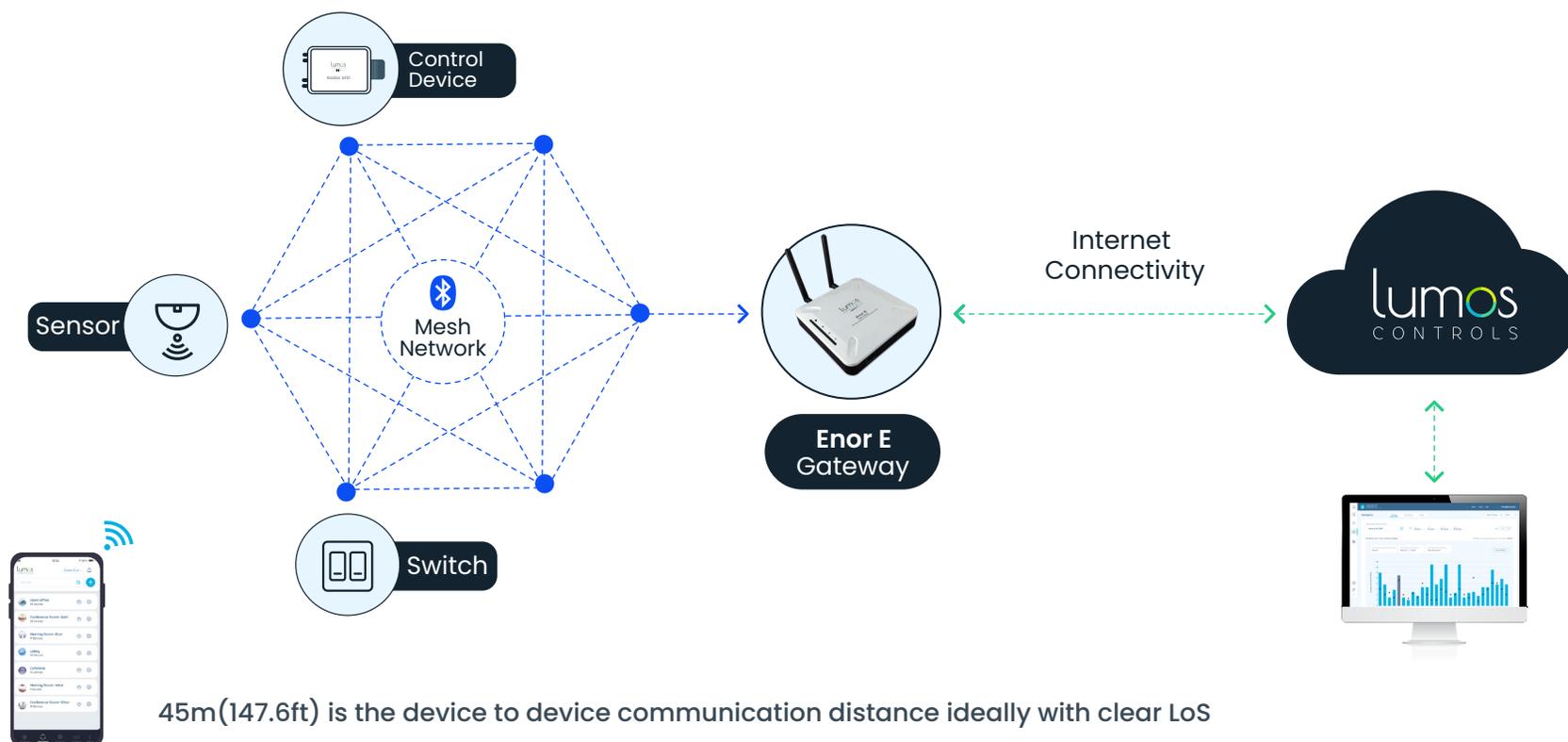
Stick antenna



### 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 |

# Smart Ecosystem



| Certifications | Details  |
|----------------|--|
| CE             | <p>Article 3, RED 2014/53/EU</p> <p><b>EMC test standards</b></p> <p>ETSI EN 301 489-1 V2.2.3 (2019-11)</p> <p>ETSI EN 301 489-17 V3.2.4 (2020-09)</p> <p>EN 55032: 2015/A11: 2020</p> <p>EN 55035: 2017+A11: 2020</p> <p><b>Radio test standard</b></p> <p>ETSI EN 300 328 V2.2.2 (2019-07)</p> <p><b>Health test standard:</b></p> <p>EN IEC 62311: 2020</p> <p><b>Safety test standard:</b></p> <p>IEC 62368-1:2014+A11: 2017</p> |
| RoHS 2.0       | RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU   |
| REACH          | Regulation (EC) No 1907/2006 of REACH  |
| WEEE           | Under the WEEE Directive: 2012/19/EU   |
| FCC            | FCC Rule Part 15C, ID: 2AG4N-WBTWNER   |
| Bluetooth      | Declaration ID: D059551  |

## Items included in the package box

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

## Ordering Information

| Product Code | Product Name | Product Description                  | Communication | Voltage Rating                    | RTC | Ethernet | Astronomical Clock |
|--------------|--------------|--------------------------------------|---------------|-----------------------------------|-----|----------|--------------------|
| WBTWNER      | Enor E       | WiFi-BLE Gateway with Ethernet & RTC | BLE5.2/WiFi   | 5V/2A<br>(mini-USB or DC adaptor) | Yes | Yes      | Yes                |

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