Gateway

LELCONNECT Beacon & Range Extender

Product Overview

LEL-BRE is a bi-directional communication device that can be positioned at various locations throughout the BLE Mesh network to extend its coverage. This USB powered wireless BLE 5.2 based device also supports beacons and comes with an external stick antenna for better communication.

LEL-BRE is a part of Lelconnect ecosystem supported by controllers, sensors, switches, modules, drivers, gateways, and analytical dashboards.

The ecosystem is listed by the Design Lights Consortium (DLC), qualifying it for energy conservation incentive programs and rebates by utility companies.

Features

- Increases the Lumos Controls BLE Mesh network range
- Supports iBeacon, Eddystone beacon, Eddystone beacon URL, Alt beacon, and Custom beacon
- Stick antenna for better wireless communication
- Unit powered by a USB type A adapter
- Zero downtime Over-the-Air (OTA) firmware updates

Specifications

Electrical

Specifications	Value	Remarks
Input voltage	5VDC	USB type-A
Input current	15mA	Typical current

Environmental

Specifications	Value
Operating temperature	-40 to 50°C
Case temperature	-40 to 85°C
Relative humidity	85%

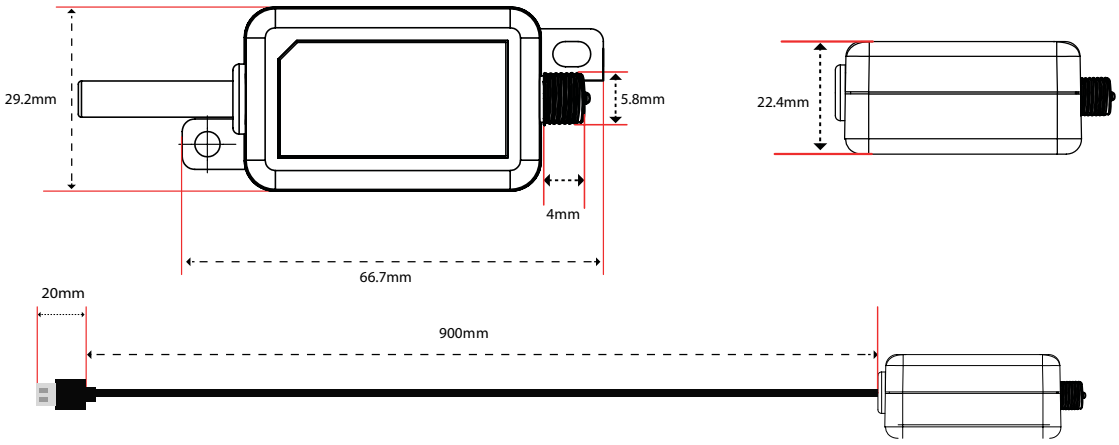
Bluetooth

Specifications	Value	Remarks
Frequency range	2402-2480MHz	
Max output power	8dBm	Conductive
Receive sensitivity	-92dBm	
Connection distance (device to device)	45m	Vary depending on the installation enviroment

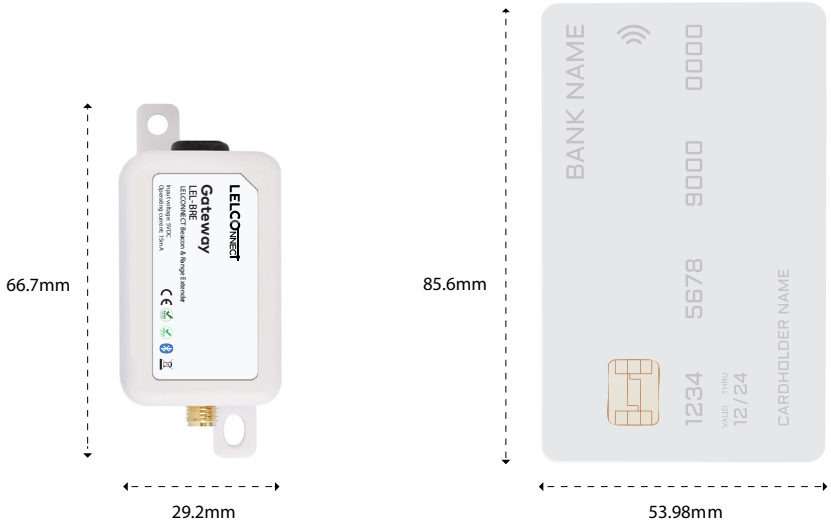
Mechanical

Specifications	Value	Remarks
Dimension	66.7 X 29.2 X 22.4mm	L x W x H
Weight	84g	
Case material	Polycarbonate	White
Flammability rating	UL 94 5VA	

Product Dimensions



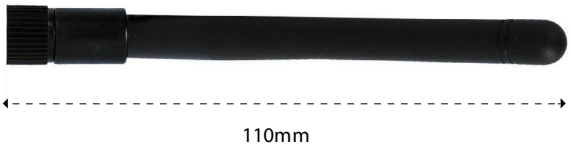
Size comparison with a standard credit card



Interface Description

Antenna Information

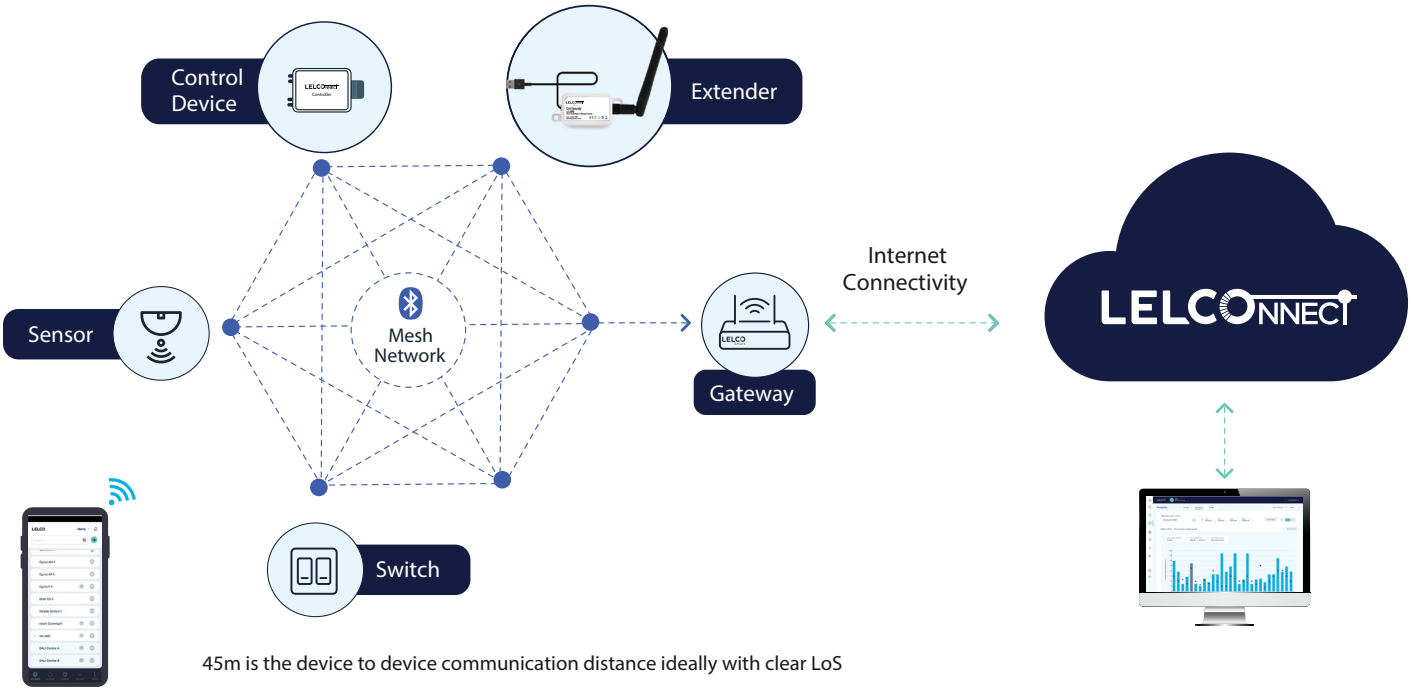
Stick antenna



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

**Wire antenna option available. Please contact sales*

Smart Ecosystem

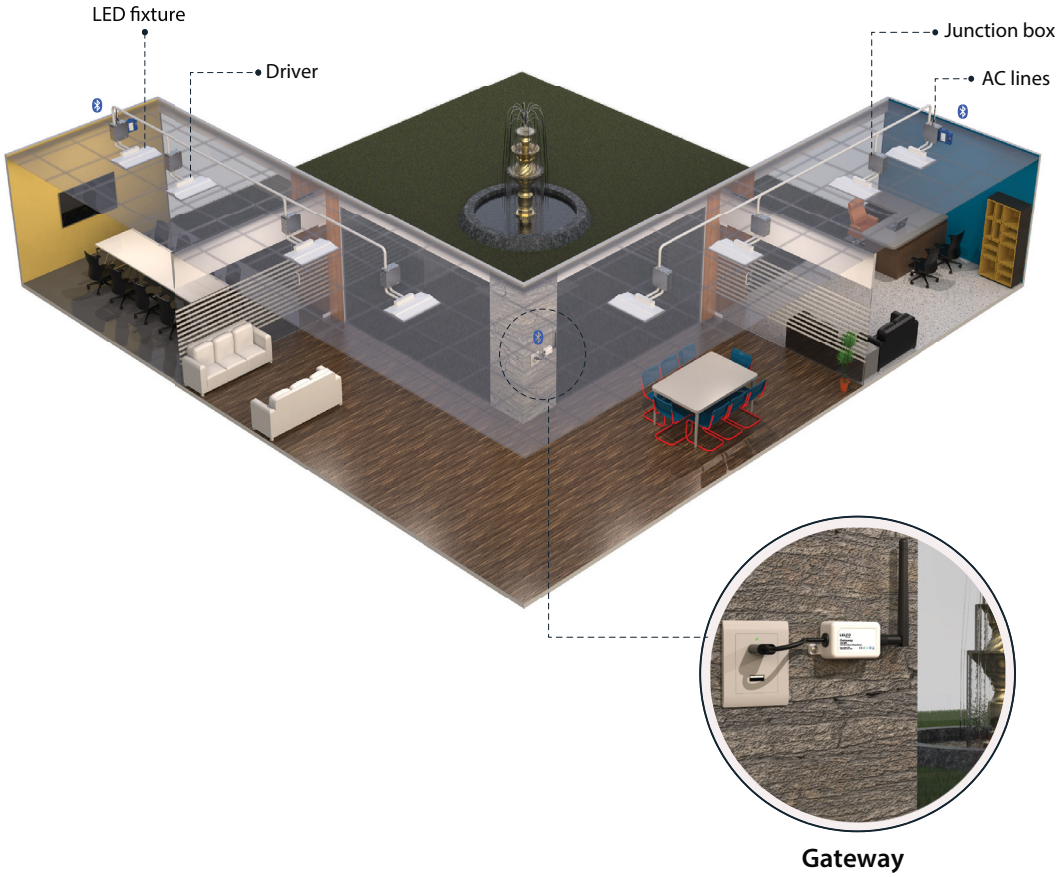


45m is the device to device communication distance ideally with clear LoS

Certifications	Details
CE	IEC 62368-1:2014 **EMC test standards** ETSI EN 301 489-1 V2.2.3 (2019-11) ETSI EN 301 489-17 V3.2.4 (2020-09) EN 55032:2015/A11:2020 EN55035:2017+A11:2020 **Safety test standard** IEC 62368-1:2014 **Radio test standard** ETSI EN 300 328 V2.2.2 (2019-07) **Health test standard** EN 62479:2010 EN 50663:2017
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
Bluetooth	Declaration ID: D059551

Application

Gateway as range extender



Gateway as beacon

Items included in the package box

- **Gateway**
- **User Manual**
- **Stick Antenna**
- **Adapter**
- **Screw**
- **Wallplug**

Order Information

Product Code	Product Name	Product Description	Communication	Voltage Rating
LEL-BRE	Gateway	LELCONNECT Beacon & Range Extender	BLE 5.2	5V, USB type-A

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