BLE Beaconing Gateway Unit
BLE Proximity Sensing and Beaconing Unit

BLE Beacon for Enterprise-grade RTLS Solutions

AiRISTA's Beaconing Gateway Unit (BGU) is a Bluetooth® Low Energy (BLE) transceiver to interface Ethernet networks.

As a BLE transmitter, the BGU functions as a standard BLE beacon supporting iBeacon, Eddystone and AiRISTA's proprietary protocols. As a BLE receiver, the BGU scans for nearby BLE devices relaying details to the AiRISTA RTLS software platform, sofia. The sofia platform determines proximity distances as well as location determination when collected from multiple BGU reference points.

Industry Support

Supported BLE beacon protocols include iBeacon, Eddystone and AiRISTA's proprietary beacons. BGUs are managed by AiRISTA's sofia RTLS software platform and are monitored for system health in mission critical applications.

Application

BGUs are ideal for proximity sensing (choke point) applications where real-time detection of BLE tags and/or beaconing devices is required. BGUs can be used for any application requiring BLE standard beacons. Utilizing AiRISTA's sofia RTLS software platform, BGUs can determine the location of the tag/device. Packets relayed from a series of BGUs can be correlated by the sofia Location Engine for highly accurate location determination. Location insights are used by sofia to drive business rules in response to events and button actions to automate processes and workflows.

Benefits

- Choke point detection of people and things
- Sensitivity levels programable via software
- Ideal for alerts and process workflows
- Augment existing BLE infrastructure for higher location accuracy
- Automatic failover for server routing

Features

- Power over Ethernet (PoE) provides power and network interface

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Technical Specifications

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BLE Radio

Power Consumption:
RX BLE: 6.9 mA
TX BLE at 0dBm: 7.0 mA
Transmit power: 5dBm max
Default Transmit Power: 0dBm
Maximum Transmit Power: 5dBm
RX Sensitivity: -97dBm
Antenna: Omnidirectional

Network Interface

Ethernet 10base-T
Protocols: TCP/IP, UDP/IP
Supports static and dynamic IP address
HTTP management interface

Power

PoE (IEEE 802.3af): 37-57 VDC/350-227 mA

USB (type A): 5 VDC/1 A

Certifications

FCC: Part 15 (US and Canada)
CE Mark (European Union)

Warranty

One Year Warranty

Environment

Operating Temperature: 0 to 50° C
Storage Temperature: -10 to 60° C

Typical Operating Range

Line of Sight:
BLE TX at 0dBM, 1Mbps: ~27m/90ft
Obstructions:
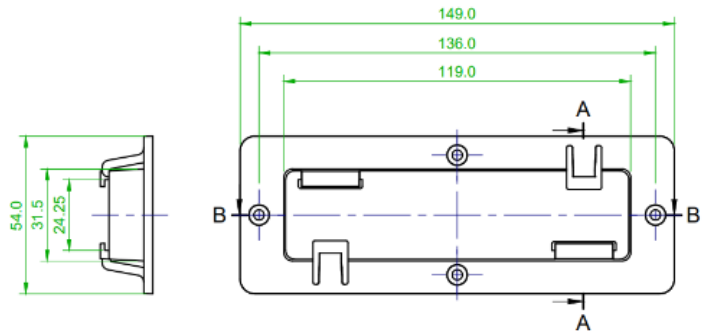BLE TX at 0dBM, 1Mbps: ~20m/65ft

Physical

Dimensions:
86mm x 150mm x 40mm.

Part Number

BGU: BLE Beaconing Gateway Unit
BGU.MB: Mounting Bracket

Accessories

Mounting: 2 M3 holes on flanged base

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