



AiRISTA's Proximity Sensor Units (PSU) are provided in two different functionalities, one as a managed BLE to Ethernet Gateway (WGU) and the other as a managed BLE Beaconsing Unit with monitoring and remote management (WBU).

Wireless Gateway Units (WGU) are designed to listen for Blue Tooth Low Energy (BLE) beacons and transmit the observed beacons data to the AiRISTA Unified Vision Server (UVS) and/or sofia® for proximity detection and location calculation over Ethernet connection.

As a Wireless Beaconsing Unit (WBU), it functions as a standard BLE beacon supporting iBeacon, Eddystone and AiRISTA's proprietary protocols.

### Industry Support

Supported BLE beacon protocols include iBeacon, Eddystone and AiRISTA's proprietary beacons. PSUs are managed by UVS and can be monitored for mission critical applications.

### Application

PSUs functioning as a WGU are ideal for proximity sensing (choke point) applications where real-time detection of BLE tags and/or beaconsing devices is required. WBUs can be used for any application requiring BLE standard beacons. Utilizing AiRISTA's UVS Location Engine, PSUs can identify the location of the tag/device. Packets transmitted from a series of PSUs can be correlated by the UVS Location Engine for highly accurate location determination when applying business rules to detect events, trigger actions, and automate processes and workflows.

### Benefits

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

### Features

- Connector for external antenna options
- Whip antenna for standard configurations
- Directional high-gain antenna available for longer distances
- Power over Ethernet (PoE) provides power and network interface

# Technical Specifications

## PoE BLE Gateway and Beacon BLE Proximity Sensing and Beaconing Unit

### BLE Radio

Power Consumption:  
RX BLE: 5 mA  
TX BLE at 0dBm: 6 mA  
Firmware configurable transmit power: -6dBm to +4dBm  
Operating Current TX & RX Disable: 10uA Cortex M3  
Maximum Output Power: +4dBm  
Default Output Power: 0dBm  
RX Sensitivity -94 dB

### PoE Ethernet Interface

Compatible with IEEE 802.3af  
Supports Static and Dynamic IP address  
Supports Backup Server IP Address List  
Over LAN configuration  
Built-in Http based management interface

### Electrical Interface

Certification: FCC and CE  
Current Consumption: 1A

### Antenna Specifications

Internal Antenna Models: internal Omni-directional  
External Antenna Models: Directional or Omni-Directional Antenna

### Environment

Operating Temperature: 22 to 185 °F / -30 to 85°C  
Storage Temperature: -22 to 140 °F / -30 to 85 °C  
\*outdoor installation requires NEMA 4X enclosures

### Typical Operating Range (version 3.x.x)

Device in TX mode (WBU) with external antenna

#### Line of Sight:

BLE +4dBm 1MBps: ~150ft/50m

#### Obstructions:

BLE +4dBm 1MBps: ~55ft/15m

Device in TX mode (WBU) with internal antenna

#### Line of Sight:

BLE +4dBm 1MBps: ~55ft/18m

#### Obstructions:

BLE +4dBm 1MBps: ~35ft/12m

### Physical

Dimensions:  
6.63 x 4.68 x 1.63 in / 168.40 x 118.87 x 41.40 mm.  
Weight: 0.64 lbs

### Part Number

WGU w/ Internal Antenna Model: WGU.WM.B.PoE  
WGU External Antenna Model: WGU.WM.B.PoE.EANT  
WBU w/ Internal Antenna Model: WBU.WM.B.PoE  
WBU External Antenna Model: WBU.WM.B.PoE.EANT

### Accessories

Swivel Wall Mount: PSU.MB  
Directional Antenna: PSU.ANT.5in.DIR.2.4GHz  
Omni-Directional Antenna: ANT.OMNI.WHIP.2.4GHz

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