

Datasheet

Meet GL-S10 - BLE to MQTT Gateway



GL-S10 is a minimal cost IoT gateway designed for mass device deployment at low power consumption. It features a compact design, easy installation and low-power consumption, making it ideal for indoor positioning and navigation, inventory management, and industrial sensors data collection scenarios.

The GL-S10 device transmits BLE broadcast data to the cloud, supports GAP and GATT certification. The device can use Wi-Fi as a station to connect to a parent route or can connect to the network through a WAN port. It has a built-in standard MQTT client that can connect to any standard MQTT servers to forward incoming BLE messages to the cloud server.

Highlights



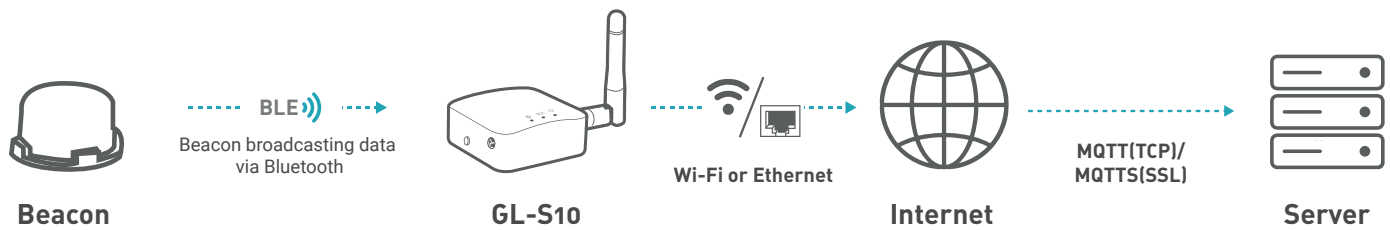
ESP32-D0WD Chipset

ESP32 is a single-chip integrated with 2.4GHz Wi-Fi and BLE. It features ultra-high RF performance, with high stability, versatility, and ultra-low power consumption. GL-S10 is suitable for a wide variety of application scenarios.

BLE Beacon

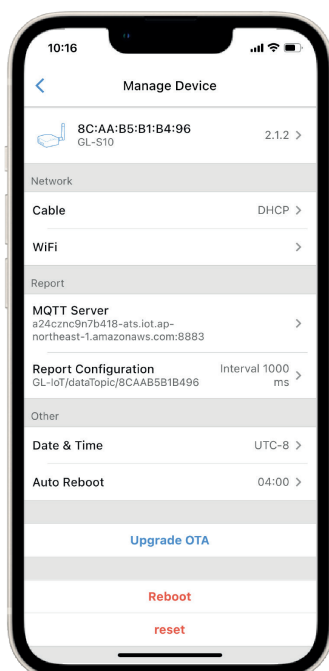
An optional accessory for broadcasting BLE signals at an interval of 300ms. It comes with an adhesive surface for easy installation.

How GL-S10 Works



A Convenient Deployment

GL-S10 is compactly designed and shaped into a square prism with a miniaturised antenna for convenient installation and easily fit in a wide range of applicable scenarios. Its light weight does not pose additional operating challenges to IoT projects, and it also comes with a wall-mount for walls and ceilings installation.



GL-S10 Tool App

A Tool App designed for deploying the GL-S10 gateway, configuring network specifications, and setting rules to filter BLE beacons. The application is downloadable from Apple App Store and Google Play.

Specifications

HARDWARE

CPU	ESP32-D0WD, Dual-core Xtensa® 32-bit LX6 microprocessor, @240MHz
Memory / Storage	SRAM 520KB + PSRAM 8MB / NOR Flash 4MB
Wi-Fi	802.11 b/g/n, 150Mbps
BLE Module	BT V4.2
External Antenna	1 x 2.4GHz Wi-Fi and BLE combined
Ethernet Speed	10/100 Mbps
Power Consumption	Normal operating consumption: <0.5W Operating at full capacity: <1.5W
Dimension / Weight	57 x 57 x 25mm(L*W*H) / 53.6g

SOFTWARE FEATURES

Operating System	Receives and processes BLE signals Connects the AP to work as a Wi-Fi station Acts as an MQTT client for connecting to the MQTT server Configures Wi-Fi / MQTT / OTA with its Tool App OTA firmware upgrade
Communication Protocol	MQTT / HTTP
Encryption Protocol	TLS1.0/1.1/1.2
Encryption Mode	OPEN/WEP/WPA_PSK/WPA2_PSK/WPA_WPA2_PSK <i>Note: WEP currently only supports PEAP</i>

BLE Broadcast Data Filtering	MAC filtering BLE Complete Local Name filtering RSSI filtering Manufacturer Specific Data filtering
Firewall Function	Supports OTA and local serial port
User Configuration	Tool App for Wi-Fi / MQTT / OTA configuration

INTERFACE

Ethernet Port	1 x WAN
LED Indicator	Power, BLE, Network
Reset Button	Can be used to enter configuration mode, restore to factory setting or upgrade OTA
Power Port	Supports Micro USB (5V/1A) and PoE (802.3at/af standard)* <i>*Avoid plugging in the PoE power supply and 5V power supply simultaneously, it may cause damage to the device.</i>

CERTIFICATION

- CE
- FCC

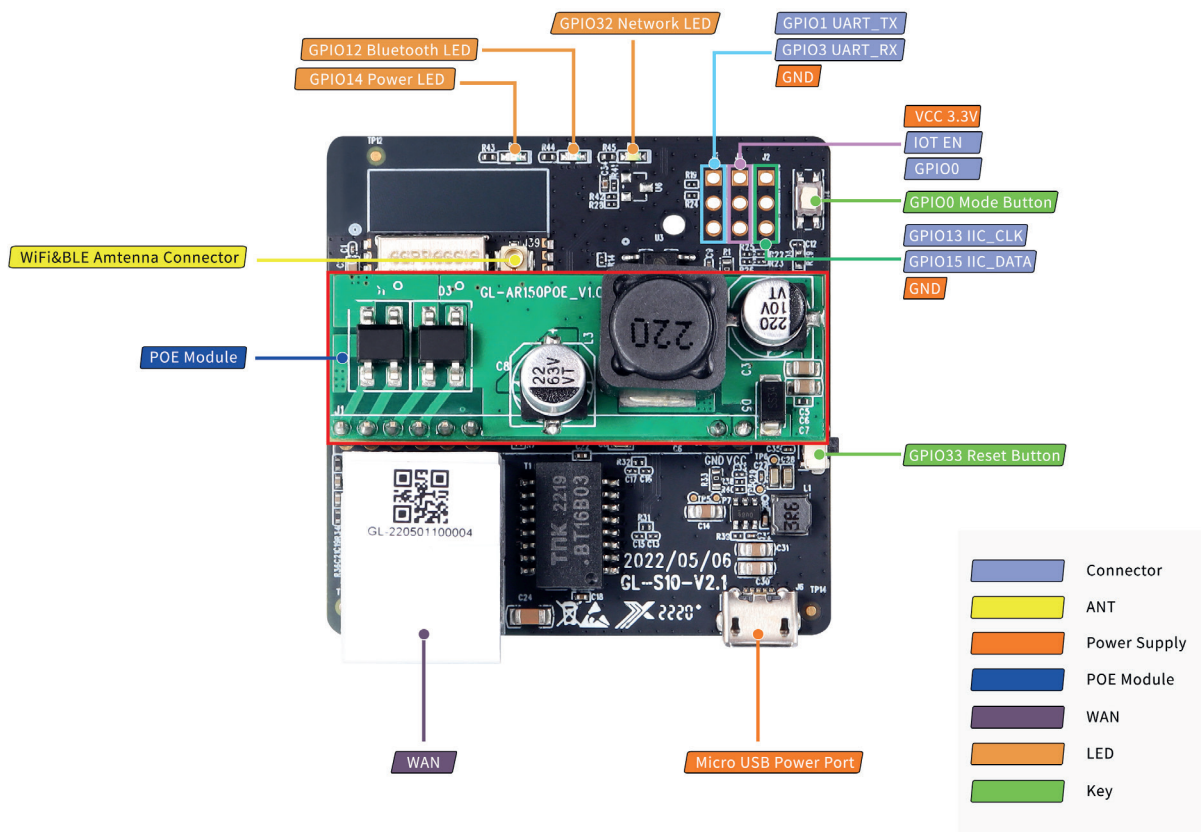
ENVIRONMENT

Operating Temperature	0 ~ 40°C (32 ~ 104°F)
Storage Temperature	-20 ~ 70°C (-4 ~ 158°F)
Operating Humidity	5%~95%, non-condensing
Storage Humidity	5%~95%, non-condensing

PACKAGE LIST

GL-S10 Gateway
 1 x BLE Beacon (Optional accessory)
 1 x USB Cable
 1 x External Antenna
 1 x User Manual

PINOUT



CONTACT US

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