

# Bluetooth Low Energy Gateway

## BLE POE GATEWAY



### KEY FEATURES

Low-power Bluetooth Low Energy gateway with Ethernet (PoE) connectivity

Supported Bluetooth LE stack: 4.x and 5.x

Operating modes: Bluetooth LE central

Network interface: LTE-M (CatM/NB-IoT)

Support of the following set of connection protocols: HTTP(S), MQTT(S), UDP, TCP

Multiple data encoding options: JSON, ASCII, raw-data

Easy-to-use web UI manager dashboard for configuration and management

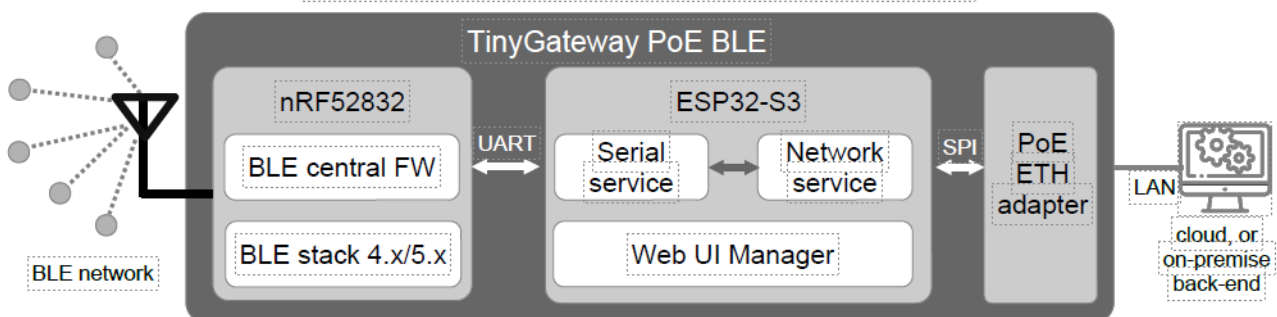
Complete remote configurability via HTTP or MQTT API

Possibility to operate simultaneously in scanning mode (BLE receiver) and advertising mode (BLE beacon)

### FEATURES

- **Low-Power and Low-Cost BLE Gateway**
- **Ethernet connectivity based on ESP32 SoC (IEEE 802.3af)**
- **Based on Nordic nRF52832 for BLE**
- **Network Communication Protocols: HTTP(S), MQTT(S), UDP, TCP**
- **Compact light-weight plastic enclosure**
- **Power-Supply: USB-C Connector**

TinyGateway PoE BLE: architecture and interfaces



## TECHNICAL DATA

### HARDWARE SPECIFICATIONS

Platform	Espressif Systems ESP323WROOM-1
Main Processor	ESP32-S3 series, Xtensa® dual-core 32-bit LX7 microprocessor, up to 240MHz
Memory	384 KB ROM, 512 KB SRAM, Up to 8 MB PSRAM
Connectivity	LTE CatM/NB-IoT, Ethernet, WiFi, Bluetooth Low Energy
User interfaces	Power-on LED, Bluetooth LE LED, Status LED, factory-reset button

### ETHERNET SPECIFICATIONS

Protocol	IEEE 802.3af (PoE)
Connector	RJ45

### BLUETOOTH LOW ENERGY SPECIFICATIONS

Core Module	Nordic Semiconductor nRF52832 SoC, 32-bit ARM Cortex-M4
Protocol	Bluetooth Low Energy (v4.x / 5.x)
Frequency Band	2.402 to 2.480 GHz
Channel Spacing	2 MHz
Sensitivity	-96 dBm
TX power	4dBm (max)
Antenna Type	Planar Inverted F-antenna
Antenna Gain	2dBi

### POWER SUPPLY

Power Voltage	USB: 5Vdc PoE (802.3af): 44 – 57Vdc (Class: 0)
Power Connector	USB: USB-C Connector PoE RJ45 Connector
Current	USB: max 250 mA @5Vdc PoE (802.3af): 40 mA typ. @48Vdc, 60mA max @48Vdc

### MECHANICAL SPECIFICATIONS

Material	Recyclable ABS plastic (flame-resistant UL94V-0)
Color	White
Size	124 x 100 x 35 mm (including flanges)
Weight	200 g
Protection	IP40
Opening	4x M2.5 self-healing screws on back panel
Wall fastening	2x M3.5 screws (not included) for lateral wall-mounting flanges

### ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-20°C up to +65°C
Storage Temperature	-40°C up to +85°C

## ORDER CODES

VERSIONEN	ORDER CODES
BLE PoE Gateway	IOT-GA-BL-IN-7402