

## TinyGateway PoE Outdoor BLE Bluetooth Low Energy gateway

### Data sheet



#### Key features

- Low-power and low-cost outdoor 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 robust IP65 enclosure
- RJ45 PoE power-supply connector

#### Key features

Outdoor rugged 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: Ethernet (PoE 802.3af)

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

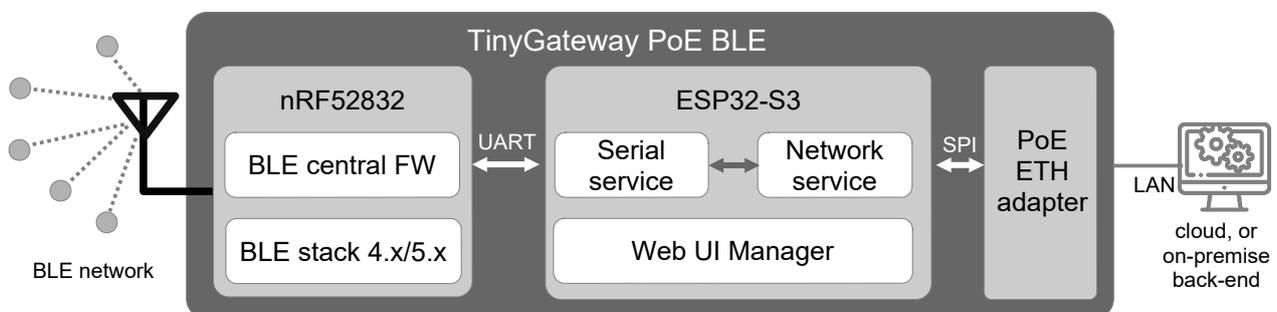
Multiple data encoding options: JSON, ASCII, raw-data

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)

TinyGateway PoE BLE: architecture and interfaces





<b>Device specifications</b>	
<b>Hardware specifications</b>	
Platform	Espressif Systems ESP32S3WROOM-1
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	Ethernet (802.11), Bluetooth Low Energy (v4.x / 5.x)
User interfaces	(internal) Power-on LED, Bluetooth LE LED, Status LED, factory-reset button
<b>Ethernet specifications</b>	
Protocol	IEEE 802.3af (PoE)
Connector	RJ45
<b>Bluetooth Low Energy specifications</b>	
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
<b>Power supply</b>	
Power voltage	44 – 57Vdc (PoE Class 0)
Power connector	IP rated RJ45 connector (cable gland option on demand)
Current	40 mA typ. @48Vdc; 60mA max @48Vdc
<b>Mechanical specifications</b>	
Material	UV-protected Polystyrene (PS) Plastic
Color	Light grey
Size	185 x 185 x 65 mm
Weight	500 gr
Protection	IP65
Assembly	4x screws on back panel
Mounting options	Pole mounting kit included
<b>Environmental specifications</b>	
Operating temperature	-20°C to +65°C
Storage temperature	-40°C to +85°C

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