TinyGateway PoE Outdoor Wirepas
Bluetooth Low Energy gateway
Data sheet
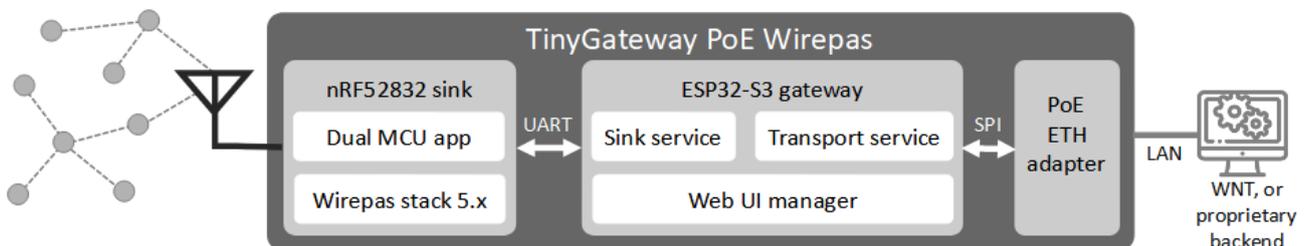
Key features

- **Low-power and low-cost outdoor gateway**
- **Ethernet connectivity based on ESP32 SoC (IEEE 802.3af)**
- **Wirepas Sink based on Nordic nRF52832**
- **Compliant with Wirepas remote MQTT(S) APIs**
- **Compact robust IP65 enclosure**
- **RJ45 PoE power-supply connector**

Key features
Outdoor rugged low-power Wirepas gateway with Ethernet (PoE) connectivity with full support of Wirepas gateway drivers for MQTT connection
Supported Wirepas stack: 5.x (up to 5.3)
Operating modes: Wirepas Sink device
Network interface: Ethernet PoE 802.3af
Compatible with Wirepas Network Tool (WNT) backend or with custom back-end, cloud or on-premises
Fully compliant with Wirepas remote MQTT(S) APIs
Web UI manager dashboard and HTTP APIs for configuration and management

TinyGateway PoE Outdoor Wirepas: architecture and interfaces

Device specifications

Hardware specifications

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 (802.3af), Wirepas Mesh 2.4GHz (v5.x)
User interfaces	Power-on LED, Wirepas LED, Status LED, factory-reset button (internal)

Ethernet specifications

Protocol	IEEE 802.3af
Connector	RJ45

Wirepas Mesh specifications

Core module	Nordic Semiconductor nRF52832 SoC, 32-bit ARM Cortex-M4
Protocol	Wirepas Mesh 2.4GHz, v5.x (up to 5.3)
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	44 – 57Vdc (PoE Class 0)
Power connector	IP rated RJ45 connector (cable gland option on demand)
Current	40 mA typ. @48Vdc; 60mA max @48Vdc

Mechanical specifications

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

Environmental specifications

Operating temperature	-20°C to +65°C
Storage temperature	-40°C to +85°C

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