TinyGateway PoE Wirepas
Wirepas Mesh 2.4GHz gateway
Data sheet

Key features

- **Low-power and low-cost Wirepas gateway**
- **Ethernet connectivity based on ESP32 SoC (IEEE 802.3af)**
- **Wirepas Sink based on Nordic nRF52832**
- **Compliant with Wirepas remote MQTT(S) APIs**
- **Compact light-weight plastic enclosure**
- **Dual power-supply: USB-C or RJ45 PoE connector**

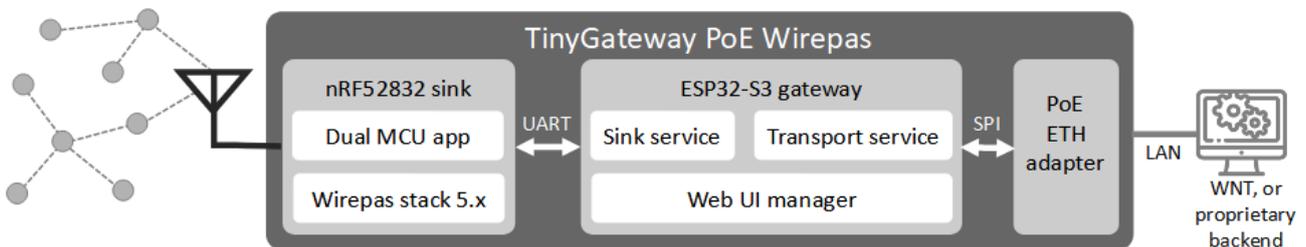| Key features |
|---|
| Low-power Wirepas gateway with Ethernet (PoE) connectivity with full support of Wirepas gateway drivers for MQTT connection |
| Supported Wirepas stack: 5.x (up to 5.3) |
| Operating modes: Wirepas Sink device |
| Network interface: Ethernet 802.3af |
| Compatible with Wirepas 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 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, up to 8MB Flash
Connectivity	Ethernet (802.3af), Wirepas Mesh 2.4GHz
User interfaces	Power-on LED, Wirepas LED, Status LED, factory-reset button

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	• USB: 5Vdc • PoE (802.3af): 44 – 57Vdc
Power connector	• USB: USB-C connector • PoE (802.3af): 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 gr (including flanges)
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 to +65°C
Storage temperature	-40°C to +85°C

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