

TinyGateway Flex Wirepas Wirepas Mesh 2.4GHz gateway

Data sheet



Key features

- Long-range Wirepas gateway
- Wirepas Sink based on Nordic nRF52832
- Compliant with Wirepas remote MQTT(S) APIs
- Circularly-polarized directive antenna for Wirepas Mesh 2.4GHz
- Compact form-factor for indoor installations
- Multiple power-supply options



Wirepas

Key features
Long-range Wirepas gateway with Ethernet (PoE), WiFi and WiFi Mesh (proprietary)
Directive circularly-polarized antenna (alternative option: SMA connector for external antenna)
Supported Wirepas stack: 5.x (up to 5.3)
Operating modes: Wirepas Sink device
Network interface: Ethernet (PoE IEEE 802.3af), WiFi (IEEE 802.11 b/g/n)
Compatible with Wirepas Network Tool (WNT) backend or with custom back-end, cloud or on-premises
Full support of Wirepas gateway drivers for MQTT connection
Fully compliant with Wirepas remote MQTT(S) APIs
Web UI manager dashboard and HTTP APIs for configuration and management

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 (PoE IEEE 802.3af) WiFi (IEEE 802.11 b/g/n) Wirepas Mesh 2.4GHz
User interfaces	Power-on LED, Wirepas LED, Status LED, factory-reset button
Digital IOs	Optional version with 1 digital input and 1 digital output
Ethernet specifications	
Protocol	IEEE 802.3af
Connector	RJ45



WiFi specifications	
Protocol	IEEE 802.11 b/g/n WiFi Mesh (proprietary)
Antenna	Integrated planar inverted antenna
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	-109 dBm
TX power	20dBm (max, configurable)
Antenna type	Planar circularly-polarized array antenna
Antenna gain	6dBi
Power supply	
Power voltage	<ul style="list-style-type: none">• USB: 5Vdc• PoE (802.3af): 44 – 57Vdc (PoE Class 0)• VDC: 6-30Vdc
Power connector	<ul style="list-style-type: none">• USB: USB-C connector• PoE (802.3af): RJ45 connector• VDC: 2-poles connector
Current	<ul style="list-style-type: none">• USB: max 350 mA @5Vdc• PoE (802.3af): 60 mA typ. @48Vdc, 80 mA max @48Vdc
Mechanical specifications	
Material	Recyclable ABS plastic (flame-resistant UL94V-0)
Color	White
Size	155 x 125 x 40 mm (including flanges)
Weight	300 gr (including flanges)
Protection	IP40
Opening	4x M2.5 self-healing screws on back panel
Wall fastening	2x Ø3.5mm 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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