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Brick Wirepas

Wirepas Mesh 2.4GHz tag/anchor

Data sheet

Key features

- **Designed for outdoor and industrial applications**
- **Suitable both as tag and as anchor**
- **Based on Nordic nRF52832 and Wirepas libraries**
- **3-axis accelerometer for motion detection**
- **Rugged IP67 enclosure with or without flanges**
- **Ultra-long battery life with replaceable 3.6V lithium battery-pack**

Wirepas Specifications	
Based on Wirepas Mesh 2.4GHz stack v5.x	
Available applications: Wirepas PosApp, BlueUp PosApp	
Wirepas PosApp	
Operating modes	Opportunistic anchor, NRLS tag, Autoscan tag, DA tag
BLE beaconing	iBeacon, Eddystone UID, Eddystone URL (fixed packet)
BlueUp PosApp (Anchor)	
Configuration and diagnostics	MeshCube, Wirepas API, Wirepas NMS
Operating modes	Opportunistic anchor
BLE beaconing	iBeacon, Eddystone UID (configurable packet)
BlueUp PosApp (Tag)	
Configuration and diagnostics	MeshCube, Wirepas API, Wirepas NMS
Operating modes	NRLS tag, Autoscan tag (configurable for each state)
Tag states	Default, Motion, Alarm, Sleep
Positioning interval and timeout	15 secs to 18 hours (configurable for each state)
BLE beaconing	iBeacon, Safety, Quuppa Emulation (configurable for each state)

Device specifications	
Electrical specifications	
Core module	Nordic nRF52832 SoC (MCU and radio transceiver)
MCU core	ARM Cortex-M4 32-bit CPU
Current consumption (25°C)	Radio TX: 7.1 mA (0 dBm TX) Radio RX: 6.5 mA Idle mode: 3 µA Idle mode with accelerometer ON: 7 µA

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Radio specifications	
Standard	Wirepas Mesh 2.4GHz (stack v5.x)
Frequency band	2.402 to 2.480 GHz
Channel spacing	2 MHz
BLE beaconing channels	CH37 (2.402 GHz), CH38 (2.426 GHz), CH39 (2.480 GHz)
TX power	Conducted: +4 dBm (max) EIRP (Equivalent Isotropic Radiated Power): +6 dBm (max)
Antenna	
Type	Integrated meandered planar inverted F-antenna (PIFA)
Gain	2 dB (max)
Radiation diagram	Omnidirectional
Power	
Power supply	Battery
Replaceable	Yes
Type	2x AA 3.6V Lithium Thionyl Chloride LiSoCl2
Model	Battery pack 2x HCB ER14505 1S2P (3.6V, Lithium Thionyl Chloride LiSoCl2, 5200 mAh typ. capacity @ 25°C)
Sensors and interfaces	
Sensors	3-axis MEMS linear accelerometer
Interfaces	-
Mechanical specifications	
Material	Polycarbonate plastic
Color	Light grey RAL7035
Size	64 x 58 x 35 mm (enclosure without flanges) 94 x 58 x 35 mm (enclosure with flanges)
Weight	94 gr (enclosure without flanges) 108 gr (enclosure with flanges)
Fastening	Screws (not included), silicone glue, double side tape
Opening	Front cover with four screws
Protection	IP67/NEMA6
Flammability	UL 94 HB (UL94-V0 on demand)
Environmental specifications	
Operating temperature	-40°C to +75°C (battery operating life decreases under -10°C)
Storage temperature	+10°C to +30°C (with battery), -40°C to +85°C (without battery)
Certifications	
CE (RED), EN60601-1-2 (EMC for medical equipment), EN50121-3-2 (EMC for railway applications), ECE R10-06 (EMC for automotive)	

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Versions

NF

Standard version, without flanges
Front cover allows an easy battery replacement.

Size: 64 x 58 x 35 mm

WF

Standard version, with flanges
For fast and robust wall installations.
Front cover allows an easy battery replacement.

Size: 94 x 58 x 35 mm

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