

Badge-Holder Wirepas

Wirepas Mesh 2.4GHz wearable tag

Data sheet



Key features

- Suitable for people location
- Based on Nordic nRF52832
- Firmware based on Wirepas libraries
- 3-axis accelerometer for motion detection
- Call button
- Holder for ISO/IEC 7810 cards, with IP67 rating
- Powered by thin lithium battery

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

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	No
Type	1x CP224147 (3V, lithium)
Model	HCB CP224147 (typical capacity 800 mAh @ 25°C)
Sensors and interfaces	
Sensors	Button, 3-axis MEMS linear accelerometer
Interfaces	2 LEDs (yellow, green)
Mechanical specifications	
Material	ABS plastic
Color	White
Size	95 x 64 x 7 mm
Host ID card	ISO7810 ID-1 (85,6 x 54 x 0.76 mm)
Weight	24 gr
Fastening	Two eyelets for lanyard (either horizontal or vertical orientation)
Opening	Ultrasonic welded
Protection	IP67/NEMA6
Flammability	UL 94 HB
Environmental specifications	
Operating temperature	-20°C to +60°C (battery operating life sharply decreases under 0°C)
Storage temperature	10°C to +30°C
Certifications	
CE (RED), FCC	

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