

Card Wirepas

Wirepas Mesh 2.4GHz wearable tag

Data sheet



Key features

- Suitable for people or asset location
- Based on Nordic nRF52832
- Firmware based on Wirepas libraries
- 3-axis accelerometer for motion detection
- Call button
- Smart-card form factor 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	
Configuration and diagnostics	WNT (Wirepas Network Tool)
Operating modes	Opportunistic anchor, NRLS tag, Autoscan tag, DA tag
BLE beaconing	iBeacon, Eddystone UID, Eddystone URL (fixed packet)
BlueUp PosApp	
Configuration and diagnostics	WNT (Wirepas Network Tool) / BlueUp MeshCube
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, Eddystone UID, 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
Radio specifications (cont.)	
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	85 x 56 x 4.5 mm
Weight	15 gr
Fastening	Eyelet for lanyard or screw, dual adhesive
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, FCC	

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