

SafeX Watch Wirepas

Wirepas Mesh 2.4GHz tag for wriststrap with alarm button

Data sheet



 Wirepas

Key features

- Suitable for people tracking and safety
- Based on Nordic nRF52832
- Firmware based on Wirepas libraries
- 3-axis accelerometer for motion detection
- Button, 2x LEDs, vibration, buzzer
- IP65 case with flanges for wriststrap
- Powered by replaceable CR2477 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	
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	CR2477 (3V, lithium)	
Model	Panasonic Industrial CR2477 (typical capacity 1000 mAh @ 25°C)	
Sensors and interfaces		
Version	BASE	STANDARD
Sensors	3-axis MEMS linear accelerometer, alarm button	
Interfaces	2x LEDs (yellow, red)	2x LEDs (yellow, red), buzzer, vibration
Mechanical specifications		
Material	ABS plastic	
Color	White	
Size	52 x 41 x 15.5 mm (case-body only) 52 x 49 x 15.5 mm (including flanges for wriststrap)	
Weight	27.5 gr	
Wearability	Compatible with wrist-straps with max width 26mm: - Standard NATO straps - Disposable bands for hospital or daily use	
Opening	Back lid with four M2 screws	
Protection	IP65	
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 (with battery), -40°C to +85°C (without battery)	
Certifications		
CE, FCC		

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