


SafeX Wirepas

Wirepas Mesh 2.4GHz wristband tag with alarm button

Data sheet



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 silicone wristband
- 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



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	
Sensors	3-axis MEMS linear accelerometer, alarm button
Interfaces	2x LEDs (yellow, red), buzzer, vibration
Mechanical specifications	
Material	Case: ASA plastic Wristband: Silicone
Color	Case: white (RAL9016) Wristband: black
Size	55 x 46 x 17 mm (plastic case only)
Weight	45 gr
Fastening	Silicone band
Opening	Back lid with four M2 Torx 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	

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