

SafeX Watch BLE

Bluetooth Low Energy tag for wriststrap with alarm button

Data sheet



Key features

- Suitable for people tracking and safety
- Based on Nordic nRF52832
- Simultaneous support of iBeacon and Eddystone
- 3-axis accelerometer for motion detection
- Duress button, 2x LEDs, vibration, buzzer
- IP65 case with flanges for wriststrap
- Powered by replaceable CR2477 lithium battery

GATT and advertising

Full support for specifications Eddystone Configuration GATT Service by Google

Up to 4 slots configurable for Eddystone frame types: UID, URL, TLM, EID

Up to 4 slots configurable for the following frame types: iBeacon, Quuppa (emulation mode), Safety

TX power	-40, -20 to 4 dBm (with 4 dB steps). Programmable for each slot
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Advertising interval	0.1 to 60 secs. Programmable for each slot
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Global configuration options	non-connectable mode, anonymous mode, programmable time period, locked/unlocked mode, change password
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Firmware update	OTA (Over-the-Air) firmware update
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Device specifications

Electrical specifications

Core module	Nordic nRF52832 SoC (MCU and radio transceiver)
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MCU core	ARM Cortex-M4 32-bit CPU
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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	Bluetooth 4.2 Bluetooth Low Energy (compatible with BLE 5.x)
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Frequency band	2.402 to 2.480 GHz (according to Bluetooth 4.0 specifications)
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Advertising channels	CH37 (2.402 GHz), CH38 (2.426 GHz), CH39 (2.480 GHz) (according to Bluetooth 4.0 specifications)
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Channel spacing	2 MHz (according to Bluetooth 4.0 specifications)
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TX power	Conducted: +4 dBm (max) EIRP (Equivalent Isotropic Radiated Power): +6 dBm (max)
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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 (RED), FCC		

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