

SafeX Lite BLE

Bluetooth Low Energy wearable tag 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
- Button, 2x LEDs, with optional vibration and buzzer
- Eyelet for lanyard or clip
- 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
Advertising interval	0.1 to 60 secs. Programmable for each slot
Global configuration options	non-connectable mode, anonymous mode, programmable time period, locked/unlocked mode, change password
Firmware update	OTA (Over-the-Air) firmware update

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	Bluetooth 4.2 Bluetooth Low Energy (compatible with BLE 5.x)
Frequency band	2.402 to 2.480 GHz (according to Bluetooth 4.0 specifications)
Advertising channels	CH37 (2.402 GHz), CH38 (2.426 GHz), CH39 (2.480 GHz) (according to Bluetooth 4.0 specifications)
Channel spacing	2 MHz (according to Bluetooth 4.0 specifications)
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	55 x 45 x 16 mm (case-body only) 64 x 45 x 16 mm (including flange with eyelet)	
Weight	23 gr	
Fastening	Eyelet for lanyard or clip	
Opening	Back lid with four M2.5 screws	
Protection	-	
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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