

## SafeX Lite Wirepas

Wirepas Mesh 2.4GHz wearable tag 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, with optional vibration and buzzer
- Eyelet for lanyard or clip
- 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)<br>Radio RX: 6.5 mA<br>Idle mode: 3 µA<br>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)<br>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                         | 55 x 45 x 16 mm (case-body only)<br>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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