

## SafeX Classic Quuppa

Quuppa Intelligent Locating System® wristband tag with alarm button

### Data sheet



#### Key features

- Suitable for people tracking and safety
- Based on Nordic nRF52832
- Firmware based on Quuppa libraries
- 3-axis accelerometer for motion detection
- Button, 2x LEDs, vibration, buzzer
- IP65 case with silicone wristband
- Powered by replaceable CR2477 lithium battery

| Quuppa Specifications                                                                                                                                               |                                                                                                                                                                                                                 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Quuppa Approved: based on Quuppa libraries and certified by Quuppa                                                                                                  |                                                                                                                                                                                                                 |
| Full support of Quuppa Intelligent Locating System® functionalities: BLE and proprietary channels, back-channel communication, profile configuration, OTA FW update |                                                                                                                                                                                                                 |
| Configuration and diagnostics                                                                                                                                       | QSP (Quuppa Site Planner), QPE (Quuppa Positioning Engine)                                                                                                                                                      |
| Advertising interval                                                                                                                                                | 0.1 to 10 secs (BLE channel)<br>0.01 to 10 secs (Quuppa proprietary channel)                                                                                                                                    |
| Advertising channels                                                                                                                                                | BLE (CH37 – 2.402 GHz) or Quuppa proprietary                                                                                                                                                                    |
| Quuppa ID                                                                                                                                                           | MAC address or custom ID                                                                                                                                                                                        |
| Custom features                                                                                                                                                     | Advanced motion detection (intensity/duration, shock, free-fall, man-down)<br>Advanced button management (single/double click, long-press)<br>Back-channels commands for configuration and trigger notification |

| 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 |
| Radio specifications       |                                                                                                             |
| Standard                   | Quuppa Intelligent Locating System®                                                                         |
| Frequency band             | 2.401 to 2.481 GHz (Bluetooth LE 4.0 + Quuppa proprietary channels)                                         |
| Channel spacing            | 2 MHz                                                                                                       |
| TX power                   | -40, -20 to 4 dBm (with 4 dB steps)                                                                         |
| RX sensitivity             | -94 dBm                                                                                                     |



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| <b>Antenna</b>                      |                                                                     |
|-------------------------------------|---------------------------------------------------------------------|
| Type                                | Integrated meandered planar inverted F-antenna (PIFA)               |
| Gain                                | 2 dB (max)                                                          |
| Radiation diagram                   | Omnidirectional                                                     |
| <b>Power</b>                        |                                                                     |
| Power supply                        | Battery                                                             |
| Replaceable                         | Yes                                                                 |
| Type                                | CR2477 (3V, lithium)                                                |
| Model                               | Panasonic Industrial CR2477 (typical capacity 1000 mAh @ 25°C)      |
| <b>Sensors and interfaces</b>       |                                                                     |
| Sensors                             | 3-axis MEMS linear accelerometer, alarm button                      |
| Interfaces                          | 2x LEDs (yellow, red), buzzer, vibration                            |
| <b>Mechanical specifications</b>    |                                                                     |
| Material                            | Case: ASA plastic<br>Wristband: Silicone                            |
| Color                               | Case: white (RAL9016)<br>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                                                            |
| <b>Environmental specifications</b> |                                                                     |
| 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)     |
| <b>Certifications</b>               |                                                                     |
| CE (RED), FCC                       |                                                                     |

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