

## Forte+ LED Quuppa

### Quuppa Intelligent Locating System® asset tag with RGB LED

#### Data sheet



#### Key features

- Suitable for outdoor and industrial applications
- Based on Nordic nRF52832
- Firmware based on Quuppa libraries
- 3-axis accelerometer for motion detection
- Rugged IP67 enclosure
- High-visibility RGB LED
- Powered by replaceable CR123A 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) 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) 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) Radio RX: 6.5 mA Idle mode: 3 µA 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

<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	CR17345 (3V, lithium)
Model	Panasonic Industrial CR123A (typical capacity 1500 mAh @ 25°C)
<b>Sensors and interfaces</b>	
Sensors	3-axis MEMS linear accelerometer
Interfaces	RGB LED
<b>Mechanical specifications</b>	
Material	Polycarbonate plastic
Color	Body: light grey RAL7035 Lid: transparent
Size	50 x 52 x 35 mm (version without flanges) 50 x 80 x 35 mm (version with flanges)
Weight	60 gr (version without flanges) 67 gr (version with flanges)
Fastening	Screws (not included), silicone glue, double side tape
Opening	Front cover with two screws
Protection	IP67/NEMA6
Flammability	UL 94 HB
<b>Environmental specifications</b>	
Operating temperature	-30°C to +70°C (battery operating life sharply decreases under -10°C)
Storage temperature	+10°C to +30°C (with battery), -40°C to +85°C (without battery)
<b>Certifications</b>	
CE	

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