

Li-ion Tag IMU for RTLS-TDoA

Rechargeable mobile locator with inertial sensors

Features

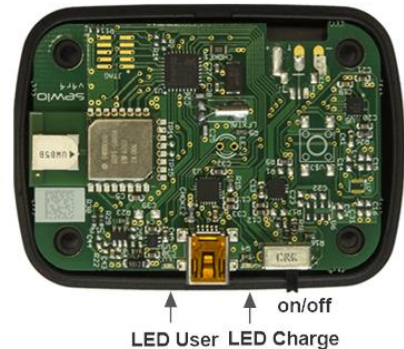
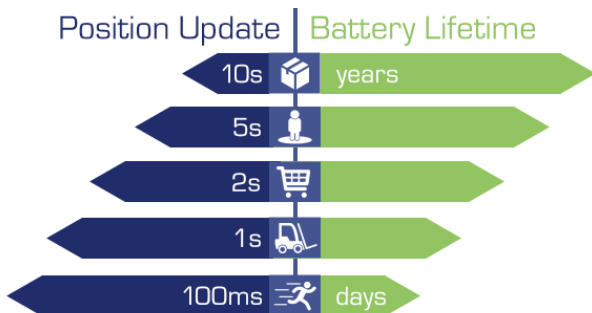
- Compliant with UWB PHY IEEE 802.15.4a
- Decawave UWB Radio, 6 channels, 3-7GHz
- Driven by Ultra Low Power ARM EFM32G M3
- Battery included, Li-ion 600mAh
- Configuration via RTLS Manager
- Firmware upgrade and Charging via USB
- User LED and Charging LED indication
- Unique 6 bytes ID

Inertial Sensors

- Accelerometer (MPU9250)
- Gyroscope (MPU9250)
- Magnetometer (MPU9250)

Tag is an active mobile locator. Its position is reported within selected refresh rate. Tracked object need to be equipped with this device.

Tag is powered from an integrated Li-ion battery and configurable through RTLS Manager web interface or via USB Terminal. Li-ion Tag is equipped with DecaWave radio module with an integrated ceramic antenna. It supports six channels and three communication speeds 110/850/6800 kbit/s. The Tag also features an accelerometer for movement detection in order to prolong battery lifetime. The Tag is further extended with a magnetometer and gyroscope for both orientation (roll, yaw, pitch) detection and raw data streaming.



- UWB
- Movement Detection
- White labelling possible
- Orientation Roll, Yaw, Pitch
- Resources based on FPA
(Framework Partnership Agreement)
- Source code available
- HW layout available

Dimensions	70x50x21 mm
Weight	25g
Refresh Rate	10ms – 60s
Battery Lifetime*	10s – 5 years 1 s – 1 year 500ms – 248 days 100ms – 53 days
Nominal Battery	600mAh
Charge Time via USB	Approx. 6h
Charge Current	100mAh
Range	15-50m

*depends on RF Profile settings, can be significantly prolonged with the movement detection feature