General description

Product general description:
The RFT-Tracker 16 is a compact and stand-alone low power module with GPS / LoRa functions, designed to be installed on vehicles or assets in order to geolocalize them.

Key features:
- GPS Geo-location
- Very low power design
- Motionless detection condition for extended battery life
- LoRaWan class A connectivity
- NFC memory
- Capacitive touch

The module is internally powered with non-rechargeable 17A/h Lithium- Thionyl Chloride cell.

Special care has been taken to lower current consumption, powering on GPS and LoRa transceiver only when needed. The accelerometer can be used to detect motionless condition to deactivate the GPS in order to further extend battery life.

Using LoRa module, geo-localization data are transmitted to a public or private LoRaWan network and can be used by your customer application. The tracker configuration can also be changed and managed from your customer application.

Estimated Lifetime

Tracker in motion 8 hours per day	Tracker in motion 1hour per day
GPS fix every 2 hrs not moving and every 10mn when moving -> 2.5yrs	GPS fix every 2 hrs not moving and every 10mn when moving -> 7.0yrs
GPS fix every 4 hrs not moving and every 20mn when moving -> 5.0yrs	GPS fix every 4 hrs not moving and every 20mn when moving -> 10.0yrs

Temperature range [-20°C, +55°C]
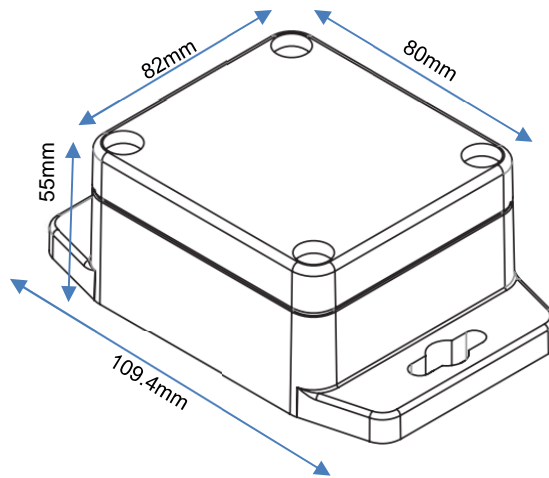
FUNCTIONALITY

Normal mode: transmit a GPS position at fixed periodic rate, even if the tracker detects motionless.

Motion detection mode: transmit a GPS position at a shorter periodic rate if the tracker is moving. Motion detection is performed using embedded accelerometer with algorithms.

Periodic rates of these two modes can be changed by a downlink command, configured from your customer application.

MECHANICAL CHARACTERISTICS

IP65 compliant enclosure

Applications

- Vehicles fleet and asset geo-location
- Remote diagnosis and maintenance for industrial machines (movements, vibrations, use rates)
- Theft detection

Customisation on demand

Ex:
- Internal Temperature reading
- External sensors interfaces
- External power supply