FTC961

ENGINEERING SAMPLE

SMALL AND SMART WATERPROOF GPS
TRACKER WITH 4G LTE CAT 1 CONNECTIVITY





PRECISE GNSS

Enhanced tracking accuracy for location-based services

4G CAT 1

Reliable 4G (Cat 1) connection with fallback 2G (GSM) network

IP69 WATERPROOF CASING

Maximum protection against dust, high pressure water and steam

HIGH VOLTAGE POWER SUPPLY

Allows connection to battery powered vehicles







TRACK AND TRACE APPLICATIONS







It is one of the first three products on the New Platform based on a brand-new chipset. The New Platform covers both new firmware development standards and new hardware. The main advantages, such as precise GNSS will enable even more use cases for the clients. The product supports LTE with fallback to 2G, what will allow to have a future-ready solution when 2G sunsets.

In addition, it is a device that has maximum protection against dust and water. The IP69-certified casing saves the tracker from dust, high-pressure water jets, which means that tracking is possible in any environment of every industry.





Product

| Model name | FTC961-QJAB6 | |
|------------|--------------|--|
| | | |
| | | |

GNSS

| GNSS | GPS, GLONASS, GALILEO, BEIDOU |
|----------------------|-----------------------------------|
| Receive type | 135 tracking/acquisition channels |
| Tracking sensitivity | -165 dBM |
| Position accuracy | < 1.5 m CEP |
| Velocity accuracy | < 0.1 m/s (within +/- 15% error) |

Cellular

| 2G bands | GSM: B2/B3/B5/B8 | |
|----------------|--|--|
| 4G bands | LTE FDD (CAT 1): B1/B3/B5/B7/B8/B20/B28 | |
| Data transfer | LTE FDD (CAT 1): Max. 10 Mbps (DL) / Max. 5 Mbps (UL) GSM (GPRS): Max. 85.6 Kbps (DL) / Max. 85.6 Kbps (UL) | |
| Transmit power | Class 5 for GSM850/900: 30±5dBM Class 3 for GSM1800/1900: 29±5dBM Class 3 for LTE-FDD: 26±5dBM | |
| Data support | SMS (TEXT, PDU), Network protocols (TCP) | |

Data Codec

| Codec support | Codec 8 Extended |
|---------------|------------------|
|---------------|------------------|

Power

| Input voltage range | 10 - 70 V* |
|---------------------|---------------------------------------|
| Back-up battery | 320 mAh Li-lon battery 3.7V (1.18 Wh) |
| Internal fuse | 3 A |
| Power consumption | TBD |

 $[\]mbox{*}$ Further modifications will have input voltage range of 10-90V

Physical specification

| Dimensions | 118x48x18.5 mm (L x W x H) |
|------------|----------------------------|
| Weight | 118 g |



Operating environment

| Operating temperature (without battery) | -40 °C to +85 °C |
|---|--|
| Storage temperature (without battery) | -40 °C to +85 °C |
| Operating temperature (with battery) | -20 °C to +40 °C |
| Storage temperature (with battery) | -20 °C to +60 °C |
| Operating humidity | 5% to 95% non-condensing |
| Ingress Protection Rating | IP69 |
| Battery charge temperature | 0 °C to +45 °C |
| Battery discharge temperature | -20 °C to +60 °C |
| Battery storage temperature | -10 °C to +50 °C for 1 month -10 °C to +35 °C for 3 months 0 °C to +30 °C for 1 year |
| Interface | |
| Digital Inputs | 1 |
| Digital Outputs | 1 |
| Analog Inputs | 1 |
| GNSS antenna | Internal High Gain |
| Cellular antenna | Internal High Gain |
| USB | 2.0 USB Micro B |
| LED indication | 2 status LED lights |
| SIM | Nano-SIM |
| Memory | 32Mb internal flash memory |
| | |

Features

| Sensors | Accelerometer |
|-----------------------------------|--|
| Scenarios | Over Speeding detection, Jamming detection, Unplug detection, Trip |
| Configuration and firmware update | FOTA Web, Teltonika Configurator (TCT) |
| SMS | Configuration, Events, Debug |
| GPRS commands | Configuration, Debug |
| Time Synchronization | GNSS, NITZ, NTP |
| Ignition detection | Digital Input 1, Accelerometer, External Power Voltage |

Certification & Approvals*

^{*}In progress