

# FMU125

## ADVANCED 3G TERMINAL WITH GNSS AND 3G/GSM CONNECTIVITY, RS485/RS232 INTERFACES AND BACKUP BATTERY

FMU125 is small and professional real-time tracking terminal with GNSS and 3G/GSM connectivity and backup battery. Device equipped with GNSS/Bluetooth and 3G modules, internal GNSS, 3G antennas. FMU125 features RS485/RS232 data interface, which gives ability to connect various third-party external devices. It is perfectly suitable for applications where location acquirement of remote objects is needed: fleet management, car rental companies, taxi companies, public transport, logistics companies, personal cars and so on.



Worldwide 3G network coverage



Double network reliability and multiple network selection



Bluetooth for external devices and Low Energy sensors



RS232/RS485 serial communication interfaces



CAN data reading from vehicles and specialized transport



1-Wire® interface to monitor temperature data and RFID/iButton tags



## USE CASES



LIGHT VEHICLES



HEAVY DUTY TRANSPORT



TRAILER TRACKING



REFRIGERATED TRANSPORT



INTERNATIONAL LOGISTICS



CAR SHARING



### Module

|            |   |
|------------|---|
| Name       | Quectel UC15-A/UC15-T or Quectel UG96, Teltonika TM2500 |
| Technology | 3G(UMTS/HSPA)/2G(GSM/GPRS)/GNSS/BLUETOOTH               |

### GNSS

|                      |                                      |
|----------------------|--------------------------------------|
| GNSS                 | GPS, GLONASS, GALILEO, BEIDOU, QZSS  |
| Protocol compatible  | NMEA, GGA, GGL, GSA, GSV, RMC, VTG   |
| Receiver             | Tracking: 33/99 acquisition channels |
| Tracking sensitivity | -110 dBm                             |
| Accuracy             | < 3 m                                |
| Hot start            | < 1 s                                |
| Warm start           | < 25 s                               |
| Cold start           | < 35 s                               |

### Cellular

|               |  |
|---------------|--|
| Technology    | UMTS/HSPA  |
| 2G bands      | UC15-A: B5/B8/B3/B2<br>UC15-T: B5/B8/B3/B2<br>UG96: B5/B8/B3/B2  |
| 3G bands      | UC15-A: B5/B2<br>UC15-T: B5/B1<br>UG96: B6/B5/B8/B2/B1   |
| Data transfer | UC15: HSDPA: Max. 3.6Mbps (DL)<br>UMTS: Max. 384Kbps (DL)/Max.384Kbps (UL)<br>GPRS: Max. 85.6Kbps (DL)/Max. 85.6Kbps (UL)<br>UG96: HSUPA: Max. 5.76Mbps<br>UMTS: Max. 384Kbps (DL)/Max.384Kbps (UL)<br>GPRS: Max. 107Kbps (DL)/Max.85.6Kbps (UL) |
| Data support  | SMS (text/data)  |

### Power

|                          |  |
|--------------------------|--|
| Input voltage range      | 10 - 30 V DC with overvoltage protection |
| Internal Back-up battery | 170 mAh Li-Ion, 3.7 V battery (0.63 Wh)  |

### Bluetooth

|                       |   |
|-----------------------|---|
| Specification         | 4.0 + LE  |
| Supported peripherals | Temperature and Humidity sensor, OBDII dongle, Inateck Barcode Scanner, Universal BLE sensors support |

### Physical specification

|            |                                 |
|------------|---------------------------------|
| Dimensions | 65 x 56.6 x 20.6 mm (L x W x H) |
| Weight     | 55 g                            |

### Operating environment

|   |   |
|---|---|
| Operating temperature (without battery) | -40 °C to +85 °C  |
| Storage temperature (without battery)   | -40 °C to +85 °C  |
| Operating humidity                      | 5% to 95% non-condensing                                      |
| Ingress Protection Rating               | IP41  |
| Battery charge temperature              | 0 °C to +45 °C  |
| Battery discharge temperature           | -20 °C to +60 °C  |
| Battery storage temperature             | -20 °C to +45 °C for 1 month<br>-20 °C to +35 °C for 6 months |

### Interface

|                    |                             |
|--------------------|-----------------------------|
| Digital Inputs     | 1                           |
| Digital Outputs    | 1                           |
| Analog Inputs      | 1                           |
| CAN Adapter Inputs | 1                           |
| 1-Wire             | 1                           |
| RS232              | 1                           |
| RS485              | 1                           |
| GNSS antenna       | Internal High Gain          |
| Cellular antenna   | Internal High Gain          |
| USB                | 2.0 Micro-USB               |
| LED indication     | 2 status LED lights         |
| SIM                | 2x SIM Card (Dual-SIM)      |
| Memory             | 128MB internal flash memory |

### Features

|                                   |  |
|-----------------------------------|--|
| Sensors                           | Accelerometer  |
| Scenarios                         | Green Driving, Over Speeding detection, Jamming detection, GNSS Fuel Counter, DOUT Control Via Call, Excessive Idling detection, Immobilizer, iButton Read Notification, Unplug detection, Towing detection, Crash detection, Auto Geofence, Manual Geofence, Trip |
| Sleep modes                       | GPS Sleep, Online Deep Sleep, Deep Sleep, Ultra Deep Sleep   |
| Configuration and firmware update | FOTA Web, FOTA, Teltonika Configurator (USB, Bluetooth), FMBT mobile application (Configuration)   |
| SMS                               | Configuration, Events, DOUT control, Debug   |
| GPRS commands                     | Configuration, DOUT control, Debug   |
| Time Synchronization              | GNSS, NITZ, NTP  |
| Fuel monitoring                   | LLS (Analog), Digital LLS (RS232, RS485), LV-CAN200, ALL-CAN300, CAN-CONTROL, OBDII dongle   |
| Ignition detection                | Digital Input 1, Accelerometer, External Power Voltage, Engine RPM (CAN Adapters, OBDII dongle)  |
| RS232 Modes                       | Log Mode, NMEA, LLS, LCD, RFID HID/MF7, Garmin FMI, TCP ASCII/Binary, Magnetic card reader   |
| RS485 Modes                       | Log Mode, NMEA, LLS, TCP ASCII/Binary  |

