

# FMC125

## ADVANCED LTE TERMINAL WITH FLEXIBLE INPUTS CONFIGURATION

FMC125 is small and professional real-time tracking terminal with GNSS and LTE/3G/GSM connectivity and backup battery. Device equipped with GNSS/Bluetooth and LTE modules, internal GNSS and internal 3G antennas. FMC125 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.



Reliable 4G connection with fallback to 3G network



Double network reliability and multiple network selection



Bluetooth for exchanging data over short distances



RS232/RS485 serial communication interfaces



CAN data reading from vehicles and specialized transport



Configurable DIN/AIN for flexible remote monitoring and control



## MANAGEMENT

- Informative configurator
- Multiple ways to configure
- User-friendly interface

## CAPABILITIES

- Enhanced base functionalities
- Widely used functionalities
- Continuous new features

## TELEMETRY

- LTE Cat 1 coverage
- Enriched I/O elements
- GNSS satellite support



## Module

|            |   |
|------------|---|
| Name       | Quectel EC21-AU, Quectel EC21-EC, Teltonika TM2500  |
| Technology | LTE(Cat1)/3G(UMTS/HSPA)/2G(GSM/GPRS)/GNSS/BLUETOOTH |

## GNSS

|                      |   |
|----------------------|---|
| GNSS                 | GPS, GLONASS, GALILEO, BEIDOU, QZSS, AGPS |
| Receiver             | Tracking: 33                              |
| Tracking sensitivity | -165 dBm                                  |
| Accuracy             | < 3 m                                     |
| Hot start            | < 1 s                                     |
| Warm start           | < 25 s                                    |
| Cold start           | < 35 s                                    |

## Cellular

|               |  |
|---------------|--|
| Technology    | LTE Cat 1, UMTS, GSM   |
| 2G bands      | EC21-AU: GSM: B2/B3/B5/B8<br>EC21-EC: GSM: B3/B8   |
| 3G bands      | EC21-AU: WCDMA: B1/B2/B5/B8<br>EC21-EC: WCDMA: B1/B8   |
| 4G bands      | EC21-AU: LTE FDD: B1/B2/B3/B4/B5/B7/B8/B28<br>LTE TDD: B40<br>EC21-EC: LTE FDD: B1/B3/B7/B8/B20/B28A   |
| Data transfer | LTE: LTE FDD: Max 10Mbps (DL)/Max 5Mbps (UL)<br>LTE TDD: Max 8.96Mbps (DL)/Max 3.1Mbps (UL)<br>UMTS: WCDMA: Max 384Kbps (DL)/Max 384Kbps (UL)<br>GSM: 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 battery 3.7 V (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          |
| GSM 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   |
| RS485 Modes                       | Log Mode, NMEA, LLS, TCP ASCII/Binary  |

