

FMB641

LEADING GNSS/GSM TERMINAL FOR PROFESSIONAL APPLICATIONS

Teltonika FMB641 is an updated version of current most popular GNSS, GSM terminal for PROFESSIONAL applications FMB640. Compared to FMB640 – FMB641 has new processor that improves the devices computation power therefore it can be tailored to more specific use cases. Switchable CAN terminators that will allow you to use the device in CAN network with numerous nodes. Lastly, it can be powered via USB for easier configuration process. All the features that are supported by FMB640 is also supported by FMB641, for the purpose of maximizing your fleet efficiency with features like FMS CAN data (J1939), fuel CAN data (J1708), tachograph live data (K-Line), remote tachograph file download, various third party RS232 or RS485 devices support and Dual-SIM or eSIM compatibility. Terminal is suitable for applications like international logistics, refrigerated transport, agriculture, construction & mining, security & emergency services and even more.



Dual SIM – significantly reduce roaming costs



Allows device to work without external power source



CAN data reading from vehicles and specialized transport



Remote tachograph data download



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



RS232/RS485 serial communication interfaces

USE CASES



CONSTRUCTION AND MINING



HEAVY DUTY TRANSPORT



PUBLIC SAFETY SERVICES



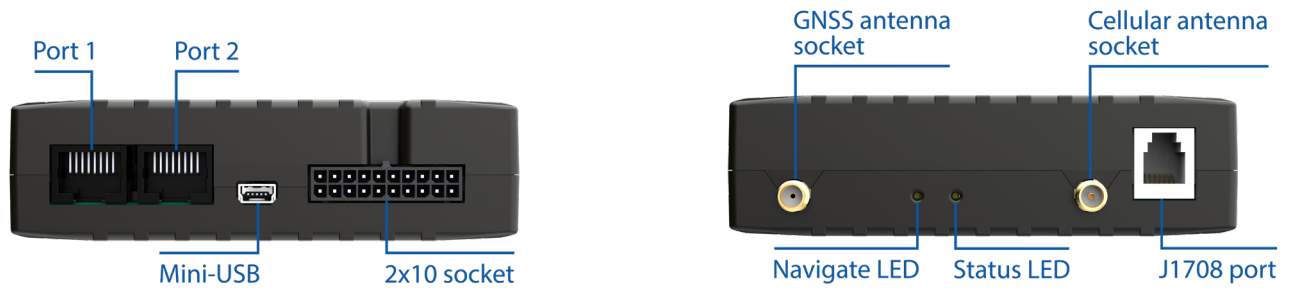
REFRIGERATED TRANSPORT



INTERNATIONAL LOGISTICS



AGRICULTURE TRANSPORT



Module

| | |
|------------|------------------|
| Name | Teltonika TM2500 |
| Technology | GSM/GPRS/GNSS |

GNSS

| | |
|----------------------|---|
| GNSS | GPS, GLONASS, GALILEO, BEIDOU, SBAS, QZSS, DGPS |
| Receiver | 33/99 acquisition channels |
| Tracking sensitivity | -165 dBm |
| Position accuracy | < 2.5 CEP |
| Velocity accuracy | <0.1m/s (within +/- 15% error) |
| Hot start | < 1 s |
| Warm start | < 25 s |
| Cold start | < 35 s |

Cellular

| | |
|---------------|--|
| Technology | GSM/GPRS |
| 2G | Quad-band 850 / 900 / 1800 / 1900 MHz |
| GPRS | GPRS Mobile Station Class B |
| Data transfer | GPRS Multi-Slot Class 12(up to 240 kbps) |
| Data support | SMS (text/data) |

Power

| | |
|--------------------------|--|
| Input voltage range | 8 - 32 V DC with overvoltage (pulse 5a and 5b) and reverse polarity protection |
| Internal Back-up battery | 550 mAh Ni-Mh, 8.4 V battery |

Power Consumption

| | |
|-----------------|----------------------|
| At 12V < 7 mA | Deep Sleep |
| At 12V < 12 mA | Online Deep Sleep |
| At 12V < 28 mA | GPS Sleep |
| At 12V < 65mA | Nominal with no load |
| At 12V < 120 mA | GPRS |

Physical specification

| | |
|------------|------------------------------------|
| Dimensions | 104.1 x 76.8 x 31.5 mm (L x W x H) |
| Weight | 197 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 storage temperature | -20 °C to +45°C |

Interface

| | |
|----------------------------|---|
| Digital Inputs | 4 |
| Digital Outputs | 4 |
| Analog Inputs | 4 |
| 1-Wire | 1 |
| RS232 | 2 |
| RS485 | 1 |
| CAN J1939 | 2 |
| J1708 | 1 |
| K-line | 1 |
| GNSS antenna | External High Gain |
| GSM antenna | External High Gain |
| USB | 2.0 Mini-USB - device can be powered by USB for easier device configuration |
| LED indication | 2 status LED lights |
| SIM | 2x SIM Card (Dual-SIM) or 1x eSIM |
| Memory | 2 MB internal flash memory and external Micro SD card up to 32GB |
| Switchable CAN terminators | Supported on CAN1 and CAN2 lines |

Features

| | |
|-----------------------------------|---|
| Sensors | Accelerometer |
| Scenarios | Green/Eco Driving, Over Speeding detection, Jamming detection, Excessive Idling detection, Towing detection, Crash detection, Immobilizer, iButton Read Notification, Auto Geofencing, Manual Geofencing, Trip detection, Odometer, Fuel counter, GNSS Unplug Detection, DDD download and Tacho online data, Offline tracking, Voice call |
| Supported peripherals | RFID RS232, RFID 1-Wire, iButton 1-Wire, Temperature 1-Wire, Continental tire pressure measurement sensor |
| Sleep modes | GPS Sleep, Online Deep Sleep, Deep Sleep |
| Configuration and firmware update | FOTA Web, FOTA, Teltonika Configurator |
| 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, CAN FMS (J1939, J1708), Ultrasonic level sensor |
| Ignition detection | Digital Input, Accelerometer, External Power Voltage |
| RS232 Modes | Log Mode, NMEA, LLS, LCD, RFID HID/MF7, Garmin FMI, TCP ASCII/Binary, TCP ASCII/Binary (Buffered), Rec to LCD, Atol Tachograph, UL202-2 Fuel Sensor, TSM232 Sattelite backup, Carrier Freezer |
| RS485 Modes | Silent, Log Mode, NMEA, LLS, TCP ASCII/Binary, TCP ASCII/Binary (Buffered) |

Certification & Approvals

Regulatory

CE/RED, E-Mark in progress!

