FMB003 General description

FMB003 is a tracking terminal with GNSS and GSM connectivity, which is able to collect device coordinates and transfer them via GSM network to a server. This device is perfectly suitable for applications, which require the location acquirement of remote objects. It is important to mention that FMB003 has a standard OBD-II interface which lets you monitor basic vehicle parameters.

Monitorable basic vehicle parameters depend on vehicle mark and model.

Contents

Package contents

The FMB003 device is supplied to the customer in a cardboard box containing all the equipment that is necessary for operation. The package contains:

- FMB003 device;
- OBD II power supply adapter.

Basic characteristics

GSM / GPRS / GNSS features:

- Teltonika TM2500 quad band module (GSM 850 / 900 / 1800 / 1900 MHz);
- GPRS Multi-Slot class 12 (Up to 85,6 kbps);
- SMS (text, data);
- Integrated GNSS receiver;
- Up to -165 dBm GNSS receiver sensitivity.

Hardware features:

- Built-in movement sensor;
- Built-in Bluetooth 3.0;
- Built-in Bluetooth 4.0;
- Internal High Gain GNSS antenna;
- Internal High Gain GSM antenna;

- 128 MB Flash (422 400 Records);
- 3.7 V 45 mAh

Interface features:

- Power supply: +10...+30 V;
- USB port;
- OBD II;
- CAN;
- K-LINE;
- 2 LEDs indicating device status.

Special features:

- OEM OBD data reading;
- Fast position fix;
- High Quality track even in high density urban canyon;
- Small case;
- 2 LED status indication;
- Real time tracking;
- Smart data acquisition based on:
  - Time;
  - Speed;
  - Angle;
  - Distance;
  - Ignition or any other I/O event;
- Sending acquired data via GPRS;
- GPRS and SMS I/O events;
- Virtual odometer;
- Jamming detection;
- Configurable using Secured SMS Commands.
- Overvoltage protection.

Technical features

Part name	Physical specification
Navigation indication	LED
Modem indication	LED
OBD-II	Standard OBD-II connector
USB	Mini USB socket

Technical details

Current consumption at 12 V	Data sending/gathering every 1s: 79.6 mA Data sending/gathering every 30s: 38 mA Device is not sending/gathering records but is not in a sleep mode: 33 mA GPS sleep: 16 mA Deep Sleep: 13 mA Online Deep Sleep: 13.5 mA Ultra Deep Sleep: 11.7 mA
Battery charge current	Average: 140 mA Rated: 250 mA
Operating temperature (without battery)	-40 ... +85 °C
Storage temperature (without battery)	-40 ... +85 °C
Storage relative humidity	5 ... 95% (no condensation)
Internal fuse	3 A, 125 V
Device + case + battery weight	30 g

Technical information about internal battery

Internal back-up battery	Battery voltage (V)	Nominal Capacity (mAh)	Power (Wh)	Charge temperature (°C)	Discharge temperature (°C)	Storage temperature (°C)
Li-ion rechargeable battery	3.75□3.90	45	0.17 - 0.18	10 to +45	-20 to +60	-20 to +45 for 1 month -20 to +35 for 6 months

Batteries are covered by 6 month warranty support.

CAUTION: RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

Battery should not be disposed of into general household waste.
Bring damaged or worn-out batteries to your local recycling center or dispose them into a battery recycle bin commonly found in supermarkets.

Electrical characteristics

Characteristic description	Value			
	Min.	Typ.	Max.	Unit
Supply Voltage:				
Supply Voltage (Recommended Operating Conditions)	+12		+30	V

Input voltage (Recommended Operating Conditions)	0		Supply voltage	V

Absolute maximum ratings

Characteristic description	Value			
	Min.	Typ.	Max.	Unit
Supply Voltage (Absolute Maximum Ratings)	-32		+32	V