

# FMB010 General description

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FMB010 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.

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## Package contents

The FMB010 device is supplied to the customer in a cardboard box containing all the equipment that is necessary for operation. The package contains:

- FMB010 device;
- Top and bottom device cover parts;
- 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 4.0;
- Internal High Gain GNSS antenna;
- Internal High Gain GSM antenna;
- 128 MB Flash (422 400 Records);
- 170 mAh Li-ion rechargeable 3.7 V battery.

## Interface features:

- Power supply: +10...+30 V;
- 1 digital input;
- USB port;
- OBD II;
- 2 LEDs indicating device status.

## Special features:

- 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

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

### Technical details

2 W max.	GPRS: average 8 mA
Current consumption at 12 V	Nominal: average 28 mA
	Deep Sleep: average 7 mA
	Online Deep Sleep: average 7 mA
	Ultra Deep Sleep: average 5 mA

Battery charge current	Average: 120 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	60 g

Dimension drawing:



## 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	170	0.64 - 0.66	0 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			Unit
	Min.	Typ.	Max.	
Supply Voltage:				
Supply Voltage (Recommended Operating Conditions)	+10		+30	V
Digital Input:				
Input resistance (DIN1)	15			kΩ
Input voltage (Recommended Operating Conditions)	0		Supply voltage	V
Input Voltage threshold (DIN1)		5		V

## Absolute maximum ratings

Characteristic description	Value			Unit
	Min.	Typ.	Max.	

Supply Voltage (Absolute Maximum Ratings)	-32	+32	V
Digital Input Voltage (Absolute Maximum Ratings)	-32	+32	V