FM3001 General description

FM3001 is tracking terminal with GNSS and 3G/GSM connectivity, which is able to collect device coordinates and transfer them via 3G/GSM network to server. This device is perfectly suitable for applications, which need location acquirement of remote objects. It is important to mention that FM3001 has standard OBD-II interface which lets you to monitor basic vehicle parameters.

Monitorable basic vehicle parameters depend on vehicle mark and model.

Contents

Package contents

The FM3001 device is supplied to the customer in a cardboard box containing all the equipment that is necessary for operation. The package contains:

- FM3001 device;
- Top and bottom device cover parts;
- OBD II power supply adapter;
- 3.7 V 170 mAh rechargeable Li-ion battery.

Basic characteristics

3G / GSM / GPRS / GNSS features:

- Quectel UC20 multi-band module (3G 850/900/1700/1900/2100 MHz, GSM 850/900/1800/1900 MHz);
- GPRS class 12;
- 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;
- 170 mAh Li-ion rechargeable 3.7 V battery;
- OBD II interface.

Interface features:

- Power supply: 10 ÷ 30V;
- CAN;
- K-LINE;
- 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;
- High gain internal GNSS and GSM antennas;
- 2 LED status indication;
- Real-Time tracking;
- Smart data acquisition based on:
  - Time;
  - 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

2 W max. Current consumption at 12 V	GPRS: max 50 mA Nominal: average 35 mA GPS sleep: average 12 mA Deep Sleep: average 4.5 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
Weight	63 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			
	Min.	Typ.	Max.	Unit
Supply Voltage:				
Supply Voltage (Recommended Operating Conditions)	+10		+30	V

Absolute maximum ratings

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