

# FM3001 General description

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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.

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## 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

<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: max 50 mA
Current consumption at 12 V	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			Unit
	Min.	Typ.	Max.	
Supply Voltage:				
Supply Voltage (Recommended Operating Conditions)	+10		+30	V

## Absolute maximum ratings

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