

FMT100 General description

[Main Page](#) > [Fast & Easy Trackers](#) > [FMT100](#) > [FMT100 Manual](#) > **FMT100 General description**

FMT100 is a tracking terminal with GNSS and GSM connectivity, which is able to collect device coordinates and transfer them via GSM network to server. This device is perfectly suitable for applications, which need location acquirement of remote objects.

□

Contents

- [1 Package contents](#)
- [2 Basic characteristics](#)
- [3 Technical features](#)
- [4 Technical information about internal battery](#)
- [5 Electrical characteristics](#)
- [6 Absolute maximum ratings](#)

Package contents

The FMT100 device is supplied to the customer in a cardboard box containing all the equipment that is necessary for operation. The package contains:

- Already implemented FMT100 device;
- Top and bottom device cover parts;
- Li-ion battery.

Basic characteristics

GSM / GPRS / GNSS features:

- Teltonika TM2500 multi-band module (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;
- 128MB internal flash memory;
- 170 mAh Li-ion rechargeable 3.7 V battery.

Interface features:

- Power supply: 10 ÷ 30 V;
- USB port;
- 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;
- Spy call;
- Overvoltage protection.

| Description | Voltage | Duration |
|---------------------------------------|----------------|-----------------|
| Normal operation | +10 ... +30 V | Unlimited |
| Protection turns on, device turns off | 34 V | Unlimited |
| Maximum voltage | <70 V | Unlimited |
| Maximum voltage impulse | 90 V | 5 ms |

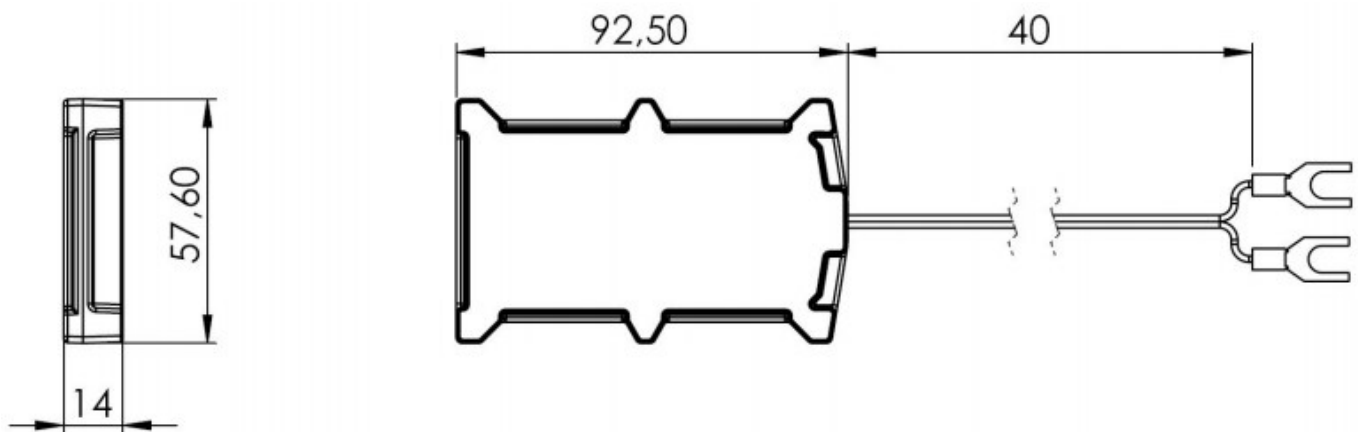
Technical features

| Part name | Physical specification |
|-----------------------|-------------------------------|
| Navigation indication | LED |
| Modem indication | LED |
| USB | Micro USB socket |
| GNSS | Internal GNSS antenna |
| GSM | Internal GSM antenna |

Technical details

| | |
|---|------------------------------------|
| 2 W max. | GPRS: average 6.5 mA |
| Current consumption at 12 V (Power supply 10...30 V DC) | Nominal: average 24.41 mA |
| | GNSS sleep: average 5.48 mA |
| | Deep Sleep: average 3.21 mA |
| | Online Deep Sleep: average 3.75 mA |
| | Ultra Deep Sleep: average 1.47 mA |
| Battery charge current | Average 120 mA |
| Rated current | 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 | 3A, 125V |
| Power Cable + Device + case + battery weight | 80 g |

Dimension drawing (tolerance $\pm 2\text{mm}$):



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

| Characteristic description | Value | | | Unit |
|--|-------|------|------|------|
| | Min. | Typ. | Max. | |
| Supply Voltage (Absolute Maximum Ratings) | -30 | | +30 | V |