

# FMM80A General description

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FMM80A is a tracking terminal with GNSS and LTE CAT M1 connectivity, which is able to collect device coordinates and transfer them via LTE CAT M1 network to a server.

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## Package contents

The FMM80A device is supplied to the customer in a cardboard box containing all the equipment that is necessary for operation. The package contains:

- FMM80A device;
- Top and bottom device cover parts.

## Basic characteristics

LTE CAT M1 / GNSS features:

- Modem Quectel BG95-M1 (LTE FDD (CAT M1): B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B25/B26/B27/B28/B66/B85);
- Technology LTE CAT M1/GNSS/BLUETOOTH;
- 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);
- 115 mAh Li-ion rechargeable 3.7 V battery.

Interface features:

- Power supply: +10...+30 V;
- Connection: OBDII socket;
- USB: 2.0 USB Micro B;
- 2 LEDs indicating device status.

## Technical features

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

### Technical details

2 W max.	Ultra Deep Sleep: 6.5 mA
Current consumption at 12 V	Deep Sleep: 8 mA
	Online Deep Sleep: 13 mA
	GPS Sleep: 16.3 mA
	Nominal with no load: 31 mA
	With full Load / Peak: 0.25A Max.
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

<b>Internal back-up battery</b>	<b>Battery voltage (V)</b>	<b>Nominal capacity (mAh)</b>	<b>Power (Wh)</b>	<b>Charge temperature (°C)</b>	<b>Discharge temperature (°C)</b>	<b>Storage temperature (°C)</b>
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Li-ion rechargeable battery	3.75□3.90	115	0.43 - 0.45	0 to +45	-20 to +60	-20 to +45 for 1 month -20 to +35 for 6 months
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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)	-32		+32	V