FMC003

LTE CAT1 advanced OBDII tracker with Bluetooth®

LTE CAT 1

Device supports LTE CAT 1 connectivity, which allows low-power wide area technologies to be used

OEM OBDII DATA

Available list of vehicles with OEM parameters to be read

OBDII DATA

Standart OBDII data reading from vehicle ECU

BLUETOOTH 4.0

Bluetooth for external devices and Low Energy Sensors

Fleet management

Driver log-book
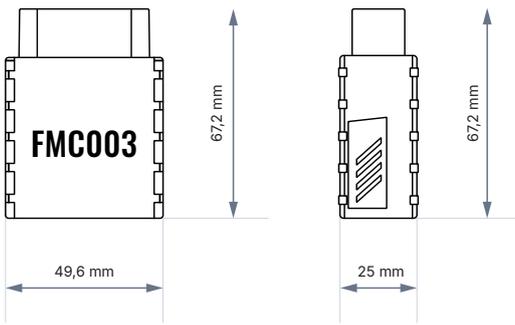
Insurance Telematics (UBI)

Connected car

Rental and leasing

FMC003 is a small plug and play device with LTE CAT 1 network coverage including 2G (GSM) fallback compatibility. Main feature of FMC003 is its possibility to read OEM parameters (PIDs) via OBD port. With this device you will be able to read Real Odometer and Real Fuel Level data. More to that, device comes with supported vehicles and data list, so you do not need to guess no more, now you know what data can be read from a specific vehicle. It is a perfect tracker for a wide range of use cases - including fleet management of light commercial vehicles, driver log-book, insurance telematics (UBI), car rental & leasing and others. Device supports various BLE 4.0 features including sensors, beacons, firmware and configuration update via Bluetooth which expands its already rich set of features.

FMC003

67,2 mm

67,2 mm

49,6 mm

25 mm

Module

Name	**FMC003-MBIB0** - MeiG SLM320-PE2C + Teltonika TM2500 **FMC003-MCIB0** - MeiG SLM320-L16A + Teltonika TM2500
Technology	LTE(CaT1)/2G(GSM/GPRS)/GNSS/BLUETOOTH

GNSS

GNSS	GPS, GLONASS, GALILEO, BEIDOU, SBAS, QZSS, DGPS, AGPS
Receiver	33 channel
Tracking sensitivity	-165 dBM
Accuracy	< 3 m
Hot start	< 1 s
Warm start	< 25 s
Cold start	< 35 s

Cellular

Technology	LTE Cat 1, GSM
2G bands	MeiG SLM320-PE2C: GSM: B2/B3/B5/B8 MeiG SLM320-L16A: GSM: B2/B3/B5/B8
4G bands	MeiG SLM320-PE2C: B1/B3/B7/B8/B20/B28 LTE-TDD:B38/B40/B41 MeiG SLM320-L16A: LTE FDD: B1/B2/B3/B4/B5/B7/B8/B20/B28 LTE-TDD:B40
Data transfer	LTE: LTE FDD: Max 10Mbps (DL)/Max 5Mbps (UL) LTE TDD: Max 8Mbps (DL)/Max 2Mbps (UL) GSM: GPRS: Max 85.6Kbps (DL)/Max 85.6Kbps (UL)
Transmit power	Class 4 for GSM850/900: 23±2dBm Class 1 for GSM1800/1900: 20±2dBm Class 3 for LTE-TDD: 23±2.7dBm Class 3 for LTE-FDD: 23±2.7dBm
Data support	SMS (text/data)

Power

Input voltage range	10 - 30 V DC with overvoltage protection
Back-up battery	170 mAh Li-Ion battery 3.7 V (0.63 Wh)
Power consumption	At 12V < 3 mA (Ultra Deep Sleep) At 12V < 5 mA (Deep Sleep) At 12V < 16 mA (Online Deep Sleep) At 12V < 18 mA (GPS Sleep) At 12V < 33 mA (nominal with no load) At 12V < 2A Max. (with full Load / Peak)

Bluetooth®

Specification	4.0 + LE
Supported peripherals	Temperature and Humidity sensor, Inateck Barcode Scanner, Universal BLE sensors support

Physical specification

Dimensions	67,2 × 49,6 × 25 mm (L x W x H)
Interface	OBDII Socket

Connection

GNSS antenna	Internal High Gain
GSM antenna	Internal High Gain
USB	2.0 Micro-USB
LED indication	2 status LED lights
SIM	Micro-SIM

OBD Interface

Data	HS CAN, MS CAN, SW CAN, K-line
Data reading	OEM Fuel level, odometer and up to 32 vehicle onboard parameters, supported OBD protocols: ISO 9141-2 (5 baud init, 10.4 kbaud) ISO 14230-4 KWP (5 baud init, 10.4 kbaud) ISO 14230-4 KWP (fast init, 10.4 kbaud) ISO 15765-4 CAN (11 bit ID, 250 kbaud) ISO 15765-4 CAN (11 bit ID, 500 kbaud) ISO 15765-4 CAN (29 bit ID, 250 kbaud) ISO 15765-4 CAN (29 bit ID, 500 kbaud) ISO 14229 (UDS) J2819 (VW TP2.0)

Operating environment

Operating temperature (without battery)	-40 °C to +85 °C
Storage temperature (without battery)	-40 °C to +85 °C
Operating humidity	5% to 95% non-condensing
Ingress Protection Rating	IP41
Battery charge temperature	+10 °C to +45 °C
Battery discharge temperature	-20 °C to +60 °C
Battery storage temperature	-20 °C to +45 °C for 1 month -20 °C to +35 °C for 6 months

Features

Sensors	Accelerometer
Scenarios	Green Driving, Over Speeding detection, Jamming detection, GNSS Fuel Counter, Excessive Idling detection, Unplug detection, Towing detection, Crash detection, Auto Geofence, Manual Geofence, Trip
Sleep modes	GPS Sleep, Online Deep Sleep, Deep Sleep, Ultra Deep Sleep
Configuration and firmware update	FOTA Web, FOTA, Teltonika Configurator (USB, Bluetooth), FMBT mobile application (Configuration)
SMS	Configuration, Events, Debug
GPRS commands	Configuration, Debug
Time Synchronization	GPS, NITZ, NTP
Fuel monitoring	OBDII, OEM fuel level
Ignition detection	Accelerometer, External Power Voltage, Engine RPM

Certifications & Approvals*

Regulatory	CE RED, E-Mark, RCM, KC, NCC

* Certification in progress. RCM, KC, NCC certificates will be done only for FMC003-ML1