

FMM003

LTE CAT M1 ADVANCED OBDII TRACKER WITH BLUETOOTH



LTE CAT M1

Device supports LTE CAT M1 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

Standard 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

FMM003 is a small plug and play device with LTE CAT M1 network coverage including 2G (GSM) fallback compatibility. Main feature of FMM003 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.



Module

Name	Quectel BG95-M3, Teltonika TM2500
Technology	LTE CAT M1/CAT NB2/EGPRS/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 M1, CAT NB2
2G bands	EGPRS: B2/B3/B5/B8
4G bands	CAT M1: LTE-FDD: B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B25/B26/B27/B28/B66/B85 CAT NB2: LTE-FDD: B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B2/B28/B66/B71/B85
Data transfer	BG95: LTE: Max. 588Kbps (DL)/ Max.1119Kbps (UL) GPRS: Max. 107Kbps (DL)/Max. 85.6Kbps (UL)
Transmit power	Class 4 for GSM850/900: 33±2dBm Class 1 for GSM1800/1900: 30±2dBm Class 3 for LTE-TDD: 20±2dBm Class 3 for LTE-FDD: 20±2dBm
Data support	SMS (text/data)



Power

Input voltage range	10 - 30 V DC with overvoltage protection
Internal Back-up battery	170 mAh Li-Ion battery 3.7 V (0.63 Wh)
Internal fuse	3 A, 125 V
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, OBDII dongle, Inateck Barcode Scanner, Universal BLE sensors support

Physical specification

Dimensions	67,2 x 49,6 x 25 mm (L x W x H)
Weight	63 g

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	0 °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

Interface

Connection	OBDII socket
GNSS antenna	Internal High Gain
GSM antenna	Internal High Gain
USB	2.0 Micro-USB
LED indication	2 status LED lights
SIM	Micro-SIM
Memory	128MB internal flash memory

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)

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	GNSS, NITZ, NTP
Fuel monitoring	OBDII
Ignition detection	Accelerometer, External Power Voltage, Engine RPM

Certification & Approvals *

Regulatory	CE RED, E-Mark, RCM, Jate/Telec
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* in progress