FMM150

GNSS/LTE CAT 1/GSM TRACKER WITH INTEGRATED CAN ADAPTER AND INTERNAL GNSS/GSM ANTENNAS AND INTERNAL BATTERY

CAT M1 4.0 CAN

4G CAT 1

Reliable 4G (LTE Cat 1) connection with fallback 2G (GSM) network

CAN DATA FOR EV VEHICLES

CAN module allows data reading from electric vehicles (EV)

INTEGRATED CAN DATA PROCESSOR

Allows to monitor real fuel consumption and level, full mileage, engine temperature and more

NEGATIVE INPUT

Allows easier installation of accessories

ELECTRIC VEHICLES **LIGHT VEHICLES** **TRUCKS** **BUSES**

FMM150 is an ADVANCED 4G CAT 1/GSM/GNSS/BLUETOOTH®LE tracker with integrated CAN data processor. It is compact 2 in 1 solution: GPS tracker and CAN adapter inside! Device allows to read CAN data from a wide range of various vehicles, including light & electric vehicles, trucks and buses. With the current software version FMM150 can be used in advanced applications as logistics, delivery services, utility transport, car sharing and more. For now, one SW option is available to fulfil your business demands:

A default FMM150 software version with LV-CAN parameters, including fuel level, consumption, odometer, CAN speed, pedal position, Supported vehicle types: light vehicles, electric vehicles, trucks and buses.

56,6 mm

65,0 mm · 20,6 mm

Module

Name	FMM150-Q3IB0: Quectel BG95-M3 with Teltonika TM2500
Technology	LTE Cat M1/GSM/GPRS/GNSS/BLUETOOTH® LE

GNSS

GNSS	GPS, GLONASS, GALILEO, BEIDOU, QZSS, AGPS
Receiver	Tracking: 33
Tracking sensitivity	-165 dBM
Position accuracy	< 2.5 CEP
Velocity accuracy	< 0.1m/s (within +/- 15% error)
Hot start	< 1 s
Warm start	< 25 s
Cold start	< 35 s

Cellular

Technology	LTE Cat M1, GSM
2G bands	BG95-M3: B2/B3/B5/B8
4G bands	Cat M1: B1/B2/B3/B4/B5/B8/ B12/B13/B18/B19/ B20/B25/B26/B27/ B28/B66/B85 Cat NB2: B1/B2/B3/B4/B5/B8/ B12/B13/B18/B19/ B20/B25/B28/B66/ B71/B85
Data transfer	BG95-M3: LTE: Max. 588Kbps (DL)/Max.1119Kbps (UL) GPRS: Max. 107Kbps (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

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)

Bluetooth

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

Physical specification

Dimensions	65 x 56.6 x 20.6 mm (L x W x H)
Weight	55 g

Interface

Digital Inputs	3
Negative Inputs	1 (Digital Input 2)
Impulse Inputs	2 (Digital Input 1, Digital Input 2)
Digital Outputs	2
Analog Inputs	2
CAN interfaces	2
1-Wire	1 (1-Wire data)
GNSS antenna	Internal High Gain
GSM antenna	Internal High Gain
USB	2.0 Micro-USB
LED indication	3 status LED lights
SIM	Micro-SIM or eSIM
Memory	128MB internal flash memory

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

Features

CAN Data	Fuel Level (Dashboard), Total fuel consumption, Vehicle speed (wheel), Vehicle driven distance, Engine speed (RPM), Accelerator pedal position
Sensors	Accelerometer
Scenarios	Green Driving, Over Speeding detection, Jamming detection, GNSS Fuel Counter, DOUT Control Via Call, Excessive Idling detection, Immobilizer, iButton Read Notification, 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, DOUT control, Debug
GPRS commands	Configuration, DOUT control, Debug
Time Synchronization	GPS, NITZ, NTP
Ignition detection	Digital Input 1, Accelerometer, External Power Voltage, Engine RPM

Certification & Approvals *

Regulatory	CE/RED, E-Mark, RCM, RoHS, REACH

* in progress