FMM130

ADVANCED CAT M1/GSM/GNSS/BLE TERMINAL WITH INTERNAL ANTENNAS AND BACKUP BATTERY

FMM130 is small and professional real-time tracking terminal with GNSS and LTE CAT-M1/NB-IoT/GSM connectivity and backup battery. Device equipped with GNSS/Bluetooth and LTE CAT-M1/NB-IoT modules with fallback to 2G network, internal GNSS and LTE antennas, configurable digital, analogue inputs and digital outputs, negative input, impulse inputs. It is perfectly suitable for applications where location acquirement of remote objects is needed: fleet management, car rental companies, taxi companies, public transport, logistics companies, personal cars and so on.

LTE M1/ NB IoT

Device supports both LTE M1 and NB IoT connectivity

Configurable DIN/AIN for flexible remote monitoring and control.

ECU

CAN data reading from vehicles and specialized transport



Allows device to work without external power source

Negative INPUT

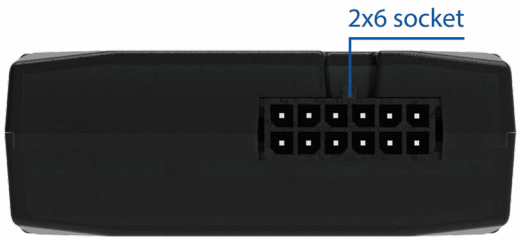
Negative input will allow easier installation of accessories

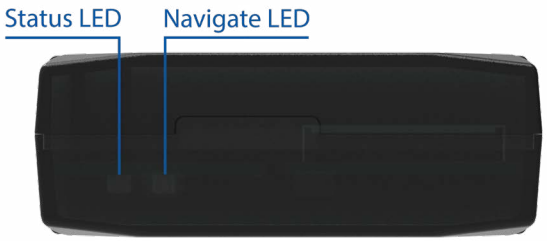
1 2 3

Impulse inputs for fuel flow meters data reading

USE CASES

- LIGHT VEHICLES
- HEAVY DUTY TRANSPORT
- TRAILER TRACKING
- REFRIGERATED TRANSPORT
- INTERNATIONAL LOGISTICS
- CAR SHARING





Module

Name	Quectel BG96, Teltonika TM2500
Technology	LTE CAT M1/NB-IoT/GSM/GPRS/GNSS/BLUETOOTH

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/NB-IoT/GSM
2G bands	B2/B3/B5/B8
4G bands	LTE FDD: B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B28 LTE TDD: B39 (for CAT M1 only)
Data transfer	LTE: Max. 375Kbps (DL)/Max.375Kbps (UL) GPRS: Max. 85.6Kbps (DL)/Max. 85.6Kbps (UL)
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)

Bluetooth

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

Physical specification

Dimensions	65 x 56.6 x 2.,6 mm (L x W x H)
Weight	55 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

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

Features

Sensors	Accelerometer
Scenarios	Green Driving, Over Speeding 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	GNSS, NITZ, NTP
Fuel monitoring	LLS (Analog), LV-CAN200, ALL-CAN300, CAN-CONTROL, OBDII dongle
Ignition detection	Digital Input 1, Accelerometer, External Power Voltage, Engine RPM (CAN Adapters, OBDII dongle)

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