



FMB-EV • GPS Tracker Technical Datasheet



FMB-EV GNSS/GSM - Bluetooth Tracker



Different Interfaces



Data reading support



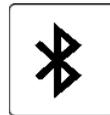
Ingress protection



OTA updates



Power supply



Bluetooth



Product Summary

Improve productivity, accuracy and reduce operational downtime, enhance safety and security. You can achieve all of this with a single Electric Forklift Tracker, which is designed for smart machinery management. This solution allows getting the required data from the smart machinery (Including CAN data) and increasing added value of your management application. By connecting your forklifts, telehandlers, loaders and scissor platforms, the solution reduces or even eliminates the costs caused by accidents, downtime or even a theft, and at the same time improves your business efficiency.

Key Features:

- **Different Interfaces**
CAN, RS232, RS485 & UART interface support depending on chosen modification
- **Data reading support**
Manual CAN and J1939 support for data reading
- **Ingress protection**
Water and dust resistant for outdoor integrations (IP67)
- **OTA updates**
Convenient OTA (over-the-air) updating through user-friendly applications

➤ **Power supply**

0-97V wide range of power supply voltage for integration variety

➤ **Bluetooth**

Bluetooth for external devices and Low Energy sensors

Technical Specification

Hardware

Module name	FMB-EV
Technology	GSM/GPRS/GNSS/Bluetooth (4.0 + LE)
GNSS	GPS, GLONASS, GALILEO, BEIDOU, SBAS, QZSS, DGPS, AGPS
Receiver	33 channel
Tracking sensitivity	-165 dBm
Accuracy	< 3 m
GNSS receiver start times	hot < 1 s, Warm < 25 s, Cold < 35 s
Cellular technology	GSM
2G bands	Quad-band GSM 850 / 900 / 1800 / 1900 MHz, GPRS Multi-Slot Class 12 (up to 440 kbps) GPRS Mobile Station Class B
Data support	SMS (text/data)
Power supply	10-97 V DC
Internal batteries	1800 mAh Li-Ion battery 3.7 V (6.66 Wh) internal back-up battery

Interface

Modifications

CAN modification

1x CAN-BUS (CAN H - CAN L), 1x AIN1/DIN1, 1x AIN2/DIN2, 1x DOUT1/DIN3, 1x DOUT2/DIN4, 1x 1-Wire, micro-USB, 2 x status LED lights, 128 MB internal flash memory (220'000 records)

RS485 modification

1x RS485 (RS485-A - RS485-B), 1x AIN1/DIN1, 1x AIN2/DIN2, 1x DOUT1/DIN3, 1x DOUT2/DIN4, 1x 1-Wire, micro-USB, 2 x status LED lights, 128 MB internal flash memory (220'000 records)

RS232 modification

1x RS232 (RS232-IN - RS232-OUT), 1x AIN1/DIN1,

1x AIN2/DIN2, 1x DOUT1/DIN3, 1x DOUT2/DIN4,
1x 1-Wire, micro-USB, 2 x status LED lights, 128
MB internal flash memory (220'000 records)

UART modification

1x UART (UART-RX - UART-TX), 1x AIN1/DIN1,
1x AIN2/DIN2, 1x DOUT1/DIN3, 1x DOUT2/DIN4,
1x 1-Wire, micro-USB, 2 x status LED lights, 128
MB internal flash memory (220'000 records)

GNSS antenna	Internal High Gain
GSM antenna	Internal High Gain
Sensors	Accelerometer
Interface	2.0 Micro-USB, Micro-SIM with eSIM possibility, 128 MB internal flash memory (220'000 records)

Software

Configuration and firmware update	FOTA WEB (cloud-based solution), Titonka Configurator (USB, Bluetooth)
Scenarios	Eco/Green Driving, Over Speeding, Jamming, Excessive Idling, Fall Down, Towing detection, Crash detection, Auto Geo fence, Manual Geo fence, Trip, Immobilizer, I Button, DOUT control Via call, DOUT control via Ignition
Sleep modes	GPS Sleep, Online Deep Sleep, Deep Sleep, Ultra Deep Sleep
Protocols	UDP/TCP/SMS
Data sending	Main, Duplicate and Backup servers
Security	Configuration password, SMS login and password, Authorized GSM numbers list
Time Synchronization	GNSS, NITZ, NTP
Supported peripherals	Temperature and humidity sensor, Universal BLE sensors support

Physical specifications

Dimensions	72.5 x 73 x 27.3 mm (L x W x H)
Ingress Protection Rating	IP67

Certification & approvals

Regulatory

CE (RED), EAC, ROHS, REACH, E-Mark, IP67