# **FMB140**

GPRS/GNSS TRACKER WITH CAN DATA READING FEATURE



# BUILT-IN CAN BUS DATA READING CHIP

Reading CAN data from light & electric vehicles, trucks, buses and special machinery

# HELPFUL WIRING GUIDES

Efficient connection with wiring guides for each supported vehicle

# ECO DRIVING SCENARIO

Achieve efficient fuel consumption, prolong vehicle life and increase road safety

# EXTENDED PRODUCT USAGE SCENARIOS

Connect Bluetooth LE-based external devices - Low Energy beacons and sensors to monitor temperature, humidity and movement.



LIGHT VEHICLES



HEAVY DUTY TRANSPORT



TRAILER TRACKING



REFRIGERATED TRANSPORT



INTERNATIONAL LOGISTICS



CAR SHARING

FMB140 is an ADVANCED 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, buses and special machinery. Depending on exact software version FMB140 can be used in advanced applications as heavy logistics, delivery services, utility transport. 2 options available to fulfill any business demands - LV-CAN200 option and ALL-CAN300 option.





| Module                 |  |
|------------------------|--|
| Name                   | Teltonika TM2500   |
| Technology             | 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              | <1s  |
| Warm start             | < 25 s   |
| Cold start             | < 35 s   |
| Cellular               |  |
| Technology             | GSM  |
| 2G bands               | Quad-band 850 / 900 / 1800 / 1900 MHz  |
| Data transfer          | GPRS Multi-Slot Class 12 (up to 240 kbps), GPRS Mobile Station Class B   |
| Data support           | SMS (text/data)  |
| Power                  |  |
| Input voltage range    | 10 - 30 V DC with overvoltage protection   |
| Back-up battery        | 170 mAh Li-lon battery 3.7 V (0.63 Wh)   |
| BLUETOOTH® technology  |  |
| 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   |



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| 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 Anatel, CE/RED, E-Mark, EAC, RoHS, REACH