

# FMB020

## ADVANCED PLUG AND TRACK DEVICE WITH BLUETOOTH

FMB020 is ultra-small OBDII Plug and Track device with GNSS, GSM and Bluetooth connectivity for a true connected car application. 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. The FMB020 device supports crash detection functionality, which allows the user to be notified when a car crash happens. By using the accelerometer data received during the crash, it is possible to visualize angle and measure force with which vehicle was hit. This could prove to be useful in Insurance Telematics solutions. Device supports various Bluetooth Low energy sensors, beacons, hands-free headset, firmware and configuration update via Bluetooth. The best choice for someone looking for a practical OBD solution.



Our smallest GNSS tracker for simple connected car applications



Crash detection according to accelerometer data



Bluetooth for external devices and Low Energy sensors



Plug and play installation - simply plug in the device and start tracking



## USE CASES



FLEET MANAGEMENT



DRIVER LOG-BOOK



INSURANCE TELEMATICS (UBI)



CONNECTED CAR



RENTAL AND LEASING



**Module**

|            |                         |
|------------|-------------------------|
| Name       | Teltonika TM2500        |
| Technology | GSM/GPRS/GNSS/BLUETOOTH |

**GNSS**

|                      |   |
|----------------------|---|
| GNSS                 | GPS, GLONASS, GALILEO, BEIDOU, SBAS, QZSS, DGPS, AGPS |
| Receiver             | 33 channel  |
| 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    | GSM                                      |
| 2G bands      | Quad-band 850/900/1800/1900 MHz          |
| Data transfer | GPRS Multi-Slot Class 12(up to 240 kbps) |
| Data support  | SMS (text/data)                          |

**Power**

|                     |  |
|---------------------|--|
| Input voltage range | 12 – 30 V DC with overvoltage protection |
| Back-up battery     | 3.7 V 40 mAh (not final specifications)  |

**Bluetooth**

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

**Physical specification**

|            |                                 |
|------------|---------------------------------|
| Dimensions | 52.6 x 29.1 x 26 mm (L x W x H) |
|------------|---------------------------------|

**Interface**

|                  |                        |
|------------------|------------------------|
| Connection       | OBDII Socket           |
| GNSS antenna     | Internal High Gain     |
| Cellular antenna | Internal GSM High Gain |
| USB              | 2.0 Micro-USB          |
| LED indication   | 2 status LED lights    |
| SIM              | Nano-SIM               |

## 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<br>-20 °C to +35 °C for 6 months |

## 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              | GPS, NITZ, NTP  |
| Fuel monitoring                   | GNSS Fuel counter   |
| Ignition detection                | Accelerometer, External Power Voltage   |

