



### Module

|            |   |
|------------|---|
| Name       | FMC230- MBIB0: MeiG SLM320-E with Teltonika TM2500<br>FMC230- MCIB0: MeiG SLM320-LA with Teltonika TM2500 |
| Technology | LTE(Cat1)/2G(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    | < 0.1 m/s (within +/- 15% error)          |
| Hot start            | < 1 s                                     |
| Warm start           | < 25 s                                    |
| Cold start           | < 35 s                                    |

### Cellular

|                |  |
|----------------|--|
| Technology     | LTE Cat 1, GSM   |
| 2G bands       | FMC230-MBIB0: GSM: B2/B3/B5/B8<br>FMC230-MCIB0: GSM: B2/B3/B5/B8   |
| 4G bands       | FMC230-MBIB0: LTE FDD: B1/B3/B7/B8/B20/B28 LTE-TDD:B38/B40/B41<br>FMC230-MCIB0: LTE FDD: B1/B2/B3/B4/B5/B7/B8/B20/B28 LTE-TDD:B40        |
| Data transfer  | LTE: LTE FDD: Max 10Mbps (DL)/Max 5Mbps (UL)<br>LTE TDD: Max 8Mbps (DL)/Max 2Mbps (UL)<br>GSM: GPRS: Max 85.6Kbps (DL)/Max 85.6Kbps (UL) |
| Transmit power | Class 4 for GSM850/900: 23±2dBm<br>Class 1 for GSM1800/1900: 20±2dBm<br>Class 3 for LTE-TDD: 23±2.7dBm<br>Class 3 for LTE-FDD: 23±2.7dBm |
| 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)  |
| Internal fuse            | 3 A, 125 V  |
| Power consumption        | At 12V < 3 mA (Ultra Deep Sleep)<br>At 12V < 5 mA (Deep Sleep)<br>At 12V < 16 mA (Online Deep Sleep)<br>At 12V < 18 mA (GPS Sleep)<br>At 12V < 33 mA (nominal with no load)<br>At 12V < 2A Max. (with full Load / Peak) |

## BLUETOOTH® technology

|                       |   |
|-----------------------|---|
| Specification         | 4.0 + LE  |
| Supported peripherals | Temperature and Humidity sensor, OBDII dongle, Inateck Barcode Scanner, Universal Bluetooth® LE sensors support support |

## Physical specification

|            |   |
|------------|---|
| Dimensions | 70,5 x 67,0 x 25,6 mm (L x W x H)<br>85,0 x 67,0 x 25,6 mm (L x W x H) (length with connector socket) |
| Weight     | 79 g  |

## Operating environment

|   |   |
|---|---|
| Operating temperature (without battery) | -20 °C to +85°C   |
| Storage temperature (without battery)   | -20 °C to +85 °C  |
| Operating temperature (with battery)    | -20 °C to +60 °C  |
| Storage temperature (with battery)      | -20 °C to +45 °C  |
| Operating humidity                      | 5% to 95% non-condensing                                      |
| Ingress Protection Rating               | IP67  |
| 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 |

## 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 or eSIM                    |
| Memory             | 128MB internal flash memory          |

## Features

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|                                   |   |
|-----------------------------------|---|
| 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® wireless technology), 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)   |

## Certification & Approvals \*

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|------------|---|
| Regulatory | CE-RED, E-mark, RCM, Anatel, Reach, RoHS, TRA, CITC |
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\* in progress