Template:FMC130 firmware errata

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Introduction

We are always improving our devices performance, stability and reliability. That's why Teltonika is one of the leading GNSS trackers manufacturers in the world.

This document describes **FMCXXX**, **FMUXXX**, **FMMXXX platform** devices firmware improvements, changes, new features implementations as well as current firmware release version.

| FIRMWARE VERSION | SUPPORTED HARDWARE |
|---------------------|--|
| 03.25.XX | FMC1YX, FMU1YX, FMM1YX |
| 03.27.XX | FMB0YX, FMB9X0, FMB96X, FMB1YX, FMU1YX, FMM1YX, FMC1YX, FMM001, FMC001, FM30XY, FMB2YX, FMT100 |
| 03.29.XX | FMB010, FMB020, FMT100, FMB900, FMB910, FMB920, FMC920, FMM920, FMB110, FMB120, FMB122, FMB125, FMB130, FMC125, FMC130, FMC13A, FMM125, FMM130, FMM13A, FMB202, FMB204, FMB225, FMB230, FMC225, FMC230, FMM230, FMB001, FMB003, FMC001, FMC003, FMC00A, FMM001, FMM003, FMM00A, FMB140, FMB240 |

Evaluation firmware branches

Newly introduced Teltonika Telematics products start their lifecycle and mass production running evaluation branch firmware versions, which may be based on older BASE firmware version or separate firmware branch, therefore may have different features. Such products do not immediately receive identical improvements as products in BASE firmware until their support is added. Currently such products are:

FIRMWARE
VERSIONHARDWARE03.29.00.Rev.458FMC880, FMM880, FMC800,
FMM800, FMM80A

| 03.29.00.Rev.157 | FMB150, FMC150, FMM150, FMC250, FMM250 |
|------------------|---|
| 03.27.10.Rev.482 | FMB930 |
| 03.29.00.Rev.931 | FMB965 |
| 03.29.00.Rev.554 | FMP100, FMB020 |
| 03.29.00.Rev.601 | FMC234 |
| 03.29.00.Rev.263 | FMB209 |
| | |

Firmware versioning

• Structure

FMB(T).VER.[XX].[YY].[ZZ].Rev.[##] _[ID###]

- Syntax description
 - $\circ\,$ XX major FW version.
 - $\circ\,$ YY branch number, shows major changes in firmware, i.e. new module support added or new major feature added.
 - $\circ\,$ ZZ major changes like bigger fixes, improvements and new features addition.
 - $\circ\,$ ## minor changes like small fixes and improvements.
 - ID[###] Spec ID KEY Specific clients FW changes.

Firmware versions

| VERSION | | CHANGES |
|---|-------|---|
| 03.29.00.Rev.18 2024 (recommended for FMT100, FMB900, FMB910, FMB920, FMC920, FMM920, FMB110, FMB120, FMB122, FMB130, FMC130 (SLM320- LA, SLM320-E2, EC21-EC, EC21-AU), FMC13A, FMM130 (BG95-M3, BG96), FMM13A, FMB202, FMB204, FMB206, FMB230, FMC230, FMM230, FMB140, FMB240, FMB125, FMC125 (SLM320- LA, SLM320-E2, EC21-EC), FMM125 (BG95-M3), FMB225, FMC225) | 05.13 | Improved reconnection to new operator time if GPRS was unavailable with initial operator Fixed pro-longed reconnection to new operator due to record tasks interrupting operator search Fixed network session closing when current operator is added to blacklist Improved module initialization time for devices with Quectel modems Fixed Digital Output state restore after firmware update RS232 interface stability improvements GNSS status element state improvements Time synchronization improvements Manufacture testing improvements |

03.29.00.Rev.13

(recommended for FMC130 with SLM320-LA, SLM320-E1, SLM320-E2, FMC230 with SLM320-LA, SLM320-E2, FMC920)

- NEW! <u>TELTONIKA EYE Beacon and EYE Sensor easy</u> <u>configuration</u> functionalities added
- NEW! <u>TELTONIKA EYE Beacon Lost & Found and</u> <u>Proximity Event</u> functionalities added
- NEW! <u>SECO</u> functionality added
- NEW! <u>Back-Up Tracker</u> functionality added
- NEW! **GNSS jamming** functionality added
- NEW! Low Power Mode functionality added
- NEW! MQTT support for <u>AWS IoT Shadow/Custom</u> and <u>Azure IoT</u> added
- NEW! <u>RS485 Buffered</u> functionality added
- NEW! <u>RS232 Delimiter mode</u> functionality added
- NEW! <u>1-Wire interface control in sleep modes</u> functionality added

• **NEW!** <u>**BT**/**BLE** interface control in sleep modes</u> functionality added

- NEW! <u>NBL-2 Bluetooth RFID reader</u> support added
- NEW! SMS/GPRS command <u>"lvcanhorn"</u> support added
- NEW! Added support for FMC13A and FMM13A
- NEW! Added support for FMC00A and FMM00A
- NEW! Added support for <u>FMC920</u> and <u>FMM920</u>
- NEW! Added support for **FMC003** and **FMM003**
- NEW! Added support for small OBD devices <u>FMB003</u> and <u>FMB020</u>

• **NEW!** Added support for FMC1XY/FMC2XY devices with MeiG modems

• NEW! SMS/GPRS command <u>"setigndigout"</u> added

• **NEW!** Jamming feature support added for FMC1XY/FMC2XY devices with MeiG modems

• **NEW!** Support of new electric vehicle <u>**OEM parameters**</u> for FMX00X devices

• NEW! CAN service and LPG I/O elements added

• NEW! New I/O elements for each CAN adapter state flag added

• **NEW!** New I/O Digital Input 2 for FMX920, FMB910 and FMB900 devices

- CHANGED! Reworked recalibration logic
- CHANGED! <u>Default parameter values</u>
- CHANGED! <u>SMS Event</u> logic reworked
- CHANGED! LLS address count expanded to 16
- CHANGED! Black list functionality reworked

• **CHANGED!** SMS/GPRS command <u>"cpureset"</u> protection functionality

- CHANGED! <u>Pulse Counter</u> reworked
- 1-Wire Temperature sensor stability improvements
- Operator search procedure functionality improvements
- Record saving and sending improvements
- DOUT state saving improvements

• GPRS Session and PDP Context Activation logic improvements

- Trip state saving improvements
- CAN data reading improvements
- BLE data reading stability improvements

• TimeSync, SMS handling and connection stability improvements for FMC1XY/FMC2XY devices with MeiG modems

• AutoAPN multiple block file improvement for larger database capacity

- Manufacture testing improvements
- Improved system stability and fixed general bugs

| 03.27.13.Rev.443 (recommended for FMC130 with SLM320-LA, SLM320-E1, SLM320-E2) | 2023.03.01 | Fixed eSIM detection with SLM320 modules Added SMS support over LTE for SLM320 modules Improved SMS handling with SLM320 modules Added Jamming support in configurator for FMC125 Fixed known issues with GPS jumps and time synchronization Improved PAP/CHAP authentication Fixed duplicate server issue when one of server is closed Improved communication with SLM320 module to ensure stable connection Improved system stability and fixed general bugs |
|--|------------|--|
| 03.27.13.Rev.54 (recommended for FMC130 with SLM320-L, SLM320- E2, SLM320-E1) | 2022.03.18 | Added Jamming support for FMC130 hardware with SLM320-L and SLM320-E2 module Fixed NITZ time synchronization with SLM320 modules Fixed connection to operator issue Added FMC125 with SLM320 hardware support |
| 03.27.13.Rev.03 (recommended for FMT100, FMB1XY, FMB0XY, FMB2XY, FMB9XY, FMM130, FMC001) | 2022.08.01 | • Improved system stability and fixed general bugs |
| 03.27.12.Rev.00 (recommended for FMM130 with BG95) | 2022.02.17 | Added FMM230, FMC230, FMC225, FMB230, FMB225, FMB240 support Fixed manual frequency bands configuration for FMMx30 devices Improved system stability and fixed general bugs |
| 03.27.10.Rev.02 | 2021.11.11 | New Accelerometers support added Static navigation improvements GNSS performance improvements BG95-M3 modem support AutoAPN improvements Limit max FOTA connection period to 12 hours Improved system stability and fixed general bugs |
| 03.27.07.Rev.252 (recommended for FMC130 with SLM320) | 2021.10.15 | SLM320 modem support Improved system stability and fixed general bugs |
| 03.27.07.Rev.00 (recommended FMU130, FMU125 FMC130, FMC125, FMM125) | 2021.08.02 | New Flash memory component support added <u>Inverted DOUT</u> functionality added <u>Universal Beacons</u> functionality added Beacons list expanded to support 50 beacon ID's <u>BLE AES128</u> encryption added Enabled SBAS support Improved system stability and fixed general bugs |
| 03.27.04.Rev.01 | 2021.03.16 | Quectel modem reset procedure improvements Optimization of faster network selection Optimization of internal flash usage Fix of GNSS version initialization Added <u>Beacon On Change.</u> functionality Improved system stability and fixed general bugs |
| 03.27.03.Rev.02 | 2021.01.28 | Fix odometer calculation when source selected LVCAN or GNSS DNS fixes and improvements Improved system stability and fixed general bugs |

| 03.27.03.Rev.00 | 2020.12.16 | Improved high priority records sending Quectel modem configuration rework Improved system stability and fixed general bugs |
|------------------|------------|---|
| 03.27.02.Rev.03 | 2020.10.28 | Command "setdigout" fixes when GNSS is not available Periodic BLE scan improvements when using eventual beacon records Improved system stability and fixed general bugs |
| 03.27.02.Rev.01 | 2020.10.25 | Disable NTP TSYNC in Deep-sleep mode TLS fixes and improvements |
| 03.27.02.Rev.00 | 2020.09.14 | Added LV-CAN200+DTC functionality BLE beacons and BLE sensors support for FMU1YX, FMM1YX, FMC1YX, FMM001, FMC001 BLE whitelist (scan stability improvements) Added time synchronization improvement iButton list extended to 4000 iButtons. Implemented Magnetic card reader functionality for FMU126 Implemented Towing detection DOUT control EGTS protocol support added Added configurable ACK type (TCP/AVL) source feature Added BLE Efento sensor support Codec12/13 packet merge functionality added Added encrypted record support (TLS) Added Ballist control functionality Advanced eco driving for all hardware Battery protection improvements Auto APN support for FMU1YX, FMM1YX, FMC1YX, FMM001, FMC001 CAN Adapter improvements Added FOTA WEB connection period randomizer Added new UMTS/LTE Cell ID 636 Improved system stability and fixed general bugs |
| 03.25.10.Rev.175 | 2019.12.23 | Stability improvements Added Geo bands selection Improved network scan sequence and AT commands Added preferred operator connection Added network settings configuration capability for FMM1YX devices Improved dual sim switching Added FMM1YX support Added FMC1YX support Added FMU1YX support Initial release |