TAT100 Stable firmware

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CAUTION!

Both firmwares (Modem and BlueNRG) must be flashed into device. Failing so can lead to unexpected device behavior and rapid battery discharge.

TAT100 BlueNRG & Modem FIRMWARE UPDATE GUIDE

TATXYZ FIRMWARE UPDATE GUIDE

Download Firmware and Configurator from **STABLE FIRMWARE** or **SHORT-TERM FIRMWARE** pages.

After device connection to Configurator:

- 1) Select Update firmware;
- 2) Select to flash Firmware(*.e.XIM) file;
- 3) Click on file;
- 4) And select Open.

Wait until the device will upload the firmware.



When parameters successfully loaded:

- 1) Select Update firmware;
- 2) Select to flash BlueNRG firmware(*.bin);
- 3) Click on file;
- 4) And select Open.



TAT100 Stable Firmware and Software

IRMWARE VERSION: ONFIGURATOR VERSIO: IMENRG VERSION: 55.00.16.Rev.564 1.7.74_B.TAT1_R.6 BlueNRG version: 10.4.12 for TAT100 HW ver.: 3 0.4.12 for TAT100 HW ver.: 62 DOWNLOAD
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TAT100 Hardware version identification

- If Serial Number [S/N] is greater than 1122473261, then device version: TAT100 HW: 62.
- If Serial Number [S/N] is less than 1122473261, then device version: TAT100 HW: 31.

ORDERS AFTER 2022-03-17 WILL BE WITH TAT100 HARDWARE: 62

EXECUTION!

When updating firmware via FOTA WEB, pay attention to notice above.

CHANGELOG

VERSION	RELEAS E DATE	CONFIGURATOR CHANGES	FIRMWARE CHANGES
Firmware version: 55.00.16.Rev. 564 BlueNRG version: 10.4.12 for TAT100 HW ver.: 31 0.4.12 for TAT100 HW ver.: 62 Configurator version: 1.7.74_B.TAT 1_R.6	2024.03.	 Fixed configurator crash after firmware update. Added cell ID I/O elements Fixed error when disabling BLE features in configuration. Added GSM area code I/O element Simplified EYE sensor configuration. Added Autonomous Alarm System feature. 	 Fixed periodic timer starting in Recovery mode. Improved backup tracker scan procedure. Fixed issue with GPS fix with First Power On record. Improved energy management in sleep mode when device is in motion. Fixed crash on BLE sensor alarm. Bluetooth scanning and data parsing optimization. DNS resolve improvements. Fixed periodic timer starting when tracking scenario selected as None. Changed default movement sensitivity to 150 mG Changed default GNSS mode to GLONASS, GPS and GALILEO Fixed EYE sensor data multiplier for correct data displaying. Fixed issue if GPRS is lost during record sending. Fixed GPRS command processing in UDP mode. Improved received SMS reading process. Improved connection to Fota process. Fixed BLE sensor data not being included in periodic records. Improved static navigation logic. Improved Bluetooth scan stability. Added BLE beacons for Recovery mode trigger. Movement logic rework. Added condition to stop GNSS search if less than 3 satellites found in the first 60 seconds.
VERSION	RELEASE DATE	CONFIGURATOR CHANGES	FIRMWARE CHANGES

Firmware version: 55.00.16.Rev. **543 BlueNRG** version: 10.3.12 for **TAT100 HW** ver.: 31 0.3.12 for**TAT100 HW** ver.: 62 Configurator version: 1.7.16 E.TAT1 00.R23 RELEASE

2022.08.0 • Updated Teltonika Configurator version to set Central device default IMEI to 3000000000000000

• Added Recovery mode option

- · Added more options of movement sensitivity threshold [50-1000mG]
- FW was merged into one.
- · SMS command created for getting device statistics
- Protection from writing other devices FW
- Added condition to prevent modem waking • Added I/O element of Recovery Mode up at midnight if scheduler is configured
 - Added reconfiguration mechanism that lets FW work with / without SMPS filterMissing
- Configurator for BLE FW and Backup
 Fixed issue of missing 4th sensor's data with Monitoring operand
 - Fixed too frequent / unnecessary scans with all sensors configured as monitoring
 - Fixed sensors scan starting with monitoring operand when Backup tracker is configured
 - Backup tracker scan not starting right
 - Time synchronization every 24 hours
 - Fixed LBS data sending issue
 - New AVL ID 20015 for Modem UpTime (in seconds)
 - Added response sending if recovery command is sent through GPRS
 - The next periodic record after Recovery mode deactivation being sent with AVL ID 20012 - fixed
 - · Reduced EQ Core update frequency
 - Fixed battery consumption issue when GSM is jammed.
 - LED status changed from constant on to blinking mode to save the battery
 - Added Recovery mode feature
 - Implemented Recovery mode activation from the Backup tracking alarm
 - Added EYE sensors support
 - Fixed Minor bugs regarding the sensors
 - Fixed Short period Recovery Mode records
 - Extended Backup Tracker: Central device IMEI range
 - · Backup tracker: Scanning logic has been changed, scan duration is not configurable anymore, it is up to 60 seconds by default now.
 - Implemented Record timestamp shift feature
 - Fixed BLE sensor records with wrong event ID being sent
 - Fixed BLE sensor record duplicates with On change operand
 - Fixed BLE sensor On Exit record not generating when switching to sleep mode
 - Fixed Custom1 sensor data in SMS being sent as NaN (empty)
 - Fixed duplicate BLE sensor data after waking up
 - Changed required packets amount in backup tracker scenario and minimal scan duration
 - Fixed backup tracker alarm not triggering iust before wakeup
 - Fixed backup tracker not detecting enough packets during BLE scan
 - Periodic records do not affect backup tracker alarm record generation

Firmware 2021.12.2
version: 1
55.00.16.Rev.
522
BlueNRG
version:
10.2.21.Rev.0
1
Configurator
version:
1.7.16_R.TAT1
00.R2

- Improved battery safety features
- Fixed stuck download during FOTA update
- Fixed device not restarting to update FW after FOTA download
- Improved main device packet filtering
- Improved battery voltage measurement
- Fixed the device not restarting after FOTA WEB update when it happens at the same time as periodic record
- Fixed random statistic losses
- Fixed GNSS module status not being accurate in Teltonika Configurator
- Improved static navigation mode
- Fixed scheduler time resync timer not working properly
- Fixed statistic not being deleted from RAM

Firmware 2021.10.1
version: 9
55.00.15.Rev.
519
BlueNRG
version:
10.2.14
Configurator
version:
1.7.16_R.TAT1
00.R2

- Fixed fake movement detection on startup
- Fixed problem when the device is stuck in **On Stop** tracking mode after reconfiguration
- Added Power-On reason data and fixed version changes to device statistics
- Fixed Backup tracker issue where the alarm mode is not immediately activated when the central device disappears
- Fixed empty GSM I/O elements
- Fixed an issue where UTC is added after each reconfiguration
- Added record printing to Dump log
- LBS data is not included in records if GNSS fix was caught
- Fixed NTP timesync failure if offset is zero
- Improved record creation (wake up from sleep) during **Backup tracker** alarms
- Improved GNSS module control with Static Navigation and LBS
- Added prevention from inappropriate record generation if the battery is low (HW watchdog)
- Added statistic element for USB connected uptime
- Added timestamp to BlueNRG serial prints
- Minor improvement for BlueNRG firmware update via configurator
- Added filter for LBS cell_id duplicates
- Improved Bluetooth sensor record creation with 'On Change' operand
- Added Bluetooth sensor support
- Added condition to skip LBS data update if location source is only GNSS
- \bullet Increased retries of AT+# command in order to avoid empty LBS data from modem
- Changed Open link timeout to 15s
- Fixed an issue where the tracking mode would change from the scheduler to periodic
- Improved logic for multiple FOTA Web tasks update in the same connection
- Implemented rule for additional connection to FOTA Web after baseband firmware update
- Added accelerometer version information inside '.info' serial command
- Fixed an issue with battery voltage I/O element when record saving is overlapping with a firmware update
- Fixed Scheduler record sending at midnight
- Fixed missed LBS values inside I/O elements
- Fixed an issue when GNSS speed is not zero while the device is in a stationary position
- General minor improvements

55.00.10.Rev. 509 BlueNRG: 10.2.3_Rev.00 1.7.16_E.TAT1 00_04	2021.05.1	 Added Test Connection button Temporarily removed Secondary Server Settings Tracking Period default value changed to 28800 (s) 	 Implemented Test Connection feature. Added BlueNRG logging to DUMP files Added LBS data logging to DUMP files Added protection that blocks FMB firmware flash to AT devices Added time-sync update with asset purpose command Improved periodic record timer logic Improved battery voltage measurement Improved periodic GPRS data sending while USB is connected to the device Disabled SMPS filter Fixed record sending when movement is triggered at all times Improved NTP time-sync
55.00.05.Rev. 510 BlueNRG: 0.1.7	2020.12.0	 Removed tracking scenarios Removed speed source parameter Removed record saving/sending without TS parameter Removed LED Indication parameter Removed NTP resync parameter 	 Implemented FOTA support. Improved GNSS position capturing. Reworked Periodic and Scheduler tracking counters. Implemented device logging via USB. Implemented statistics acquisition to flash memory.
55.00.05.Rev. 507 BlueNRG: 0.1.5	2020.09.2	 Implemented GNSS Source configuration. Available options: BeiDou, GLONASS, Galileo and GPS. Added I/O elements: Data Mode, GSM Signal, GNSS Status, GNSS PDOP, GNSS HDOP, Speed, GSM Cell ID, GSM Area Code, Battery Voltage, Active GSM Operator, ICCID, Coordinates ISO6709. Added SMS command autorization via Login and Password logic. 	 Implemented 'Codec 8', 'Codec 8 Extended' and 'Codec 12' protocols. Implemented NTP, NITZ and GNSS time synchronization sources. Implemented ability to send GPRS data from device via TCP or UDP channels. Implemented connection to server timeouts. Ported TLS encryption functionality from other Teltonika devices. Implemented Periodic and Scheduler tracking. Implemented BlueNRG firmware update via GPRS. This function will be used to reflash BlueNRG firmware via FOTA WEB. Added GSM number authorization logic.

FMX Firmware compatibility table for Backup Tracker feature

FMX firmware version

From 03.28.0 From 6.Rev.X 03.29.0 X 0.Rev.X **Product** versions (Recom versions Name mended (Develo base pment version **03.28.0** progres 7.Rev.0 3) FMB900

FMB910	+	+
FMB920	+	+
FMC920	-	+
FMM920	-	+
FMB010	+	+
FMB020	+	+
FMT100	+	+
FMB110	+	+
FMB120	+	+
FMB122	+	+
FMB125	+	+
FMB130	+	+
FMC125	(Only older versions with Quectel modems)	+
FMC130	(Only older versions with Quectel modems)	+
FMC13A	-	+
FMM125	+	+
FMM130	+	+
FMM13A	-	+
FMB202	+	+
FMB204	+	+
FMB225	+	+
FMB230	+	+
FMC225	-	+
FMC230	-	+
FMM230	+	+
FMB001	+	+
FMB002	+	+
FMB003	+	+
FMC001	+	+
FMC003	-	+
FMC00A	-	+
FMM001	+	+
FMM003	-	+
FMM00A	-	+
FMB140	+	+
FMB240	+	+

MSP500	-	-
FMB640	-	-
FMC640	-	-
FMM640	-	-