

# TAT100 GPRS settings

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## GPRS Settings



- **APN** - Access point name, mandatory parameter which is used connect to internet (GPRS).
- **APN Username** - Access point username (optional - depending on operator).
- **APN password** - Access point password (optional - depending on operator).

Some operators use specific type of authentication for GPRS session - **CHAP** or **PAP**. If any of these is used, APN should be entered as "chap:<APN>" or "pap:<APN>" respectively e.g. if operator is using APN "internet" with CHAP authentication, it should be entered as "chap:internet".

Information about APN and authentication type should be provided by your GSM operator.

## SMS Record Sending



**Please note:**

- This feature is implemented since firmware version 1.0.0.Rev.00



SMS Record sending feature allows the user to send records via SMS **instead of sending them to the server**. When enabled, device will not open GPRS context, it will not connect to the server resulting in smaller power consumption.

GPRS context will still be opened for connection to Fota or to sync time over NTP if needed.

Each SMS record has a fixed set of information depending the record type.

Record type	Information in SMS
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Example
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\* Record date and time  
Periodic Scheduled \* Record  
On Move Event AVL ID  
Event \* IMEI  
On Stop \* Movement  
Event \* Movement status  
Backup \* Battery  
Tracker voltage  
Recovery \* Location  
Lost information (LBS or GNSS)  
Beacon

2023/05/04 09:39:02  
Event: 0  
IMEI: 350317171419108  
Movement: 0  
Battery: 7.327V  
Lon: 25.260916 Lat: 54.702038 Fix: 0

\* Record date and time  
Sensor or other high priority IO record \* IO that triggered record AVL ID and value  
\* IMEI  
\* Battery voltage  
\* Location information (LBS or GNSS)

2023/05/04 09:55:29  
IO[25]: 2311  
IMEI: 350317171419108  
Movement: 0  
Battery: 7.282V  
Lon: 25.260916 Lat: 54.702038 Fix: 0

\* Record date and time  
Lost Sensor \* Lost sensor AVL ID  
\* IMEI  
\* Battery voltage  
\* Location information (LBS or GNSS)

2023/05/04 09:52:58  
Lost sensor: 463  
IMEI: 350317171419108  
Movement: 0  
Battery: 7.352V  
Lon: 25.260916 Lat: 54.702038 Fix: 0

2023/05/04 10:22:21  
IO[25]: 2325  
IMEI: 350317171419108  
Movement: 0  
Battery: 7.290V  
ID[286] 47  
ID[287] 100  
ID[288] 7233  
ID[289] 34

ID[290] 1  
ID[291] 3680  
ID[292] 32  
ID[293] 1  
ID[294] 3123  
ID[295] 31  
ID[296] 1  
ID[297] 41743  
ID[298] 30  
ID[1200] 1  
ID[1201] 2  
ID[1202] 2

ID[1203] 3  
ID[399] 0

13:22

Record with LBS location All other information as per above

2024/05/06 15:00:30

Tamper: 1

IMEI: 866344055787035

Movement: 0

Battery: 7.776V

Lon: 25.260996 Lat: 54.701973

Fix: 0

Tamper  
events

All other  
information  
as per above

## Server Settings

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  - **Domain** - Server IP or DNS address.
  - **Port** - Server port.
  - **Protocol** - Protocol used for data transfer.
  - **Encryption** - Instructions cover how to generate an encryption certificate and how the device should be configured in order to send encrypted records into the client-server can be downloaded [HERE](#).
- Server configuration and encryption certificate implementation is mandatory from the client-server side. Test Connection** will generate one high-priority test record and initiates connection to the configured server.
- ✘ **NOTE:** configuration must be saved to the device before testing the connection to the server.

## Records Settings

- ✘
- **Sort by** - Here TAT100 device will send the newest records first when **Newest** is selected, which is useful in cases when the most important parameter set is the most recent one, as a result other records will be sent right after the newest records are received by AVL application.
- **ACK Type** - Possible to choose TCP/IP or AVL type
- **First Power On record** - first Power On record is a feature that when enabled sends first record on first manual power-up by switch. It can be turned on/off also by SMS/GPRS command.

### More about First Power On record feature:

This parameter has an ID 199.

When enabled, the device on first power on will perform standard operations like in period record sending - time synchronization, getting GNSS fix, getting LBS data and etc. The time period of time from the moment of switching on the device and record sending strongly depends on configuration and time for fix searching. For example:

- When the tracking source is GNSS, in good conditions (clear sky, antenna pointing upwards) the first record will be sent approximately after 2 minutes from the time the device is turned on.
  - If the location source is LBS only, the record can be received even more quickly - after about 90 seconds.
- Depending on how bad the conditions are, the time to send a record can be significantly longer (a few additional minutes).

#### Note

Some things that should be taken in consideration:

1. Static navigation logic will be ignored for this record.
2. When working with Recovery mode scenario, this first record **will** be an alarm record if *Update frequency* parameter is sufficiently short to generate an alarm before sending a record.
3. When setting *First Power On* record parameter with SMS/GPRS command, it is recommended to send this command **before** turning the device on. Doing it with initial delay after turning on the device may cause unstable behavior.

## FOTA WEB Settings

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These settings are used to configure FOTA WEB server connection parameters.

- **Status** enables or disables FOTA WEB functionality.
- **Domain** - Address of FOTA website.
- **Port** - Port number of FOTA website.

TAT100 device does not connect to FOTA WEB periodically to preserve battery power.

- Device will automatically connect to FOTA WEB only on initial startup (when the switch is flipped from OFF to ON position).
- Connection to FOTA WEB can also be initiated via the 'web\_connect' SMS/GPRS command.

#### Note

TAT devices do not follow the same logic when connecting to Fota platform. A more detailed description of Fota connection can be found [HERE](#).