

# LTE Tracker

# AT Plus 4G2 User Manual

Revision: 1.00

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# 1 Introduction

AT Plus 4G2 is a powerful GPS locator which is designed for vehicle and assets tracking. It works on LTE CATM1 B2/B4/B12 with superior receiving sensitivity. Its location can be real time or schedule tracked by backend server or specified terminals. Based on the embedded wireless tracking protocol, AT Plus 4G2 can communicate with the backend server through LTE network, and transfer reports of emergency, Geo-fencing, device status and scheduled GPS position etc... Service provider is easy to setup their tracking platform based on the functional wireless tracking protocol.

## 2 Product Overview

### 2.1 Appearance



Figure 1-1

### 2.2 Buttons/USB Interface Description

| Button /12PIN Interface Description |                                                                                                                                                                              |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| KEY/interface                       | Description                                                                                                                                                                  |
| <b>Power Key</b>                    | Power on AT Plus 4G2<br>Power off AT Plus 4G2(If power key is enabled)                                                                                                       |
| <b>Function Key</b>                 | SOS mode                                                                                                                                                                     |
| <b>USB interface</b>                | Connected to a charger can power on AT Plus 4G2<br>Backend server developer or administrator can use the debug cable to configure AT Plus 4G2 (by engineer not by end user). |
| <b>Reset Key</b>                    | Click the key will turn off internal VBAT when OS is abnormal, and then press Power Key to restart AT Plus 4G2.                                                              |

## 2.3 LED Description



Figure 1-2

There are four LED lights in AT Plus 4G2 device, the description as following.

| Light     | Event                                          | State      |
|-----------|------------------------------------------------|------------|
| GPS LED   | GPS signal valid                               | Fast flash |
|           | GPS turned off, GPS signal invalid             | Dark       |
|           | Power key was pressed and prepare to power on  | Solid      |
| GSM LED   | Network has been registered                    | Slow flash |
|           | Power off                                      | Dark       |
|           | Power key was pressed and prepare to power on  | Solid      |
| Power LED | Power on and normal                            | Dark       |
|           | Fully charged                                  | Solid      |
|           | In charging                                    | Slow flash |
|           | Power key was pressed and prepare to power off | Solid      |
|           | Power key was pressed and prepare to power on  | Solid      |
| WIFI LED  | WIFI on                                        | Slow flash |
|           | Power key was pressed and prepare to power on  | Solid      |

## 3 Getting Started

### 3.1 Parts List

| Name                   | Picture                                                                            | Remark                                      |
|------------------------|------------------------------------------------------------------------------------|---------------------------------------------|
| AT Plus 4G2<br>Locater |   | The LTE/GPS locator.                        |
| AT Plus 4G2<br>charger |  | It used to be charging for the AT Plus 4G2. |

### 3.2 Battery Charging

*The following items are suggestion for battery charge, please pay more attention.*

- ◆ During the charging process, the Power LED light will slow flash. When the battery is fully charged, the Power LED light will be Ever-dark.
- ◆ You can charge the battery using charging dock which connects AT Plus 4G2 device with the Adapter.
- ◆ Charging will last about 5 hours.

***Note: If the AT Plus 4G2 device is firstly used, please make sure the battery is fully charged, which will make the life of battery much longer.***

### 3.3 AT Plus 4G2 Charger

AT Plus 4G2 is charging with an AC Adapter.

The charger is used for device charging , which can be used for charging at the any time ( by end user)..



Figure 2-1

### 3.4 Power on/Power off



Figure 2-2

Power on:

- ◆ Press the Power key at least 3 seconds and release it to power on AT Plus 4G2 device. Note that, the Power LED light will light for a moment and then turn off.

Power off:

- ◆ Press the power key about 3 seconds; Power LED light will light for a moment and then turn off, which indicates that AT Plus 4G2 device has been powered off.

Note: the user can not power off AT Plus 4G2 if the power key is disabled by protocol.

## 4 Frequency

LTE CATM: Band2、Band4、Band12、Band13

GPS:1575.42MHz

WIFI:2.4GHz(only support receiver function)

BT:2.4GHz(only support receiver function)

## 5 Trouble shooting and Safety info

### 5.1 Trouble shooting

| Trouble                                                             | Possible Reason                                                      | Solution                                                                                                            |
|---------------------------------------------------------------------|----------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| Messages can't be reported to the backend server by Mobile network. | APN is wrong. Some APN can not visit the internet directly.          | Ask the network operator for the right APN.                                                                         |
|                                                                     | The IP address or port of the backend server is wrong.               | Make sure the IP address for the backend server is an identified address in the internet.                           |
| Unable to power off AT Plus 4G2.                                    | The function of power key was disabled by AT+GTFKS.                  | Enable the function of power key by AT+GTFKS.                                                                       |
| Battery can not be charged                                          | The battery has not been used for too long time and has been locked. | Using a external power source with 3.6V to 4.2V DC power supply to active the battery or apply for after sale help. |
| AT Plus 4G2 can't fix GPS successfully.                             | The GPS signal is weak.                                              | Please move AT Plus 4G2 to a place with open sky.                                                                   |
|                                                                     |                                                                      | It is better to let the top surface face to the sky. (The same surface with indication LED)                         |

### 5.2 Safety info

*The following items are suggestion for safety use, please pay more attention.*

- ◆ Please do not disassemble the device by yourself.
- ◆ Please do not put the device on the overheating or too humid place, avoid exposure to direct sunlight. Too high temperature will damage the device or even cause the battery explosion.
- ◆ Please do not use AT Plus 4G2 on the airplane or near medical equipment.

## **FCC Caution.**

### **§ 15.19 Labelling requirements.**

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may

cause undesired operation. **§ 15.21 Information to user.**

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

### **§ 15.105 Information to the user.**

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

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**ISED RSS Warning:**

This device complies with Innovation, Science and Economic Development Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'ISED applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

**WIFI Exposure Information:**

WIFI of this equipment only has reception function.

**Informations sur l'exposition WIFI:**

WIFI de cet équipement a seulement la fonction de réception.

**Radiation Exposure Statement (MPE):**

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

**Déclaration d'exposition aux radiations (MPE):**

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.