WCDMA/GPS Tracker

AT PLUS(3G)
User Manual

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Contents

1 Introduction

AT PLUS(3G) is a powerful GPS locator which is designed for vehicle, pets and assets tracking. With superior receiving sensitivity, fast WCDMA frequencies 850/1900 and GSM frequencies 850/900/1800/1900. Its location can be real time or schedule tracked by backend server or specified terminals. Based on the embedded wireless tracking protocol, AT PLUS(3G) can communicate with the backend server through WCDMA or GSM/GPRS 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/Micro USB Interface Description

Button /Micro USB Interface Description	
KEY/interface	Description
Power Key	Power on AT PLUS(3G) Power off AT PLUS(3G) (If power key is enabled)
Function Key	Geo-Fence mode Long press the key to enable/disable Geo-Fence ID0 Geo-Fence in current position mode Long press the key to enable/disable Geo-Fence ID0. If enable Geo-Fence ID0, using the current position as the centre of Geo-Fence 0. SOS mode (default) Long press the key to active SOS alarm

Micro USB interface	Connect a 3.7V Li-ion or Li-Polymer battery can power on AT PLUS(3G) Backend server developer or administrator can use the data cable to configure AT PLUS(3G)
Reset Key	Click the key will turn off internal VBAT when OS is abnormal, and then press Power Key to restart AT PLUS(3G).

2.3 LED Description

Figure 1-2

There are four LED lights in AT PLUS(3G) device, the description as following.

Light	Event	State
Power LED	Power on and normal	Dark
	Fully charged	Solid
	In charging	Slow flash
WCDMA LED	Power on and normal	Slow flash
	Power off	Dark
WIFI LED	WIFI on	Slow flash
	WIFI off	Dark
GPS LED	GPS fixed	Fast flash
	GPS has been turned off	Dark

3 Getting Started

3.1 Parts List

Name	Picture	Remark
AT PLUS(3G) Locater		The WCDMA/GPS locator.
AT PLUS(3G) Data and charger Cable		It the USB data cable which can be used for firmware upgrading and configuration. It also includes the charger interface on the AT PLUS(3G).

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 solid. When the battery is fully charged, the Power LED light will be Ever-light.
- You can charge the battery using USB cable which connects AT PLUS(3G) device with the PC.
- Charging will last about 5 hours.

Note: If the AT PLUS(3G) 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(3G) Data Cable

AT PLUS(3G) Data Cable is a cable with a Micro USB connector.

The USB data cable is used for data download, which will be used for firmware update or configuration and can be used for charging at the same time.

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(3G) device. Note that, the Power LED light will fast flash.

Power off:

- Press the power key about 3 seconds; Power LED light will fast flash and then turn off, which indicates that AT PLUS(3G) device has been powered off.

Note: the user can not power off AT PLUS(3G) if the power key is disabled by protocol.

4 Trouble shooting and Safety info

4.1 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(3G).	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(3G) can't fix GPS successfully.	The GPS signal is weak.	Please move AT PLUS(3G) to a place with open sky.
		It is better to let the top surface face to the sky. (The same surface with indication LED)

4.2 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(3G) on the airplane or near medical equipment.

FCC Statement

1. 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.

(2) This device must accept any interference received, including interference that may cause undesired operation.

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

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.

SAR Information Statement

Your wireless phone is a radio transmitter and receiver. It is designed and manufactured not to exceed the emission limits for exposure to radiofrequency (RF) energy set by the Federal Communications Commission of the U.S. Government. These limits are part of comprehensive guidelines and establish permitted levels of RF energy for the general population. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons, regardless of age and health. The exposure standard for wireless mobile phones employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6 W/kg. * Tests for SAR are conducted with the phone transmitting at its highest certified power level in all tested frequency bands. Although the SAR is determined at the highest certified power level, the actual SAR level of the phone while operating can be well below the maximum value. This is because the phone is designed to operate at multiple power levels so as to use only the power required to reach the network. In general, the closer you are to a wireless base station antenna, the lower the power output. Before a phone model is available for sale to the public, it must be tested and certified to the FCC that it does not exceed the limit established by the government adopted requirement for safe exposure. The tests are performed in positions and locations (e.g., at the ear

and worn on the body) as required by the FCC for each model. and when worn on the body, as described in this user guide, is **1.234W/Kg**(Body-worn measurements differ among phone models, depending upon available accessories and FCC requirements). While there may be differences between the SAR levels of various phones and at various positions, they all meet the government requirement for safe exposure. The FCC has granted an Equipment Authorization for this model phone with all reported SAR levels evaluated as in compliance with the FCC RFexposure guidelines. SAR information on this model phone is on file with the FCC and can be found under the Display Grant section of http://www.fcc.gov/ oet/fccid after searching on
FCC ID: **ZKQ-PLW**Additional information on Specific Absorption Rates (SAR) can be found on the Cellular Telecommunications Industry Asso-ciation (CTIA) web-site at http://www.wow-com.com. * In the United States and Canada, the SAR limit for mobile phones used by the public is 1.6 watts/kg (W/kg) averaged over one gram of tissue. The standard incorporates a sub-stantial margin of safety to give additional protection for the public and to account for any variations in measurements.

Body-worn Operation

This device was tested for typical body-worn operations. To comply with RF exposure requirements, a minimum separation distance of **5mm** must be maintained between the user's body and the handset, including the antenna. Third-party belt-clips, holsters, and similar accessories used by this device should not contain any metallic components. Body-worn accessories that do not meet these requirements may not comply with RF exposure requirements and should be avoided. Use only the supplied or an approved antenna.