

GSM/GPRS/GPS Tracker

Prime At Lite User Manual

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1 Introduction

Prime At Lite is a powerful GPS locator which is designed for vehicle, pets and assets tracking. With superior receiving sensitivity, fast TTFB 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, Prime At Lite can communicate with the backend server through GPRS/GSM 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/Mini USB Interface Description

Button /Mini USB Interface Description	
KEY/interface	Description
Power Key	Power on Prime At Lite Power off Prime At Lite (If power key is enabled)

Function Key	<p>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</p>
Mini USB interface	<p>Connect a 5V DC adapter can power on Prime At Lite and charge the internal battery Connect a 3.7V Li-ion or Li-Polymer battery can power on Prime At Lite Backend server developer or administrator can use the Data_Cable_M to configure Prime At Lite</p>
Reset Key	<p>Click the key will turn off internal VBAT when OS is abnormal, and then press Power Key to restart Prime At Lite. <i>Note: Reset key is invalid when external battery is used.</i></p>

2.3 LED Description



Figure 1-2

There are three LED lights in Prime At Lite device, the description as following.

Light	Event	State
GPS LED	GPS fixed failed	Slow flash (blue)
	GPS has been turned off	Dark
GSM LED	Network has been registered	Slow flash (green)
	Power off	Dark
Power LED	Power on and normal	Dark
	Fully charged	Slow flash (green)
	In charging	Slow flash (red)

	Power key was pressed and prepare to power off	Fast flash (red)
	Power key was pressed and prepare to power on	Fast flash (green)

2.4 External Power Interface

2.4.1 External DC Charger Interface

The Pin2 on Mini-USB connector is used for charging and named as VCHG pin, which can be connected to 5V DC power source to power on Prime At Lite device and charge the current battery.

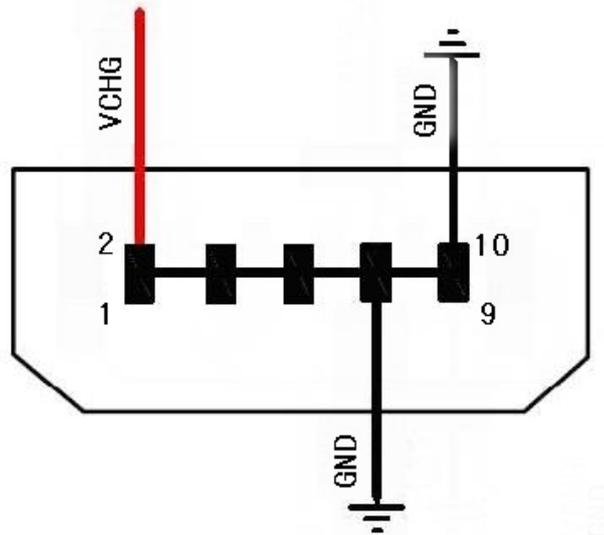


Figure 1-3

PIN NO.	NET NAME	FUNCTION
PIN1	NC	Not used
PIN2	+5V	VCHG +5V input
PIN3	NC	Not used
PIN4	NC	Not used
PIN5	NC	Not used
PIN6	NC	Not used
PIN7	GND	Ground
PIN8	NC	Not used
PIN9	NC	Not used
PIN10	GND	Ground

2.4.2 External Battery Interface

The Pin 8 and Pin9 on Mini-USB connector are used for external battery and named as EXTBAT pin, which can be connected to 3.7V Li-ion or Li-Polymer battery to power on Prime At Lite device.

The Pin6 on Mini-USB connector is used for external battery interrupt detection and named as EXT_VBAT INT, which must be connected to GND for EXT_VBAT detection.

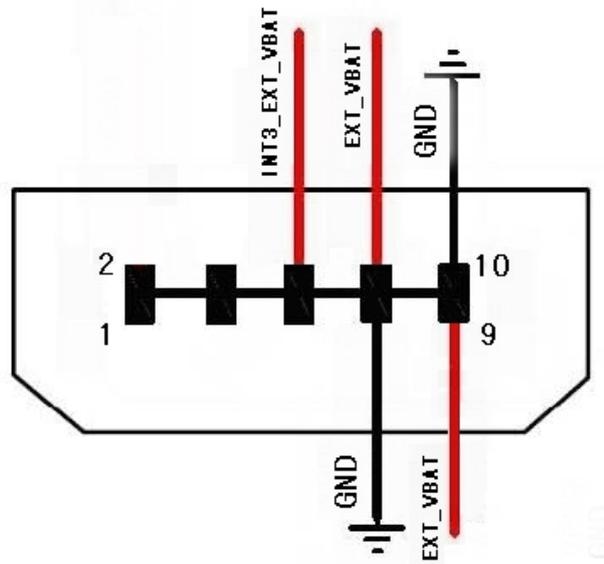


Figure 1-4

PIN NO.	NET NAME	FUNCTION
PIN1	NC	Not used
PIN2	NC	Not used
PIN3	NC	Not used
PIN4	NC	Not used
PIN5	NC	Not used
PIN6	INT3_EXT_VBAT	external battery interrupt detection
PIN7	GND	Ground
PIN8	EXT_VBAT	for external battery
PIN9	EXT_VBAT	for external battery
PIN10	GND	Ground

3 Getting Started

3.1 Parts List

Name	Picture	Remark
Prime At Lite Locater		The GSM/GPRS/GPS locator.
AC-DC Power Adapter		It is used to charge the internal battery of Prime At Lite.
Prime At Lite 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 Prime At Lite.

3.2 Battery Charging

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

- ◆ Please connect AC-DC power adapter with Prime At Lite device.
- ◆ Insert the AC-DC power adapter into the power socket.
- ◆ During the charging process, the Power LED light will flash fast. When the battery is fully charged, the Power LED light will be Ever-light.
- ◆ You can also charge the battery using USB cable which connects Prime At Lite device with the PC.
- ◆ Charging will last about 5 hours.

Note: If the Prime At Lite device is firstly used, please make sure the battery is fully charged, which will make the life of battery much longer.

3.3 Prime At Lite Data Cable

Prime At Lite Data Cable is a cable with a Mini 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 How to insert SIM Card



Figure 2-2

Step1: pull out the cover of SIM card..

Step2: insert the SIM card into the slot of the device according to the direction as

shown.

Step3: push the cover back.

3.5 Power on/Power off



Figure 2-3

Power on:

- ◆ Press the Power key at least 3 seconds and release it to power on Prime At Lite 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 Prime At Lite device has been powered off.

Note: the user can not power off Prime At Lite 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 GPRS.	The SIM card in Prime At Lite doesn't support GPRS.	Try a GPRS supported SIM card.
	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 Prime At Lite.	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.
Prime At Lite can't fix GPS successfully. GPS LED flashes slowly.	The GPS signal is weak.	Please move Prime At Lite 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 Prime At Lite on the airplane or near medical equipment.

FCC RF Exposure Information and Statement

The SAR limit of USA (FCC) is 1.6 W/kg averaged over one gram of tissue. Device types AT Lite (FCC ID: Z24-ATL) has also been tested against this SAR limit. The highest SAR value reported under this standard during product certification when properly worn on the body is 0.770W/kg. This device was tested for typical body-worn operations with the back of the handset kept 1.5cm from the body. To maintain compliance with FCC RF exposure requirements, use accessories that maintain a 1.5cm separation distance between the user's body and the back of the handset. The use of belt clips, holsters and similar accessories should not contain metallic components in its assembly. The use of accessories that do not satisfy these requirements may not comply with FCC RF exposure requirements, and should be avoided.

FCC WARNING

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.

NOTE 1: 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.

NOTE 2: Any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

NOTE 3: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.