

LTE Tracker

Bolt Mini 2A User Manual

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1 Introduction

Bolt Mini 2A is a powerful GPS locator which is designed for vehicle and assets tracking. It works on LTE CATM1 B2/B4/B12/13 with superior receiving sensitivity. Its location can be real time or schedule tracked by back-end server or specified terminals. Based on the embedded wireless tracking protocol, Bolt Mini 2A can communicate with the back-end server through LTE network, and transfer reports of emergency, Geo-fencing, device status, WiFi information, IBeacon data 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



Figure 1-2

2.2 Key/USB Interface Description

Button /12PIN Interface Description	
KEY/interface	Description
Power Key	The Bolt Mini 2A can be powered on by putting the switch to “On”.
USB interface	Connected to a debug cable can change configure to Bolt Mini 2A Back-end server developer or administrator can use the debug cable to configure Bolt Mini 2A (by engineer not by end user).

2.3 LED Description




Figure 1-2

There are four LED lights in Bolt Mini 2A device, the description as following.

Light	Event	State
GPS LED	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
	Power key was pressed and prepare to on or prepare to power off	Solid

3 Getting Started

3.1 Parts List

Name	Picture	Remark
Bolt Mini 2A Locater		The LTE/GPS locator.

3.2 Battery Charging

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

Note: The Bolt Mini 2A device cannot be charged, It is recommended to use standard AA battery for the device.

3.3 Power on/Power off



Figure 2-2

Power on:

- ◆ The Bolt Mini 2A can be powered on by putting the switch to “ON”.

Power off:

- ◆ The Bolt Mini 2A can be powered off by putting the switch to “OFF”.

3.4 How to use

- 3.4.1 Insert a 4G SIM into the product
- 3.4.2 Insert 8 AA batteries into the device as per indications .
- 3.4.3 The Bolt Mini 2A can be powered on by putting the switch to “ON”.
- 3.4.4 BLE

Use the USB cable to configure the software of the product (the software will define that the product will automatically open BLE function). After the BLE is opened, it will search for the ibeacon of the nearby BLE signals. After searching, the signals will be sent to the background terminal through the LTE function of the product, and the background terminal will locate the signal.

- 3.4.5 2.4G WIFI

Use the USB cable to configure the software of the product (the software will define that the product will automatically open WIFI function). After WiFi is turned on, the MAC address of the nearby WiFi signal will be searched; the signal will be sent to the background terminal through LTE function of the product, and the background terminal will locate the signal.

- 3.5.6 433Mhz

Use the USB cable to configure the software of the product (the software will define that the product will automatically open 433 function; For example, we can send a signal once in 15 seconds). Use another 433 receiver to detect this signal. If it can be received, then it can be determined that the product is in this area.

4 Frequency

LTE: Band2、Band4、Band12、Band13

GPS:1575.42MHz

WIFI:2412-2462MHz

BLE: 2402-2480MHz

433:433.5MHz

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 Bolt Mini 2A.	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.
Bolt Mini 2A can't fix GPS successfully.	The GPS signal is weak.	Please move Bolt Mini 2A 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 Bolt Mini 2A on the airplane or near medical equipment.

FCC Caution.

This device complies with part 15 of the FCC Rules. Operation is subject to the condition that this device does not cause harmful interference.

(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.

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.