

# LL301 LTE CAT1 ASSET GNSS TRACKER

## User Manual Version:V1.0

Read this manual carefully prior to use to ensure fast and correct operation of the product. No prior notice will be given for any changes made to the appearance, color, or accessories of the product.

### Introduction

#### Features

- Power saving
- Multi-GNSS positioning
- Large-capacity battery
- Remote listening
- Tamper alert
- Cover removal alert
- Humidity and temperature detection and alert
- IPx4 protection

#### Specification

##### Communication system:

<b>LL301E</b>	LTE FDD : B1//B3/B7/B8/ B20/B28
	GSM: 900/1800MHz

<b>LL301L</b>	LTE FDD : B1/B2/B3/B4/B5 /B7/B8/B28/B66
	GSM: 850/900/1800/1900MHz

<b>GNSS accuracy</b>	<10m
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<b>Listening range: ≤5m</b>	≤5m
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<b>Operating current: &lt;30mA</b>	<30mA
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<b>LEDs</b>	1*Red (work status) and 4*Blue (battery level)
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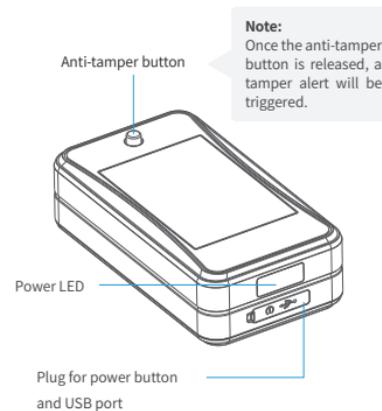
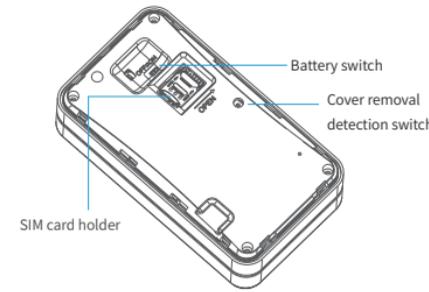
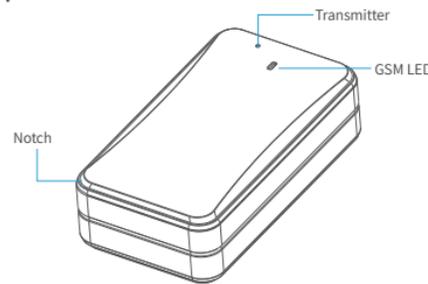
<b>Operating temperature</b>	-20°C to +70°C
<b>Dimensions (LxWxH)</b>	108x61x30mm

#### Packing List

Standard			
Name	Unit	Qty	Remarks
Tracker	PCS	1	/
User Manual	PCS	1	/
Charging cable	PCS	1	/
3M Tape	PCS	1	/
Bracket	PCS	1	/

**Note:** Please check the received package against the packing list. The contents are subject to actual items. As the product is in constant upgrade, no prior notice will be sent to you for any update in this User Manual.

#### Appearance



**Note:** Once the anti-tamper button is released, a tamper alert will be triggered.

#### GSM LED

Status	Meaning
Fast blink	GSM initializing/No GSM signal/ No SIM card
Slow blink	Logging in to platform
Solid on	Device in a call

**Note:** The GSM LED goes off 3 minutes later after the device is turned on. The GSM LED will light up by short pressing the power button of the device in the power-on state and go off after 60 seconds.

#### Power LED

If the device is charging, then:

Strength	LED1	LED2	LED3	LED4
0-25%	1s-1s (on-off)	Off	Off	Off
25-50%	On	1s-1s (on-off)	Off	Off
50-75%	On	On	1s-1s (on-off)	Off
75-96%	On	On	On	On
Charging complete	On	On	On	On

If the device is not charging, then:

Strength	LED1	LED2	LED3	LED4
Undervoltage	Off	Off	Off	Off
0-25%	On	Off	Off	Off
25-50%	On	On	Off	Off
50-75%	On	On	On	Off
75-100%	On	On	On	On

**Note:** The power LED goes off 3 minutes later after the device is turned on. The power LED will light up by short pressing the power button of the device in the power-on state and go off after 20 seconds.

#### Notes on Work Modes

① Timed mode: In this mode, the device uploads position fixes at a fixed interval, which is configured via the location service platform or mobile app specified by your dealer.

② Smart mode (default): In this mode, the device tracks the vehicle in real-time, records the trips of the vehicle, and can differentiate moving state from parking state. If the vehicle moves, the GPRS connection is persistent and the device will upload a position fix every 20 seconds. If the vehicle stops, the device will enter the sleep mode and no position fix will be uploaded.

③ Long standby mode: The device will wake up at a certain configured interval to upload position fixes. After each upload is complete, the device will enter deep sleep and will not execute any remote query or set actions.

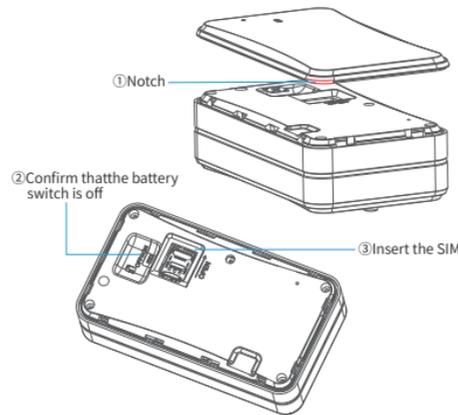
#### Tamper Alert

When the device is attached to a vehicle, the anti-tamper button will remain press-down. If the device is detached, the anti-tamper button

will spring back, which will trigger the device to send out a tamper alert. In the long standby mode, the device will enable tracking for 20 minutes after the alert message is sent out. The tamper alert feature can be disabled by command.

### Cover Removal Alert

When the front cover of the device is in place, the cover removal detection switch will remain press-down. If the cover is opened, the switch will spring back, which will trigger the device to send out a removal alert. In the long standby mode, the device will enable the smart mode for 20 minutes after the alert message is sent out. The removal alert can be disabled by command.



### Attaching SIM and Description about Power-On and -Off

Tips:

1. Activate GPRS and SMS services of the SIM card.
2. Power off the device (battery switch to OFF) before attaching or detaching the SIM card.

### Attaching the SIM Card

Remove the back cover by the notch, slide the battery switch to OFF, and insert the SIM.

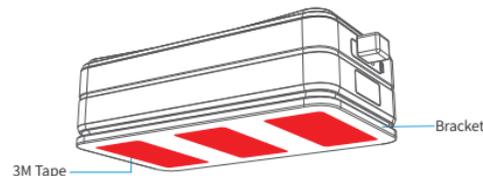
### Power-On and -Off

Power-on: Press the power button for 3 seconds (prerequisite: the battery switch is ON).  
Power-off: Press the power button for 3 seconds.

### Installing the Device

The device has a strong magnet built inside. It can attach to any ferromagnetic material. The magnet makes the installation easy.

Or you can stick the 3M tapes on one side of the device bracket, and attach the bracket to the target object, then put the device on the bracket.



### Platform Operations

After binding the device on the location service platform or mobile app designated by the dealer, you can monitor it, configure it, and do more to it via the platform or app.

### Logging In to Service Platform

You can configure and control the device via the designated location service platform.

### Downloading Mobile App

You can download the mobile app via the URL provided by your dealer.

### Precautions

Please use batteries and accessories specified by the manufacturer of the device; otherwise, the warranty will become void.

The manufacturer of the device shall bear no warranty liabilities for any damage resulted from the use of non-original accessories.

Do not soak the battery in water or expose it to fire. Do not bend or forcibly open the battery.

Do not disassemble the battery as the device may be damaged if the disassembly is done improperly by a non-professional.

### Troubleshooting

When a problem arises, you can troubleshoot it by the following solution. If the problem persists, please don't hesitate to contact your dealer or service provider.

Common Issues	Possible Causes	Solutions
Poor signal	The device is used in an area where radio waves is hard to reach, such as near high-rise buildings or in a basement.	Try it in a place where satellite signals can be well received.
Power-on failure	No SIM	Insert a SIM.
	Battery switch is not set to ON. The battery is exhausted.	Slide the battery switch to ON. Charge the device.
Failed to access the network	The SIM card may be attached improperly.	Check the SIM.
	The metal side of the SIM card is stained.	Wipe it with a clean cloth.
	The SIM is invalid.	Please contact your network service provider.
	The device is out of service areas. The signal is extremely weak.	Try it in a service area. Try it in an area with strong signals.
Failed to query a location	The SIM is not activated with data service.	Please contact your network service provider and activate the data service.
	The device keeps replying with "No data found, please try again".	Please contact your dealer.

### Warranty Instructions and Service

#### Special Statement

- ① No prior notice will be given if the product is upgraded due to technological reasons.
- ② The appearance or color of the product is subject to the actual.
- ③ The warranty card applies to the services of repair, replacement, and refund of the product with the following IMEI.
- ④ Please keep this warranty card and the original purchase receipt together in a safe place, as these will be needed at time of services.

#### Warranty Terms

For damages not caused by human factors, this warranty lasts for 2 (two) years (including one-year replacement service) from the date of the original purchase.

You can choose to pay for the repair services in any of the following cases:

- ① The warranty card expires;
- ② No warranty card or valid proof of purchase;
- ③ The product, including its accessories, is not in the warranty period;
- ④ Damage caused by unauthorized repairs, crash, liquid spillage, incident, accident, modifications, or incorrect voltage input; or the label, IMEI, or counterfeit mark of the product is broken or scribbled;
- ⑤ Damages caused by installation or use not in accordance with the user manual;
- ⑥ Damage caused by force majeure such as fire, flood, or lightning;
- ⑦ The device model is inconsistent with the warranty card or the warranty card has been altered;
- ⑧ Other damages caused by force majeure.

#### Reminder

##### For vehicle trackers:

As of January 1, 2016, the warranty lasts for 2 (two) years for repair from the date of purchase, including one year for replacement.

##### The specific terms are:

A full replacement, including accessories, if the product is found defective during unpacking check;

##### If a defect occurs within one year after installation, then:

- ① Replace only the mainboard if the housing is intact and doesn't affect normal use; or
- ② Replace the housing and the mainboard if the housing is defective and affects normal use (Please be noted that man-made damages will void the replacement service for the housing).

Free repair services will be given to the product if a defect is found during the second year under proper use.

### FCC warning

Any 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.

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.

This equipment complies with RF radiation exposure limits set forth for an uncontrolled environment.

This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body