



深圳市龙桥科技发展有限公司

SHENZHEN DRAGON BRIDGE TECHNOLOGY LTD COMPANY

Application :Rental cars, insurance cars, trucks, buses

Wireless Fleet management Solution Innovator

GSM/GPRS/GPS Tracker

User Manuel

LTS-100DS-4G (20000mah)



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1 Introduction

1.1 product description

The LTS-100DS-4G is a 4G wireless communication technology which is a 4G intelligent information acquisition terminal built for the car network, which combines 4g all-network wireless communication technology and gps/bds satellite navigation and positioning technology. The terminal adopts industrial-grade high-integration full-built antenna design, equipment built-in 3-axis sensor, intelligent power-saving wake-up work. With remote pickup, vibration alarm, overspeed alarm, demolition alarm and other functions. Three modes can be set to meet the customer's various application scenarios, and the user can send instructions to switch the working mode. With the global positioning service platform, anytime, anywhere can be found to the location of the equipment.

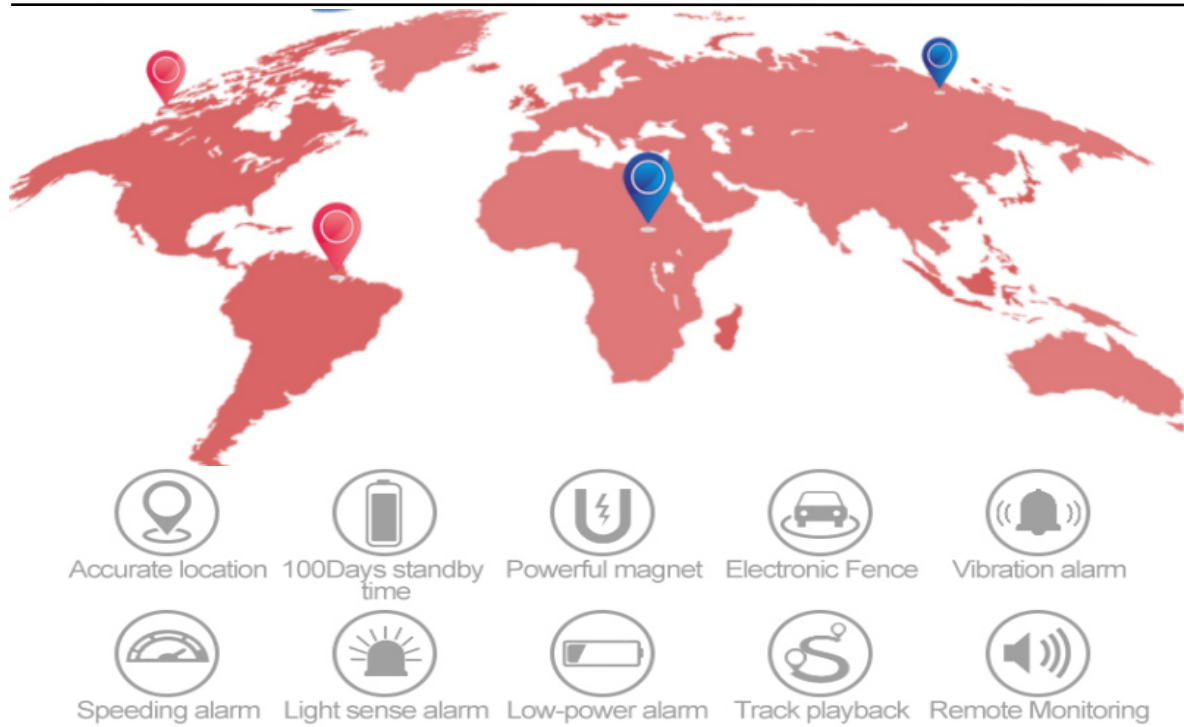
2 Product Overview

2.1 Product accessories

Items	description
Main device	 <p>尺寸: 121*65*49mm</p>

2.2 Interface Definition

Host interface



2.3 Device LED light status

2.3.1 Red LED (Power supply/Charging indicator)

Light status	Meaning
light	charging
off	Finished/not charging/Power off

2.3.2 Yellow LED(GSM signal)

Light status	Meaning
Quick flash 1 time within 2 seconds	GSM initialization
light	GPRS normal communication/online
off	GSM sleep/power off

2.3.3 Blue LED (GPS signal)

Light status	Meaning
Quick flash 1 time within 2 seconds	GPS signal searching
light	GPS location finished
off	GPS sleep/power off

2.4 Parameters

	Function name	Project function description
Electrical characteristics	Power supply	Battery powered
	Operating voltage range	DC 3.4V-4.5V
	Working current	4V/average 50mA
	Sleep current	4V/less than 1mA
	Built-in battery capacity	200000 mAh (3.7V polymer battery)
Environmental characteristics	range of working temperature	-20°C-75°C
	Storage temperature range	-30°C-80°C

istics	Working humidity range	10%-85% RH Non-condensing	
Communication characteristics	Communication module brand/chip model	QUECTEL EC20/EC25, SIMCOM (depends by country)	
	Communication frequency band	LTE/4G	FDD-LTE:B1/B3
			TDD-LTE:B38/ B39/ B40/ B41
		3G	WCDMA :B1
			TD-SCDMA:B34/B39
			EVDO/CDMA2000 1x:BC0
	GSM/EDGE/2G	B3/B8	
	SIM card	Micro SIM card	
Communication antenna	Built-in antenna		
Antenna specification	FPC antenna		
GPS/BD positioning characteristics	Positioning module brand/chip model	Zhongke Micro AT6558D	
	Targeting	Beidou+GPS	
	Cold start time	32 seconds on average	
	Hot start time	Average 1 second	
	Tracking sensitivity	-162 dBm	
	Positioning antenna	Built-in antenna	
	Antenna specifications	18mm * 18mm * 4mm	
	GPS frequency band	L1: 1575.42±1.023MHz	
	Beidou frequency band	B1: 1561.098±2.046MHz	
	Number of satellite channels	50	
	positioning accuracy	<10m (1σ)	
	Timing accuracy	<30ns (1σ)	
	Speed measurement accuracy	<0.1m/s (1σ)	
	Maximum acceleration	4g	
	Maximum speed	515m/s	
maximum height	18000m		
External interface	Light-sensitive	Built-in photosensitive sensor	
	microphone	Built-in microphone	
Form factor	Host size (length, width, height)	121mm * 65mm *49mm (20000mA)	
	shell material	ABS plastic	
	Host weight	360 g (20000mA)	

2.5 Function

Location inquiry,
 Geo-fence,
 vibration alarm,
 over-speed alarm,
 historical route playback,
 remote voice recording,
 remote monitor.

2.6 Working Theory

Normal mode:

The position is transmitted once in 30 seconds by default in the working state, and it enters the standby state after 5 minutes of inactivity. The device in the standby state

A heartbeat is transmitted in 5 minutes to keep the server connected, and the vibrating device can wake up to work.

Power-saving mode:

the working state will transmit the position once every 30 seconds by default, and enter the dormant state after 2 minutes of inactivity. The device will not be in the dormant state.

Transfer data, disconnect the server to save power, and vibrate the device to wake up to work.

Smart mode:

set the data upload interval, the device will work according to the set interval time, each working 2 minutes, non-working time

The device is in a sleep state and cannot be awakened by vibration.

The above default state description:

Working status: The working light of the equipment is on, and GPRS and GPS are both in working status.

Standby state: The device transmits heartbeat, GPRS works (heartbeat data upload), and GPS does not work.

Sleep state: The device is in a sleep state, and GPRS and GPS are not working.

3 Installation instructions

3.1 Preparation before installation:

1. Open the box and check whether the device and the accessories are complete, otherwise please contact your dealer.

2. SIM card selection, the device works with Micro SIM card, and support full Netcom band.

3. SIM card installation, there is a small back cover on one side of the terminal, push out the small back cover, pick up the metal cover of the SIM card slot, put the SIM card chip down into the card slot, and cover the metal cover of the card slot.

Note: (1) Before installing or removing the SIM card, please switch off the device;

(2) Should activate the GPRS function of the SIM card;

(3) Should activate the caller ID function; (activate or not according to the functions you chose.)

(4) If your SIM card required you to input the SIM PIN, please refer to your mobile phone user manual to turn off the SIM PIN function.

(5) Please ensure that the SIM card is valid.

3.2 Installation

We recommend a hidden installation, and we suggest that you ask a professional organization designated by the dealer. Please note the following:

1, Hidden installation, pay attention to waterproof;

2, Do not put together with the launch source, such as reversing radar, anti-theft device or other in-vehicle communication equipment;

3, GSM antenna and GPRS antenna were built-in the device, make sure that the GPS receiving surface (GPS antenna surface without label) is upward (toward the sky), and there is no metal shielding on the top.

Recommended installation location:

(1) Inside the decorative frame under the front windshield of the car;

(2) Areas around the front dashboard of the car (non-metallic material surface);

(3) Under the decorative plate of the rear windshield of the car;

(4) Inside the car door or the middle column;

(5) Inside the instrument panel or under the rear seat of the electric bicycle/motorcycle

When installing, the GPS antenna surface should face the sky. There should be no electromagnetic wave absorber (such as metal or explosion-proof film).

3.3 Tracking Platform

3.3.1 web platform

<http://www.18gps.net/> / IP: 58.61.154.231:7018

APP:

<http://www.18gps.net/app/yunzhixing/mobiledownload.html>

3.3.2 SMS commands and instructions:

Send SMS command from user' s SIM card number to the SIM card number which inside the GPS device.

The commands in the following SMS command list are in English input format, and the letters are case-sensitive according to the instruction requirements.

Common inquiry	SMS command format	Device reply
Center number setting	101#13712345678#	OK
Device status query	CXZT	Version, ID, IP, etc...
Chinese address inquiry	123	Chinese address
Latitude and longitude link query	G1234	Google map link
Reset the device	CQ	system reset OK!
Restart GPS	CQGPS	GPS reset OK!
Restore factory settings	FORMAT	OK
APN setting	apn123456 cmnet	SET APN OK
APN user name	apnuser123456 user	SET APNUSER OK
APN password	apnpasswd123456 password	SET APNPASS OK
ignition/motion upload interval	freq,123456,20	OK
Revise Server IP	IP+blank+IP+blank+port Example: IP 106.3.230.234 8185	set IP OK

4 APP Operation

4.1 Login location service platform

Users can login to the global positioning service platform provided by the dealer, to check the location and status of the vehicle, and perform corresponding operations. Please consult your dealer for the service platform website.

Platform login on computer:

For individual users, please login with the device ID number. The ID number is on the device body and also on the package box. When logging in to the platform, please select IEIM/License number to log in. The default password is: 123456

Enterprise users and fleet users please select the username to log in. User name and password are set by the dealer, please contact your dealer for distribution!

Android APP download, please scan the QR code on the computer, and if Apple mobile phone, please search the APP name in the App store.

4.2 Login page operation introduction

Login and add the device into the device list, then you enter the app home page, users can check battery level, location time, motion status, motion direction, speed, address resolution and other information of the device. Click on “Real Time Tracking”, “Historical route” etc...

4.3 Real-time tracking operation introduction

4.3.1 Real-time monitoring:

Click the “Real-time Tracking” icon to enter the corresponding page, then can check the vehicle running status, driving route, speed, direction and other information in real time.

4.3.2 Historical route:

Playback of the historical route of the device on a certain day or a period of time (suggest no more than 7 days, otherwise the amount of data loaded will be too large)

4.3.3 Click "Select Date" to pop up the calendar:

IOS long press on the calendar to enter the multi-day selection mode and that day is the start date, press and hold another day as the end date to view the historical track during the period; Android click and select the range and click on the right

4.4 Introduction of commands

4.4.1 Vibration alarm on:

if this command sent successfully, if there are vibration, will receive alarm message.

4.4.2 Vibration alarm off:

Turn off the vibration alarm function.

4.4.3 Main control number:

Receive alarm call, alarm SMS.

4.4.4 S O S number:

Receive SOS cal, if the device support.

4.4.5 Pass-through:

Send SMS commands through the APP.

4.4.6 Smart mode:

Upload data according to the pre-set time interval, other time does not work, device will not upload position even though vibration.

4.4.7 Normal mode:

If there is vibration or movement, the data is uploaded every 30 seconds (default). Without vibration or movement, the device automatically enters into the power saving mode, the GPS is turned off, and the device is not offline.

4.4.8 Power saving mode:

No vibration or movement, the device automatically enters into the power saving mode, turns off GPS and GPRS, and the device is offline.

4.4.9 Voice control recording:

no

4.4.10 Simultaneous Location:

no

4.4.11 Upload interval:

Set the working status upload interval (unit: second), the default interval is 60 seconds.

4.4.12 Remote restart:

The device will restart automatically after clicking the command.

4.4.13 Remote shutdown:

no

5 Trouble shooting

If the device can't be connected to the background server after first time installation, and the background server shows it is offline, please check the installation correct or not.

If you have any questions for the operation, please refer to the following questions and solutions; if you still can't solve the problem, please contact your dealer.

Common Problems	Reasons	Solutions
Poor signal	Test at areas where there are high buildings or underground parking lots, where radio waves cannot be sent or received normally.	Use it at a good signal place
platform shows device not activated after first installation	Main power supply connected correct or not	Do not connect to the main control line of the vehicle
	SIM inserted not correct	Check the SIM card
	LED status	Check if the indicator is blinking or steady
	SIM without GPRS activated or SIM card out of charge.	Please contact carrier to activate GPRS or charge
Platform map shows incorrect location	GPS no location	Please go to outdoor place where GPS signal good
	Vehicle did not move after installation	Please drive the vehicle on the road
	ACC connected or not	Connect the device and turn on ACC
Platform shows the main power disconnect	Poor power supply connection	Check whether the power supply line of the device connected correct or not
Platform shows device offline	SIM card out of charge of GPRS was canceled	Please check your SIM card
	Weak signal area	Please try again at good signal area