



User Manual(NT06E)

GPS Talks



Declaration

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GPS Talks

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Chapter 1 Product Photo



Chapter 2 Product Features

- 1、 No wired needed, easy for installation
- 2、 This product is with built-in large-capacity disposable lithium-ion battery ,with ultra-low self-discharge rate and extremely wide temperature adaptability.(The normal lithium battery could only work under temperature $0^{\circ}\text{C}\sim 70^{\circ}\text{C}$)
- 3、 Long battery time: If upload packet once a day with GPS priority, the battery time can reach up to 5 years or even above without charging required
- 4、 Ultra low consumption: The working current can reach 15uA below while in sleep mode, to make sure the device can work long enough
- 5、 Built in strong magnetic to ensure the product to stick firmly on the metal interface, easy to install and conceal, it supports tamper alarm too
- 6、 Multiple position mode: GPS、 AGPS、 LBS
- 7、 Temperature monitor
- 8、 IP67 Waterproof

Chapter 3: Technical Specification

3.1 【Main Unit Parameter】

Characteristic	Description
Built in battery specification	Disposable Lithium-ion battery and (3.6V, 8100mAh) and ultra-low discharge rate: less than 1%
Power consumption	Average working current <100mA; Power save current <15uA;
Dimension	81mm*66mm*33mm (L*W*H)
Weight	193±5g
Working Temperature	-20℃~70℃
Humidity	5%~95%
Frequency	GPRS: 850/900/1800/1900MHz Cat.M1/Cat.NB1: LTE FDD B1/B2/B3/B4/B5/B8/B28
GNSS	GPS L1:1575.42MHz,C/A Code BD B1: 1561.098MHz



Chapter: 4 Functions

4.1 [Basic function]

4.1.1 Tracking

The default setting is upload once a day, the upload packet information includes: Position status, longitude and latitude, network signal Strength, satellite numbers, battery voltage etc, the upload interval can be configured either by SMS or through tracking platform software

4.1.2 AGPS

When the device successfully registers on network, AGPS is enabled to speed up the position speed and improve the position accuracy

4.1.3 LBS

The default position mode is by GPS, however when device enters into the blind zone and GPS cannot be fixed, the device will switch to LBS position, LBS provides the reference location which is might not accurate

4.1.4 Blind zone compensate

When the device enter into blind zone when in sleep mode, it will store the trace data according to the preconfigured time interval and it will upload the data in the blind zone to the backend when the network resume.

4.1.5 Intelligent track

If the assets are stolen or in other emergency cases occurred and shorter upload is required, a SMS or a OTA command can be sent, when the device wake up next time, it will receive this command and enter into track mode, and upload the location data according to the preconfigured interval



4.1.6 Motion mode

Default setting is disabled, the device will wake up each 60 minutes while in motion mode and it will wake up each 720 minutes (12 hours) while in static mode, after wake up, the device enters into power sleep mode ,G-sensor is switched off, and it cannot be waken up, the interval can be configured:

range is 5-43200 minutes;

4.1.7 Clock mode

The device can be configured to send upload packet at fixed time points, maximum 4 points support for one day, supports SMS and OTA commands

4.1.8 Temperature detection

The device built-in temperature sensor, it detects the temperature once the device is turned on, then will read it every 16 seconds. The temperature accuracy 95%.

4.1.9 OTA commands from backend

Since the wake up of the device is short, it is hardly to receive SMS , to ensure the command sending efficiently, we suggest an OTA commands to be sent from the platform, when the device is online, the backend will automatic send this command, to make sure the commands is properly received.

4.1.10 Battery level detect

The device will upload the battery level status together with the location data pack, and display the battery level on the backend so the user could well know the balance of battery, the upload time and the upload mode, so the user could have clear view on the device status



4.2【NT06E Extended functions】

4.2.1 Strong Magnetic and waterproof function

NT06EC is with built-in with super strong magnet that can firmly stick the device to the metal surface, it is easy to install and conceal, and the device is with waterproof function, which can be installed on any assets that are outdoors

4.2.2 Tamper alarm

NT06E:

There is a high sensitive light sensor at the bottom, if the device is tampered, either the device is working or in sleep mode, it will be activated and enter into anti-removal status and switch on anti-removal alarm, and report the alarm info to the backend or preset phone number.

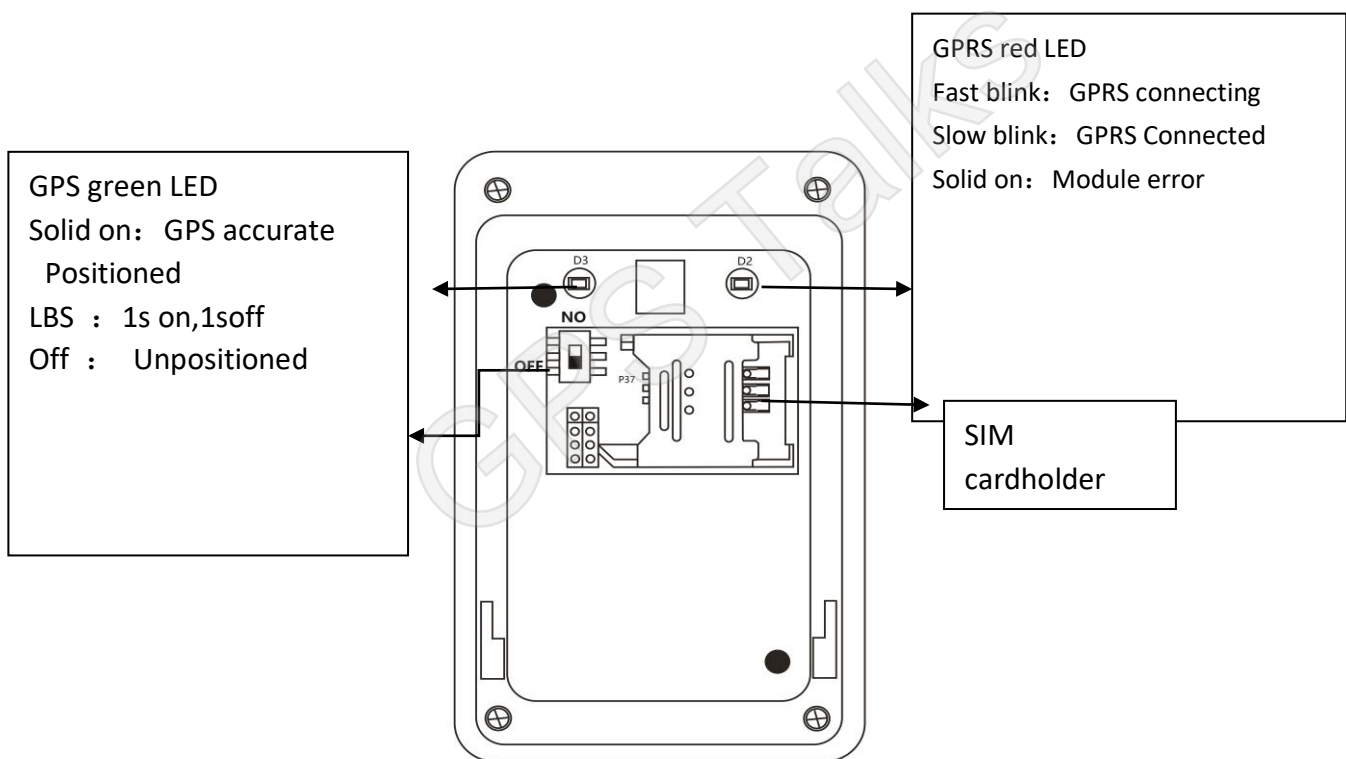
4.2.3【NT06E function list】

Function list	Model	NT06E (Light sensor and strong magnetic)
Position		●
GPS/BDS		●
AGPS		●
LBS		●
Light Sensor		●
Warehouse mode		●
Strong magnetic		●
Motion still detection		●
Temperature detection		●
Intelligent tracking		●
Blind zone compensation		●
Clock mode		●
Backend commands		●

Upload ICCID	●
Battery level	●

Chapter 5: NT06E installation

5.1【Installation diagram】



5.2【Installation and debugging】

5.2.1 SIM card installation

Unscrew the top cover of the device, insert the prepared SIM card into the SIM card holder, and then confirm that the SIM card button is well placed . Please make sure that the SIM card has data service available in advance and write down the SIM card number.



5.2.2 Main unit power on

After installing the SIM card, turn the battery switch to the ON position. When the red light starts to blink, indicating that the device is powered on.

5.2.3 Parameter setting

TCP/UDP connection mode setting

For example, the client's server IP is: 119.145.40.64, port number: 8881. If it is connected by TCP, use SMS to edit: *88*1119145040064*8881*1#; if it is UDP connection, edit: *88*1119145040064*8881*0#. The device will reply: set ok, the setting is successful.

5.3【Key parameter setting】

5.3.1 Clock mode

Command format: HX,T#

Command description: T:wake up time, unit: minutes, default T: 1440, value range :10-43200f minutes; for example, HX,1440#,set the wake up time is 1440 minutes (24 hours)。

Remark: Normally we use the default setting 1440, if set shorter wakeup time, the battery life time of the device will be reduced.

5.3.2 Track mode

Command format: ZZ,<A>[,T1,T2]#

Description: Track mode

A: A=1, Enter track mode A=0 Exit track mode

T1: Set upload interval in track mode, Unit: Seconds

T2: Set the continue tracking upload interval, unit :Minutes

ZZ,1,30,60 # enter track model, upload interval is 30 seconds, enter sleep mode after 60 minutes

ZZ,0# Exit track mode

Remark: this setting generally uses the default 1440, no need to configure



5.3.3 LBS mode

Command format: LBS, A#

Description

A=2 LBS off ; A=1 LBS on; A=0 LBS、GPS、AGPS; Default, A=0

For example: LBS,1# Enter LBS Position mode, switch off GPS module

5.3.4 Clock mode

Command Format: WAKEUP,[T1[,T2[,T3[,T4]]]]#

Description: Set a multiple points upload parameter, maximum 4 points T1...T4, it is allowed to set 1 clocks or more clocks, maximum supports 4

Example: WAKEUP,0800,1200,1600,2000#;

They are all clock points which will wake up at 8:00、12:00、16:00、20:00 and upload device parameter info

Remark: After entering into tracking mode, please remember to send command to make the device exit track mode, otherwise the power will be consumed fast if upload data frequently.

5.4 Common message command list

HX,<T>#	Sleep mode return interval, default 1440 minutes, that is, 24 hours t: wake-up time, unit: minutes range: 5-43 200 minutes for example: hx,120
ZZ,A,[,T1,T2]#	Track mode A: A=1,Enter track mode A=0 Exit track mode T1: upload interval in track mode, unit: seconds Range: 5-300 seconds T2:The continue track time in track mode, Unit: Minutes Range : 5-57600 minutes
WAKEUP,T1[,T2[,T3[,T4]]]#	Latency mode sets a multipoint return parameter, up to four points in time T1...T4: A point in time, such as 0830 for 08:30 in the morning
FALL,A#	A=3 Switch on removal alarm, do not track,

	<p>defalut value</p> <p>A=2 Switch on removal alarm, track 15 mins, 300 seconds once</p> <p>A=1 Switch off removal alarm</p> <p>A=0 Swtich on removal alarm, track 60 minutes, 60 seconds once</p>
UTC,TTTT#	Set time zone, unit minute ,default UTC+8:00
STORAGE,T#	Storage mode return interval, default is 0, that is, turn off t: wake-up time, unit: minute value range: 2880-43200 minutes for example: storage,10080
MS,m,s#	Motion static detection mode, m: return interval during motion, default 60 minutes, value range 5-43 200 minutes s: static return interval, default 720 minutes, value range 5 43 200 minutes For example: ms,120,1440—return interval during motion is 120 minutes and static return interval is minutes.
*11*4#	Query communication status of the device
*22*1#	Device resume to factory setting
*22*4#	Restart the device
*77*0 number#	Set center number 1
*77*2 number#	2 Set number 2
*88*2APN#	special for GPRS device, Set APN node
*88*1IP*port*A#	Settle primary server domain name, port A is communication mode 1:TCP 0: UDP
*88*3IP*port*A#	Set the IP address, remote port number, communication mode of the backup server A is the communication mode 1:TCP 0: UDP

NT06E usage requirements

- The users are required to strict using the device according to the operating instructions ,any disassemble, collide, charge, soak, over 80 °C, human failure, force majeure damage, etc. may cause short circuit, insufficient working time, battery deformation, liquid leakage, explosion, no warranty and compensation will be provided by Kingwo.



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