

W21

GPS ASSET TRACKER

Product Specifications

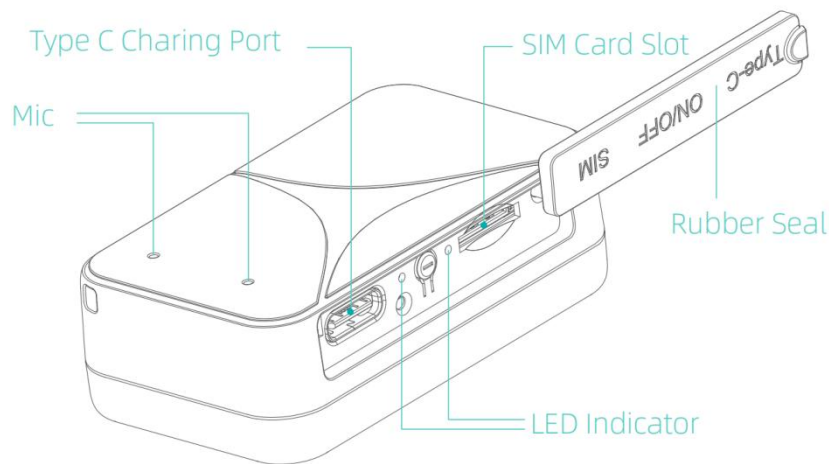
Ver:1.0



1、Introduction

1.1 Summary

The W21 is a compact, versatile and easily installed 4G wireless rechargeable portable GPS tracker. It supports multiple positioning technologies including BeiDou, GPS, Wi-Fi and LBS. With a highly sensitive built-in satellite antenna, it has excellent satellite search abilities and strong signal reception for accurate positioning. A range of high-performance lithium polymer batteries with various capacities are available to meet different usage needs. The W21 can be utilized in personnel tracking, fleet management, automotive finance risk control, asset management and logistics transportation.



1.2 Packing List

Name	W21 MINI	W21LITE	W21PLUS	W21MAX
Main Device	*1	*1	*1	*1
Charging Cable	*1	*1	*1	*1
Magnet	*0	*0	Built-in	Built-in
3M Sticker	*1	*1	*1	*1
Hook-and-loop fastener	*0	*0	*1	*1

2、Hardware Specifications

#	Functions		Description
Electricity Character	Work Voltage		5V/1A
	Standby Current		≤5mA (With Built-in Battery)
	Internal Battery		W21 Mini: 1000mAh/3.7V W21 Lite: 3000mAh/3.7V W21 Plus: 6000mAh/3.7V W21 Max: 10000mAh/3.7V
Environment	Work Temp		-20℃ - 70℃
	Storage Temp		-30℃ - 80℃

Character	Work Humidity		10%-85% RH non-condensing	
	Frequency Bands	SA	LTE/4G	LTE-FDD: B1/B2/B3/B4/B5/B7/B8/B28/B66
		EU	LTE/4G	LTE-FDD:B1/B3/B5/B7/B8/B20
		CN	LTE/4G	LTE-FDD:B1/B3/B5//B8 LTE-FDD:B34/B38/B39/B40/B41
	SIM card		Nano SIM 卡	
	Antenna		Built-in antenna	
	Antenna spec		fpc antenna	
GPS/BD Location Character	Chip Model		AT6558R	
	Location mode		BDS+GPS	
	Cold Start		32S(open sky)	
	Hot Start		1S(open sky)	
	Sensitivity (tracking)		-162 dBm	
	Locate the antenna		Built-in ceramic dielectric antenna	
	Antenna spec		18mm * 18mm * 2mm	
	GPS frequency bands		L1: 1575.42±1.023MHz	
	BDS frequency bands		B1: 1561.098±2.046MHz	
	Satellite channel		66	
	Location accuracy		<10m	
	Timing accuracy		<30ns	
	Speed measurement accuracy		<0.1m/s	
Shape	Device Dimension		1000mAh: 54 (L) x 32 (W) x 18 (H) mm 3000mAh: 68 (L) x 42 (W) x 25 (H) mm 6000mAh: 80 (L) x 51 (W) x 32 (H) mm 10000mAh: 100 (L) x 61 (W) x 32 (H) mm	
	Housing Material		ABS+PC plastic	
	Unit weight		1000mAh : 34g 3000mAh : 80g 6000mAh : 165g 10000mAh : 215g	

3、Key Features

Functions	Description
Multiple Positioning	Supports various positioning technologies including BeiDou, GPS and

Technologies	Wi-Fi, achieving location accuracy within 10 meters in open outdoor environments.
Tamper Alarm	The device reports a tampering alarm immediately if ambient light level changes from dark to bright, indicating potential removal. This dismantling detection takes effect three minutes after power on
Working Modes	Fixed interval mode: 1 position per hour; Normal mode: 1 position per 3 minutes; Tracking mode: 1 positions per 10 seconds;
Smart Power Saving	Intelligent power-saving based on usage scenario, with low battery warnings to prompt charging when power is low.
Low internal battery alarm	When the device detects that the internal battery voltage is lower than the set threshold, the device will trigger an low internal battery battery alarm.
Geofences	Multiple circular or rectangular geo-fences can be configured in the app or platform up to a limit. With satellite and fence breach detection enabled, alerts are triggered when entering or exiting fences.
Magnet free Installation	Embedded strong magnets allow direct attachment to installation surfaces for easy and straightforward deployment.

4、Installation

4.1 Main device

Check if the appearance is in good condition and verify all relevant accessories are present.

4.2 Insert SIM Card

4.2.1 Choose appropriate SIM Card

Please choose a 4G LTE-FDD supported nano SIM card like below:



Normal ☐



Micro ☐



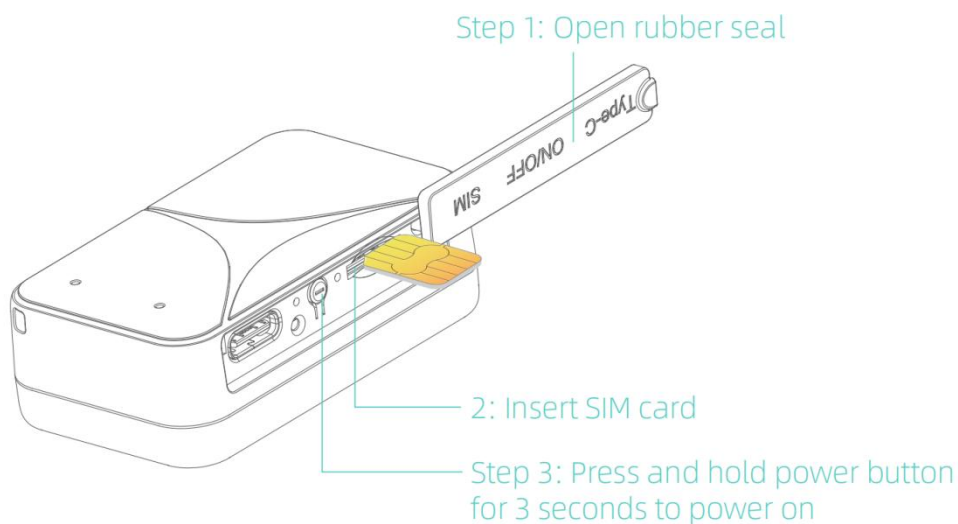
Nano ☒

4.2.2 Power off device before installing or removing SIM card. Orient and insert SIM as depicted.

4.2.3 Power on and off the device:

Power On: With SIM inserted, press and hold power button for 3 seconds to turn on device. Green indicator will blink.

Power Off: Press and hold power button for 3 seconds to power off. Indicator turns off to confirm shutdown.

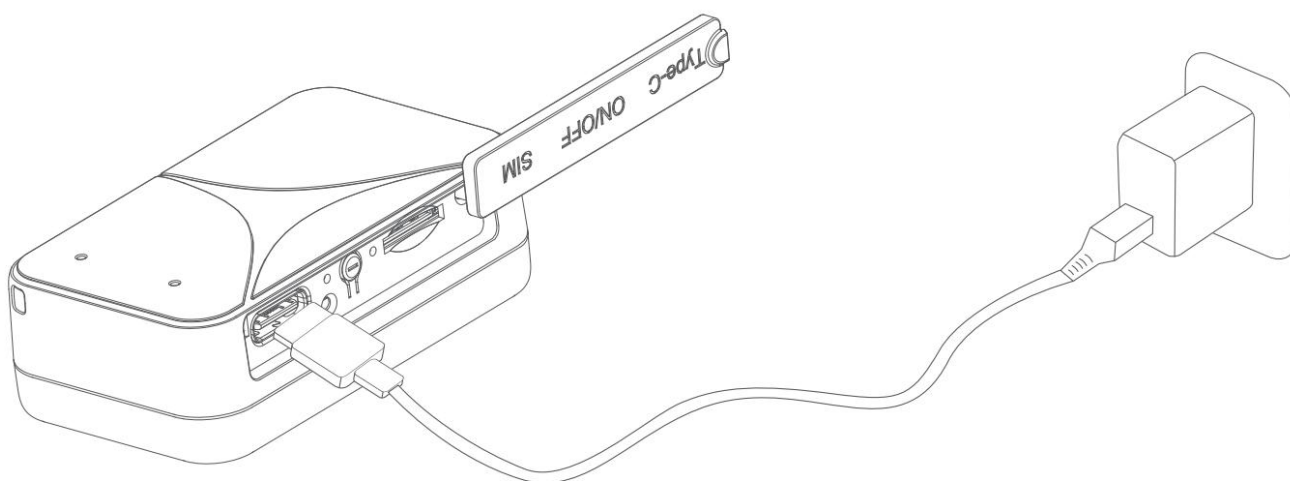


4.2.4 Charging

Connect device to the provided charger. A solid-red charge indicator shows charging in progress until fully charged when red light turns off.

Recommended full charge time

Model	W21 MINI	W21LITE	W21PLUS	W21MAX
Charge Time	2 hours	6 hours	6hours	10 hours



4.3 LED Indicators

Green Light (GSM):

Status	meaning
Fast blinks (0.3 sec on/0.3 sec off)	Server registration failed or searching network
Slow blinks (0.3 sec on/3 sec off)	Connected to platform

Red Light (POWER):

Status	meaning
Red LED solid on	Charging
Red LED off	Fully charged or charger disconnected

Note:

When the device is in a static sleep mode, the LED indicators will turn off automatically. When the device is in motion, the indicator lights will all turn on automatically.

5、APP

Please log in to the APP or the location services platform provided by your distributor to configure settings and operate device features.



iOS



Android

6、Appendix

6.1 Battery Security

- (1) Use only original batteries. Non-original batteries invalidate warranties and the manufacturer is not liable for any device damage caused.
- (2) Prevent metal objects from shorting battery terminals.
- (3) Do not bend or puncture the battery.
- (4) Do not immerse or incinerate the battery.
- (5) Charge battery near room temperature between 0°C and 45°C.

(6) Do not use damaged, leaking or deformed batteries.

(7) Do not disassemble or modify the battery

6.2 Troubleshooting

Refer to the solutions below if you encounter the following common faults. Contact your distributor or service provider if problems persist.

Fault	Cause	Solution
Poor GPS Signal	Using the device in areas with poor signal reception, such as inside tall buildings or basements	Use the device in an area with good signal reception
	The device is placed facedown or obstructed by a metal layer, preventing it from receiving satellite signals	Place the device in the correct orientation or change the installation location
Unable to Power On	Battery is drained	Connect the external power supply to charge the battery
	Fuse blown	Contact the dealer for replacement with a fuse of the same specifications and model
Unable to Connect to Network	SIM card not installed properly	Check the SIM card and reinstall it
	The metal surface of the SIM card is dirty	Clean the metal surface of the SIM card with a clean cloth.
	SIM card is damaged or invalid	Replace the SIM card with a valid one
	Out of service area	Move to the service area of the network service provider.
	Weak signal	Move to a place with a strong signal and try again.
Unable to Charge	Poor contact	Check if the power cable of the device is properly connected
Location can't be fixed	SIM card data service is not activated	Contact the network service provider to activate data service

	SIM card is out of credit	Recharge the SIM card
	No reply to SMS commands	Ensure the device can connect to the network and the SIM card's SMS function is activated

6.3 Warranty

Note:

- (1) The product may be modified in the future without prior notice.
- (2) The actual appearance and color of the product may vary.
- (3) This warranty card is only valid for the presented IMEI number.
- (4) Please keep this warranty card in a safe place. Please present this card and the original receipt when you need warranty service.

Clauses:

- (1) The product is covered by a one-year warranty for non-human-made damage from the date of purchase.
- (2) The following are not covered by the warranty, but may be repaired for a fee:
 - ❖ Beyond the warranty period;
 - ❖ You do not have a valid warranty card or receipt;
 - ❖ The equipment or accessories are out of warranty;
 - ❖ Product quality problems caused by unauthorized repairs, collisions, liquid ingress, accidents, modifications, incorrect input voltage, or tearing, altering stickers, device IMEI numbers, or anti-counterfeiting marks;
 - ❖ Damage caused by incorrect installation or use that does not comply with the product manual requirements;
 - ❖ Damage caused by force majeure such as fire, flood, or lightning strike;
 - ❖ Warranty certificate does not match the product model or warranty certificate is altered;
 - ❖ Damage caused by force majeure.