VT300 Series Vehicle Telematics Gateway User Manual-EN 1.1



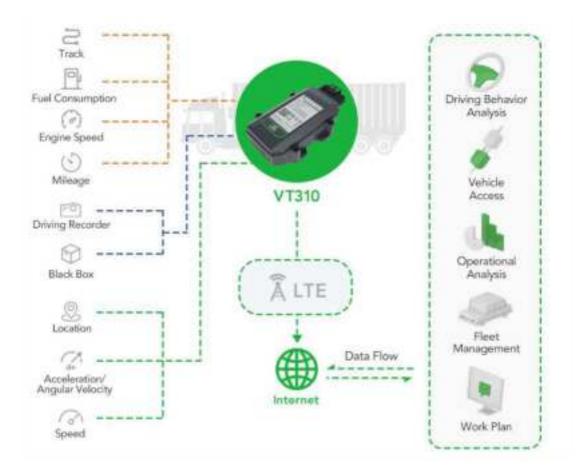
PDF

Chapter I Product Introduction and Preparation

1. Introduction

1.1 Overview

The VT300 series vehicle tracking gateway is an asset tracking product that features cost-effectiveness, rich interfaces and strong performance. It is suitable for industries such as logistics and transportation, engineering vehicle monitoring and so on. It offers precise positioning with GNSS, tracking and monitoring the status, history track, geofencing, abnormity alarm and other functions of vehicles and drivers, combined with the vehicle network cloud platform, can realize remote vehicle management, asset tracking, preventive maintenance, helping fleet operators save costs and improve efficiency. The device provides sub-models that support wireless network access of various speeds such as LTE CatM1, Cat1, Cat4, etc.



1.2 Packing List

1.2.1 Standard Packing List

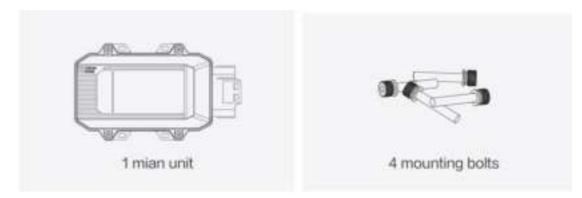


Image 1-2-1

1.2.2 Optional Accessories

Optional accessories are not included in the default equipment package and need to be selected according to the actual situation.

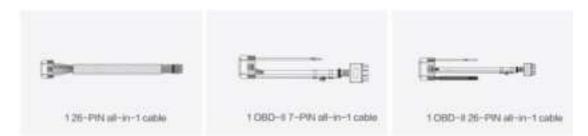


Image 1-2-2

Communication Cable	Order Number	Specifications
26PIN all-in-one test cable	SCAB000229	The cable has P1 and P2 ends: P1 is 26PIN female, connected to VT310; P2 is open end, which requires a 9- 48V adaptor. Suitable for engineering environments and indoor tests.
OBD-II7 PIN all-in-one cable	SCAB000231	The cable has P1, P2 and P3 ends: P1 is 26PIN female connected to VT310; P2 is OBD-II male connected to the vehicle; P3 is ignition signal terminal connected to the ignition on/off. Suitable for heavy trucks with OBD-II vehicle diagnostic interfaces, and powers VT310 through interfaces.
OBD-II 26 PIN all-in-one cable	SCAB000232	This cable has P1, P2, P3 and P4 ends: P1 is 26PIN female connected to VT310; P2 is OBD-II male connected to the vehicle; P3 is open end that includes I/O, RS232-1 and 1-Wire; P4 is ignition signal terminal connected to the ignition on/off.

Suitable for heavy trucks with OBD-II
vehicle diagnostic interfaces, and
powers VT310 through interfaces.
Recommended for customers who
need DI, DO, AI, 1-Wire devices or
vehicle-mounted controllers.

1.3 Product Appearance

1.3.1 Product Appearance Introduction

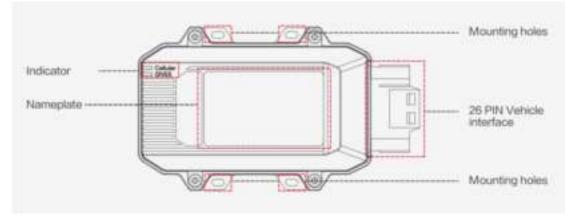
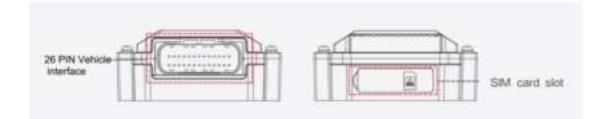
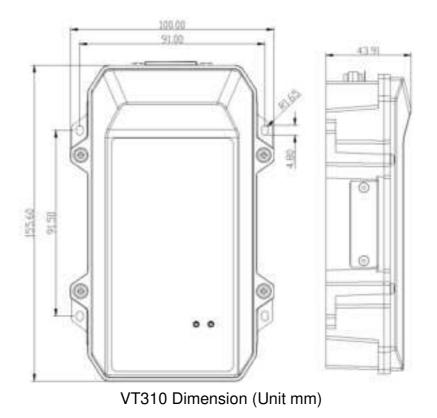


Image 1-3-1



1.3.2 Product Dimensions

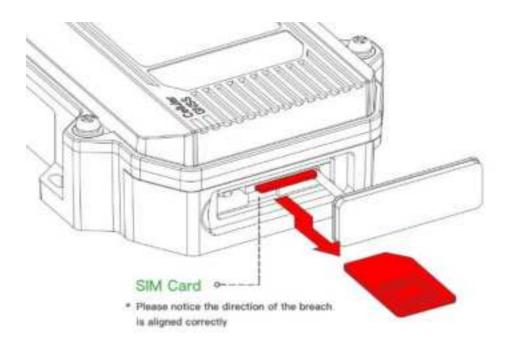


2. SIM and Cable Installation

For general cases, the device can be used after mounted onto the vehicle, with SIM card inserted and cable installed.

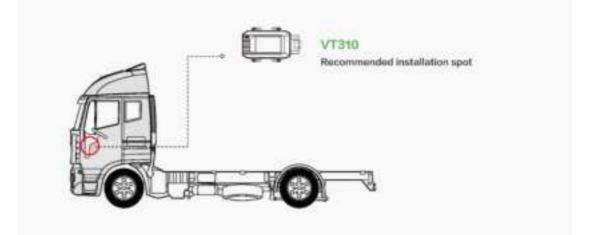
2.1 Install SIM Card

In the case of dial-up Internet access, a SIM card is needed. The VT310 will dial automatically once it is powered and started. Open the waterproof baffle on the downside of the VT310 and insert the SIM card into the slot in the direction shown in the picture.



2.2 Mount the Tracker

Customers can fix the VT310 onto the vehicle with installation bolts. It is recommended that the tracker be installed under the front windshield of the vehicle, where GPS signal is better received and connection to the OBD-II diagnostic interface is easier.



2.3 Introduction and Use of Cables

We offer three types of cables for different application scenarios. Wiring methods of them will be shown below respectively.

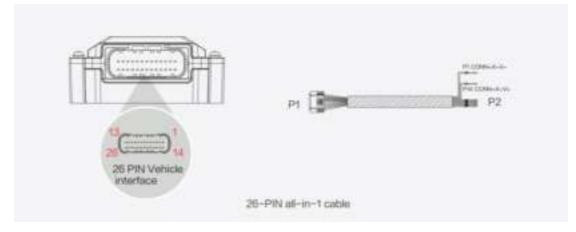
2.3.1 26PIN All-in-one Test Cable Link

This cable is suitable for indoor testing and the tracker login. A 9-48V adapter or 9-48V AC/DC power supply, a DB9-RS232 serial port female connector and a USB to serial port line are required, as are shown below.



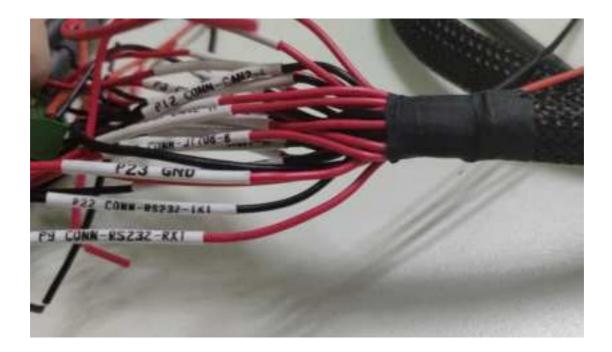


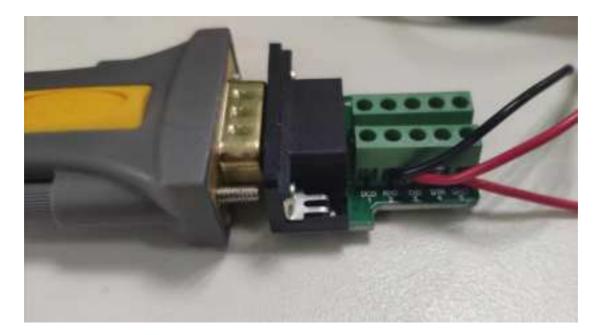
From left to right: Power supply module DB9-RS232 female connector, USB to serial port line



Steps:

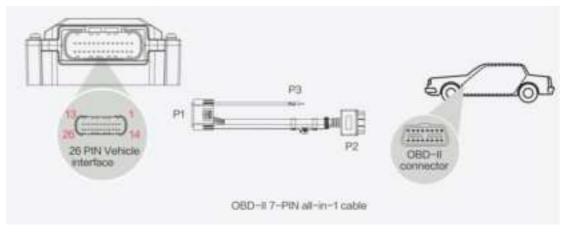
- 1. Insert the 26PIN female head of P1 into the VT310;
- Connect P1 CONN-X-V- and P14 CONN-X-V+ to the negative and positive poles of the power adapter respectively. P15 CONN-X-IGT and V + are both connected to the positive side of the power supply;
- 3. Connect the CONN-RS232-RX1, CONN-RS232-TX1 and GND (any) of the cable to the TXD, RXD and GND holes of the DB9 connector. Then connect the USB to DB9 cable to the computer, as is shown below.





2.3.2 OBD-II 7PIN All-in-one Test Cable

Suitable for heavy trucks with OBD-II diagnostic interfaces. The VT310 is powered by the ODB diagnostic interface, so the vehicle needs to be started to get the VT310 working.



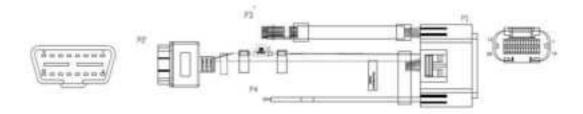
Steps:

- 1. Insert the 26PIN female head of cable P1 into the VT310;
- 2. Connect P2 to the OBD-II diagnostic interface of the vehicle;
- 3. If you need to judge whether the vehicle is ignited, you can connect P3 to the ignition switch of the vehicle.

2.3.3 OBD-II 26PIN All-in-one Test Cable

Suitable for heavy trucks with OBD-II diagnostic interfaces. The VT310 is powered by the diagnostic interface, so the vehicle needs to be started to get the VT310 working.

Compared with the OBD-II 7-pin all-in-one test cable, a 19-pin I/O bare wire end is added. This is recommended for customers with demand for I/O or 1-Wire hardware access.

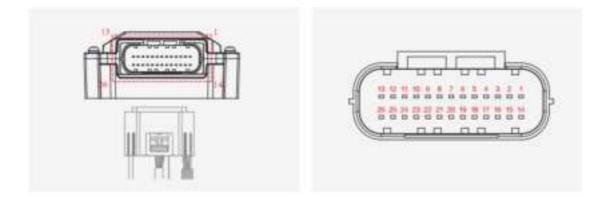


Steps:

- 1. Insert the 26PIN female head of cable P1 into the VT310 interface;
- 2. Connect P2 to the OBD-II diagnostic interface of the vehicle;
- 3. If you need to judge whether the vehicle is ignited, you can connect P3 to the ignition switch of the vehicle;
- 4. For P3 bare wire, you can connect your I/O devices according to your needs, which will be described later.

2.4 Connect to the I/O Interface

The I/O interface is integrated into the 26PIN vehicle interface, providing 3 digital outputs (max. current 300mA), 4 digital inputs, 1 analog input, 1 1-Wire, an RS232 serial port and an ignition signal. Following is an example of how to use the I/O interface.



2.4.1 Definition of 26PIN Interface

PIN	Name	PIN	Name	PIN	Name	PIN	Name
1	V-	8	1-Wire	14	V+	21	GND
2	GND	9	RS232_RX	15	IGT	22	RS232_TX
3	DI2	10	GND	16	DI1	23	GND
4	DI4	11	CAN_1L	17	DI3	24	CAN_1H
5	GND	12	CAN_2L	18	GND	25	CAN_2H
6	DO2	13	J1708_B	19	DO1	26	J1708_A
7	AI			20	DO3		

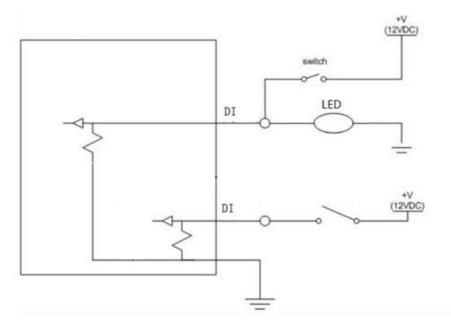
2.4.2 RS232 Serial Port

The RS232 serial port is used for debugging. Connect the RS232_RX, RS232_TX, and GND of the VT310 to TXD, RXD, and GND of the DB-9 serial port welding-free interface. Use RS232 to USB cable to connect with DB-9 serial port surface welding port.

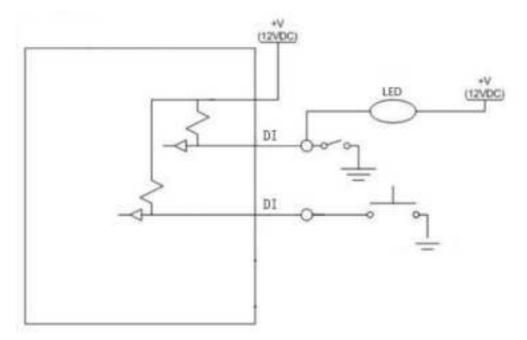
2.4.3 Digital Input (DI)

The DI can detect the switching value, such as whether the button is pressed or bounced, and whether the switch is on or off. The VT310 provides configurable pull-up. The DI has a default $10k\Omega$ resistor pulled down to GND. When the DI is configured to pull up, there is a $20k\Omega$ resistor pull up to the power supply voltage. When using DI, it is necessary to distinguish between pull-up and no pull-up.

When the DI has no pull-up power supply, the external circuit is connected as follows:

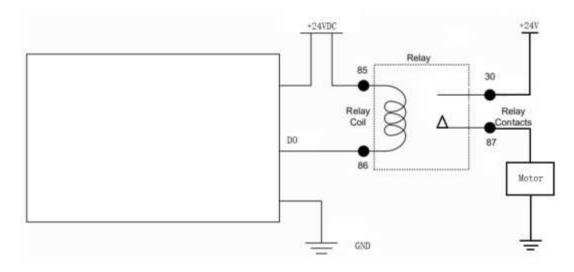


When the DI has a pull-up power supply, the external circuit is connected as follows:



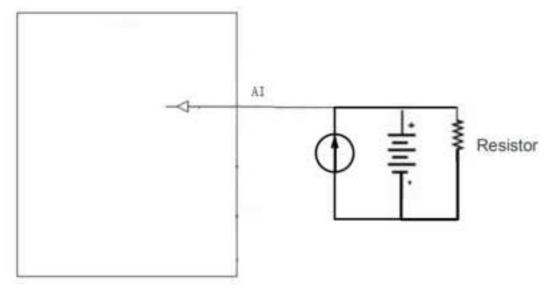
2.4.4. Digital Output (DO)

The DO can output DC voltage. The DO is an open-leakage output that supports a current of 300mA and usually works with relays.



2.4.5. Analog Input (AI)

The AI can detect DC voltage, and customers can directly access the analog quantity of voltage. External circuit is connected as follows:



2.4.6. 1-Wire

The 1-Wire is usually used for small communication equipment, such as digital thermometers and iButton devices. Before use, the customer needs to connect the DQ pin (signal line) of the 1-Wire device to the VT310 PIN8, and connect the VDD and GND pins of the 1-Wire device to the GND of the VT310. The sensor is the less02b type. The following picture shows the water temperature detection wires of the 32 digital temperature sensor probe.



2.4.7 Ignition Sense

IGT(Ignition sense): IGT is used to connect to the Ignition switch of the vehicle. The VT310 can detect whether the connected vehicle is ignited. When using the 20PIN cable for testing, connect the IGT cable and V+ cables to DC power supply.

3. Start the VT300

After the customer completes the installation according to the above steps, the device can be started for debugging. The condition of the device can be told through the status indicator. To avoid consumption of battery power during transportation, the device is under transportation mode in the factory state. The VT310 needs to be activated by external power supply or the vehicle diagnostic interface.

3.1 GNSS Status Light

Indicator Status	Function status
Long annihilation	The device is not started or the GNSS function is disabled.
Flash (frequency: 0.5Hz)	GNSS 授时成功 GNSS delivery successful
Slow flash (frequency: 1Hz)	GNSS function enabled
Solid	Location success 定位成功

3.2 Cellular Status Light

Indicator status	Function status
Long annihilation	The device is disabled or the dialing function is disabled.
Flash (frequency: 0.5Hz)	Dialed successfully
Slow flash (frequency: 1Hz)	Dialing enabled

Chapter II Login and Device Configuration

1. Install the Configuration Tool

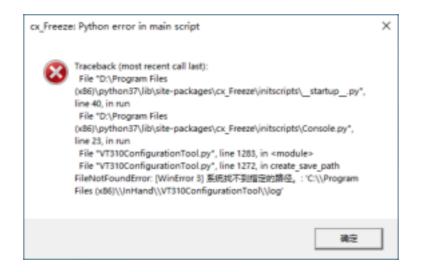
The tool software supports the installation OS environment: Windows 10;

1.1 Download Configuration Tools

Enter the Download Center of InHand's <u>Website</u>, and download the tool from the Vehicle Gateway Part >>InVehicle T310 Tracker. Download the configuration tool installation package in the product documentation. Select the default path to complete the installation, as is shown below.

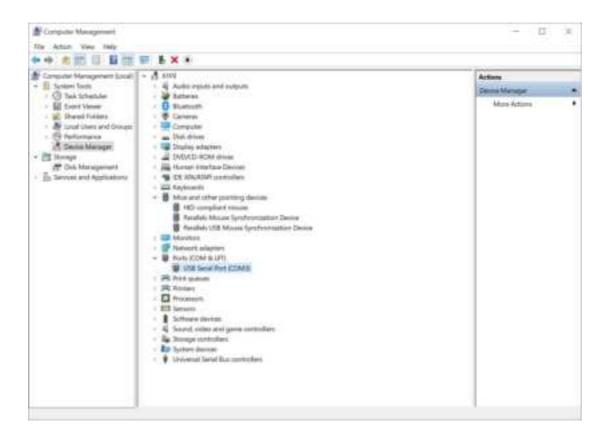


• If the following error occurs after installation, choose "Run as administrator" to open the software, as is shown below.



1.2 Search for the COM Port Number

Power the VT310 with an external adapter through the 26PIN all-in-one test cable. The VT310 is connected to the computer through a USB to serial port cable. If the GNSS or cellular light flickers, the device is started successfully. Enter the device management page of the computer and observe the COM slogan in the "device manager"> "ports (COM and LPT)" of the computer, as is shown below.



1.3 Login to the Device



Click "Connect device", enter the user name and password (default:

admin/123456), select the recorded serial port, baud rate (default: 115200), and click "connect", as is shown below.

lovini ettergi Xiladar	Connect to VT310					
ND ottage	Demans	Contenct via	send port C	a na Mersenk		
lecetty dailectere	stmis Password	fiersal poet	COM	•	Reference Serial	
NV RX		Baid rate	111399			
		Ρισροτή	8 • None	• 1 •		

You can also use computer Bluetooth (4.2 or above) to connect the device. Click "Connect device", enter the user name and password (default: admin/123456), select the Bluetooth device with the same name as the device SN (SN can be found on the device nameplate), and click Connect ", as is shown below.

Tatas Tasan etter	formary Con Connect to VT310	der Siemelle Lieben Taffertreten 120 Duffersete		
OED settings Cloud Platform Security Mathematics Refs.	Demane shee Password Trapi passeof	Connect via send port. Connect via Marrooth Select Device Please select a device •	Refinik Devize Lat	
Count	Refinal comp 134		Caser Court	

In the dialog box that pops up, you can view the device status and perform operations on the device. Click OK to preview or modify the configuration, as is shown below.



Login succeeded

2. Inquire Status Information

2.1 Mobile Network Parameters

On this page are mobile network link parameters, which are used mainly to check whether the wireless network link is normal. All parameters read when the SIM is not inserted are default parameters. After the device is connected to the Internet through the SIM card, it can obtain the IP address for data transmission. For configuration of mobile network parameters, please refer to <u>Section 4 Configure the Cellular Network</u>.

Parameter	Description
Signal value	Indicates the signal strength of the connected wireless network. Valid values: 0 to 31.
MCC/NMC	MCC (mobile country code), MNC (mobile network code), read from the SIM card

SIM card status	Normal/Unidentified
IMEI	The International Mobile device identification code (International Mobile Equipment Identity) is the built-in dialing module code of the vehicle gateway.
Registration	Registered/Not registered
LAC	LAC(Location area code) , obtain this parameter from the base station after dialing successfully
IMSI	IMSI(International Mobile Subscriber Identity) this parameter is read from the SIM card
CELL ID	This parameter is obtained from the base station after dialing successfully.
ICCID	The ID of the integrated circuit card is the SIM card number and ICCID (integrated circuit card identity). This parameter is read from the SIM card.
IP ADDRESS	After the dialing is successful, the carrier assigns the IP address of the network access.
Cellular status	Connected/Not connected
Authentication method	CHAP/PAP

		Vehicle Tracking On	riewsy Couligurat	ian Tool 🗧
Table	formaty Coldar Nervol	E Garatan Tafarratan	10 Décembre	
Other	Physical Layer Info	mation;		
Old Senap Cost Parleys Second	Madale trans: Normal Signal Level: 196375) MCCADRC: 46001 SDM trans: Normal Network Information	Registration status LAC: IMSE	152831042388918 Reprinted(Intol) XA00 480050100114831	CLLL_ID: 71CF528 JCCID: 88960118802288125313
Normann Mile Mile	lp aldrier: Cellador activitels thatus	10.1.126.130 Connected	Authentication;	:084 condication
Ducement.	RefireD. every the			Rebest Evolution

2.2 Location Information

The location information page shows the latest parameters obtained by the GNSS module. It includes location information and related parameters of the inertial sensor. As is shown below.

			Vehicle Tracking	Gateway Couli	purstion Tool		-
Video .	Summery	Colora Serveda	Location Safernation	10 Diferent			
Criste	Location	Information:					
OLD unsign	Longitude: Ablinude: Recod: HDOP:	104 055 397 399 0.00000 0.90000	004 m O lenut	Latitude: Satellitec Course: Statut:	30.58		
Security Mathematics	Dead Rec	koning:					
na na	Arr X Asic Cyto X Asir:	4.028000 mg .312.000000 mdps	Air Y Ante Gyre V Ante	7 64900 mg 0.000000 miljis	Acc Z Anit: Gyne Z Aniti	-883.080017 mg -280.000000 mdgn	
Decovers	Dates or	19.15a				Islast Fraing	

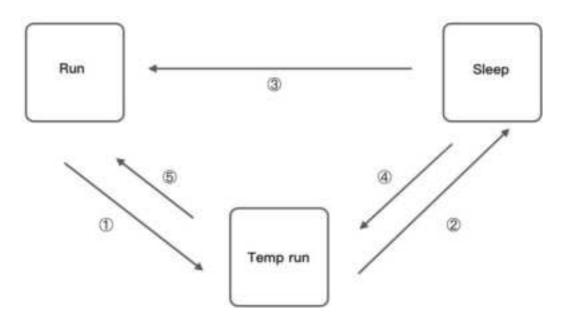
2.3 I/O Information

		Vehicle Tracking Gr	newsy Configuration To	al	- 3
Trainin attings	Sussay Color Serves	Constant Tafarramae	10 Information		
Culture	I/O Information:				
diff writings	Ignition Signal: Digital loper 1			High Low	
lest Parlees	Digital Input 2: Digital Input 3:			Low	
econ)	Digital Imput in Analog Imputiner]			Low	
labelan .	I-Wire:				
wa.	T-whe.				
10	1 Wice Type: 1 Wice ROLL ID:		Uninown Unicorem		
	1-Wes Data		Uniterryit		
hannese T	Refield every the			Rebest	at and

3. System Settings

3.1 Sleep Mode

The sleep mode ensures the battery life after flameout, providing continuous guarantee for special environments. The state machine is as follows:



Description of the state machine:

Run, Sleep, and Temp run represent normal running status, sleep status, and temporary running status respectively.

(1) Corresponding to the state machine, the condition from Run to Temp run is that the power supply voltage is less than sleep voltage (6V by default) or IGT OFF (IGT needs to be enabled in the configuration), by default, the device continues to run for 15Stemp (for reporting information) and then enters Sleep.

② Corresponding to the state machine, the condition of entering Sleep from the Temp run is that after the device runs a wake-up runtime cycle in the Temp run or after the device runs Temp Run for 15s from run.
③ Corresponding to the state machine, the condition from Sleep to Run is that the power supply voltage is greater than Sleep voltage or IGT ON (IGT needs to be enabled in configuration).

④ Corresponding to the state machine, the condition of entering the Temp run from Sleep is that after the device runs a wake-up interval in Sleep.

(5) Corresponding to the state machine, the condition from Temp run to Run is that the power supply voltage is greater than sleep voltage or IGT ON (IGT needs to be enabled in configuration).

Parameter	Description
Enable IGT	After IGT is enabled, the device uses the IGT status as the condition for entering or exiting Sleep. The IGT status is not ticked by default.
Wake-up interval	The interval between the device automatically wakes up in Sleep, whose default value is 120 minutes.
Wake-up time	The interval between the time when the device enters the next Sleep, whose default value is 5 minutes.

Configure the sleep mode:

		Vehicle Tracking Osteway Configuration Tool	
inter .	Sing mole Access		
Colora attings	Enable 10T		
tit) writige	Waterup interval	1	Maamo
ind Patiens	Waterup routinor	5	Master
No.			
*			
坟			

3.2 Account Settings

This function allows the device administrator to modify the device administrator login information. The default administrator account is admin, password 123456. The device administrator can modify the configuration options if necessary. After the modification, the device prompts a restart. Click OK to restart the device and log in with the modified administrator account and password. As is shown below.

		Vehicle Tracking Gateway Configuration Tool	
Table .	Sing and: Account		
Crister	Administration accounts		
old until 1	Administry passent		
lind Pattern	Confirm password		
Security Manifestates			
ere Rý			
Automate 7		Reid again. Sur	· configurations

4. Configure the Cellular Network

Click "Cellular" to enter the configuration page. Generally, customers only need to configure "Network Access Point Name (APN)", "Network dialing user name", "Network dialing password" and "Authentication mode" and click "Save configuration". The device takes effect after restarting. If the customer has special trial scenarios, click "Show Advanced Options" to see hidden configuration items. Configure the network dial number, PIN, and default host APN as needed. As is shown below.

		Vehicle Tracking Onteway Configuration Tool	
Tonio-			
Access entrys	APS	Sileri	
Officiar	Network did utername	The .	
OLD untage	Network dat password	(w)	
Cinit Patiens	Authentication mode	(Ann +	
Mathema	they Adjaced Optio		
trip	Network dalog narefeet		
π x	PIN		
	Defasit bears: APN	head in the second seco	
Discounter.		Read again. Survey	and designed

Parameter	Description
APN	This parameter is required when the APN private network is connected to the mobile network. Most public network service SIM cards do not authenticate APN when dialing.
Network dialing username	The default parameter is "gprs". When the private network is AAA certified, the mobile network operator needs to provide this parameter.
Network dialing password	The default parameter is "gprs". This is required by the carrier during the AAA certification for the private network.
Authentication mode	Automatic/CHAP/PAP. This parameter is required when the private network is AAA certified. Automatic: take turns to use PAP and CHAP authentication to dial (pap authentication is used for the first power-on, if dialing fails, chap authentication is used for dialing again, and pap authentication is used for the next dialing, and so

	on. If the authentication mode is not automatic, but PAP or CHAP, use only PAP or CHAP authentication to dial.
Network dial number	The default parameter is * 99 *** 1#, which is required by mobile network operators.
	PIN (Personal Identification Number) refers to the Personal Identification password of the SIM card. When the SIM card is enabled for PIN verification, does it fill in the corresponding PIN of the SIM card. This parameter is required for mobile network operators.
Default carrier APN	This parameter is provided by the carrier.

▲ The default host setting is a function for special data transmission required by some carriers, which generally does not need configuration. If configuration is required, please inquire from your carrier.

5. Configuration of Vehicle Diagnostic

Interface

The on-board diagnostic interface is the South interface of the tracker and the configuration option of the protocol.

5.1 Configure ODB Interface

In the configuration tool, select OBD as the diagnostic protocol. The ODB protocol is the CAN2 interface and J1708 interface of the vehicle tracker.

Parameter	Description	Others
J1939/J1979	ODB CAN2 interface protocol, corresponding to physical layer PIN CAN_2L(PIN 12) and CAN_2H(PIN 25)	OBD default configuration

J1939	ODB CAN2 interface protocol, corresponding to physical layer PIN CAN_2L(PIN 12) and CAN_2H(PIN 25)	
J1939	ODB CAN2 interface protocol, corresponding to physical layer PIN CAN_2L(PIN 12) and CAN_2H(PIN 25)	
J1708	J1708 interface protocol, corresponding to physical layer PIN J1708_ B(PIN13) and J1708_A (PIN 26)	
Auto	When set to Auto mode, the vehicle tracker will poll the link and automatically poll and send the protocol data of the above four options for link testing. When receiving data packets of the corresponding protocol, the vehicle tracker will choose this protocol for communication.	When Auto mode is used, the CAN1 and J1708 interfaces are enabled at the same time.
Disable	Disable ODB CAN2 and J1708	

		Vehicle Tracking Osteway Configuration Tool	- 1
Tabe .	OID CANI		
Resident settings	Pressonal type	7383671979	
Class Parlies Second Materials Rep.		210300 J1070 Auto J1530 J1570 T1700 Double	
Dunnard		Read again.	Tere configurations

5.2 Configure CAN1 Interface

In the configuration tool, select CAN1 as the diagnostic protocol and the

CAN1 interface of the vehicle tracker.

Parameter	Description	Others
J1939/J1979	CAN1 interface protocol, corresponding to physical layer PIN CAN_1L(PIN 11) and CAN_1H(PIN 24)	CAN1 default configuration
J1939	CAN1 interface protocol, corresponding to physical layer PIN CAN_1L(PIN 11) and CAN_1H(PIN 24)	
J1939	CAN1 interface protocol, corresponding to physical layer PIN CAN_1L(PIN 11) and CAN_1H(PIN 24)	

sable	Disabl	e CAN1	
		Vehicle Tracking Osteway Configuration Tool	- 3
Yoshi .	HED CANI		
Researce entropy	Pressonal type	21818-21979	
ini Parless energi ini Parless e		21939-21979 21979 21970 Dealtin	
un:1		Read up	n Sara configurations

• The function of CAN1 and OBD can be enabled at the same time.

6. Configuration of the Cloud Platform

The configuration of the cloud platform is the North-direction interface and protocol configuration option of the vehicle tracker. The VT310 can only be connected to one cloud platform at a time. The configuration of the platform takes effect only after the device is restarted. Click "Platform" to enter the configuration page. Click "Modify" to enter the configuration page. As is shown below.

		Ve	hiele Tracking Out	teway Configuration Too	
Yoshe .	Function Station	California State	Pathen Type	Conserved Bransie	Action
Record offices /	Enabled	Disconnet	Sigartheri	che abandot com	Madety
Other					
OLD unstage					
Gent Platform					
Security					
Mathema					
Brig					
把 字					

6.1 SmartFleet Platform

The SmartFleet platform is a SaaS platform for the Internet of Vehicles market launched by InHand Networks. It mainly includes vehicle profile, alarms, driving behavior monitoring, statistical analysis of driving information, electronic fence and other functions. Through the visual user interface and simple operation, you can manage and monitor your hardware devices such as the InVehicle Gateway with speed and ease. Deployment in the cloud allows you to focus on your core business. Login address: https://che.inhandiot.com. For more information about the platform, please visit https://che.inhandiot.com. For more information about the platform, please visit https://www.inhandnetworks.com and chat with us.

Cloud Platform >> Platform Type: SmartFleet, Cloud Platform >> Enable Cloud Platform >> Domain name: smartfleet.cloud Cloud Platform >> Account (Enter the platform's registered account) Cloud Platform >> License Plate Number Click "Show Advanced Options" to show hidden configuration items. Configure the LBS reporting interval, traffic reporting interval, and heartbeat reporting interval as needed. The reporting interval is measured in seconds, as is shown below. Click "Save configuration" and restart the device. As is shown below.

Tabe .	Vehicle Tracking Onteway Configuration Tool				4 -
	Function States	California States	Patien Type-	- Conserved Brander	Allen
Term Sebar	Enabled	Consected	Seattlet	martlet dout	Mintelly
Crister					
Old Seman					
Gest Marlow					
Second					
1.84					
Manheart					
Manhearte					
(Drip					
伊宾					
Decreary.					Refero Configuration

On the Cloud Platfrom homepage, view the link status of the platform. The link status is "linked". As is shown below.

Log in the platform and choose Gateways >> Gateway List. You can see if the vehicle tracker is online. As is shown below.

N.	Orden	1919						
have	7 10.00		Cuttere	new illiamous	-			Expert
	Tare .	Signal	Battery Wallage	sis	MRC .	Carrent Venice	Garration	
	+ 38431233	-+8		AWER FLOET ANTINES	mining data	073186-0254	20	
	+.1429022	- 84	-	white a rear brocast	ACCOUNTS OF A DESIGNATION OF A DESIGNATIONO OF A DESIGNATIONO OF A DESIGNATIONO OF A DESIGN	VT8,950.00	2.0	
i incipalit	i te total, page 1 of						• (4) = (m)	-

6.2 Wialon Platform

Wialon has more than 18 years of best practice in software engineering in the area of GPS vehicle tracking and a team of talented specialists committed to the common goal. The community is united by continuous advancement of the proprietary products and five offices around the world - the headquarters and development center in Minsk and sales offices in Moscow, Boston, Dubai and Buenos Aires. Nowadays solutions by Gurtam take up about 36% of the CIS commercial carrier market and are actively expanding to Europe, the Middle East, the USA, South America, Africa and Australia, with even New Zealand market tapped. For more information, visit <u>https://gurtam.com/en/wialon</u>. To test the Wialon platform, you can contact manager Sun sunzd@inhand.com.cn for more support. Cloud Platform >> Platform Type: Wialon, Cloud Platform >> Enable Cloud Platform >> Domain name: nlgpsgsm.rog Cloud Platform >> Port : 21000 Cloud Platform >> Account (Enter the platform's registered account) Cloud Platform >> License Plate Number

To adjust the reporting frequency, click "Show Advanced Options" to show hidden configuration items. Set the reporting interval reporting interval in seconds. As is shown in the following.

		Vehicle Tracking Onteway C	outiguration Tool	-
Yota .	Partiers Type	Wides	•	
Collector	Enshird	N		
Old Sempe	Dynam	nl gpigani.org	¥]	
lenetty	Part	22100		
i alte Manifestre P(t)	Terr Atracel Opera			
Successive T			Back Read again Tare config	

If you have obtained an independent domain name provided by Wialon, enter the custom domain name and port number. As is shown below.

		Vehicle Tracking Onteway Coufig	uration Tool 🗧
Tabe	Parties Type	Water	·
com Sittings	entering a liter	in such	<u>.</u>
thda	Embled	N	
10 Semp	Dimmin	nt gangant org	¥
institution	Port	22/00	
****	Stew Advanced Opport		
California -	Upload Interval	4	
(hip			
中共			
Description 7			lack Read again. Two conditioned

6.2.1 Configuration on Wialon Platform

Platform website: https://hosting.wialon.com

New devices:

the second second		1.0	- Wildow	- electrical	• 50	
		541	112 11	the i	100	
and the second se	5.9.1		1.5		10	
These (R)	5.9.7	1.5	18 mil 1			
page and	4.8.1	- 48	115.1 0.1		and the second s	
and the second se	5.8.2	1.0	- AL A. 3			1 A
Nat. Mile. 1		14		dana basi	1000	THEME
and the second se		1.	100419			Channel Concerts
Mannes (Merri		11.1	1000			and the
Name of a random	1.4 -	1.0		Sector Sector	- 11	and the second second
Par sus as	5.5.5	14			100.000	

The device configuration information is as follows:

- Name: Custom
- Device Type: Select "Wialon Combine"
- Special ID: Enter the device-specific serial number. View the serial number of the device or the serial number on the status page of the configuration tool. The information shown in the following figure is for example only.

General	Adoasa koon Ado	varued Berners	Contorn Fields	Unit Groups	Communds	Ron Driving
Profile Tr	ip Detector Service I	ntervals				
	Unified Illinary of	vehicle types!				*
			arre for all users. To be a types in reports, speci			
*	The unit properties.	Strate in the state	d in the "Comment" Selo	Connection .		10.0
		developmente	en sosta an	81		
later -	un#521-Mex/00100					
init type:		+				
Sevice type: *	Water-Contene	4. Water Dar	state WinTag avenue	ent VY310		
Server address	Higpepercorg 21000	œ				
inique ID	593102104000					
hone number						
Personal Contract	Sector Anna					
Dreator: Account	infrared been					
ALCOUR.	anana'nan					

6.2.2 View Data Uploaded by Devices

- ① Select "Message"
- (2) Select the name of the target device to be viewed
- ③ Select the time range of interest
- (4) Select the data type. Currently the colelcted I/O data is viewed through

Raw Data

(5) Click the "Execute" button to view the information of the target device at

the position of 6, as is shown below.

the set	 -			
And	 Hata		 	10 (10 10 10 10 10 10 10 10 10 10 10 10 10 1
Banna A	Contractions Contractions Contractions Contractions	Parameter Selected angels (MC process parameter) Selected parameter (MC parameter) parameter (MC parameter) Selected parameter (MC parameter) parameter (MC Parameter)	(B): 0	•
Fault del Real New	 A18 */ * = 1	No. dt. Stenary 16 (1911) resource		Call: 1

Note: The information display of the target device can be selected by clicking the configuration method, as is shown below.

- Time	Parameters	Nedia	
2020-04-02 11:00:02	parant2=0, parant3=3346, param4=0, parant1=4.82667015694e-38, VO=C		
2020-04-02 10:59:51	param2=1, param3=3352, param4=3, param1=4,92687615684a=38,40=0		
		1	-
		1	
		1	
		1	

6.3 Azure IoT Hub

Azure IoT builds IoT applications that offer highly secure and reliable two-way communication between IoT applications and their managed devices. Azure IoT Center provides the back end of cloud hosting solutions, which can

connect to almost any device. The solution is extended from the cloud to the edge through authentication, built-in device management, and extended configuration of each device. For more information, visit https://azure.microsoft.com/zh-cn/services/iot-hub

Cloud Platform >> Platform Type: Azure IoT

Cloud Platform >> Enable

Cloud Platform >> Connect String

The Connect String is created from Microsoft IoT platform. See in the next section.

To see invalid data, click "Show Advanced Options" to view hidden configuration items. Tick "Show Invalid Data", as is shown below.

		Vehicle Tracking Osteway Configuration Tool	- 1
Valor Resem Settage	Partien Type	Ame lot •	
Cilide	Enshied		
old Seman	Connect Spring	HotNase-V7510 ane devices on Deviced & Shared Accessi	
Cont Parlow	Darw Advanced Option		
1.820	Potish Isoaid Dep	P	
California -			
(i-ip			
中共			
Decement.		Back Reid again Survey	-

6.3.1 Configure Azure IoT Platform

 Before configuring the Connect String, log in the Azure IoT platform to create a device. In the left-side navigation pane of the IoT Center, choose "IoT devices", and then select "New". As is shown below.

kot-hub-contoso-one - k						1
a sectory	Provide State	Mar. 2				
al Damas B Anny ng			11. page 107. Page.			
Acres control (1883)		met		Canata -	Vene	
# 10 ¹	+ ×	sime or some consume	(- genil-service also	
1 have	+ Altam	e (bion				
	Core data	-				of later consumer
9 thand army prices	100		0.00			
C Price and scale	. (410)		-	LARVER MEDIC	140110000 00681.01C	Approximate inter-
1- #10w	100 to	4.04				
B Carthuma						
· Address and provide the						
offer Marcal Material (previous)						
E Augentes						
A tarke						
U Sajart Sergana						
Faginers .						
A Garg restore						
• Mana						
Automatic Daniel Microgeneral						

 On the "Create a device" page, provide the name of the new device, such as myDeviceId, and then select "Save". This creates a device identifier for IoT Center. As is shown below.

Create a device	
Find Certified for Azure IoT devices in the Device Catalog	ß
* Device ID 😝	
myDeviceid	
Authentication type e	
Emmethic LCD x 500 sleft-signed x 500 CA signed	
Printury Key: 0	
Enter year promoty key	
* Secundary key o	
Enter your ascundary key	
Auto-generate keys 0	
Connect this device to an IoT hub o	
City Duality	
Parent device	
No parent device	

 After creating the device, open the device in the "IoT devices" pane. Copy the "Primary Connection String" and later paste to the "Connection String" of the configuration tool ". As is shown below.

i - I may time /	Anne (1999) 1 - 103 (1999) 1 - 103 (1999) 1 - 103 (1999) 1 - 103 (1999) 1 - 103 (1999)	
	injuni	16
marine .	started and the second second	
	11 Terry Performance	2.0
	Automatical and an end of the engineer faces and which a factors where	
	Seller maximum and source the end of the seller shall be to be the the the the the the seller of the second se	5.0
	# tree. () their	
	The same term	
Manual Harmon Danagement	-	
Manad Meeting Schargement		

6.4 AWS IoT Platform

With the AWS IoT Core, you can connect your IoT devices to the AWS cloud without configuring or managing the server. The AWS IoT Core supports billions of devices and trillions of messages, and can process those messages before routing them to AWS terminal nodes and other devices with security and reliability. With the AWS IoT Core, your applications can track all devices and communicate with them anytime, even if those devices are not connected. Build your IoT applications with AWS services, so that you can collect, process and analyze data generated by connected devices and take action without managing any infrastructure. For more information, please visit https://aws.amazon.com/iot-core/.

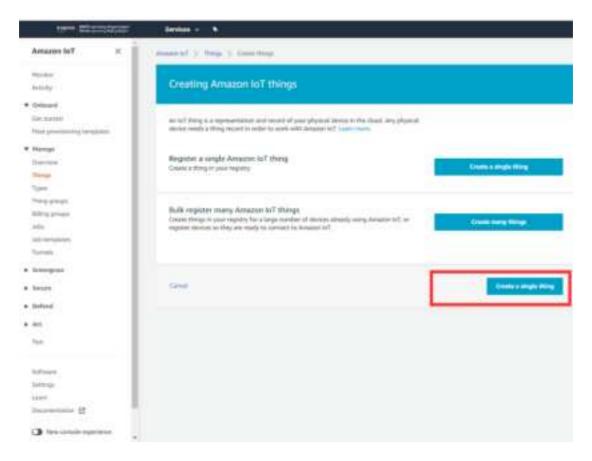
6.4.1 Configure AWS IoT Platform

Method 1: Creat A Thing for link

 Go to the Amazon IoT console >> Things page, and click "Create", as is shown below.

termine in the second	Among Str. (Among Str.)		
	Timp		
	S Section -		-
	-		
-	and the second sec	-	
-			
+	(mark)	+	-
the second s		100	100
	and the second se		
-	and the second se	-	-
	1 martineers		-
	Concerned in the second s		
			-
-	and the second sec		
	1 antice		
	1.64		-
	a transferrer a		

Amazon IoT >> Things >> Create a single thing



Amazon IoT >> Things >> Create a single thing >> Add your device to the thing registry >> Add certificate On this page, create a certificate for the thing just created, as is shown below.

Add a certificate for your thing	27
A service is and a service system or service is insure of	_
One-click contribute resolution (recommended). This citigenesis is contribute, public (e.g. and prices tay using imagene (17) centify an automag	Date of the
Description of the DSM (and provide a specific provide the provide	A free all (M
Use my certificate Register yes to write date and one pair net or this to be an or trans, because	actional .
Skip certificate and create thing No. of one to all combine to per ting per follow you form all owner to fermine to	n the state of the
	Add a certificate for your thing: Add a certificate for your thing: Add a certificate creation incommute is insure of Description of persons certificate creation incommute is insure of Description of persons certificate contained into an provide to compare the certificate Description of the certificate of the period to compare to comp

2. Download certificate file

- Download certificate >> A certificate for the things >> Download the file format is as follows: ***.cert.pem;
- Download private >> A private key >> Download. The file format is:
 ***.private.key;
- AWS CA files have been download in the vehicle tracker, so you do not need to Download CA files. If you need to update, click "A root CA for Amazon IoT Download";
- Click "Activate" to activate the certificate of the thing;
- Click the "Attache a policy", enter additional policy page. As shown in the following illustration.

Amuon ts7 ×	© Seres Secoldy Here the
14,000 4,767	Lemma Lemma Advancements in theme interfaces from
Orlandi Editorial Tarl processing language Tarl processing language	Certificate created
They Type: They prove Why prove also also also also also also also also	Reserved these Res and was there is and pass. Cardinana can be served at any results the provise and autionized an environmental
• Ari	lener lener

• On the "Attach a policy" page, config additional policy for the certificate and click "Register Thing" to register the item, as is shown below.

	Add a pointy for your thing	17
	Table is party to place as the periference	
é i la compañía de la	- 1 her som	
	B VINGTORY	- W.Y.
	The second data second	
	New York Control of State Street, Stre	
y148	Antonio Attain	
	PARTICULAR CONTRACTOR STATE	
-	0	
	"Annual's batter", Sector's to	
•	1 / bob (hisking) (c)	
	"Tan Hanna"	
	Contraction of the second s	
	"THREE", "ADDer",	
	Variation "Control of the Control of the Control of Con	
	V071Dumple	-
	and the state of t	
		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Pushep administ	Report Trice

- 3. Use the configuration tool to import the certificate file to the tracker
- Security >> Import digital certificate >> Select a certificate (select the downloaded digital certificate ***.cert.pem in the displayed dialog box); click "Import certificate"
- Security>> Import private key certificate >> Select a file (select the downloaded digital certificate ***. private.key in the dialog box that appears); click "Import file";
- As the AWS CA files have been built into the vehicle tracker, there is no need to download them. If you need to update them, go to Security >> Import CA certificate >> Select a file (select the downloaded digital certificate ***. private.key in the dialog box that appears); click import certificate, as is shown below.

Tinin-				
Trees Settings	Separate States			
College	Import DC	failed the	Select certificate	yan untikan
Oldo Siemage	Import private key	ficient file -	Inter the	luqui De
Cind Patlers	Import CA	Total Sec.	Belect contributes	quet cettificate
i War Manimume				
Linkson .				
Malaketan e Melp				
Malatin ann an Mala				

4. Enable AWS Platform

Cloud Platform >> Platform Type: AWS IoT Cloud Platform >> Enable Cloud Platform >> Domain name Cloud Platform >> Port: 8883

		Vehicle Tracking Osteway Configuration Tool	-
Faile Izenn Sittey	Partien Type	AWS Inc.	×
lible	Enshied	3	
dD Semp	Dimm	(1	
ind Parlow	Patt	100	
-	Eadle Dentis Provision		
Ne P(t	Time: Advanced Option		
Character of the		Back Read ap	ne. They confidentiate

"Cloud Platform >> Domain name" AWS IoT >> Things >> "Select the created things" >> Interact Copy this domain name paste to "Cloud Platform >> Domain name"

had the	1.1		
	1000		
Polyaged .	62756		Andrea -
test startest			
And pressing in particular	1.000	This dring allowed approves to be committed.	Connect a division
Parties			
Concerne -	Transmo.	103295	
Trange .			
types.		Spinet and Time Human and Statistic Atheneses, same was	
Programme	and an a	The second secon	
All the product	1 Marriet		
later .		HOTT	
tell templates	-	- Hart	
Second Second	and the second s	the paper is which applicatives and things to projections, a solver the more inform	union Par a Thing (Thing Hitabawi
invergence.		Losson doesn	
Ten more	1.000		
Defendi			
844			
er.	5. C		
d'inite			
here was a second se			

Save the configuration and restart the device. On the Cloud Plateform Cloud Platform page, check the connection status:

		,	Vehicle Track	ing Gateway Configuration Tool	
	Function Status	Connection Status	Platform Type	Connected Domain	Action
settings	Enabled	Connected	AWS IoT	alcotmy7sen7e.ats.iot.cn-north-1.amazonaws.com.cn	Med
lar					
settings					
i Platform					
ity					
lenance					
mect				Refresh Co	onfigurar

By default, invalid data is not reported. To report invalid data, tick "Report invalid data" in the advanced options. After that, the reported data value that does not exist is NULL, as is shown below.

Method 2: Create a provisioning template connection for AWS

 Create a prefabricated templet: Amazon IoT >> Fleet provisioning templates >> Create, as is shown below.

insure that it is	And a second second second		-
tering:	Field provisioning templates		-
			_
Principal Control of C	Latrana E		
at some			
		- has	
	12 mm/1	the second se	-
	and a second		-
		2. There is a second	
nafa.			
-			
-			

Creat Certificate: Amazon IoT >> Certificates

maan to!	and a second of a second secon		1.11
-	Certificates		
	And Sector Secto	1000	
	and the second second second second second second	Augustree -	1.00
	I server server server server server		
	C and the faces that the faces the faces of the faces of		-
na jenor	1 contractor that the monotonic of attack of the	testar.	· -
	2 and a first of the second se	444m	
-	and the second sec		1.00
	Contraction of the second s		
-	(- you and the set of the set	8.94	-
	2 million and a second second second	ione	-
Sec.	A second s	inter (-
-	The second	tag tag	
	C and the second s	0.010	

Amazon IoT >> Things >> Create a single things >> Add your device to the thing registry >> Add certificate

On this page, create a certificate for the thing just created, as is shown below.

Amazon tel? ×	Analy 1 Selles 1 Servether	_
No. 10	Create a rentificate	
Tomas Tomas Tomas Tomas	A setting of a set in a first set of a paral (second set in the set of)	
111	Die 1994 berehate tradition (montes) Ter ein geweine ein effense sone ing ein geschliege seid, begann efficienten minnen	5
han an a	Davier with 128 August and an appropriate to the second se	
in continue la continue la continue	Dan vey une Officiale Names and To with an entry provide an attribute to one or easy datase.	
Terrette and Terrette and Terrette and Terrette and Terrette and Terrette and Terrette and Terrette and Terrette and Terrette and Terrette and Terrette and Terrette and Terrette and Terrette and Terrette and Terrette and Terrette and Terrette and Terrette Terrette and Terrette and Terrette Terrette and Terrette and Terrette Terrette and Terrette and Terr		
Contract Contractor		
• Aut.		

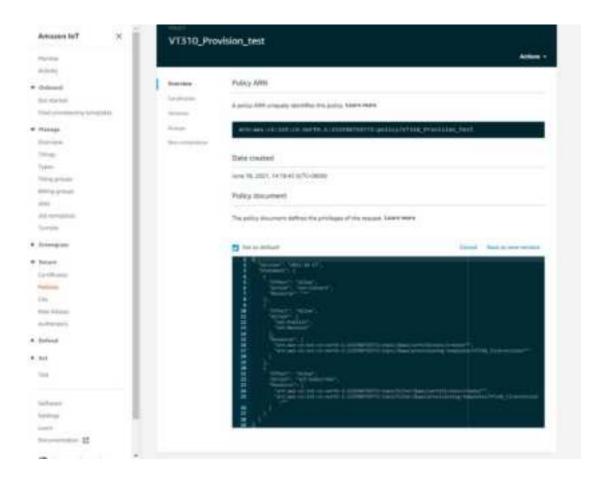
- 2. Download a certificate file
- Download a public key file >> A certificate for the things >> Download. The file format is ***.cert.pem;
- Download the private key file >> A private key >> Download. The file format is
 ***.private.key;
- As the AWS CA files have been built into the tracker, there is no need to download them. If you need to update, click"A root CA for Amazon IoT Download";
- Click Activate to activate the certificate;
- Click the "Attach a policy", enter additional policy page, as is shown below.

Amagan at	 Statistic constants
\leftarrow	
•	Contribute constant
111	Sector Sector Sector Sector a particular a construction of the sector sect
	Anna Anna Anna Anna Anna Anna Anna Anna
Text Instance	
+ ==	

• On the previous window, click "Activate" to enter the certificate list. Click "Done" and complete certification.

	And Administration Advertising		
-	The art and the party of the printing of the p		
- I	The field down with a strength of the Constraint of the Constraint of the		
	Second applicable and in this activity of		
	1 - Industry		
	setup printy		
-	14.44 miles	14	
		2	
	the second intensity		
1714	R 1210, Pending Jul		
	HARANG - Salaris Sarang - Salarisani		
	American's M		
	Content terms		
	Tablach I		
teres -	The dealer's		
	(receiving)		
-		and the second se	
		Contract of the second s	
•	Tarita mene		

 On the previous window, click "Attach a policy" to enter the Amazon IoT >> Policy list to add a policy, as is shown below.



- 3. Use the configuration tool to import the certificate file to the vehicle tracker
- Security >> Import digital certificate >> Select a certificate (select the downloaded digital certificate ***.cert.pem in the displayed dialog box), click "Import certificate"
- Security >> Import private key certificate >> Select a file (select the downloaded digital certificate \\. private.key in the dialog box that appears); click "Import file";
- As the tracker already has a built-in AWS CA file, the CA file is not required. If you need to update the CA file, go to Security >> Import CA certificate >> Select a file (select the downloaded digital certificate ***.cert in the pop-up dialog box), click "Import certificate";

Tinine .				
	Aspertention .			
Romm Settage	Import DC	friend file-	Select centilizare	per cetthore
OLD Semp	Tesport private key	Select file	beingt the	luquid the
Cinet Platferry	Import CA	Tobal Str.	Beleet certificate	part continues
1.424				
i War Malaintanne Mrip				
Malatinaan e				
Manter and				
Malatinaan e				
Malatinaan e				

4. Enable AWS

Cloud Platform >> Platform Type: AWS IoT Cloud Platform >> Enable Cloud Platform >> Domain name Cloud Platform >> Port : 8883

		Vehicle Tracking Osteway Configuration Tool	-
Valor Access Settage	Partien Type	AWS De	*
Other	Enshied	Ø	
Old S-map	Dimmi		
Cinet Martonn Security	Patt	100	
1.954	Eadle Dents Provide		
Contestant.	There' Advanced Option		
trip.	Putrick Israid Date	3	
中共			
Decement.		Back Read a	pin. Two configurations

▲ If you create a preset template on AWS, you need to enable device preset in the configuration tool. Tick ✓ to enable it, and enter the preset template name. The template name can be found in AWS IoT >><u>Fleet provisioning</u>_ <u>templates</u>.

Copy the address in the AWS IoT >> Things >> "Select created things">> Interact option. Enter the domain name on the AWS IoT page.

dia manana an		
entry.		
	1.000	
Polosed	6756	(110)
topi starbali		
had pressing inception.	1.000	This designation of the communities, the second sec
Partie		
Concession in the local data	Transmo.	(0) 05.
Trange .		
Town		Salari pad Ting Banne prog the had Michaelan, Care was
Prog. proget	and the second second	Addressing the total and the second statement of the s
Charles and a second	(Internet	
lades .		HOTT
tell terreption	1.1	ing i
Contraction of the local distance of the loc	in the second se	the turn is well againstive and bright a providers a shree the race information for a Tring (Tring Rachae)
interpret.		Lastn norm
lat some		
beherali		
844		
-		
d'inite		

Save the configuration and restart the device. On the Cloud Platform Cloud Platform page, check the connection status:

		1	Vehicle Track	ing Gateway Configuration Tool	- ×
Status	Function Status	Connection Status	Platform Type	Connected Domain	Action
System settings	Enabled	Connected	AWS IoT	alcomny7sen7e.ats.iot.cn-north-1.amazonaws.com.cn	Medify
Cellular					
OBD settings					
Cloud Platform					
Security					
Maintenance					
Help					
中文					
**					
Disconnect				Refresh Co	nfigurations

6.4.2 Subscription and Publishing of AWS

1. Subscribe to messages reported and published by VT310

Amazon IoT >> Test

	Hall Care		
11111111111		Image: An and a second seco	
111			

Amazon IoT >> Test >> enter the published topic in the Subscription topic text box, as is shown below.

For example: v1/VT310 SN/motion/info

-	Time .		
And a second sec	mittimer		Second Second Second
in the second			
Section of the local division of the local d			
+ 110.00		The second secon	
	Concerned in		
in the second se		and the second s	and the second se
Table .			
"Internet State		AND IN THE OWNER OF THE OWNER	
		Hand Sold and South and So	
-		personal state of the second sec	
		I Second at an inclusion of the last strength of the second system of	
1 Tanan			
		E far the discount factor make	
- Annotation - Contraction - C		- Antiputing of a descent	
-		And a second a lower of	
(M.)			
1111111111		CARL CONTRACTOR OF A	
1.000		and concernenced scatter.	
**1		The second se	
		A CONTRACTOR OF	
100			
			7/1

By default, the VT310 reports messages from the retention groups of GNSS, Sysinfo, Motion, Cellular1, IO, and OBD. You only need to subscribe to topics to receive messages, as is shown below.

	-		
-		A CONTRACTOR OF A CONTRACTOR OFTA CONTRACTOR O	
	1		()
5			

For more information, see API documentation.

```
《FlexAPI_over_MQTT_Reference_for_3rd_party_platform_VT310.pdf》
```

6.5 Aliyun IoT

The Alibaba Cloud Enterprise IoT platform provides fully-hosted instance services. It allows you to easily access and manage devices without building IoT infrastructure by yourself. It features low costs, high reliability, high performance, and easy operation and maintenance. With powerful data processing capabilities, it can better analyze and visualize device data. Realtime security threat detection ensures that each instance is secure and reliable. It is the first choice for each enterprise device to migrate to the cloud. For more information, visit the Alibaba Cloud product page. <u>https://www.aliyun.com/product/iot</u>.

Method 1: One machine and one key

For more information: https://help.aliyun.com/document_detail/74006.html

 Go to the Alibaba Cloud Console IoT Platfrom >> Device >> Devices >> Device Details. Create a Device and view the Device Secret, as is shown below.

	+ mqtt_tr	emp des			-	
1	-	and particular				
10 Carllon	10000		in the second second	construction has	544.	Transformer and the
	in the	terms .			dening the	inches .
		-	-Paster 1		-	
	-		-	aller next a	10.00m	a topo housed
	1000	100	-		distantia .	C
	Name (San Castron or other					
	-	and a second	-	10°	distantia mana	
	-					

The Device Certificate of the replication Device includes three parameters: Product Key, Device Name, and Device Secret, as is shown below.

- COAteralized		-			
A Adda Anna	+ mqtt,te	-			
			Configure Incidence		

2. Config Aliyun IoT

Cloud Platform >> Platform Type: Aliyun IoT Cloud Platform >> Enable Cloud Platform >> Device Name: Cloud Platform >> Product Key Cloud Platform >> Authentication Mode: Unique Certificate Per Device

Cloud Platform >> Device Secert

Tick I to enable Secure Certification Mode: Unique Certificate Per Device/Unique Certificate Per Model

The three parameters from Alibaba Cloud ProductKey, DeviceName, and DeviceSecret. Enter the corresponding parameters in the configuration tool. In the upper-left corner of the IoT platform console, view the region where your service is located. For more information about the Region ID values, see Region and zone.

		Vehicle Tracking Onteway Co	uliguration Tool	- 1
Value .	Parties Type	Aliyan Let	•	
Cilida	Enshied.	Ø		
old Senge	Detice Name			
Cinetification :	Regau ID			
1924	Product Key			
Malater and a	Automization Mede	Unique Confidere Per Device	•	
₽ <u>¢</u>	Denice Secont			
	Shew Advaced Option			
	Politick Invalid Data	N		
Decement			Back Read again Surveyord	(in the set

6.6 Configuration of MQTT Platform Link

MQ Telemetry Transport (MQTT) is a lightweight proxy-based message transmission protocol for Publishing/Subscribing. It is designed to be open, simple, lightweight, and easy to implement. These features make it suitable for restricted network environments, including but not limited to high-costs, low-bandwidth and unreliable networks. CPU and memory resources are limited for embedded devices. This protocol provides one-to-many message publishing and discoupling applications using the publish/subscribe message mode. It supports transmission of messages blocked by load content with TCP/IP. Open-source software that supports MQTT, such as ThingsBoard and EMQ, allows customers to develop their own IoT platforms.

6.6.1 MQTT Broker

Cloud Platform >> Platform Type >> Mqtt Broker: Enable, configure domain name, port, username, and password ". Click "Save configuration" and restart, as is shown below.

		Vehicle Tracking Onteway Co	ediguration Tool	
Yoday .	Partien Type	Magt Broker	•	
lprom Sittagy Difide	Enshiel	Ø		
tit) Settings	Dimm	1		
Sent Parlow	Patt	100		
-	unnuna			
faire and	parmet			
Refe 中文	Here Advanced Option			

If you want to view invalid data, click "Show Advanced Options" to see hidden configuration items. Select "Show invalid data", as is shown below.

		Vehicle Tracking Onteway Could	guration Tool	- 1
Inde	Partiers Type	Magt Broker	*	
Debular	Enshied	N		
diti Sempe	Djimin			
institution	Patt	100		
104	united and a second sec			
Californian P	pasmaid			
trip.	Show Advanced Option			
PX	Putting Involution	R		
hummer.			Back Reidagan Berran	ferrer)

6.6.2 Configure ThingBoard Open-source IoT Platform

ThingsBoard is an open-source IoT platform where you can quickly develop, manage, and expand IoT projects. It is an open-source IoT platform for data collection, processing, visualization, and device management. It connects devices through the industry-standard IoT protocols - MQTT, CoAP, and HTTP, and supports cloud and local deployment. For more information, go to <u>https://thingsboard.io</u>.

	Thoughthoused bit 100
O Devisión	Convertingentiand
Devices Devices	
O Devices	I towns Systems
a and	- TheigsBoard Components: horizoitally scalable and fault tolevant
0	Mensage Dunce: Kalka, RabbibliD, ANS SQS, Azure Serecu Bus, Google Publicus
	- Databaten: Pesigre5QC and Trosscale/CynaeoRia (No5QL)
	Gateways: support of Weidbun, OPC-UA, BLE, CAR, MIQTT, HITTP, and other prosocols

ThingsBoard Architecture

 Register an account and add a device. After adding a device, use the open Device Device Credentials >> MQTT Basic to enter the Client ID, User Name, and Password parameters. For more information, visit <u>https://thingsboard.io/docs/getting-started-guides</u>.

Thingsboard	Stimper - Ma	
\$7	At Decker X	
8 C	D ment and part when services has been been adde	
h	D Investment Concerning Frances	
2	Bertha (Included) X Comment	
	NOT have a second secon	
Constant of		
Barryan -		
-	· · ·	
B bennen an		
-	the second se	
0		

Platform Device Parameters

 In the configuration tool, enter the thingsboard.cloud, port number 1883, username User Name, Password, Password of the device parameters added by the platform.

		Vehicle Tracking Onteway Configuration Tool	7
Finite .	Partien Type	Mapt Broker	•
Romm Sittings Orbite	Enshied	Ø	
Old Seman	Djimm	thingstourd cloud	
Cost Mattern	Part	3403	
inter i	UNITED IN	(munt	
(database)	passwaid	-	
P 作	How Advanced Oppose		
TA	Putting Invalid Data	1 and	

7. Maintenance

You can upgrade the firmware with the local upgrade configuration tool, xshell, or through OTA. OTA upgrading includes Alibaba Cloud standard OTA upgrading, SmartFleet platform OTA upgrading and FlexAPI upgrading. Now we will only introduce how to upgrade with local configuration tools. For more information about upgrading, please contact technical support of InHand Networks.

7.1 Firmware Upgrade

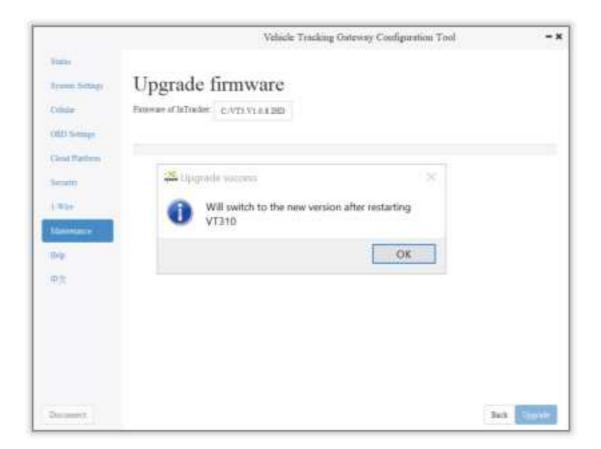
Step 1: Go to Maintenance >> Upgrade firmware, as is shown below:



Step 2: Click "Browse file" to select the firmware. Click "Upgrade" and wait for firmware installation, as is shown below:

		Vehicle To	uking Outroay Configuration Tool			-×	i
itana Isona letap Coldar	Upgrade fi	Server Ke	1. 220				
Cost Patient		M. Select Upgnie			12012	-	2 X
Incarig Li Ware Mare Mare Mare Mare Mare Mare Mare M		Look in:	Columnation Columnatio Columnation Columnation Columnation Columnation Columnation Column		0 0	~	
		File same:	VT3. V1. 0. 6. JHD			1	Open
Decement.		Files of type:	Vograde File(*,1HD)	1.644		-	Cancel

When a prompt box says "Will switch to the new version after restarting VT310", new firmware has been imported successfully. Click "Restart" to upgrade the firmware.



Note: After the device is upgraded, restart the device and then configure it.

7.2 Restore Factory Settings of FlexAPI

Go to Maintenance >> FlexAPI restore factory settings to reset FlexAPI settings.



7.3 Import/Export Configuration

To back up and import configuration, go to Maintenance >> Import/export congifuration file, as is shown below. Click "Export configuration" to back up configuration, and click "Import configuration" to load the configuration file.

		Vehicle T	racking Outeway C	outiguration Tool	- 1
Yoshi Texano Sittage	import/exp	ort config	file		
Other	Expiri configurations	Import configurations			
OLD Seman					
Cinet Parliero					
Section					
inter .					
tion of the local division of the local divi					
Trip					
中女					
Count			That	a Read configuration	en ondennine

To back up configuration, click "Export configuration". The configuration tool can read device configuration and pop up file storage window. Enter the name of the backup file, and click "Open".

	Vehicle Tracking Gateway Configuration To	ael		- 3
tions types temps Criste	import/export config file			
OED Settings	El Select the exported configuration file		2	×
becauty.	Look in:	00	0	
1-War Manasara Rite Rite	My Comp sunzhandc Program Files Program Files (x86) Users Windows back json backup json			
	File name: [backup.json			Open
Distanticy	Files of type: configuration file(*,jsoo)		•	nncel

▲ In the exported configuration file, Username and Password are not available. If you hope to import the modified username and password to the new device, you can modify them in the exported file. Replace the admin characters with a new admin account, and input in the password of the new account. After the modified configuration file is saved, import it into the new device and restart the device. Log in the new device with the new admin account and password.

▲ In the exported configuration file, Username and Password are not available. If you hope to import the modified username and password to the new device, you can add them in the exported configuration file. Enter your admin account in "" of "user:":"", and enter the password in "" of "passwd":"". After the modified configuration file is saved, import it into the new device and restart the device. Log in the new device with the new admin account and password.

55	"aliyun_auth_type": "0",
56	"aliyun_deviceSec": "",
57	"aliyun_productSec": "",
58	"tcp_udp_enable": "1",
59	"tcp_udp_domain": "118.122.120.22",
60	"tcp_udp_port": "44444"
61	},
62	<pre>}, "admin": { "user": "admin"</pre>
63	"user": "admin",
64	"passwd": "123456"
65	}
66	}

8. Restoration of the Default Account and

Password for Hardware

Because configuration usually involves the device certificate file, when the device is restored to the factory via hardware, only the username and password are restored to admin/123456. As is shown in the following picture, press the Reset button with a screwdriver or other tools for more than 8 seconds, and then loosen it.



ps: By double-clicking "Reset", you can restart the device when it goes wrong.

9. How to Get the Device Log

Make sure that the computer is connected to the VT310 through USB to serial port through configuration wire, and open a serial port connection tool such as the serial port debugging software. The software can be downloaded in Mircrosoft Store.

Microsoft Store					7	D	×
Home	Gaming	Entertainment	Productivity	Deals	P Search	A,	122
	This prod	luct is installed.			Launch		
			gguang • De * * * 212 ofessional serial Receive the inco window. one Wish Offers in-app purch a can buy on the 2	debugging softwa oming data from th Vist	littles	it in	

 Open the serial port debugging software and select the link serial port. The default baud rate of the serial port is 115200/8/n/1. Click "Open serial port". Note that the Character encoding mode (Character encoding) is ASCII, and the line break mode (Linet break) is \n(LF).

A B ?	- II ×
Serial Port C COM3 ~ Baud Rate A 115200 ~ Data Bits A 115200 ~ Parity : Noor ~ Stop Bits : One ~ Open sanial pont	Character encoding ASCB v Language Default v Theme Default v Keep the screen constant light Off C
Receiving settings. Receive and save to file HEX display Receive scripts Add Tenesta ~ Sees data Empty data	Press "ESC" to send On Con Show font size A A A JavaScript Script Nolder Default
Send settings. Send a file HEX Send Sending scripts Sending scripts Timing send Torna RTS	
Line Izreals In (LF)	Receive: 0 Reset count

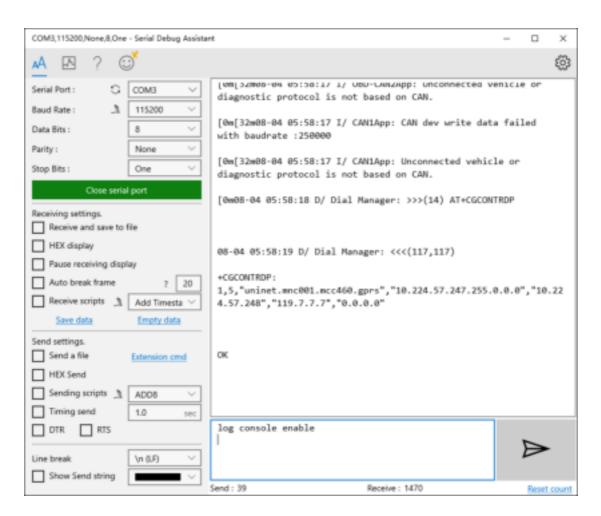
 Enter +++ in the content sending serial port to activate the CLI mode, as is shown below;

A 19 ? (9			0
Serial Port C Baud Rate 3 Data Bits Parity : Stop Bits : Receiving settings Receiving settings Pause receiving dis HEX display Pause receiving dis Auto break frame Receive scripts 3 Receive scripts 3	TTS200 8 None One One One Star Alar play 7	Enter cli mode username:		
Send settings. Send a file HEX Send Sending scripts _3 Intring send	Extension and			
COTR C RTS	(yn (U)) ~ ~	++++ Send (3	Receive : 31	De Mener (court

Enter the Username admin (press the enter key), click "Send", enter the password 123456 (press the enter key), and click send to enter the command line mode.

M E ? 😳		0
Senial Port : COM3 ~		
Baud Rate	Enter cli mode	
Data Bits 🛛 🖉 💛	1 percentation of	
Parity: None 🗠	Username1	
Stop Bits : One 😪		
Close serial port		
I timing send 1.0 urc		
	adein	
tentent from		
Line lineal (In (U)) ~		
	Send 3 Receive : 31	Report, Gewont
COM3,1152002None,8;One - Serial Debug Avea	Lant	- D X
M B ? @		٢
Senal Poet : C COM3 ~		
Baud Rate 115200 ~	Enter cli mode	
he man	Enter cli mode username: admin	
Baud Rote : <u>1</u> 115200 ··· Data Bits : <u>8 ···</u> Partly : <u>None ··</u> Dop Bits : <u>One ···</u>		
Baud Rote : <u>1</u> 115200 ··· Data Bits: <u>8 ···</u> Parity : <u>None ···</u> Rop Bits: <u>One ···</u>	username: admin password: ******	
Baud Rote : 115200	username: admin	
Baud Rote : <u>1</u> 115200 ··· Data Bits : <u>8 ···</u> Parity : <u>None ···</u> Rop Bits : <u>One ···</u>	username: admin password: ******	
Baud Rote : <u>1</u> <u>115200 ~</u> Data Bits : <u>8 ~</u> Parity : <u>None ~</u> Rop Bits : <u>One ~</u> Core serial point Receiving settings. Receive and save to file	username: admin password: ****** login success!	
Baud Rate : _1 15200 ~ Data Bits : 8 ~ ~ Party : None ~ ~ Rop Bits : One ~ ~ Come serial port Receiving settings. Heccive and save to file HEX display	username: admin password: ****** login success!	
Baud Rate: 115200	username: admin password: ****** login success!	
Baud Rate : 1 15200	username: admin password: ****** login success!	
Baud Rate: 1 15200	username: admin password: ****** login success!	
Baudi Rate: 1 t15200 Data Bits: 8 Parity: None 9 Parity: 0ne 9 Roop Bits: 0ne 9 Come 9 Com	username: admin password: ****** login success!	
Baud Rate: 1 15200 Data Bits: 8 Party: None Party: 0ne Receiving settings: 0ne Receiving settings: 0ne HEX display Pause receiving display Auto treak frame Receive script 1 Receive sc	username: admin password: ***** login success! InTracker />	
Baud Rate: 1 15200 Data Bits: 8 Party: None Party: 0ne Receiving settings: 0ne Receiving settings: 10 HEX display Pause receiving display Auto treak frame 1 20 Seer data Temesta Seer data Temesta Seer data 10 Send a file 14 Send a file 14 Send a file 14 Send a file 10 HEX Send 10 Sending scripts 3 ADD8 Timing send 10 Send a file 10 HEX Send 10 Sending scripts 3 ADD8 DTB 200	username: admin password: ****** login success!	
Baud Rate: 1 15200 Data Bits: 8 Party: None Party: 0ne Receiving settings: 0ne Receiving settings: 0ne HEX display Pause receiving display Auto treak frame Receive script 1 Receive sc	username: admin password: ***** login success! InTracker />	

 Enable the log function. In the send text box, enter "log console enable" (press the enter key) and click "Send". The following screenshot shows the log information in the receive window.



4. Close log function, write "log console disable" (press the enter key) in the send text box and click "Send". The receive window stops receiving logs.

COM3,115200,None,8,One - Serial Debug Assista	rt.	- 0	×
🔺 🖪 ? 😅			٢
Serial Port: G COM3 ∨ Baud Rate: 3 115200 ∨	[0m[32m08-04 06:00:34 I/ MqttTp: Clear MQTT client.		
Baud Rate: _3 115200 ∨ Data Bits : 8 ∨	[0m[32m08-04 06:00:34 I/ MqttTp: retry times:346, Wi seconds to reconnect!	aiting 20	
Parity : None V Stop Bits : One V	[0m[32m08-04 06:00:35 I/ OBD-CAN2App: CAN dev write with baudrate :500000	data fail	ed
Close serial port	[0m[32m08-84 06:00:35 I/ CAN1App: CAN dev write data	a failed	
Receiving settings. Receive and save to file	with baudrate :500000 [0m[32m08-04 06:00:35 I/ OED-CAN2App: CAN dev write	data fail	ed
HEX display Pause receiving display	with baudrate :250000		
Auto break frame ? 20 Receive scripts 1 Add Timesta ~	[0m[32m08-04 06:00:35 I/ OBD-CAN2App: Unconnected vo diagnostic protocol is not based on CAN.	shicle or	
Save data Empty data	[0m[32m08-04 06:00:35 I/ CAN1App: CAN dev write data with baudrate :250000	a failed	
Send settings. Send a file Extension cmd	[0m[32m08-04 06:00:35 I/ CAN1App: Unconnected vehic]	le or	
HEX Send	diagnostic protocol is not based on CAN. [Omlog console disable		
Timing send	InTracker /> log console disable		
Uine break	and consore organie	\triangleright	
Show Send string	Send : 59 Receive : 29367	Reset	count

5. If you need to link the configuration tool after exiting the serial port, write "exit" (press the enter key) in the send text box, click "Send" (used to exit the CLI mode), and then close the serial port. Or you wait for 180 seconds when the device automatically exits the CLI mode.