InHand Networks VT310 Vehicle Localization Gateway Instruction Manual

InHand Networks
Vehicle Tracker VT310
Quick Installation Manual

InHand Networks
www.inhandnetworks.com
Version: V1.0
February, 2020

VT310 Vehicle Tracker
Quick Start Guide
V1.0

Contents

Structure of VT310

Installation and Wiring

VT310 comes with a built-in battery. The VT310 device can be powered by a built-in battery or an external DC power supply. Generally, when an external DC power supply is available, the external power supply is preferred. LTE antenna and GNSS antenna are built-in VT310. Users can use without operation.
The information of the LTE Module: Mode Number: EMS31-X, FCC ID: QIPEMS31-X, IC: 7830A-EMS31X

Installing the SIM card

Before using the device, you need to install the SIM card. When the device is powered on, it will automatically dial up the network.

Arrow position for SIM card cover. Open the cover and insert the SIM card according to the SIM card direction indicated on the cover.

Power to VT310

3a) Use the external power supply
Connect the positive and negative terminals of the external power supply with X-V+ and X-V- respectively:
b) Use a built-in battery for power
VT310 provides a 1200mAbuilt-in rechargeable battery. When there is no external power input, stable power input can be provided for the equipment.

Confirm Work Status

Confirm by Indicator Status

a) GNSS Indicator (Green)

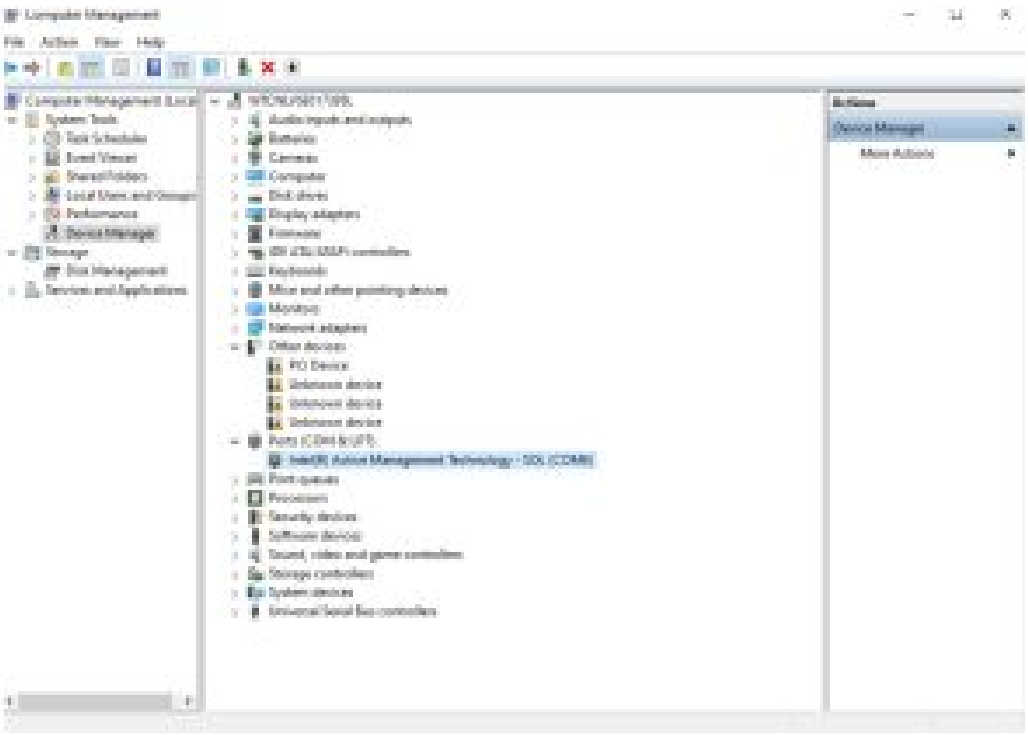
Function	Indicator status
GPS disable	OFF
GPS enable	FLASH 0.5Hz
GPS to timing success	FLASH 5Hz
GPS to position success	Always on

b) Cellular Indicator (Orange)

Function	Indicator status
Module disable	OFF
Module enables	FLASH 0.5Hz
Dial succeeded	FLASH 5Hz

Confirm by Configuration Mode

a) Wiring:
Serial port (check-in device Manager after connecting PC with USB to the serial port line) :

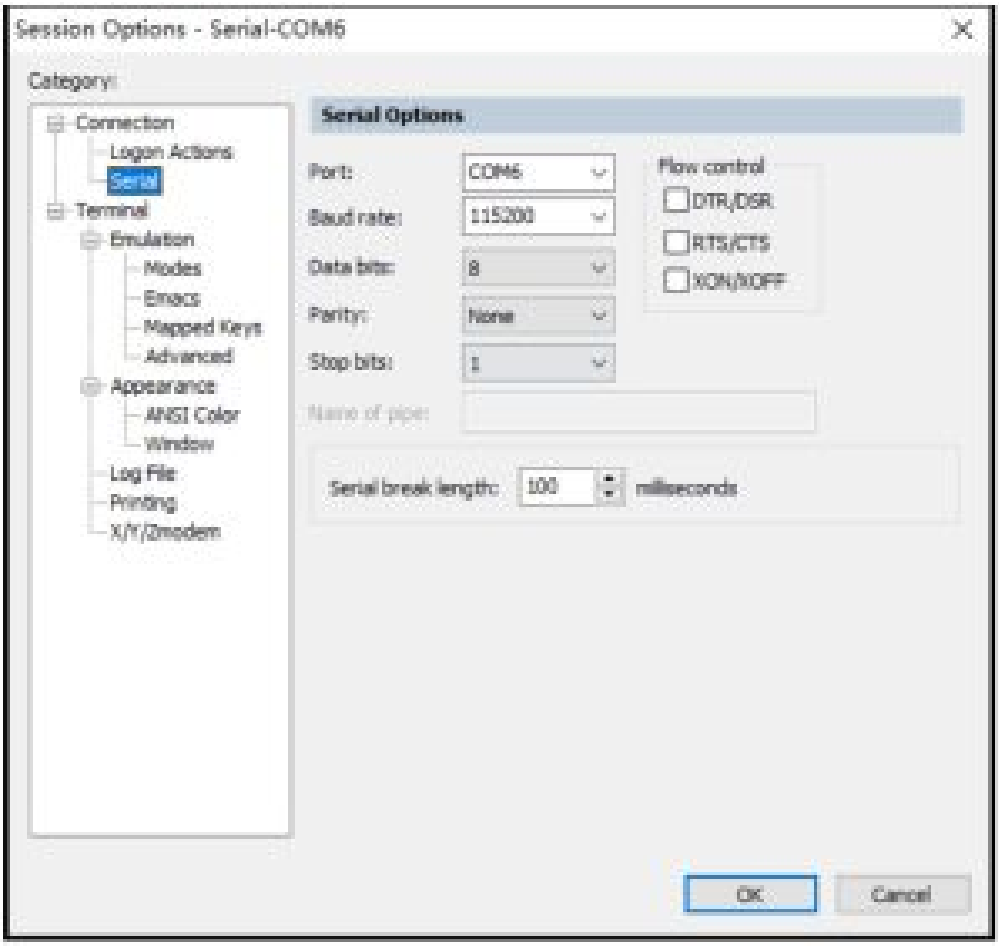


VT310 devices connect serial ports (cables R232-Tx1, RS232-Rx1, GND connect USB to 232 serial ports) :

b) Open the serial port to enter the Configuration Mode
Use “SSCOM42”, click open serial port, enter +++ in the character box, and then click Send.
notice
①The serial port number corresponding to VT310 should be selected; Baud rate:
115200; Data bit: 8; Stop bit: 1; Check bit: None; Asthenosphere control is not supported.
②When sending “+++” into configuration mode, be careful not to check “HEX Send” or “send the new line”.

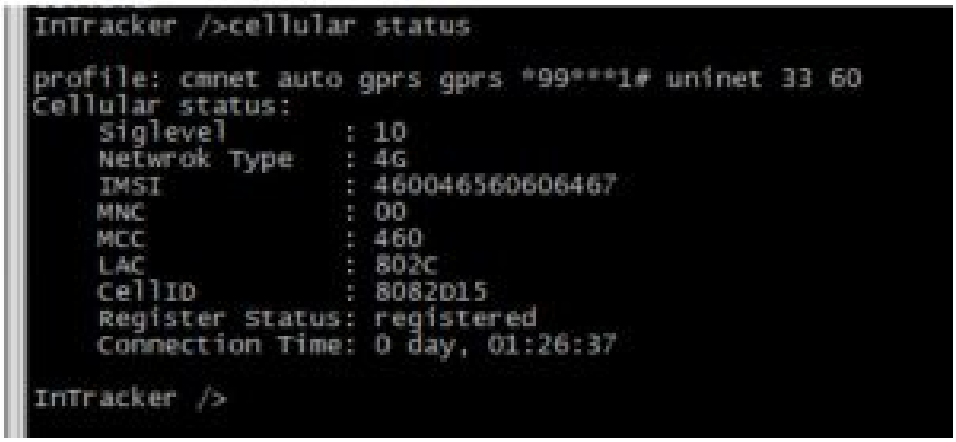

sscom42.exe

The window enters the configuration mode, then closes the serial port.
Windows Install serial port tools, eg: SecureCRT, as follow configuration



c) Show work status by command

i. cellular status
command: cellular status



ii. GNSS status
Command: lbs status

```
InTracker />lbs status

latitude [Degree]: 30.587044
longitude[Degree]: 104.053986
course   [Degree]: 300.220001
speed      [knot]: 0.000000
altitude      [M]: 525.700012
HDOP              : 0.800000
$GPGGA,074601.000,3035.22257,N,10403.23902,E,1.11,0.8,525.7,M,0.0,M,,*6C

InTracker />
```

Connect to Wialon

Wialon – the platform for GPS tracking and IoT.

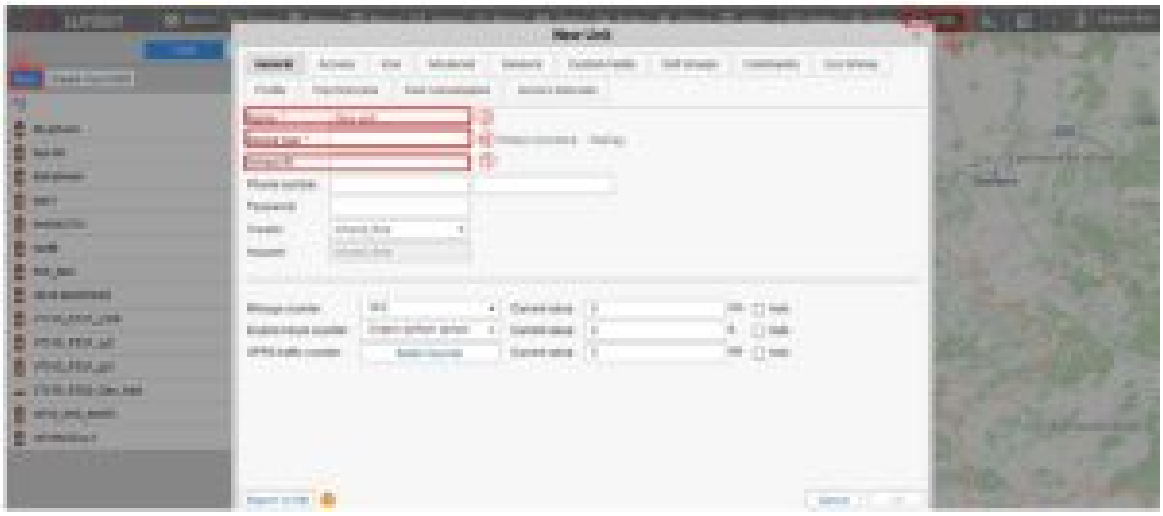
Configuration to VT310

command: wialonClound set 1

```
InTracker />wia
wialonCloud
InTracker />wialonCloud set 1
InTracker />reboot
```

notice: command to take effect after a restart

Configuration to Wialon



URL	**https://hosting.wialon.com/**
NAME	inhand_free
PWD	evan1234
Add VT310 to the Wialon, Please in the order indicated above.	
③	user-defined
④	Choose Wialon Combine
⑤	SN

Enters VT310 configuration mode to get SN:

```
InTracker />device_info

Device Model:FQ58
SN           :VT3102020061201
Uptime       :0 day, 07:56:46
Version      :VT3.V1.0.12
Build time   :2020/07/10 18:42:25.91
```

Confirm Wialon connection status

1. **By command**

   Command: wialon status

   ```
   InTracker />wialonCloud status
   profile:1 - -
   Wialon Cloud connection status: connecting
   InTracker />
   ```

   Connect success: connected

   Connecting: connecting

   Connect failed: disabled

2. **By Wialon**

   Switch to “Monitor”, When the device is online, it appears green; When the device goes offline, it appears grey.

Notice

Parameters of Cellular

VT310 supports ordinary card automatic dialing, The default dialing parameter for white CARDS is ”internet auto gprs gprs *99# internet 2 60” . if dial by white CARDS , Please use ”cellular set <apn> <auth type> <apn username> <apn password> <dial number> <default bear apn> <SIM PIN> <heartbeat interval>” to Configure dialing parameters , eg:

```
InTracker />cellular status

profile: (NULL) (NULL) (NULL) (NULL) (NULL) (NULL) (NULL) (NULL)
Cellular status:
    Siglevel        : 0
    Network Type    : unknown
    IMSI            :
    MNC             :
    MCC             :
    LAC             :
    CellID          :
    Register Status: registering
    Connection Time: 0 day, 00:00:00

InTracker />cellular set internet auto gprs gprs *99# internet 2 60
InTracker />cellular status

profile: internet auto gprs gprs *99# internet 2 60
Cellular status:
    Siglevel        : 0
    Network Type    : unknown
    IMSI            :
    MNC             :
    MCC             :
    LAC             :
    CellID          :
    Register Status: registering
    Connection Time: 0 day, 00:00:00
```

When the configuration is complete, enter the command“ reboot” to restart the device.

ISED STATEMENT

This device complies with Industry Canada’s license-exempt RSSs. Operation is subject to the following two conditions:

1. This device may not cause interference; and
2. This device must accept any interference, including interference that may cause undesired operation of the device.

FCC warning:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

– Reorient or relocate the receiving antenna.
– Increase the separation between the equipment and receiver.
-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
-Consult the dealer or an experienced radio/TV technician for help.

Any modification to the product is not permitted unless authorized by InHand Networks. It’s not allowed to disassemble the product. It is not allowed to replace the system or change components unless with permission and certification. Please contact the technical support department of InHand Networks or local branches for help.

RF Exposure Statement

This equipment complies with radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 21 cm between the radiator& your body.
This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Documents / Resources

 InHand Networks Vehicle Tracker VT310 Quick Installation Manual	InHand Networks VT310 Vehicle Localization Gateway [pdf] Instruction Manual VT310, Vehicle Localization Gateway