

InHand Networks

Vehicle Tracker VT310

Quick Installation Manual

InHand Networks
www.inhandnetworks.com

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VT310 Vehicle Tracker

Quick Start Guide

V1.0

1. Structure of VT310



- ① Cable Interface
- ② Cellular Indicator
- ③ GNSS Indicator
- ④ SIM Card

2. 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

1) 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.

2) Power to VT310

a) Use external power supply

Connect the positive and negative terminals of the external power supply with X-V+ and X-V- respectively:

b) Use built-in battery for power

VT310 provides 1200mAh built-in rechargeable battery. When there is no external power input, stable power input can be provided for the equipment.

3. Confirm Work Status

1) 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

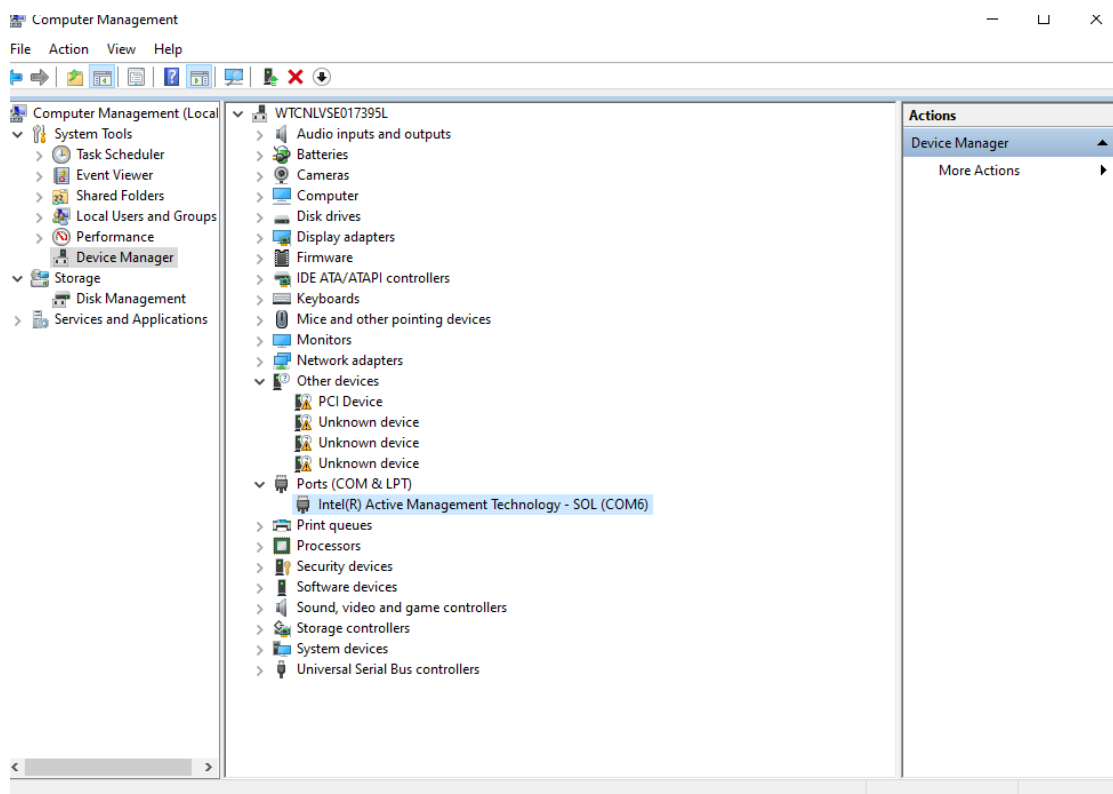
b) Cellular Indicator (Orange)

Function	Indicator status
Module disable	OFF
Module enable	FLASH (0.5Hz)
Dial succeeded	FLASH (5Hz)

2) Confirm by Configuration Mode

a) Wiring:

Serial port (check in device Manager after connecting PC with USB to 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.

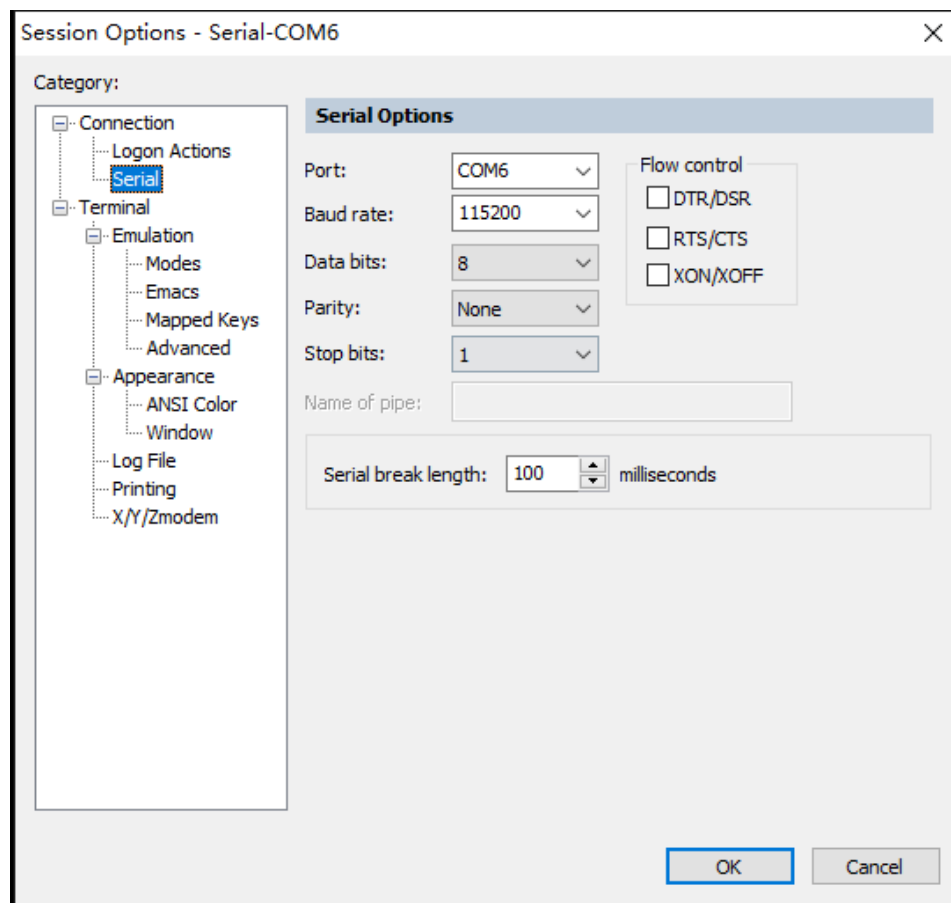
②When sending "+++" into configuration mode, be careful not to check "HEX Send" or "send new line".



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

```
InTracker />cellular status
profile: cmnet auto gprs gprs *99***1# uninet 33 60
Cellular status:
  Siglevel      : 10
  Network Type  : 4G
  IMSI          : 460046560606467
  MNC           : 00
  MCC           : 460
  LAC           : 802C
  CellID        : 8082D15
  Register status: registered
  Connection Time: 0 day, 01:26:37
InTracker />
```

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 />
```

4. Connect to Wialon

Wialon – the platform for GPS tracking and IoT.

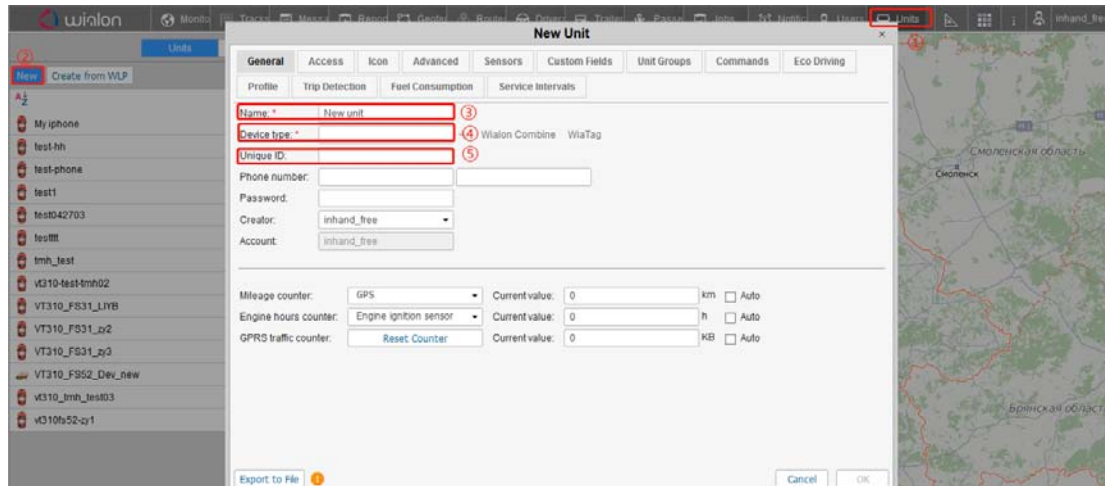
1) Configuration to VT310

command: wialonCloud set 1

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

notice: command to take effect after restart

2) 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
```

3) Confirm Wialon connection status

1. By command

Command: wialon status

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

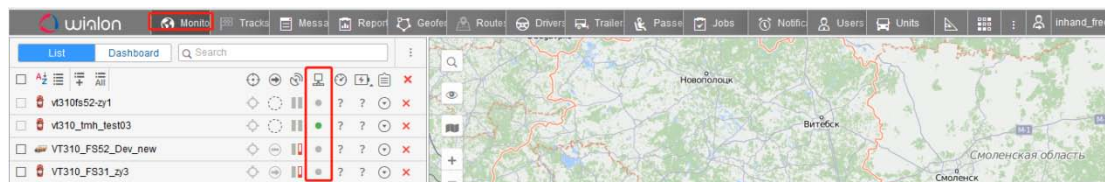
Connect success: connected

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.



5. Notice

1) 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.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- (1) l'appareil ne doit pas produire de brouillage, et*
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.*

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 minimum distance 21 cm between the radiator & your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Le dispositif est conforme aux limites d'exposition aux rayonnements fixées pour un environnement non contrôlé. Lors de l'installation et du fonctionnement de ce dispositif, la distance entre le radiateur et le corps est d'au moins 21 cm.

Cet émetteur ne doit pas être placé dans la même position ni travailler avec aucune autre antenne ou émetteur.