How to achieve WIFI Client (Datalink) to receive RTK corrections from your Android or Windows device

## Note: Your device should be connected to cellular network

WIFI client means the WIFI function will work as a datalink for receiver that it is able to connect to the other hotspot, access to the internet, and captures corrections from CORS station. Here we will introduce how to setup the WIFI client by switching from WIFI AP (User Interface).

Since the WIFI hotspot (AP) is the default WIFI mode on SXBLUE PREMIER receiver, and the WIFI AP mode and WIFI client mode can't exist at the same time, therefore, WIFI client mode must be activated by switching from WIFI AP mode to the datalink WIFI Client mode.

On this mode, the micro USB port of SXBLUE PREMIER receiver must work as an Ethernet port (Linux USB Ethernet/Remote NDIS based Device), then internal web UI shall be accessed via micro USB cable connected to computer. Prior to connect receiver to a computer, a corresponding network driver is required and need to be installed on the computer, then this function could be activated.

For this setup, you need to make sure change the USB mode is set to Network use instead of USB. The USB is usually selected for user who are logging RAW data and transfer file with USB cable such as a memory device. Connect the receiver using WIFI (Web UI), then select *Configuration*--*System Setup*--*USB* and finally select *Network*.
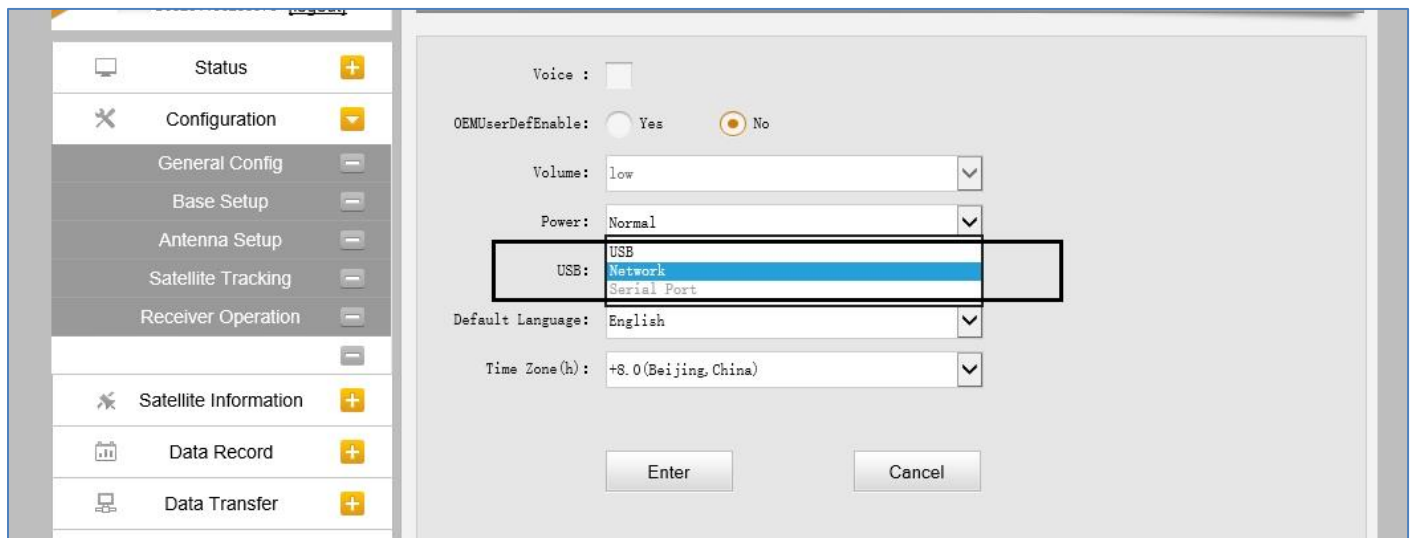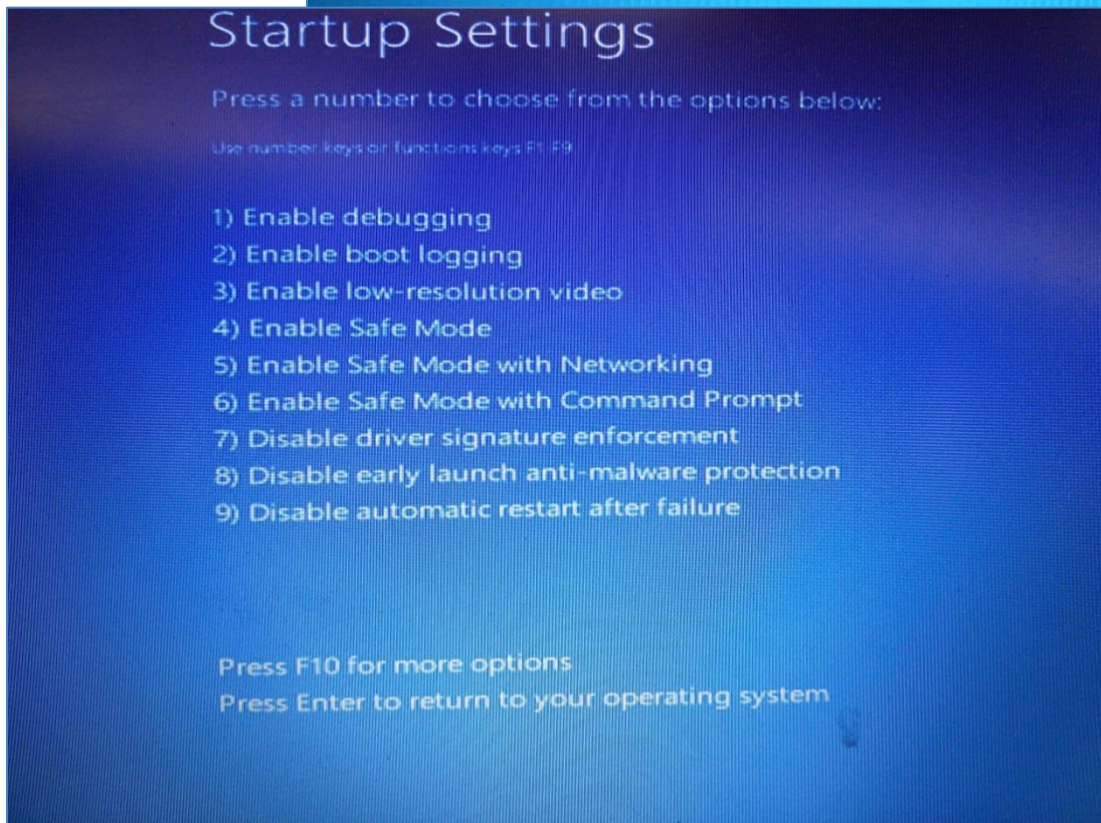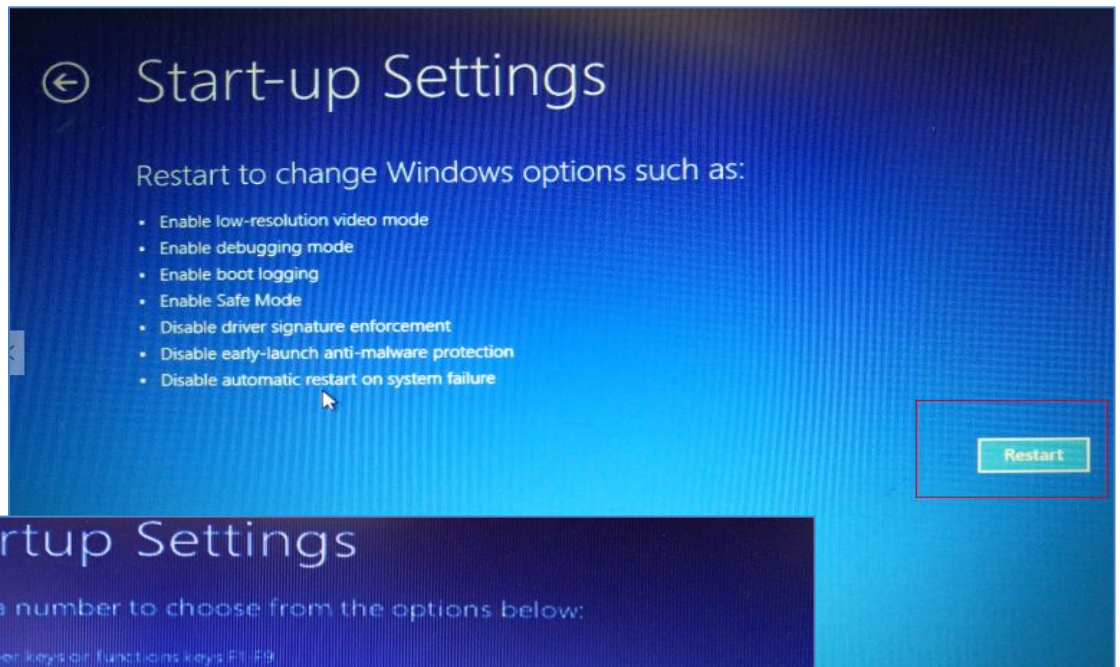

Disable driver signature enforcement.

Unsigned driver is not available in the WIN 10 system, which can lead to problems with some hardware, need to close the Windows default driver. Steps as shown below:

1. Press on icon → **Settings** → **Update& security** → **Recovery** to choose **Restart now** in Advanced Start-up option.
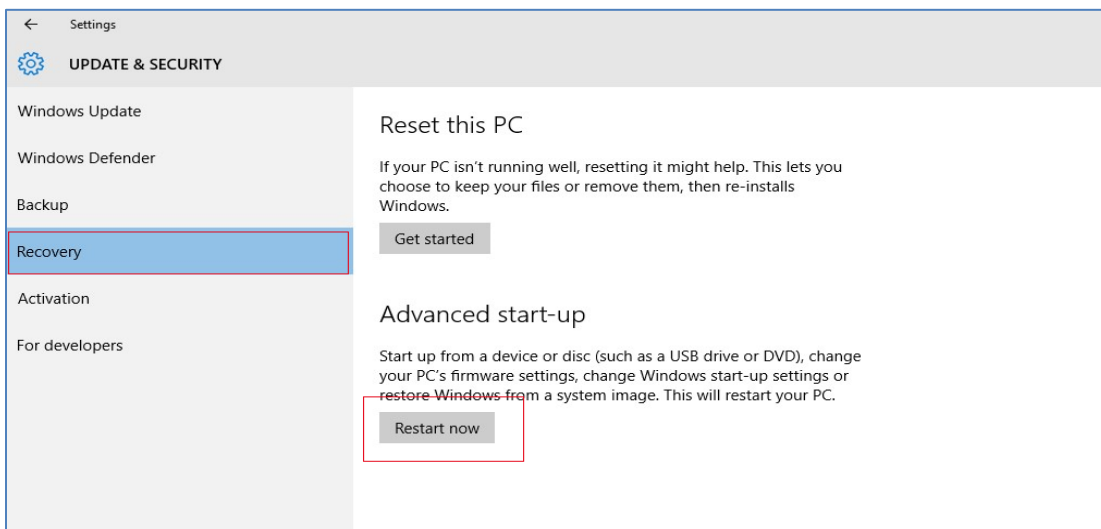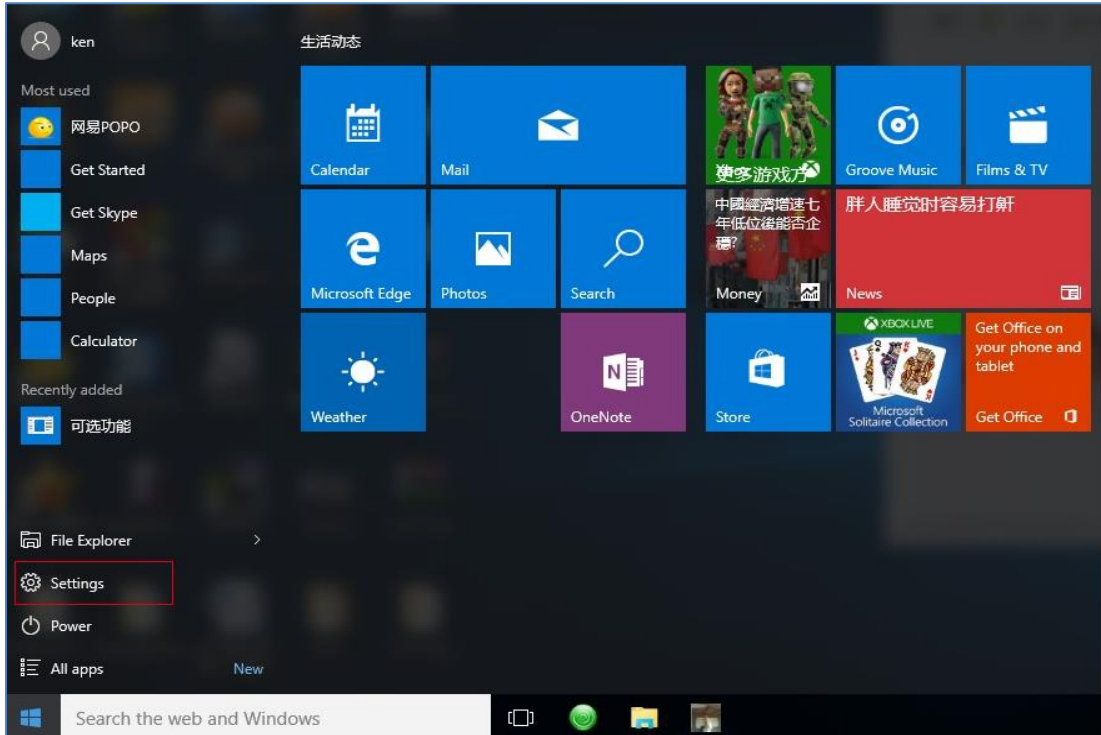
2. Enter **Choose an option** interface automatically. Select **Troubleshoot** → **Advanced options** → **Start-up Settings** press on **Restart** button to restart computer. See figure below.
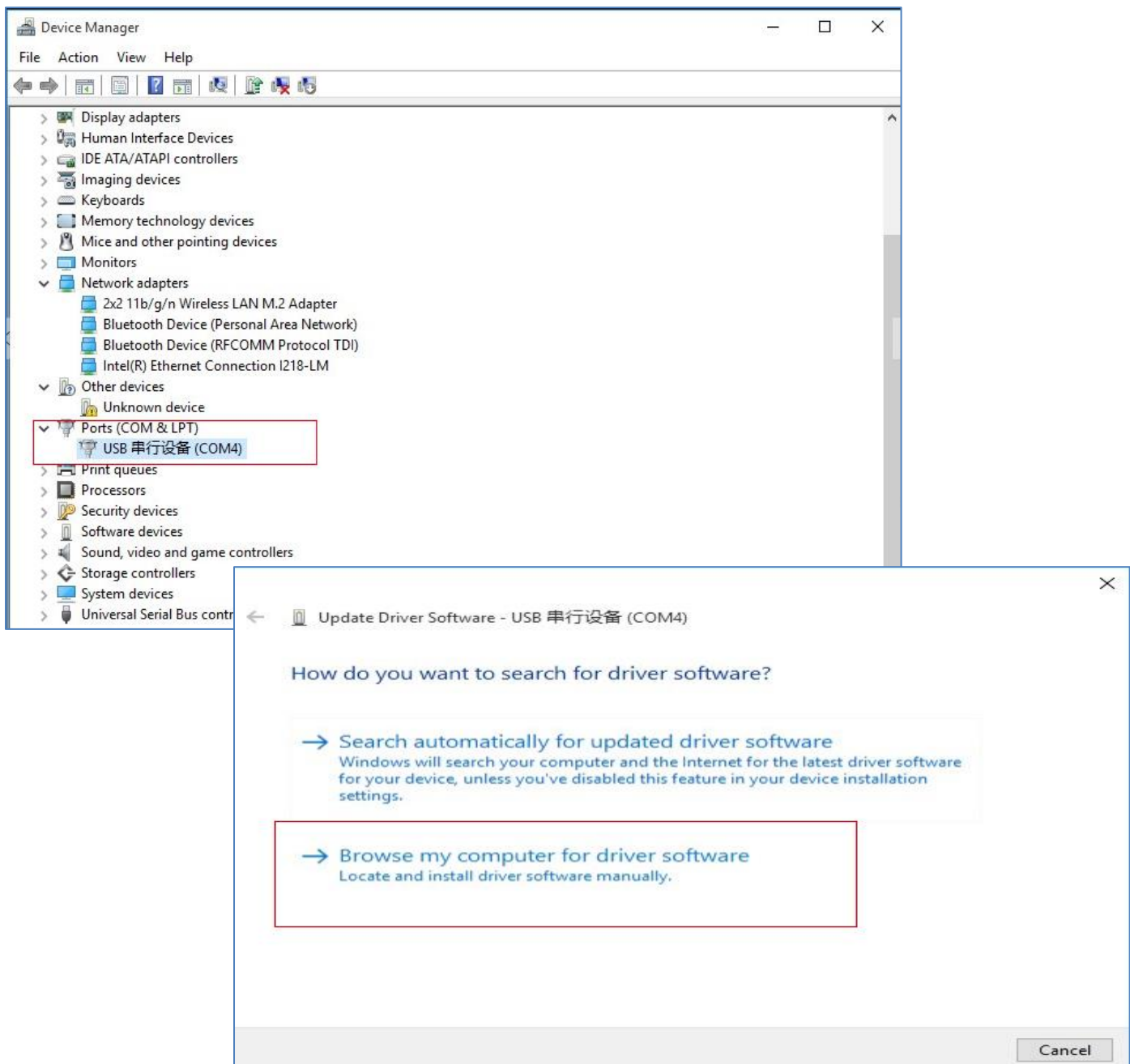
3. Select **Start-up Settings** interface automatically after restarting, and press F7 key on computer keyboard to choose **Disable driver signature enforcement**. Wait until finish restarting. See figure below.

Start-up Settings

Restart to change Windows options such as:

- Enable low-resolution video mode
- Enable debugging mode
- Enable boot logging
- Enable Safe Mode
- Disable driver signature enforcement
- Disable early-launch anti-malware protection
- Disable automatic restart on system failure

Restart

Startup Settings

Press a number to choose from the options below:

Use number keys or functions keys F1-F9

1) Enable debugging
2) Enable boot logging
3) Enable low-resolution video
4) Enable Safe Mode
5) Enable Safe Mode with Networking
6) Enable Safe Mode with Command Prompt
7) Disable driver signature enforcement
8) Disable early launch anti-malware protection
9) Disable automatic restart after failure

Press F10 for more options
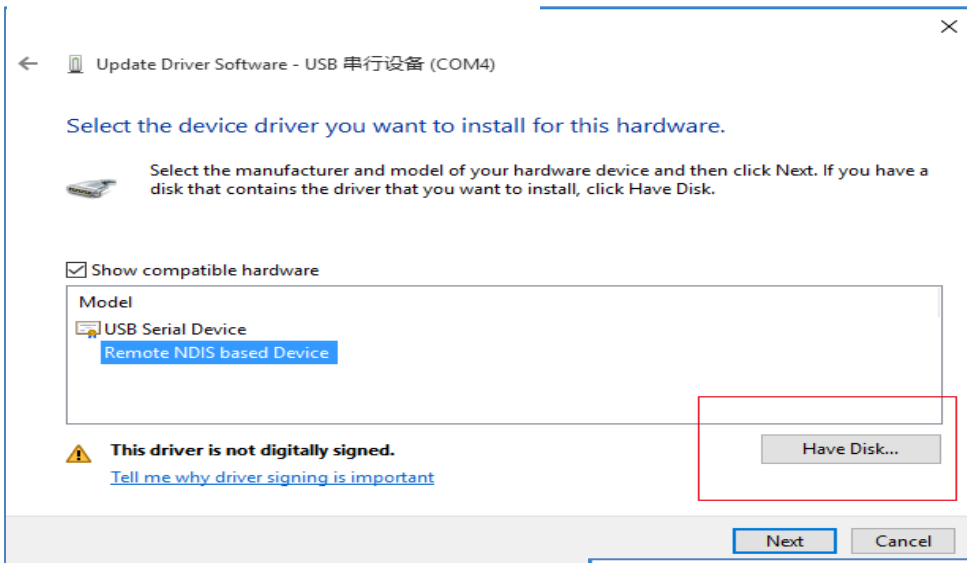Press Enter to return to your operating system
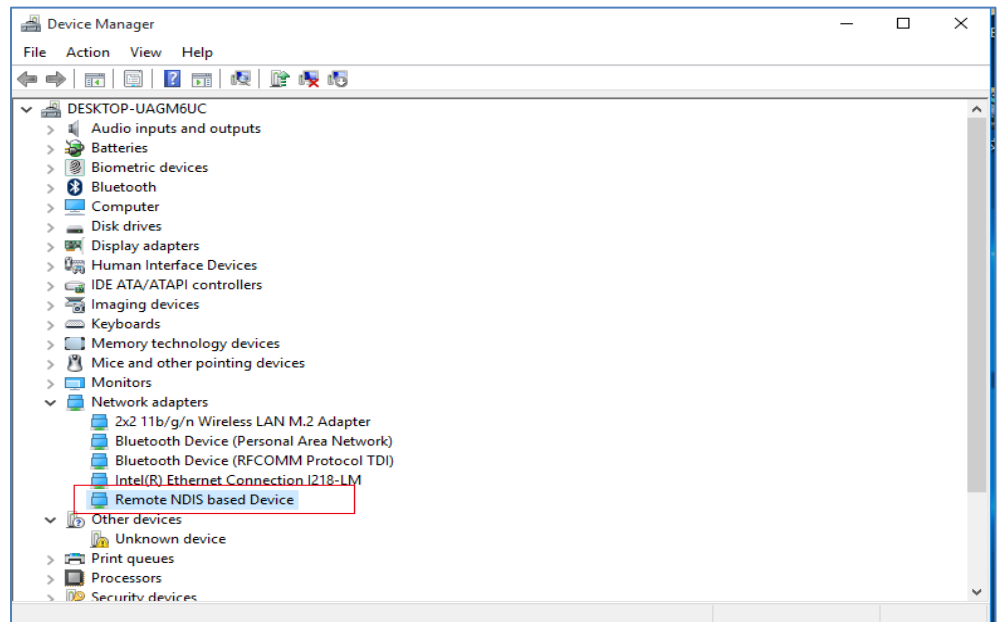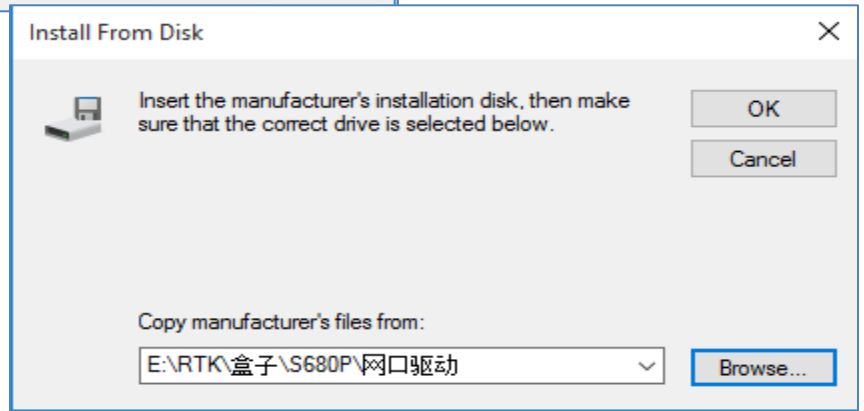
Update Driver Software

4. Connect the receiver to computer via a micro USB cable after restart-up. Then open the **Device Manager** in win 10 computer to choose **Ports(COM&LPT)** option. See figure below

5. Right click on the option under ports(COM&LPT) menu bar →**Update Driver Software** →**Browse my computer for driver software** →**Let me pick from a list drivers on my computer** → **Have disk** to choose the driver file . See figure below

SXblue PREMIER

← 🖴 Update Driver Software - USB 串行设备 (COM4)

Select the device driver you want to install for this hardware.

Select the manufacturer and model of your hardware device and then click Next. If you have a disk that contains the driver that you want to install, click Have Disk.

☑ Show compatible hardware

Model
🖳 USB Serial Device
    Remote NDIS based Device

⚠ **This driver is not digitally signed.**
Tell me why driver signing is important

[Have Disk...]

[Next] [Cancel]

6. Press **Next** button to install the driver. If the driver has been successfully installed, the micro USB port of the receiver will be recognized as **Linux USB Ethernet/Remote NDIS based Device** in Network adapters, and a local area connection will generate in Network Connections on the computer. See figure below

Install From Disk

Insert the manufacturer's installation disk, then make sure that the correct drive is selected below.

[OK]
[Cancel]

Copy manufacturer's files from:

E:\RTK\盒子\S680P\网口驱动   [Browse...]

Device Manager

File Action View Help

DESKTOP-UAGM6UC
  > Audio inputs and outputs
  > Batteries
  > Biometric devices
  > Bluetooth
  > Computer
  > Disk drives
  > Display adapters
  > Human Interface Devices
  > IDE ATA/ATAPI controllers
  > Imaging devices
  > Keyboards
  > Memory technology devices
  > Mice and other pointing devices
  > Monitors
  ∨ Network adapters
      2x2 11b/g/n Wireless LAN M.2 Adapter
      Bluetooth Device (Personal Area Network)
      Bluetooth Device (RFCOMM Protocol TDI)
      Intel(R) Ethernet Connection I218-LM
      Remote NDIS based Device
  ∨ Other devices
      Unknown device
 > Print queues
  > Processors
  > Security devices

Login the Web UI of SXBLUE PREMIER via micro USB cable, input IP 192.168.155.155 into address bar of IE browser, then input username and password for login to the server.

Go to *Configuration—General Config*, switch the working mode into **Rover**, and datalink as **WIFI**, press on

button (bottom of the page) to confirm the settings.

Unfold the sub-menus under *Network Config*, and go to *WIFI Config*, switch the *WIFI Work Mode* from **AP** into **Client**,

then click on

button (bottom of the page) to make sure the WIFI working mode is successfully switched.
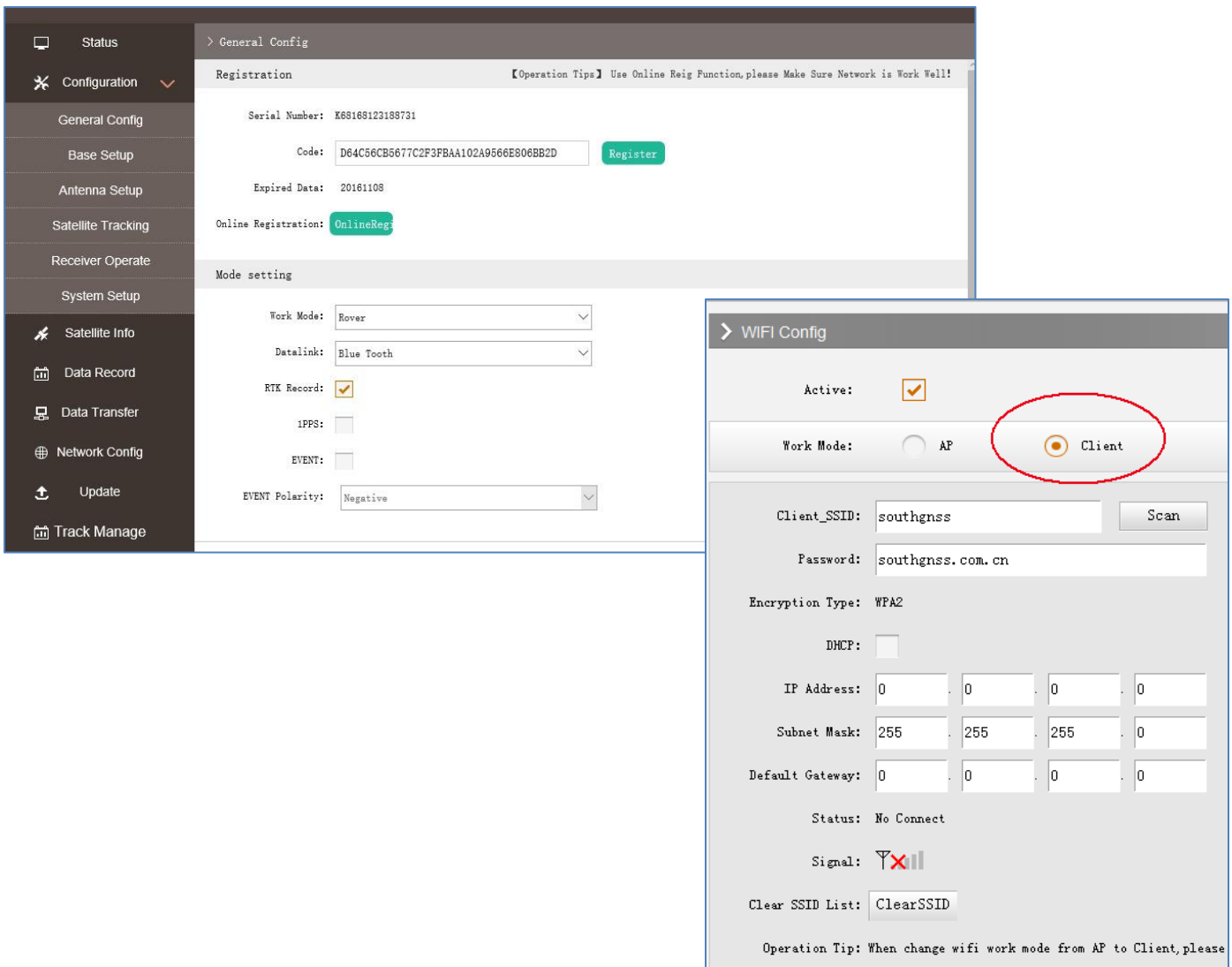
At this point, press on [Scan] button to search the surrounding WIFI hotspot, once finish searching the hotspots, choose one of the proper access point and enter the access password if required, then press on [Enter] button (bottom of the page) to confirm the settings on this page.

After a while, the WIFI signal bar appears and a LAN IP address is obtained, that indicates that SXBLUE PREMIER has connected to the WIFI and had an access to internet already.

After that, move steps to **Data Transfer—NTRIP Config**. At this moment, make sure NtripClient is activated, then input the CORS access information into corresponding fields, click on `Get Point` button to download the mount points from CORS server.

List out the mount points and choose a proper one, then click on `Enter` button to confirm all settings, and the receiver begins to connect and logon server, receive correction from CORS station.

Return to **Status—Position Information** page, check on the displayed information including coordinates, solution, correction format, as well as to the correction delay. If the receiver has connected to internet and obtained correction from CORS server, there will be Fixed displays for the solution. See figure next page

Status ⌄	> Position Information			
System Information	● Location	Lat: 0° 0′ 0.000000″ S	Lon: 0° 0′ 0.000000″ W	Alt: 0.000000 m	Ellipsoid: WGS-84
Work Status		PDOP: 0.00	HDOP: 0.00	VDOP: 0.00	TDOP: 0.00
Position Information		E: 0.00[m/s]	N: 0.00[m/s]	Up: 0.00[m/s]	
✕ Configuration	● RTK Status	Diff.format: NONE	Correction Delay: 0	HRMS: 0.000	VRMS: 0.000
✦ Satellite Info	Autonomous	Base X: 0.000000	Base Y: 0.000000	Base Z: 0.000000	Base ID: NONE
▦ Data Record	● Receiver Clock	GPS week: 0	GPS second: 0.0	Time: 0-0-0 0:0:0.0	
⬓ Data Transfer	● RTX	SN : 无		TrackingTime: 0	
⊕ Network Config		Azimuth: 0.00		Elevation: 0.00	
⬆ Update		SNR: 0.00		Solution: NONE	
▦ Track Manage	● Tracked Satellite	GPS(0): None		GLONASS(0): None	
⊕ Coordinate Sys	0	BDS(0): None		GALILEO(0): None	
❖ Online Service		SBAS(0): None		QZSS(0): None	
⚮ User Manage	● Used Satellite	GPS(0): None		GLONASS(0): None	

At this time, connect receiver to controller software, you don't need to do anything for configuration, then use the receiver to work with RTK solution directly. The receiver will keep this configuration for the next working sessions.