

LoRa Sensor (TAG11)

Configuration Manual V2.3

1. USB RS232 Cable



Please use the RS232 special configuration cable which is provided by our company to connect the computer to configure the sensor.

2. Steps

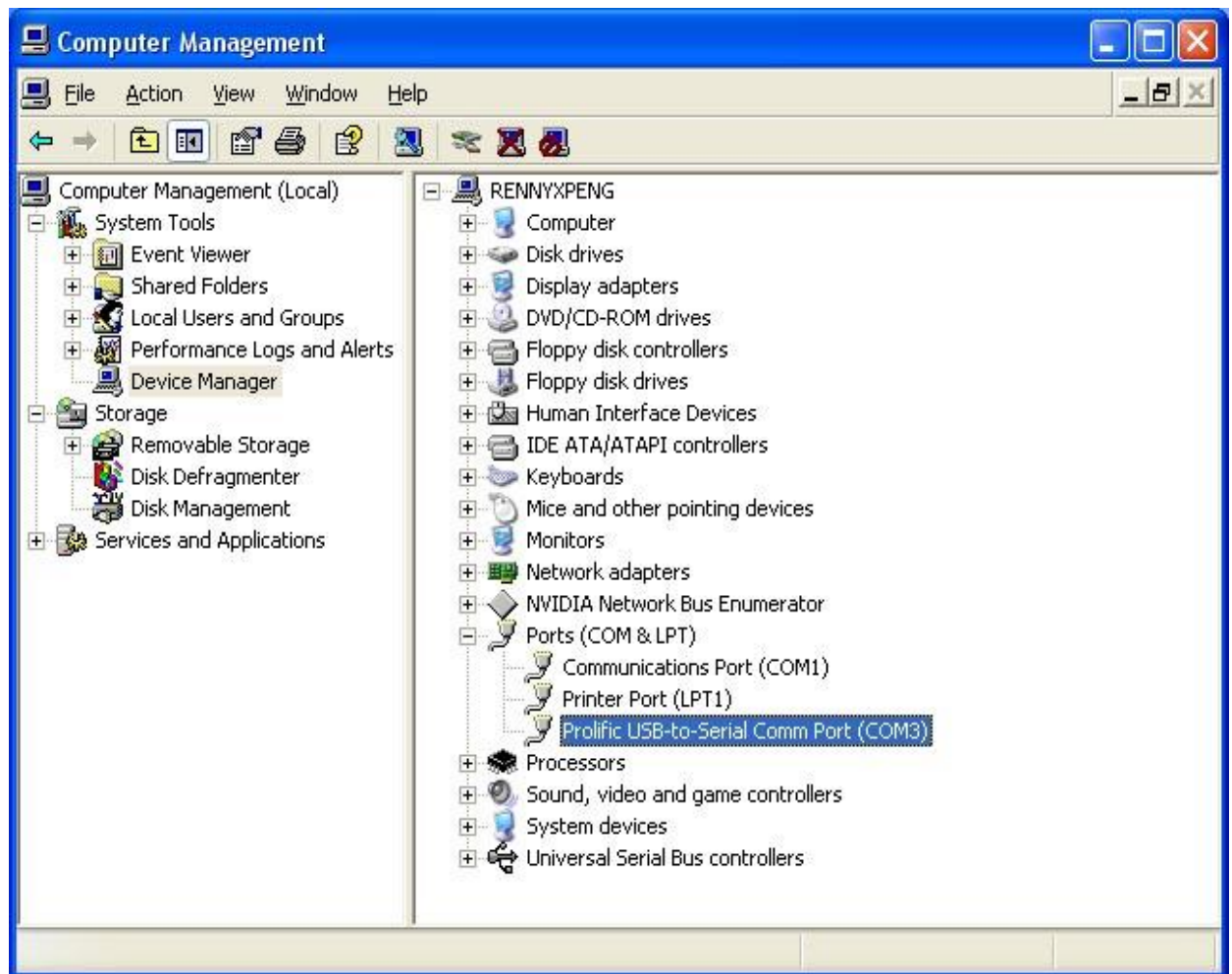
- 1) PL-2303 driver is for RS232 configuration cable,




Please install in under windows10 or newer.

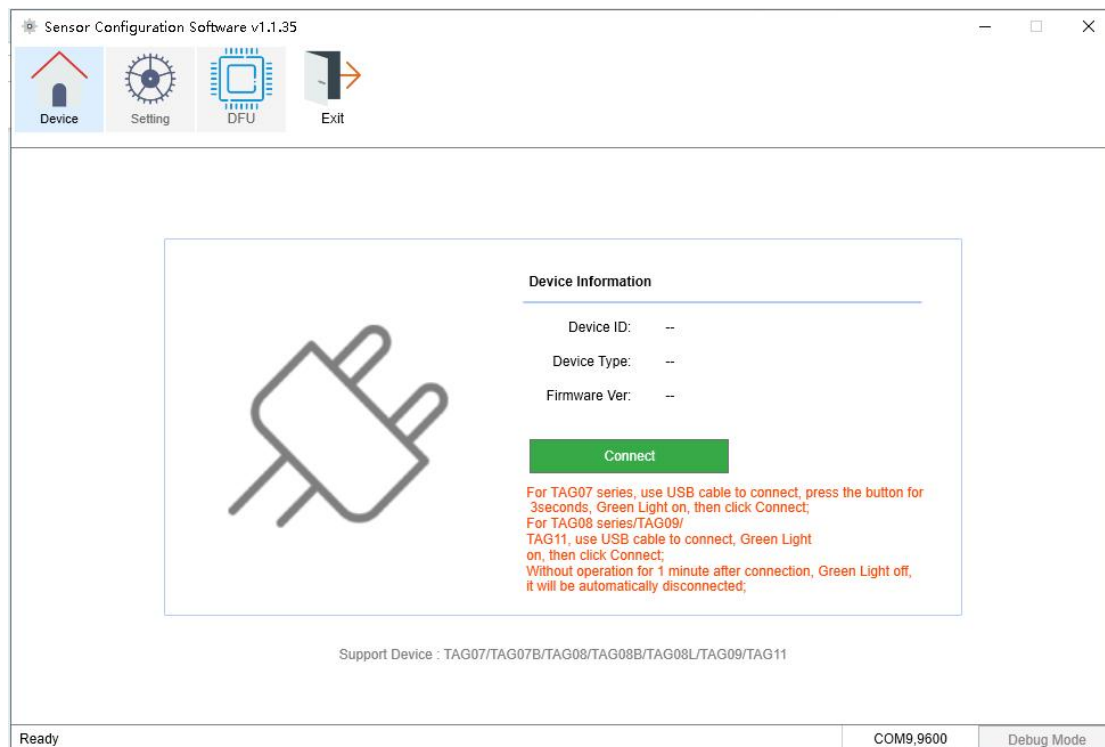
- 2) Connect the configuration cable to the computer.
- 3) After the device is installed successfully, return to the desktop, select “My Computer”-> right-click -> choose “Manager”-> “System Tools” -> “Device Manager” -> “Ports”, and you will find the port which configuration cable is

connected.  Prolific USB-to-Serial Comm Port (COM3)



3. Configure Software

- 1) Connect the Sensor to computer through the RS232 configuration cable.
- 2) Run the configuration software  Sensor Configuration Software.exe



3) Connection

A. Confirm that the switch of the sensor is on, if it is on, connect the RS232 configuration line to the sensor and the computer until the green light is always on , and then click “Connect”;

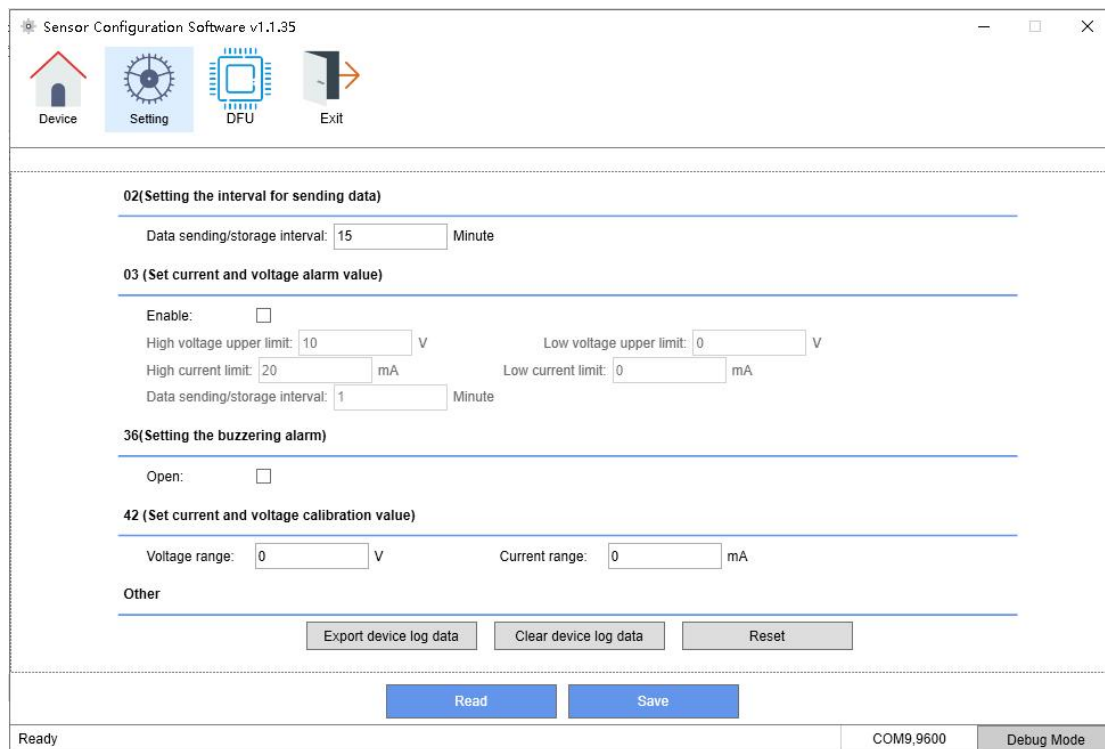
B. Confirm that the switch of the sensor is on, if it is off, please turn it to on first, wait for the light off, and then connect the RS232 configuration line to the sensor and the computer until the green light is always on and then click “Connect”;

After successful connection, the following image interface will appear (If the sensor is not operated within 1 minute and the green light is off, the sensor will automatically disconnect, and you need to click "connect" again before you can continue to configure the sensor).



4) Setting

After successful connection, the sensor will automatically change to the setting interface:



Setting the interval for sending data(02)

Data sending/storage interval: The Sensor data transmission interval
X:[1,1440], Unit:Min,default:15

Setting the voltage/current Threshold(03)

Enable: enable TAG alarm function

If sensor's current/voltage exceeds or falls below the upper and lower limit of the current/voltage, it will give an alarm.

High voltage threshold: [0.000–10.000], unit:V,default: 10.000;

Low voltage threshold: [0.000–10.000],unit:V,default: 0.000;

High current threshold: [0.000–20.000], unit:mA,default: 20.000;

Low current threshold:[0.000–20.000],unit:mA,default: 0.000;

Data sending/storage interval:Time interval of temperature&humidity alarm[1-1440], unit:min, default:1

Setting the buzzer alarm(36)

Open: enable buzzer alarm function,the alarm is called for 1 minute by default

Setting voltage/current calibration (42)

voltage range:

If the calibration value is added to the voltage, it begins with +;

If the calibration value is reduction to the voltage, it begins with -;

Can support to one decimal point, unit: °C

current range:

If the calibration value is added to the current, it begins with +;

If the calibration value is reduction to the current, it begins with -;

Can support to one decimal point, unit: °C

Others

Export device log data: The recorded data can be saved and exported to a CSV file via click and the data will be automatically cleared after exporting.

Clear device log data: Click to delete the data recorded of the sensor

Reset: click and reset the sensor

Read: click and read all the parameters of the sensor

Save: click and save all the parameters of the sensor

Debug mode

In debugging mode, sensor parameters can be configured and sensor logs can be viewed by commands.

1) Click to enter debug mode:

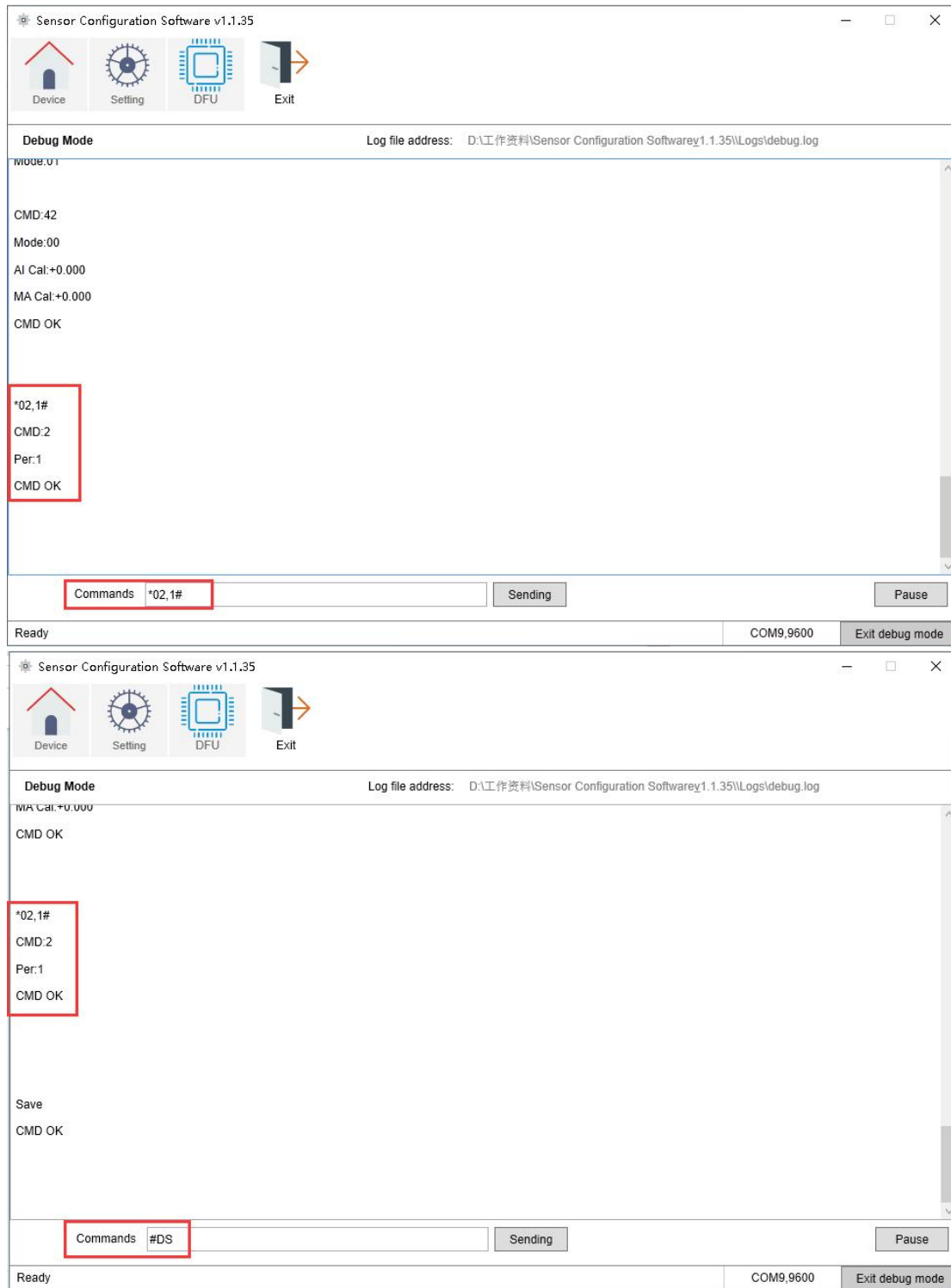
The screenshot shows the 'Sensor Configuration Software v1.1.35' window. The top menu bar includes 'Device', 'Setting', 'DFU', and 'Exit'. The 'Setting' tab is active. The main area contains several configuration sections:

- 02(Setting the interval for sending data)**: Data sending/storage interval: 1 Minute.
- 03 (Set current and voltage alarm value)**:
 - Enable: ☐
 - High voltage upper limit: 10 V
 - Low voltage upper limit: 0 V
 - High current limit: 20 mA
 - Low current limit: 0 mA
 - Data sending/storage interval: 1 Minute
- 36(Setting the buzzing alarm)**: Open: ☐
- 42 (Set current and voltage calibration value)**:
 - Voltage range: 0 V
 - Current range: 0 mA
- Other**: Buttons for 'Export device log data', 'Clear device log data', and 'Reset'.

At the bottom, there are 'Read' and 'Save' buttons. The status bar at the very bottom shows 'Ready', 'COM9,9600', and 'Debug Mode' (highlighted with a red box).

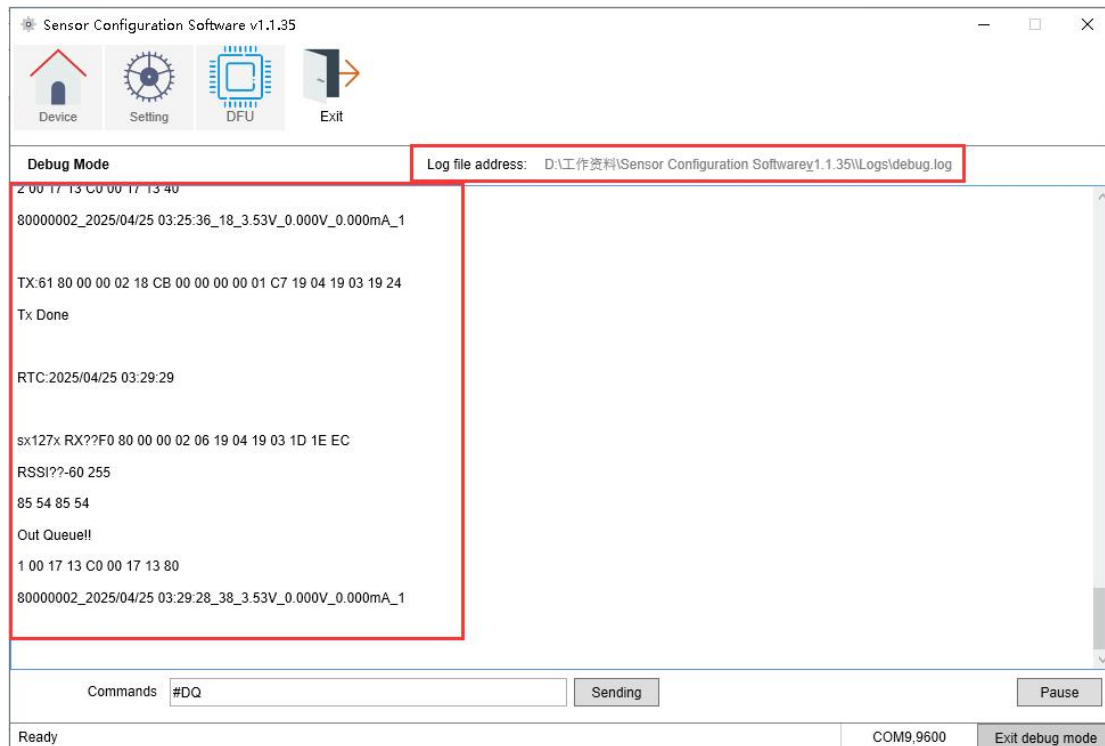
2) In debug mode , the sensor parameters are configured directly by commands.

Note: After writing the commands, please click “send”. After sending , please write #DS to save the setting(Please refer to the command list for more detailed)..



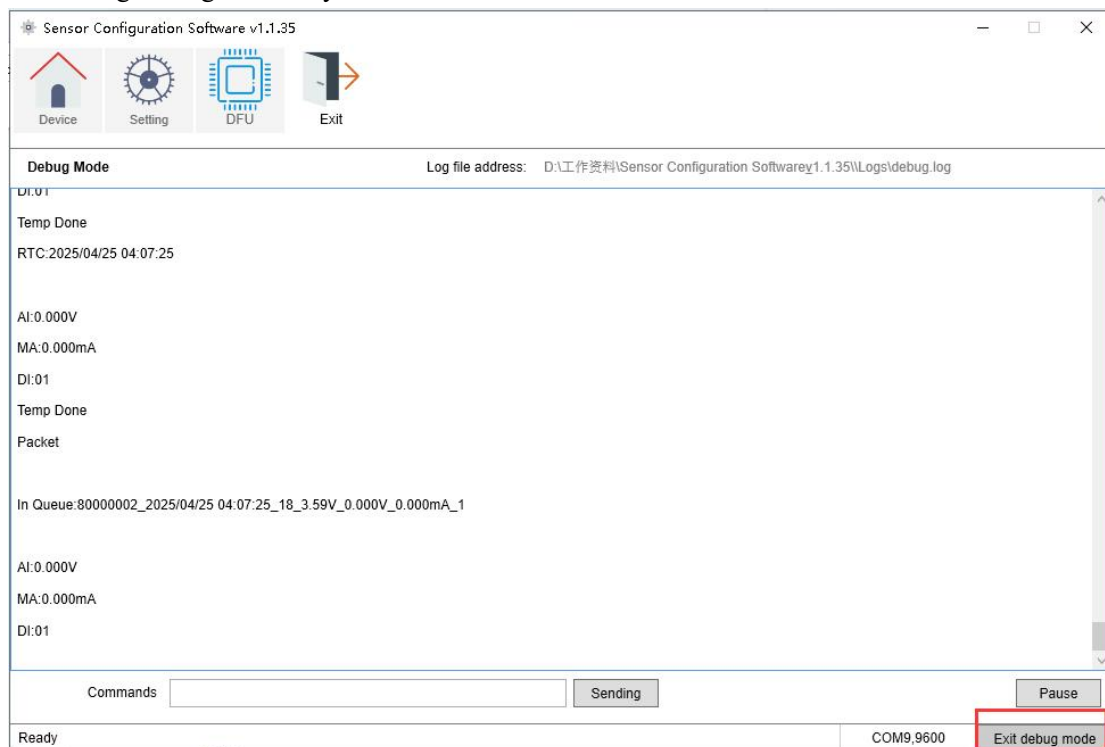
3) View the sensor log in debug mode

After 1 minute, the sensor will exit the configuration mode and enter the sensor log mode. Machine data can be viewed, and log reports are stored in the log file.



4) Click to exit debug mode

Click to exit debugging mode to return to the home page, If the sensor green light is off, it is necessary to click “disconnect” and insert the RS232 configuration cable again. Click the connect when the green light is always on.

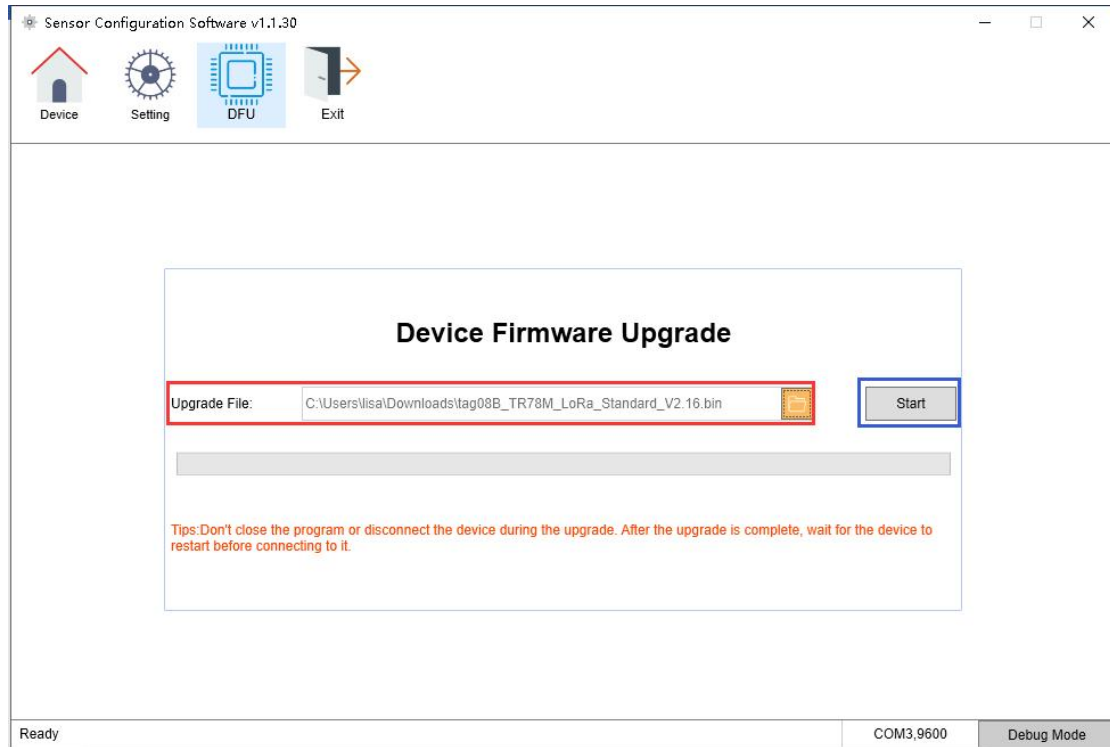


Note: The sensor can only be configured when the green light is always on. The sensor cannot be configured after the green light is off.

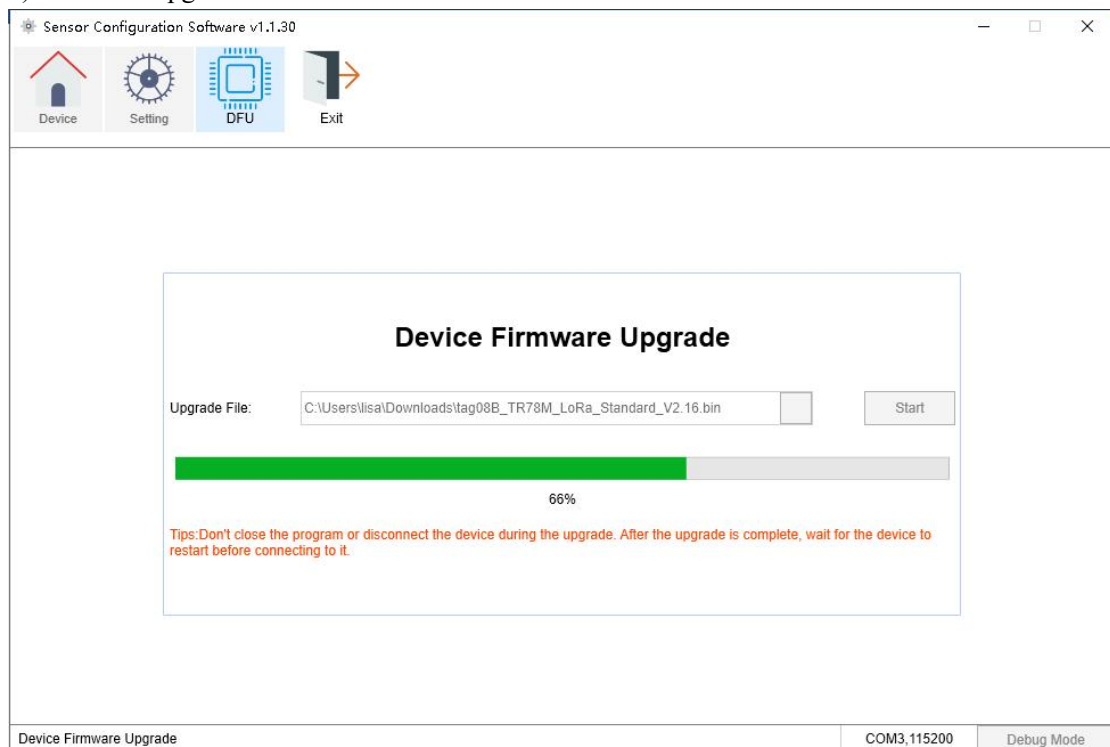
DFU

can use the configuration software to upgrade the device firmware

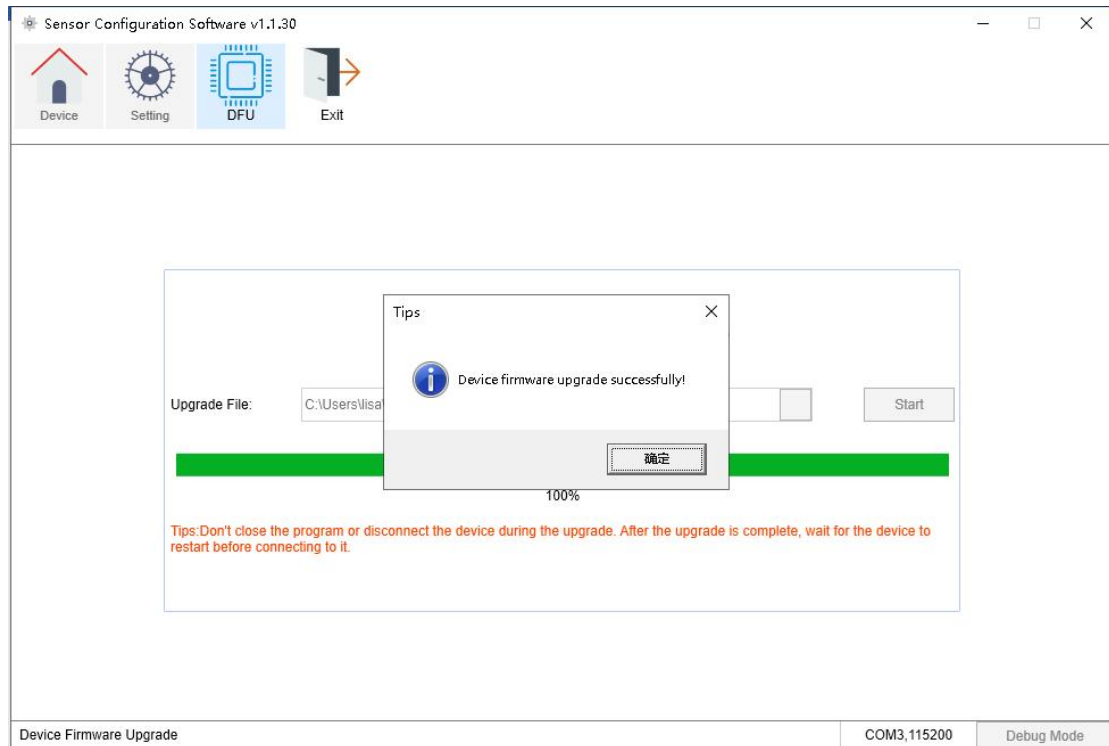
1) Select the bin file and click “Start”.



2) Firmware upgrade.



3) Device firmware upgrade successfully.



4) If the device cannot be connected or upgraded due to any abnormal operation during the upgrade, please contact us.