

# LoRaWAN Sensor (TAG08/08B/08L) Configuration Manual V2.2

## 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

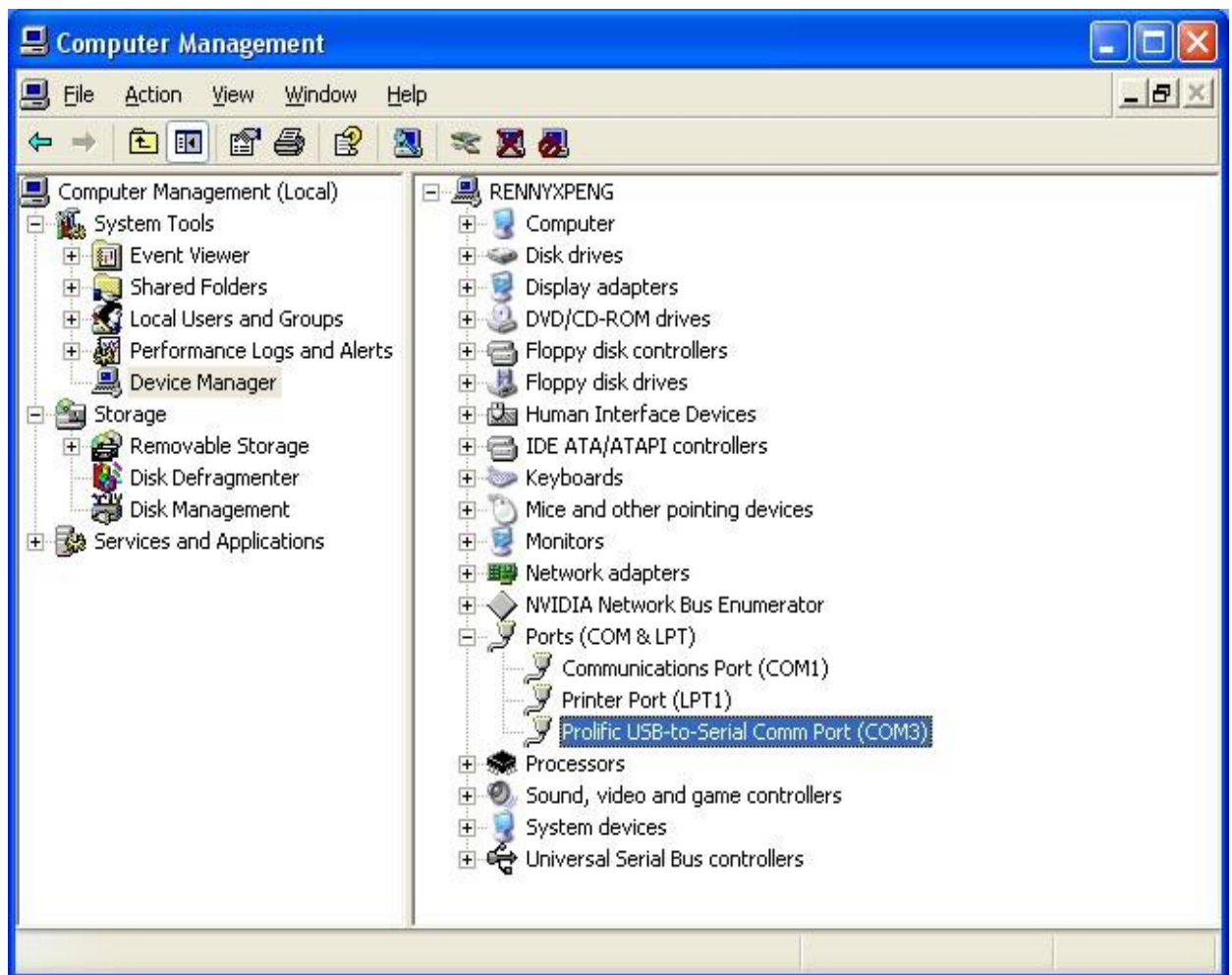
- 1) PL-2303 driver is for RS232 configuration cable,




Please install  in windows systems (XP/Vista/Win7/Win8/Win10)

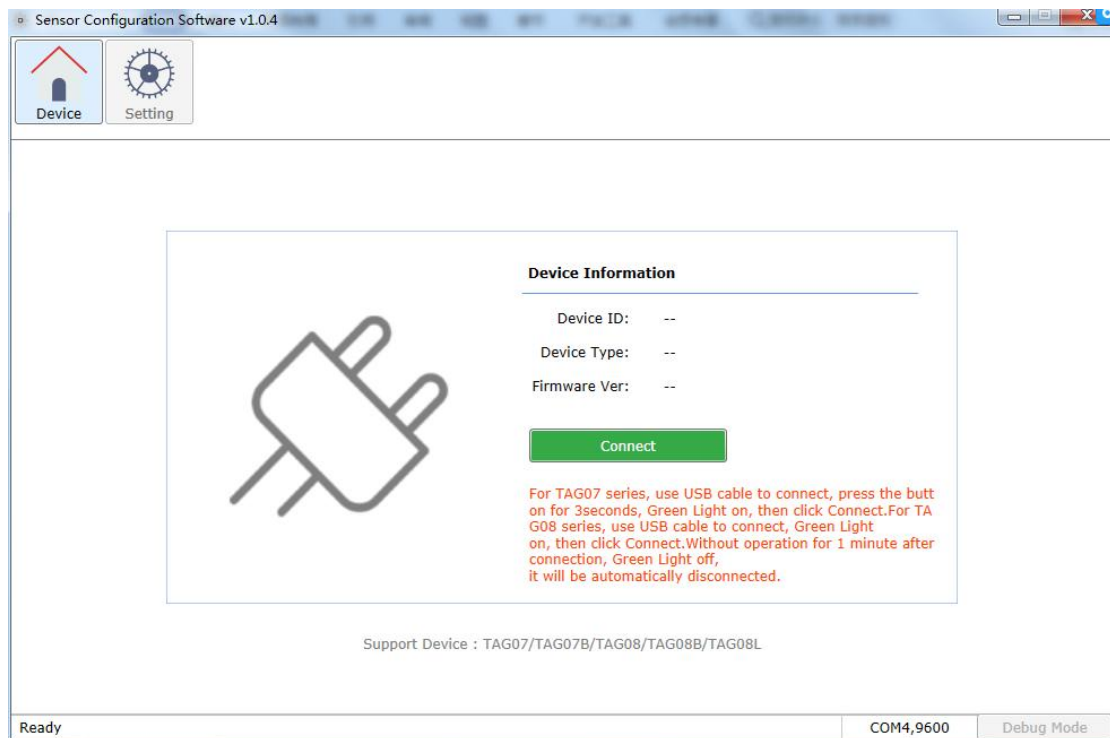
- 2) Connect the configuration cable to the computer.
- 3) After the device is installed successfully, return to the desktop, select “My Computer”-> right-click -> choose “Manager”-> “System Tools” -> “Device

Manager” -> “Ports”, and you will find the port which configuration cable is connected. 



### 3. Configure Software

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

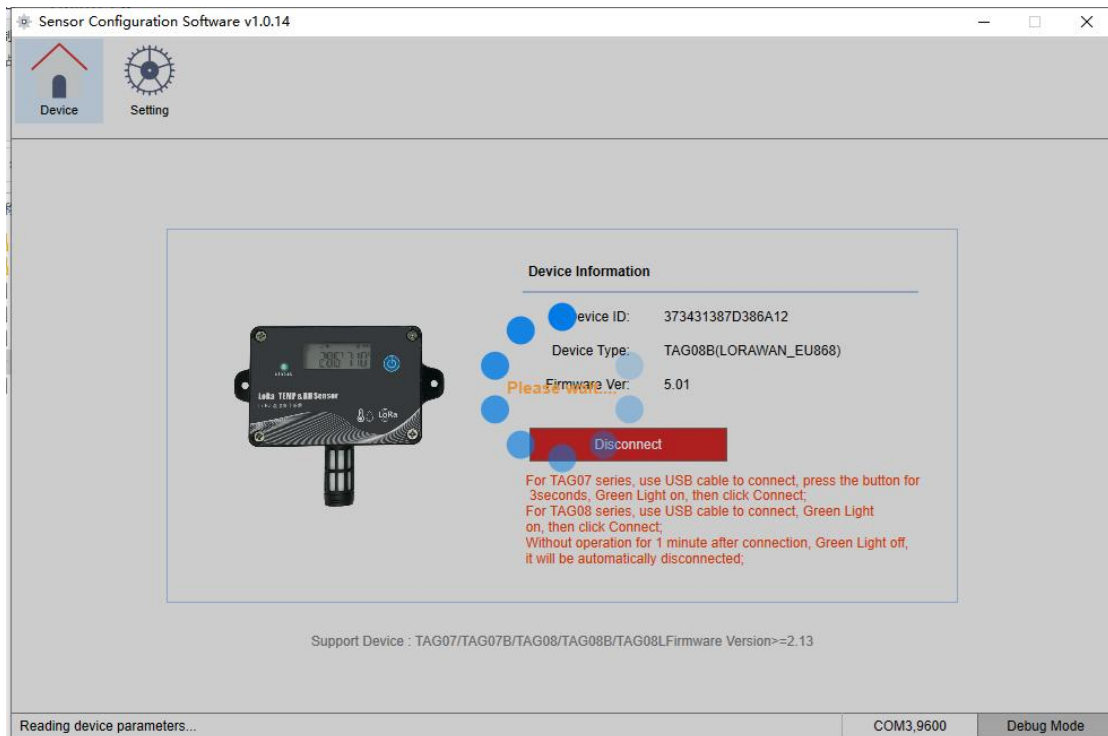


### 3) Connection

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”;

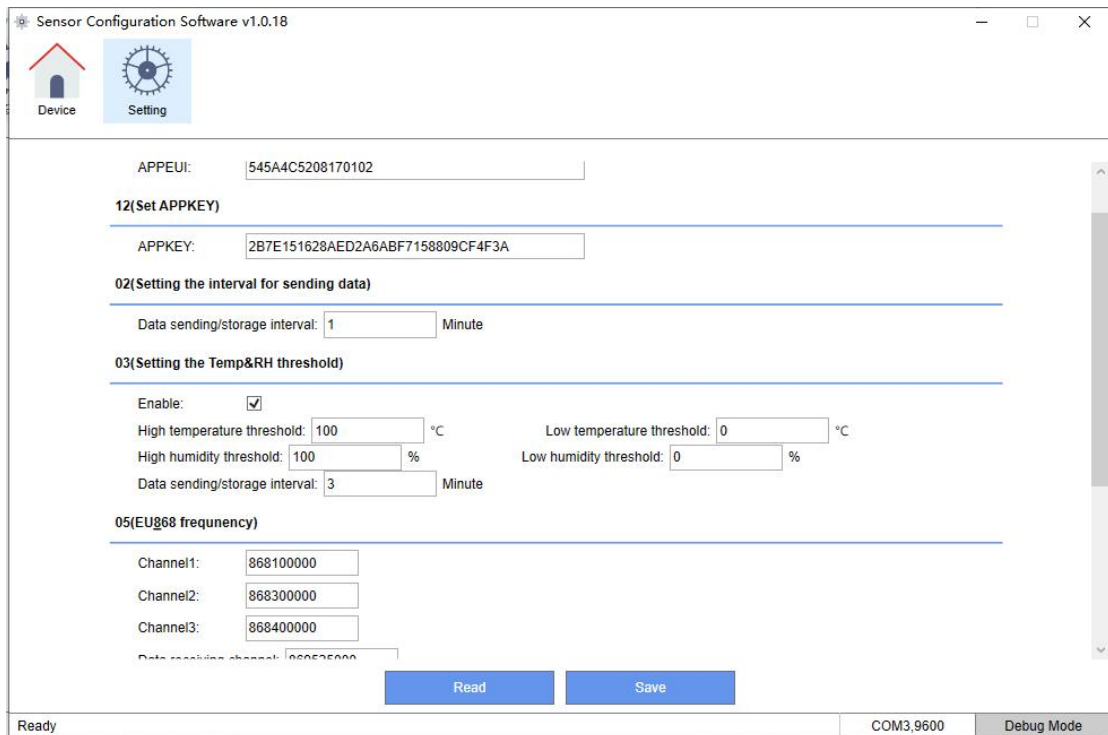
B. Confirm that the switch of the sensor is on, if it is off, please turn it to on first, wait for the light off, and then connect the RS232 configuration line to the sensor and the computer until the green light is always on and then click “Connect”;

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:



### Set APPEUI (11)

APPEUI:16byte,default:545A4C5208170101

## Set APPKEY(12)

APPEUI:32byte,default:2B7E151628AED2A6ABF7158809CF4F3A

## 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 Temp&RH Threshold(03)

### TAG08\_LORAWAN:

**Enable:** enable TAG alarm function

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

**High temperature threshold:** [-55-125], unit:°C, default: 100;

**Low temperature threshold:** [-55-125],unit:°C,default: 0)

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

### TAG08L\_LORAWAN:

**Enable:** enable TAG alarm function

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

**High temperature threshold:** [-100-70], unit:°C, default: 100;

**Low temperature threshold:** [-100-70],unit:°C,default: 0)

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

### TAG08B\_LORAWAN:

**Enable:** enable TAG alarm function

If the sensor exceeds or falls below the upper and lower limits of temperature and humidity, it will give an alarm.

**High temperature threshold:** [55-125],unit:°C, default: 100;

**Low temperature threshold:** [-55-125], unit:°C default: 0

**High humidity threshold:** [0-100], unit:%, default: 100

**Low humidity threshold:** [0~100], unit:%, default: 0

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

## CN470(05)

**Channel 1~8:**default:0,1,2,3,4,5,6,7  
**Data receiving channel:**default:50530000Hz

## CN868(05)

**Channel 1:**default:868100000  
**Channel 1:**default:868300000  
**Channel 1:**default:868500000  
**Data receiving channel:**default:869525000

## Setting the buzzer alarm(36)

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

## Setting Temp&RH calibration (42)

### TAG08/08L\_LORAWAN:

**Enable:** enable temperature calibration function

#### Temperature range:

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

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

Can support to one decimal point, unit: °C

### TAG08B\_LORAWAN:

**Enable:** enable temperature calibration function

#### Temperature range:

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

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

Can support to one decimal point, unit: °C

#### Humidity range:

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

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

Can support to one decimal point, unit: %

## 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

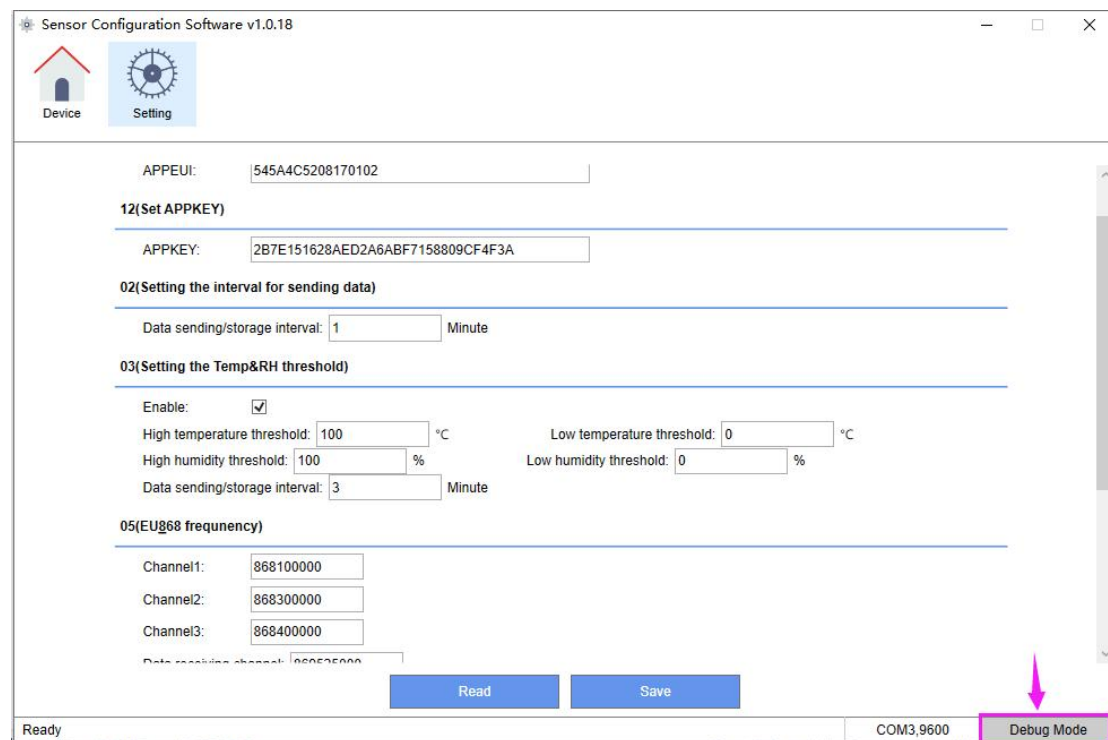
**Read:** click and read all the parameters of the sensor

**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:



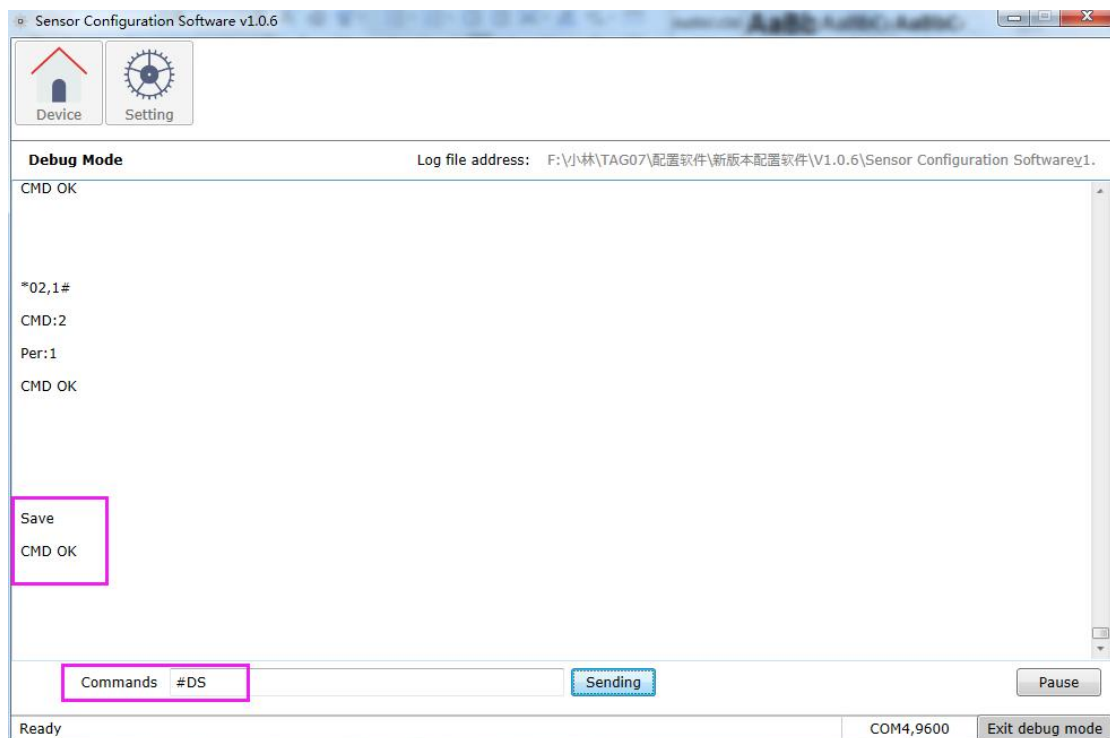
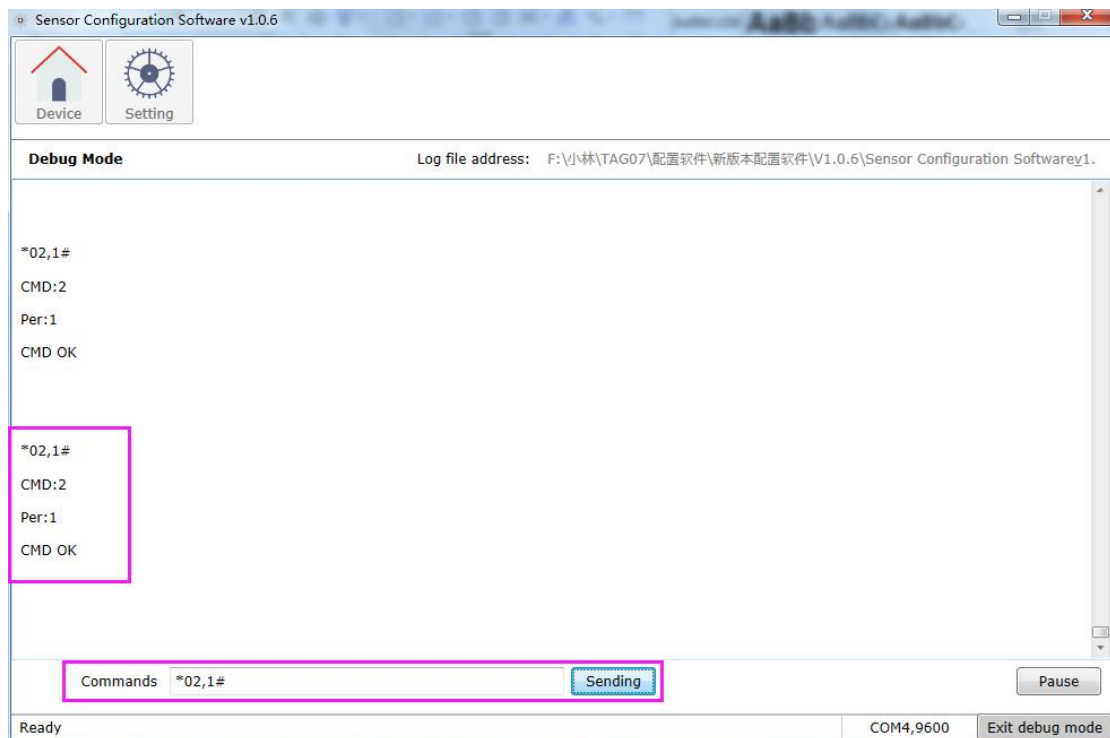
The screenshot shows the 'Sensor Configuration Software v1.0.18' window. It has a 'Device' icon and a 'Setting' icon. The main area contains several configuration sections:

- APPEUI:** 545A4C5208170102
- 12(Set APPKEY)**
  - APPKEY:** 2B7E151628AED2A6ABF7158809CF4F3A
- 02(Setting the interval for sending data)**
  - Data sending/storage interval: 1 Minute
- 03(Setting the Temp&RH threshold)**
  - Enable:
  - High temperature threshold: 100 °C
  - Low temperature threshold: 0 °C
  - High humidity threshold: 100 %
  - Low humidity threshold: 0 %
  - Data sending/storage interval: 3 Minute
- 05(EU68 frequency)**
  - Channel1: 868100000
  - Channel2: 868300000
  - Channel3: 868400000
  - Data receiving channel: 868250000

At the bottom, there are 'Read' and 'Save' buttons. The status bar shows 'Ready', 'COM3,9600', and 'Debug Mode' (highlighted with a pink arrow).

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

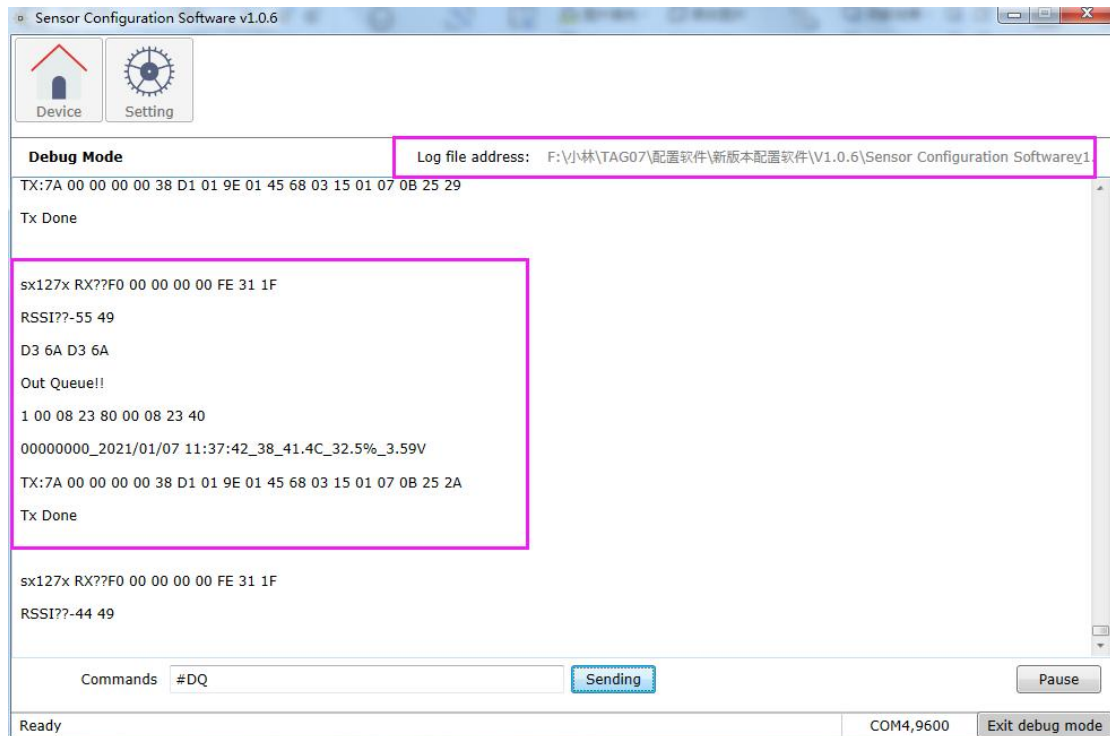
Note: After writing the commands, please click “send”. After sending , please write #DS to save the setting(Please refer to the command list for more detailed)..



### 3) View the sensor log in debug mode

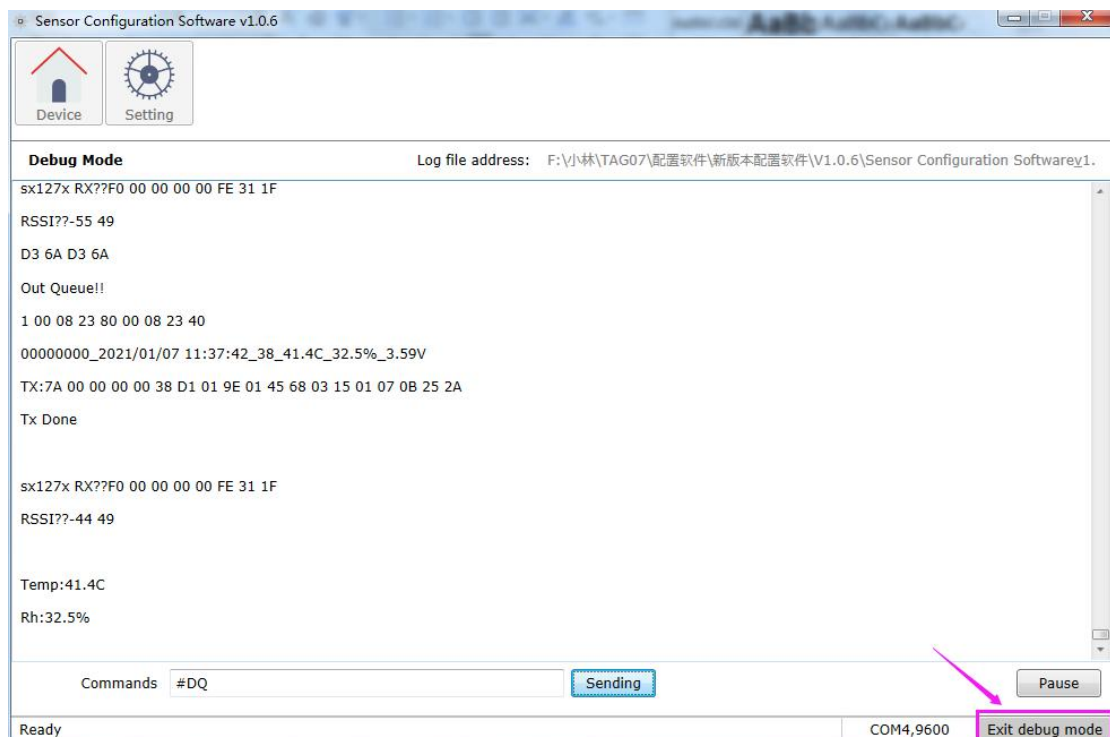
After 1 minute, the sensor will exit the configuration mode and enter the sensor log mode. Machine data can be viewed, and log reports are stored in the log file.





#### 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.

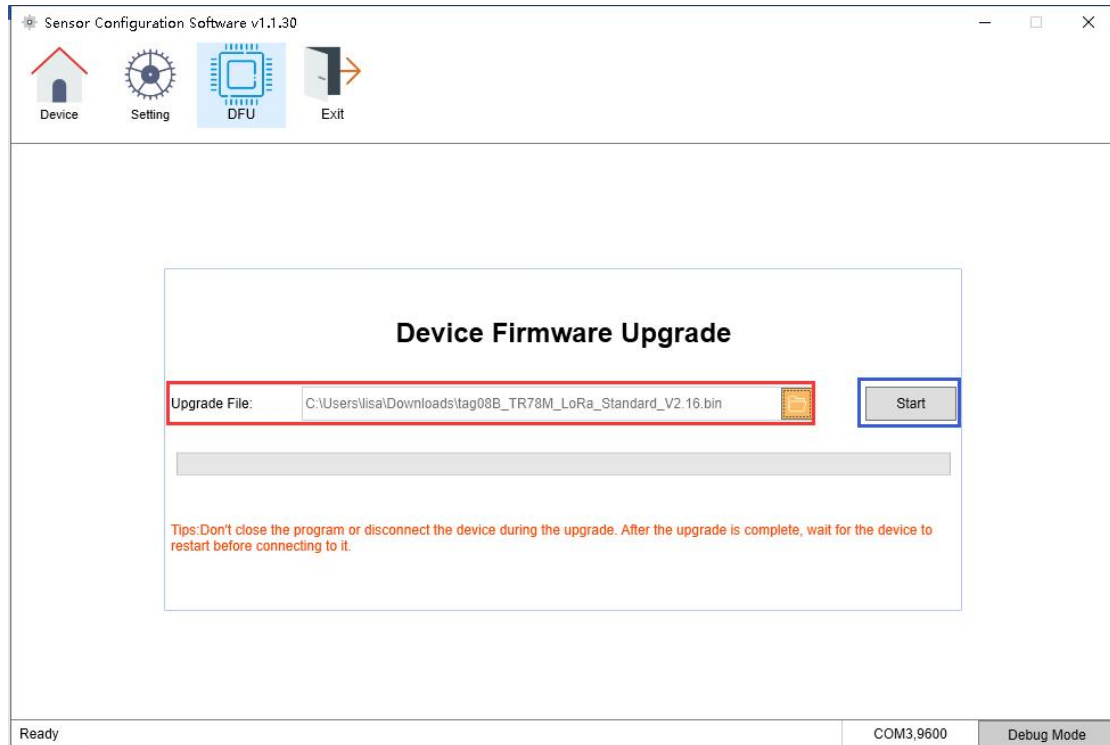


Note: The sensor can only be configured when the green light is always on. The sensor cannot be configured after the green light is off.

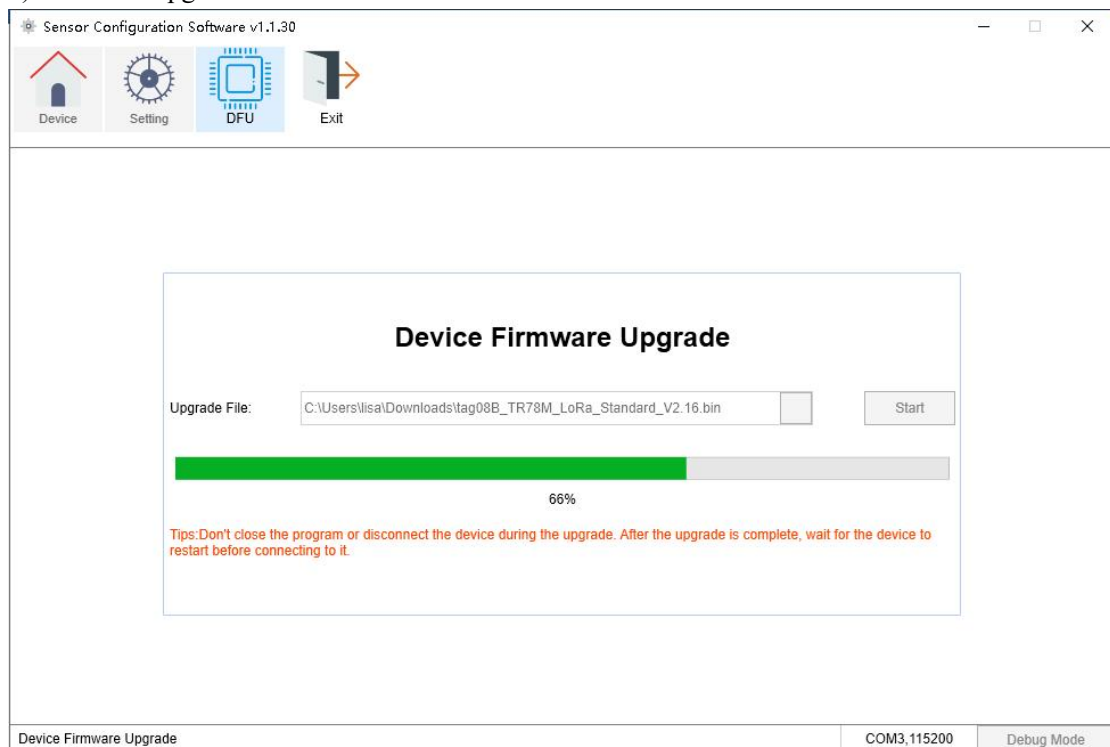
## DFU

can use the configuration software to upgrade the device firmware

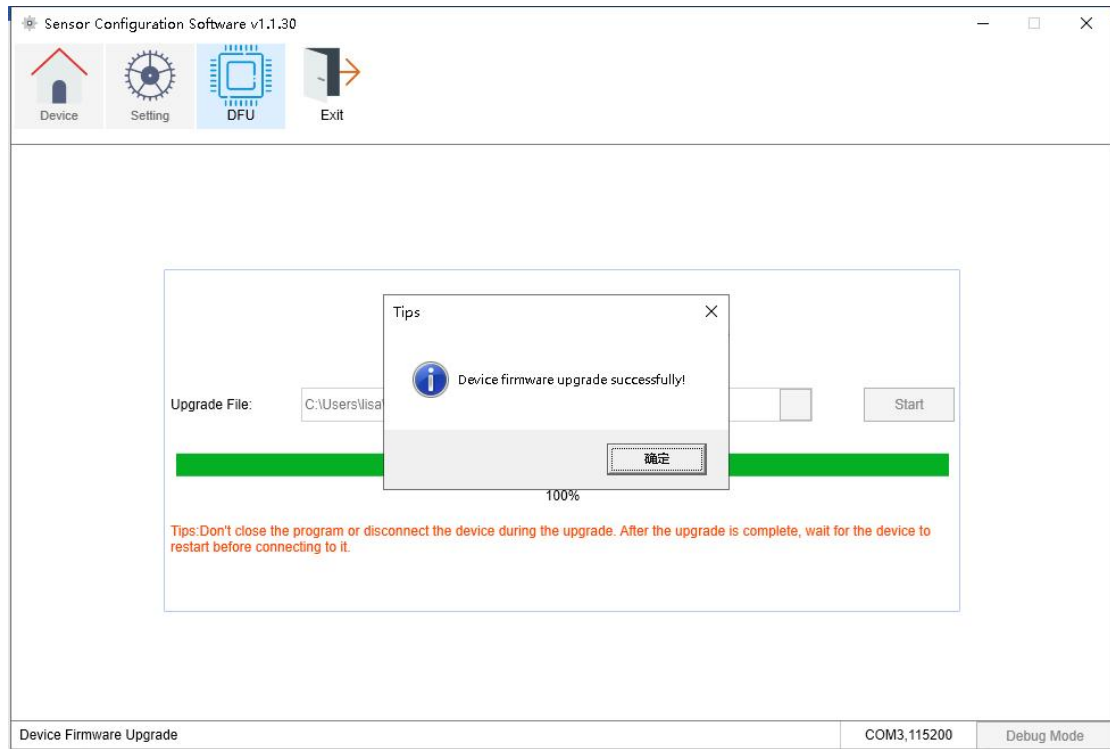
1) Select the bin file and click “Start”.



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.