

# **IAERIS7 USER MANUAL**



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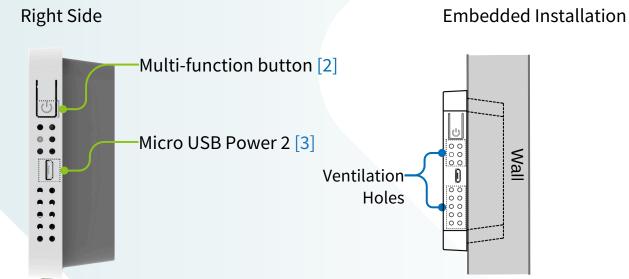
# **PACKAGE CONTENTS**

sysinno

- iAeris main unit
- Adapter [1]
- Product warranty card
- Screw package

# **PRODUCT DESIGN / FEATURES**

# Front



### **NOTES:**

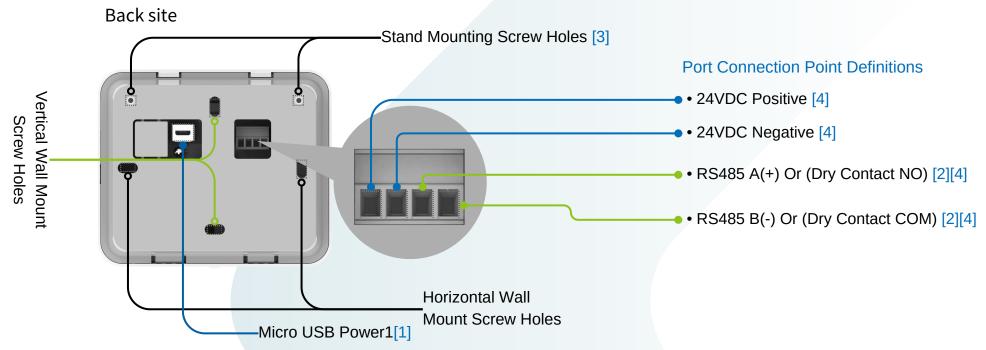
- [1] Transformer power cord length is 1.5m
- [2] Hold the multifunction button for 10sec. to reset Wi-Fi
- [3] There are 2 Micro USB Powers on right and back sites. Avoid using both Micro USB power1 & 2 ports simultaneously.

This product can be embedded into the wall, but do not block the vents.

Please refer to [ Product Dimensions ]

# **PRODUCT DESIGN / FEATURES**





### **NOTES:**

- [1] There are 2 Micro USB Powers on right and back sites. Avoid using both Micro USB power1 & 2 ports simultaneously.
- [2] Default is RS485 connection, optional dry contact function (if dry contact is selected, RS485 communication cannot be used simultaneously).
- [3] Stand mount is an optional accessory
- [4] Communication cable recommendations:

RS485: AWG22 dual isolated control cable

24VDC: AWG24AWG19 multi-core power cable

Dry contact: AWG24AWG19 multi-core power cable

### **COMMUNICATION INTERFACE:**

### **RS485 Communication Function**

- RS-485 is directional, please pay attention to the A(+) and B(-) positions when wiring.
- Communication format adopts Modbus RTU format, please use devices and equipment with Modbus RTU Master function.

### **Wireless Network Function**

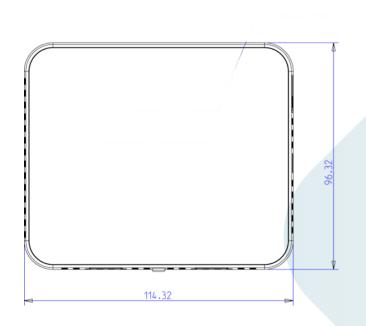
- please refer to the WiFi setup process instructions.
- Supports HTTP, MQTT, and Modbus TCP formats.

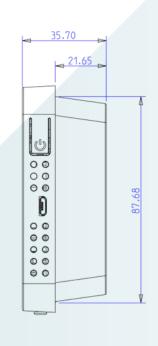
### **Dry Contact Function (optional)**

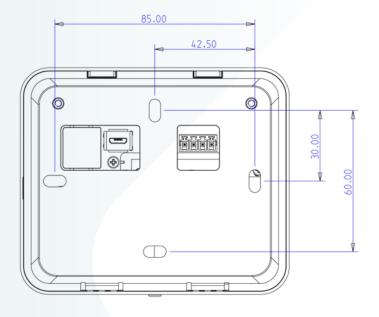
• This product can be set with one dry contact, serving as a signal source to activate external devices. Use proper wiring for connection [4].

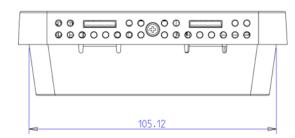
# **PRODUCT DIMENSIONS**







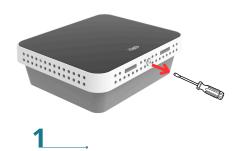




Unit: mm

# **WALL MOUNT INSTALLATION**



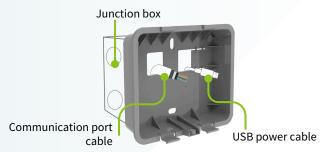


Loosen the bottom screws.

2 \(\sqrt{1}\)

2\_\_\_\_

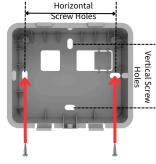
- 1) Press the bottom latch.
- ② Lift the machine body to detach it from the back cover.



3

Position the back cover on the wall [1] or wiring box and route the Micro USB Power code as needed.

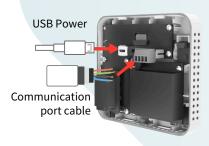
[1] Refer to [installation position recommendations] page



4\_\_\_

Secure the back cover to the wall using the provided screws [2].

[2] Choose screw holes based on wiring box specifications: horizontal or vertical.

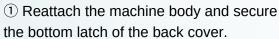


<u>5\_\_\_</u>

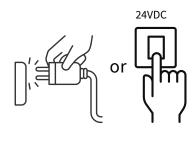
Install the power cord [3] and communication port cable as needed.

[3] This product offers two power supply options. See [Precautions] "Power Supply Specifications" for details





2 Lock the fixing screws.



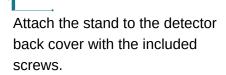
7

Plug in the adapter or power the device with 24VDC.

# **STAND MOUNT INSTALLATION (OPTIONAL)**









**2**Set the detector with stand on a flat surface.

- Ensure the detector is placed level.
- Place it away from the body and heat sources for accuracy.
- Ensure the vents are unobstructed for proper airflow.
- Refer to [installation position recommendations] page





Plug in the transformer to power on the device.

- This product has one Micro USB power port on the back and one on the side. You can choose to use either as needed.
- Do not use Micro USB power 1 and 2 simultaneously.



## 1.Connect your iAeris device

Power on iAeris7 and confirm screen display ( symbol (The device is in hotspot mode) [1], Find the WiFi hotspot name on the label on the back of the device.

Find the WiFi hotspot name on the label on the back of the device.

SSID: iAeris7 xxxx

Password: 1234567890

Model : iAeris7x Serial no : 00000000000xxxx WiFi Mac: xxxxxxxxxxxxx

iAeris7\_xxx Password : 1234567890



Search and connect to the iAeris7 WiFi hotspot on your device







# 2. Access the iAeris7 homepage from internet browser on your computer or phone

Enter http://192.168.4.1/ in your browser to access the iAeris7 homepage. Default factory settings password: admin

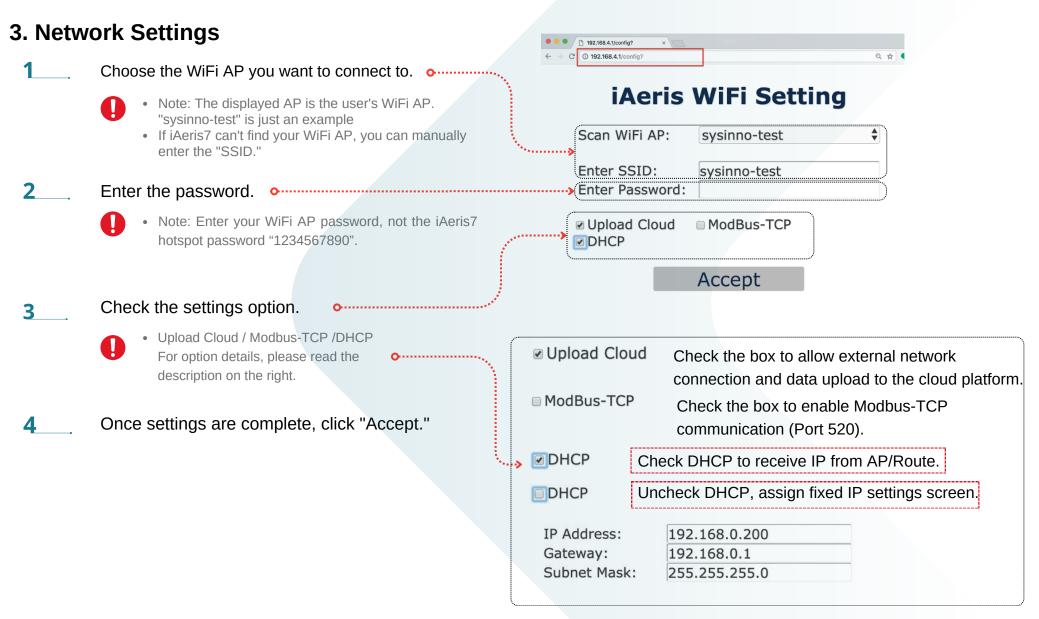


2 On the device homepage, click on "WiFi Setting" to enter the settings screen.

# **iAeris Information**

PID	iAeris7x	
SNO	I7ES6B1B00000010	
WIFI Mac	XX:XX:XX:XX	
Firmware	2.01.011	
Device Time	2024-10-4 18:6:56	
<b>Upload Time</b>		
Join-AP		
WiFi Setting	Time Setting	
<u> </u>		
Data Download	Logout	







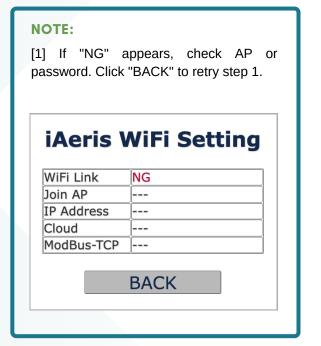
**5** Countdown for setup completion.

**6** Setup done, "OK" displayed [1].

# iAeris WiFi Setting

Please wait .... 19 sec

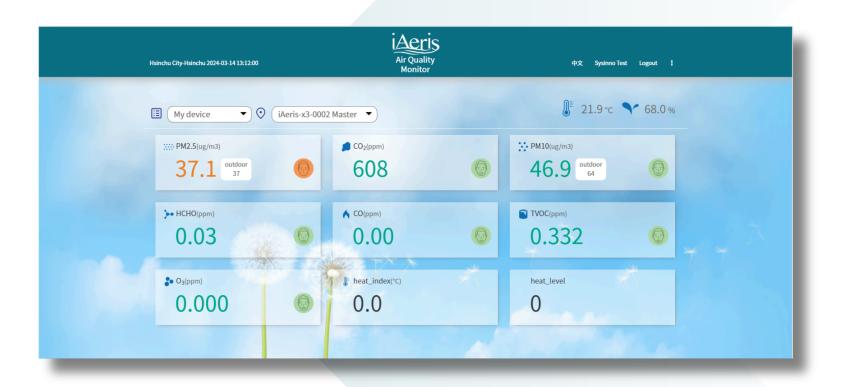






# **CLOUD PLATFORM INTERFACE (OPTIONAL)**

Go to <a href="https://www.xsize.net/iaeris/login.php">https://www.xsize.net/iaeris/login.php</a> in your browser





# **CLOUD PLATFORM INTERFACE (OPTIONAL)**

Register Account

iAeris Air Quality Monitor	中文 Login Register <b>:</b>
Register account	
Account, registered email address  Password, 10 or more English, Number	
Confirm the password and enter the password we	
Member name, please enter a name  please select monitor type  ▼	



# **Cloud Platform Login Homepage**

- After registration and login, view the environmental detection values of the selected device
- Data uploads to the cloud platform every six minutes

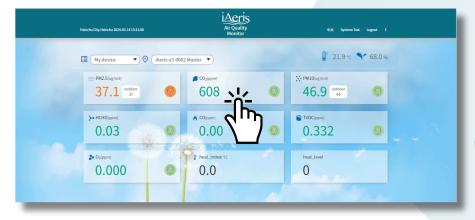




# HISTORICAL DATA TREND CURVE

• Click "Environmental Factors" on the homepage to access the historical curve interface.

• This page shows hourly averages and up to seven days of data.



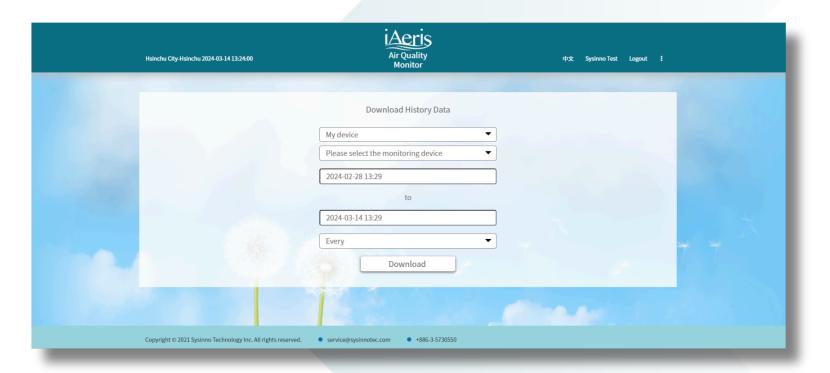






# **CUSTOMER AREA FUNCTIONALITY**

- The cloud platform provides customer-oriented features for easy data recording and management.
- Before service expires, contact the device vendor to purchase additional usage years for continued data download functionality.



# **INSTALLATION POSITION RECOMMENDATIONS**



For accuracy, we recommend installing one detector for every 200 square meters of enclosed space.

### For example:

- Each open space of 200 square meters requires one detector.
- Each individual partitioned meeting room or space requires one detector.
- For spaces larger than 200 square meters, consider installing multiple detectors throughout the entire area to achieve optimal coverage.
- Detectors should be installed near indoor areas where people are active or near ventilation (air conditioning) equipment return air vents.
- Detector placement should be away from operable doors, windows, and air conditioning vents, at least 2 meters away.
- We recommend installing the detector at a height of 1.5 meters to 2.5 meters.
- Position the detector at least 2 meters away from doors, windows, and air vents.
- Ensure that the device's ventilation holes are not obstructed, allowing for proper airflow.
- To ensure accuracy and longevity, ceiling-mounted installation on the ceiling is not recommended.



# **PRECAUTIONS**

- This product provides general indoor air quality information only and is not intended to determine individual health impacts or serve as a fire alarm.
- Keep the product away from heat sources and areas prone to water splashes or dripping.
- Avoid using the product in environments with vibrations or direct sunlight.
- Ensure proper airflow by not blocking the ventilation holes around the device.
- Do not insert external objects into the ventilation holes to prevent sensor malfunction or electric shock.
- Non-technical personnel should not attempt to disassemble, modify, or repair the product.
- Use correct connectors and cables during installation and avoid forcing connectors into ports to prevent damage not covered by warranty.

### [Attention] Power Supply Notice:

 This product operates on a 12-24V DC power supply. You can either convert AC power to the required voltage or use the provided power adapter.

### [Attention]

- This product supports energy recovery ventilation (ERV) and single-directional intake fans. Before purchasing, consult local distributors for compatibility and technical support.
- The control logic for RS485 or dry contact output is fixed and intended only for ventilation equipment control.

### Use the correct connectors and ports

- Avoid forcing connections. Check for obstructions. Ensure proper alignment.
- Damage from mishandling, like inserting wrong pins, isn't covered by warranty.

### **Power Supply Specifications:**

This product can be powered by the included an adapter or a 24VDC power source. The included transformer outputs 5V via a Micro USB connector. If using a 24VDC power source, convert mains power to 12-24V before wiring it to the rear port.

### **Dry Contact Specifications:**

The dry contact is a passive NO switch. AC rated voltage withstands 125V at 0.3A, and DC withstands 30V at 1A.

### **Prohibition of Hot Wiring**

When changing the power source or port terminals, be sure to cut off power before wiring adjustments, and reconnect power only after completing the setup.

# **ATTACHMENT: IAERIS7 WEB SETTINGS GUIDE**



### **Contents**

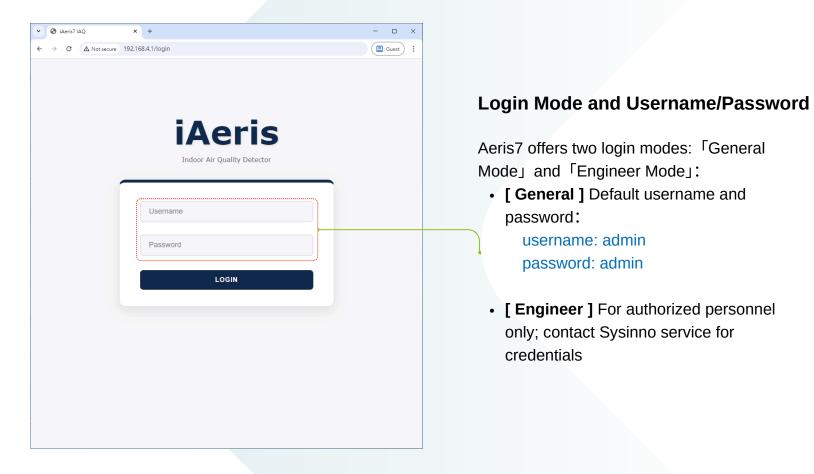
- LOGIN:
  - Login modes and username/password
- INFORMATION:
  - Information page description
- **DISPLAY SETTINGS:** 
  - Display page description
- NETWORKING SETTINGS:
  - Network settings description
    - [WiFi Config] section description
    - [Cloud Config] section description
- PASSWORD SETTINGS:
  - Password page description

- DATA DOWNLOAD:
  - Data page description
- TIME SETTINGS:
  - Time page description
- ADVANCED SETTINGS:
  - Advanced settings page description
    - [Modbus RTU (RS-485)]
    - [Wi-Fi Access Point Settings]
    - [Cloud Upload Settings (Engineer Mode)]
    - <u>[Restore Factory Settings (Engineer Mode)]</u>

# **LOGIN PAGE DESCRIPTION**



Using a computer or mobile browser, enter the URL [http://xx.xx.xx.xx] in the address bar to access the iAeris7 login page (as shown below)

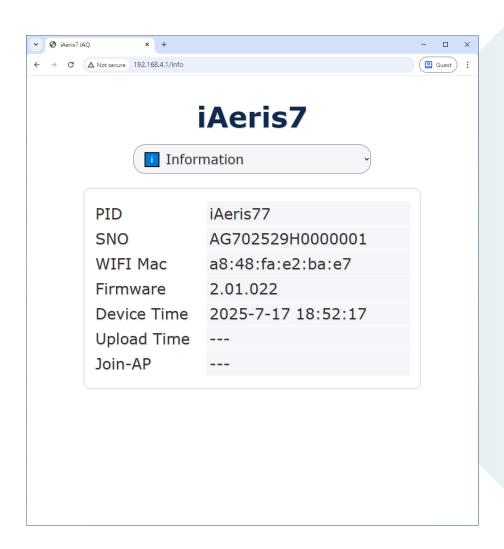


- [1] [http://xx.xx.xx.xx] is an example; enter the actual IP
- [2] If iAeris7 is in AP-Mode, the default login IP address is [http://192.168.4.1] when accessed via computer or mobile device.

# INFORMATION PAGE DESCRIPTION



The Information page displays local iAeris device details (see example below).

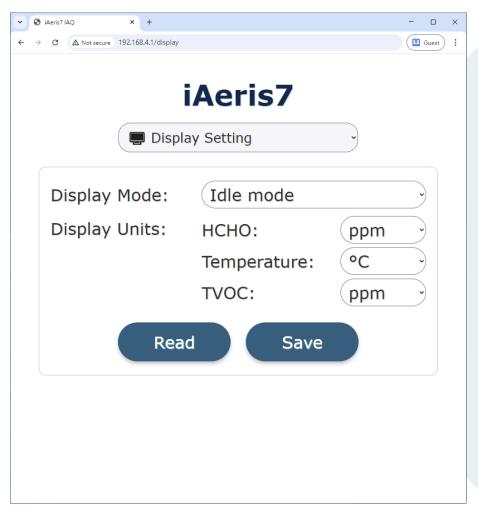


- [PID]:
  - Model iAeris7, last digit shows number of installed sensors.
- [SNO]:
  - Unique 15-character product serial number.
- [WIFI Mac]:
  - Device Wi-Fi MAC address.
- [Firmware]:
  - Installed firmware version.
- [Device Time]:
  - Device RTC time.
- [Upload Time]:
  - · Last successful cloud upload time.
- [Join-AP]:
  - Currently connected Wi-Fi SSID.

# **DISPLAY SETTING PAGE DESCRIPTION**



This page lets users configure screen display settings. [1]



### [Display Mode]:

- Set OLED screen display mode:
  - Sleep mode: Screen off.
  - Idle mode: Shows Wi-Fi, alarm, and RS-485 status.
  - IAQ mode: Cycles through all sensor readings.

### • [Display Units]:

- Set the concentration units for the sensor readings displayed on the screen [2]. Supported units:
  - HCHO (Formaldehyde):
    - ppm (parts per million)
    - μg/m³ (micrograms per cubic meter)
  - Temperature:
    - °C (Celsius)
    - °F (Fahrenheit)
  - TVOC (Total Volatile Organic Compounds):
    - ppm (parts per million)
    - μg/m³ (micrograms per cubic meter)

- [1] If no screen is installed, this function is unavailable.
- [2] If the above sensor is not installed, its option will not be displayed.

# **NETWORK SETTINGS**



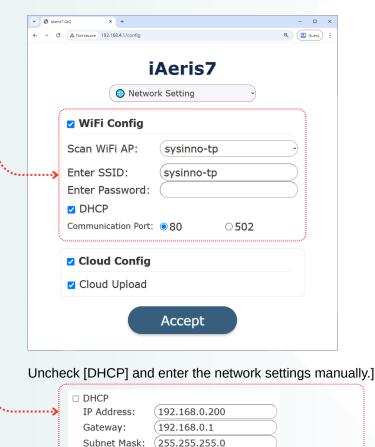
# [WiFi Config] Section Description

The Network Settings page has two sections: [WiFi Config] and [Cloud Config]. The following explains the [WiFi Config] section:

1 WiFi Section •

Check [WiFi Config] to apply the settings in the Wi-Fi section; uncheck to ignore them.

- [Scan WiFi AP]:
  - The device scans for available wireless access points (SSIDs).
- [DHCP]:
  - Check to enable automatic IP and network settings from 
     the access point;
  - uncheck to manually set device IP address, subnet mask, and gateway.
- [Communication port]:
  - Select either port 80 (HTTP) or port 502 (Modbus TCP) as the device communication port.



# **NETWORK SETTINGS**



# [Cloud Config] Section Description

The following explains the [Cloud Config] section settings:

2 Cloud Section •

Check [Cloud Config] to apply the settings in the Cloud section; uncheck to ignore them.

• [Upload Cloud]: Check to enable data upload to the cloud server. The device will automatically upload data to the default cloud server [1]. Different cloud types require different configuration parameters [2].

iAeris7 supports the following cloud upload methods:

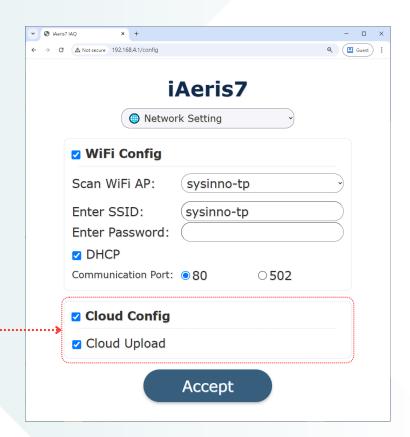
- SYSINNO cloud (HTTP) Default (SYSINNO Cloud platform)
- SYSINNO cloud (MQTT)
- Custom cloud (HTTP)
- Custom cloud (MQTT)
- iCap Air

### **NOTES:**

[1] The image on the right shows the SYSINNO cloud platform settings, which is also the device's default cloud server.

[2]If users want to change the cloud settings, they must go to Advanced Settings [Cloud upload settings]

SYSINNO cloud (HTTP) Setup: Default



# **NETWORK SETTINGS**



# [Cloud Config] Section Settings (Other Cloud Server Setup Methods)

Besides the default SYSINNO cloud platform, you can also configure other cloud servers:

### SYSINNO cloud (MQTT) Setup:

Used with the installed SYSINNO on-premise server i-Cap. Users only need to check Upload and set the server IP address. The device will upload data via MQTT (as shown).

Contact SYSINNO sales for iCap details.



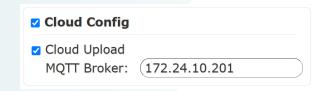
### **Custom cloud (HTTP) Setup:**

Supports HTTP protocol to push data to the customerspecified server IP address and path, as shown below:



### iCap Air Setup:

Used with the installed Innodisk on-premise server i-Cap Air. Users only need to check Upload and set the server IP address. The device will upload data via MQTT (as shown). Contact SYSINNO sales for iCap Air details.



### **Custom cloud (MQTT) Setup:**

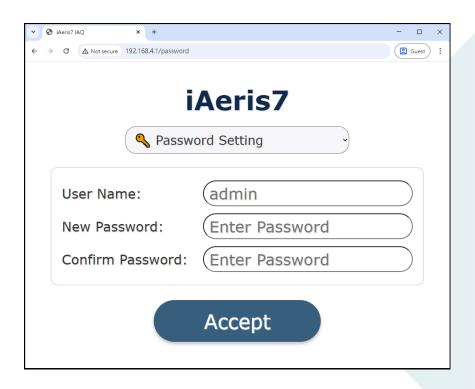
Using MQTT v3 protocol, the device can send data to your specified MQTT broker IP address, topic, port, username, and password. All related configuration parameters are shown in the figure below.

✓ Cloud Config	
✓ Cloud Upload MQTT Broker: Topic: Port:	(test.mosquitto.org (SI (1883
User Name: Password:	

# **PASSWORD SETTINGS**



Provides users the ability to change account information[1], including **username**, **new password**, and **password confirmation**.



- [User Name]:
  - Set a new login username
- [New Password]:
  - Set a new password
- [Confirm Password]:
  - Re-enter the new password for verification [2]

- [1] Pressing the [Multifunction Button] on the right side of the iAeris7 device will restore the account and password to factory defaults.
- [2] If the two password entries do not match, the password change will not be completed.

# DATA DOWNLOAD



iAeris7 supports downloading stored device data via the web interface (as shown).



- [Device Time]:
  - Current RTC time of the device
- [Data Type]:
  - Export Raw data (all) records.
- [Memory]:
  - Shows stored data count / maximum storage capacity
- [Download]:
  - Click to download stored data to your computer or mobile device.
  - File format is .csv , open with Excel or other spreadsheet software

- When the device reaches maximum data storage, it will automatically overwrite the oldest data.
- For large data volumes, downloading may take several seconds to minutes—please be patient.
- Ensure a stable network connection during export to avoid interruptions.

# **TIME SETTINGS**



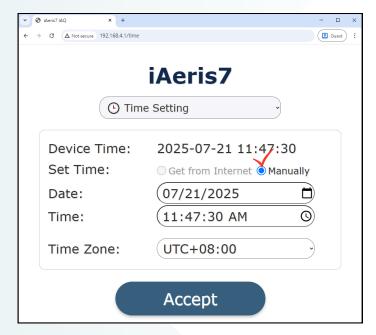
The iAeris7 RTC time can be set in two ways: **Network Time Sync** or **Manual Setting** (as shown).

### **Network Time Sync:**



- Check [Get from Internet] to have the device obtain time from an NTP server and automatically sync the RTC [1]
- In the **[NTP Server]** field, enter the NTP server address.
- In the [Time Zone] field, select the device's local time zone to ensure correct network time synchronization [2] (e.g., UTC+08:00 Taipei) [2] (e.g.,: UTC+08:00 Taipei)

### **Manual Setting:**



- Check [Manually] to set the device date and time manually.
- [Date] Enter the current date
- [Time] Enter the current time
- [Time Zone] Select the device's local time zone to ensure correct time settings [2] (e.g., UTC+08:00 Taipei)

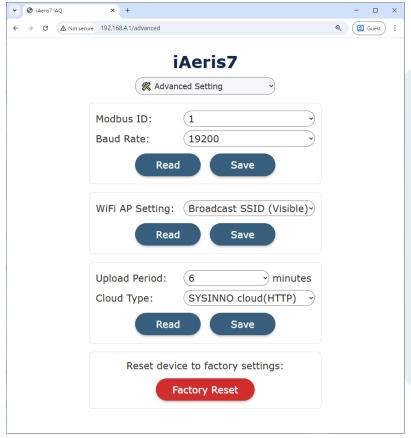
- [1] If the device is in AP-Mode or offline, automatic network time sync cannot be used; select manual time setting instead.
- [2] Correct time zone setting affects all time-related functions, such as data logging and upload timestamps.

# **ADVANCED SETTINGS**



The Advanced Settings page integrates multiple key configuration functions, helping users manage **advanced communication**, **network**, **cloud**, and **system reset options** [1]

It is mainly divided into the following sections:



### [Modbus RTU (RS-485) Communication Settings]:

 This section is used to configure Modbus RTU (RS-485) communication parameters between iAeris7 and upstream devices.

### [Wi-Fi Hotspot Settings]:

 This section is used to configure the iAeris7 Wi-Fi hotspot mode for different application scenarios.

### [Cloud Upload Settings (Engineer Mode)]: [2]

 This section is used to configure parameters for uploading device data to a cloud server.

### • [Restore Factory Settings (Engineer Mode)]: [2]

This section is used to restore the device to its factory settings.

- [1] Advanced settings can change important device parameters; please configure with caution.
- [2] [Engineer Mode] is for authorized personnel only. Contact SYSINNO sales to obtain credentials before use.

# **ADVANCED SETTINGS**



### Modbus RTU (RS-485) Communication Settings:



### • [Modbus ID]:

This ID distinguishes multiple Modbus devices; range is 1–247.

### • [Baud Rate]:

- Set the Modbus RTU communication baud rate. Supported options:
  - **600**, 1200, 2400, 4800, 9600, 19200, 115200, 230400

Wi-Fi Hotspot Settings: (This section configures the iAeris7 Wi-Fi hotspot mode for different application scenarios) [1]



### • [WiFi AP Setting]:

- Broadcast SSID (Visible):
  - In this mode, the Wi-Fi hotspot is publicly visible. Other devices can find and connect to the hotspot (SSID) directly.
- Hide SSID (Invisible):
  - In this mode, the Wi-Fi hotspot is hidden. Other devices cannot detect it. Users must manually enter the SSID and connection key to connect.
- Auto turn off when idle (30 minutes):
  - In this mode, the Wi-Fi hotspot automatically turns off after 30 minutes of inactivity. [1]

- [1] To re-enable the device Wi-Fi hotspot, use one of the following methods:
  - 1. Restart the device
  - 2. Use the multifunction button to set Wi-Fi AP to Broadcast SSID (Visible) or Hide SSID (Invisible) For detailed instructions, see [Login page Description]

# **ADVANCED SETTINGS**



Cloud Upload Settings (Engineer Mode): [1] (This section configures parameters for uploading device data to a cloud server)



### **Restore Factory Settings (Engineer Mode): [3]**



### • [Upload Period]:

 Set the frequency for storing data locally and uploading to the cloud server. Adjustable from 1 to 60 minutes according to requirements.

### • [Cloud Type]: [2]

- SYSINNO cloud (HTTP)
- SYSINNO cloud (MQTT)
- Custom cloud (HTTP)
- Custom cloud (MQTT)
- iCAP Air
- Factory default cloud

### • [Factory Reset]:

One-Click Restore restores all settings to factory defaults. [3]

- [1] [Engineer Mode] is for authorized personnel only. Contact SYSINNO sales to obtain credentials before use.
- [2] Different cloud platforms require corresponding server parameters such as address, username, and password. Changing this setting will affect the related parameters in the [Cloud Config] section on the Network Settings page. See [Cloud Config] for details.
- [3] Executing this function will erase all custom settings. Use with caution.