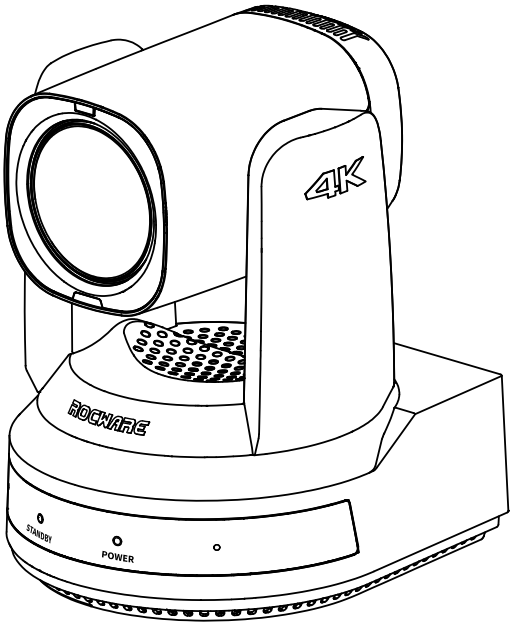
# RC841UX 4K Video Conferencing PTZ Camera




# User Manual

## Limitation of Liability

This manual does not contain any warranties or implied warranties of any kind. The contents of this manual may be updated at any time without notice.

**Warning**

Operating this equipment in a residential environment may cause radio interference.

## FCC NOTICE (Class A)

This device complies with Part 15 of the FCC Rules. The 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.

**Note**

This equipment has been tested and found to comply with the limits for a Class A 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 by 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 the 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/television technician for help.

## Class A ITE

Class A ITE is a category of all other ITE which satisfies the class A ITE limits but not the class B ITE limits. Such equipment should not be restricted in its sale, but the following warning shall be included in the instructions for use:

## European Community Compliance Statement (Class A)

This product is herewith confirmed to comply with the requirements set out in the Council Directives on the Approximation of the laws of the Member States relating to Electromagnetic Compatibility Directive 2014/30/EU.

# Catalogue

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# 1 Safety Precautions

- During the installation and operation, all electrical safety regulations of the country and region of use must be strictly observed.
- Please use the power adapter that comes standard with this product.
- Do not connect multiple devices to the same power adapter (exceeding the capacity of the adapter may generate excessive heat or cause fire).
- Do not rotate the camera by hand, otherwise it may cause mechanical failure.
- When installing this product on a wall or ceiling, make sure the device is secure and there are no obstacles within the rotation range. Do not power on until all installations are completed.
- To avoid heat build-up, please keep smooth ventilation around the device.
- If the device smokes, smells, or makes noises, please turn off the power and unplug the power cord immediately, then contact the dealer in time.
- This device is not waterproof, please keep the device dry.
- This product has no user-serviceable parts, damage caused by the user's disassembly is not covered by the warranty.

**Notice**

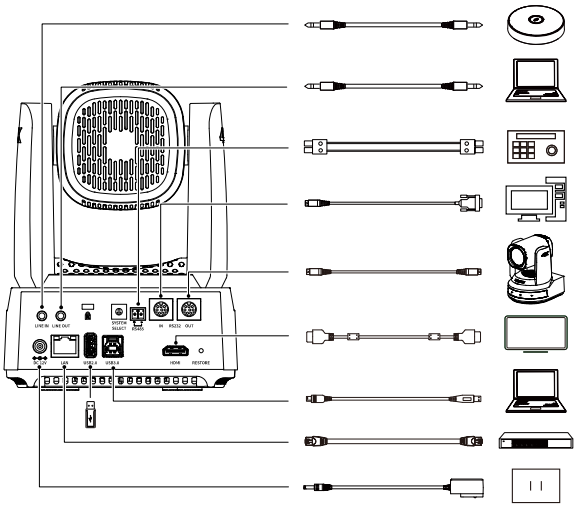
Running this device in a residential environment may cause radio interference.

# 2 Packing List

| Name | Quantity |
|---|---|
| Camera | 1 |
| Power Adapter | 1 |
| USB Cable | 1 |
| Remote Control | 1 |
| Manual QR Code | 1 |

# 3 Quick Start

1) Please check whether the connection is correct before starting.



2) After the camera is powered on, it starts to initialize. Move the motor to the right limit position, then to the middle position both horizontally and vertically. The motor stops running, and the initialization is complete. (Note: If preset 0 is saved, PTZ will be moved to preset 0)

# 4 Video Format

| HDMI | | | |
|---|---|---|---|
| 0 | 1080P60 | 8 | 1080P59.94 |
| 1 | 1080P50 | 9 | 720P59.94 |
| 2 | 1080I60 | A | 4KP29.97 |
| 3 | 1080I50 | B | 4KP59.94 |
| 4 | 1080P30 | C | 4KP25 |
| 5 | 720P60 | D | 4KP30 |
| 6 | 1080P29.97 | E | 4KP50 |
| 7 | 1080I59.94 | F | 4KP60 |

# 5 About Product

## 5.1 Features

- **4K Video Quality**

Equipped with the new generation 4K CMOS sensor with a maximum pixel count of 8 million, this camera can achieve ultra-high resolution video images of 4K (3840x2160), meeting the high image quality requirements of various conference rooms.

- **12X Optical Zoom**

Equipped with an 80.8° wide-angle lens, this camera features 12x optical zoom and 16x digital zoom, enabling clear capture of details both near and far in the conference room with no distortion at the edges of the image.

- **Silent Mechanical PTZ**

Equipped with a silent mechanical PTZ, this camera has a ±170° horizontal rotation range and a -30°~+90° vertical rotation range, fully covering the entire conference room space and leaving no blind spots, even in corner positions.

- **AI-powered Intelligent Camera Technology**

AI technology upgrade, equipped with advanced AI technologies such as presenter tracking, zone tracking. Equipped with in-house-developed ReID technology, the device identifies the speaker's figure, appearance, and outfit. As the speaker moves within the room, the camera automatically tracks them, ensuring the target remains centered. Even if there are interferences or the speaker exits the frame, the camera swiftly recaptures and tracks them upon reentry.

- **Three-way HD Video Signal Output**

Equipped with USB 3.0, HDMI 2.0 and LAN interfaces, it can output three-way HD video signals simultaneously, bringing more connection options and creating a high-quality conference experience for all participants.

- **Supports NDI®|HX2**

Supports the network video transmission technology NDI®|HX2, featuring plug-and-play, low latency, and easy deployment. It supports simultaneous transmission of audio, video, and control signals.

- **Compatible With Popular Conferencing Software**

This camera is compatible with popular video conferencing software systems, including Microsoft Teams, Zoom, Cisco WebEx and more, making it easy to connect and start a meeting.

## 5.2 Product Specifications

| Camera | |
|---|---|
| Video System | **HDMI**: 4KP60, 4KP59.94, 4KP50, 4KP30, 4KP29.97, 4KP25, 1080P60, 1080P59.94, 1080P50, 1080P30,1080P29.97, 1080I60, 1080I59.94, 1080I50, 720P60, 720P59.94 |
| Sensor | 1/2.8", CMOS, 8.46 Megapixels |
| Scanning Mode | Progressive |

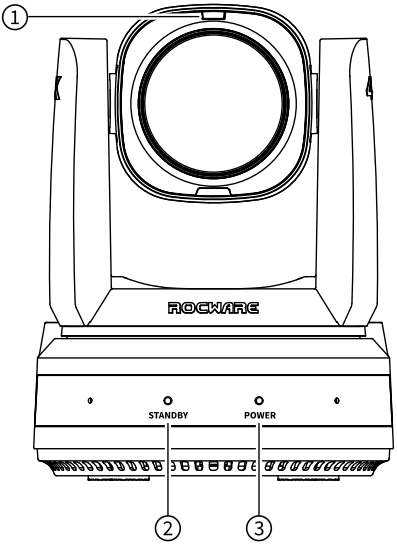
| | |
|---|---|
| Lens | 12X, f=3.47mm~41.65mm, F1.84~F3.72 |
| Digital Zoom | 16X |
| Minimum Illumination | 0.5 Lux @ (F1.8, AGC ON) |
| Shutter | 1/30s~1/10000s |
| White Balance | Auto, Indoor, Outdoor, One Push, Manual, VAR |
| Backlight Compensation | Support |
| Digital Noise Reduction | 3D Digital Noise Reduction |
| SNR | ≥55dB |
| Horizontal FOV | 80.8°~7.5° |
| Vertical FOV | 49.9°~4.3° |
| Pan Angle | ±170° |
| Tilt Angle | -30°~+90° |
| Pan Speed | 1.7°~100°/s |
| Tilt Speed | 1.7°~69.9°/s |
| Image Flip | Support |
| Image Freeze | Support |
| Preset Position | 255 |
| Preset Accuracy | 0.1° |
| **USB Features** | |
| Operating System | Windows 8/10/11, Mac OS X, Linux, Android |
| Color System/ Compression | YUY2/H.264/MJPEG |
| Video Format | ● YUY2:1080P30 (max.)<br>● H.264: 4KP30 (max.)<br>● MJPEG: 4KP30 (max.) |
| Frame Rate | 1fps~30fps |
| USB Audio | Support |
| USB Protocol | UVC 1.1 |
| UVC PTZ Control | Support |
| **Network Features** | |
| Video Encode Protocol | H.264/MJPEG |
| Video Stream | First Stream, Second Stream |
| First Stream Resolution | 3840×2160, 1920×1080, 1280×720, 1024×576 etc. |
| Second Stream Resolution | 720×480, 320×240 etc. |
| Video Bit Rate for First Stream | 32kbps~84000kbps |
| Video Bit Rate for Second Stream | 32kbps~20480kbps |
| Bit Rate Control | CBR, VBR |
| Frame Rate | 50Hz: 1fps~50fps<br>60Hz: 1fps~60fps |
| Audio Type | AAC |
| Audio Bit Rate | 96K, 128K |
| Protocols | NDI\|HX2, SRT, TCP/IP, HTTP, RTSP, RTMP(s), Onvif, DHCP, Multicast, etc. |
| **Interfaces** | |
| USB Interface | 1 × USB3.0: Type-B, support Video&Audio |
| | 1 x USB2.0: Type-A |
| Video Output Interface | 1 x HDMI 2.0 |
| Audio Interface | 1 x LINE IN: 3.5mm |
| | 1 x LINE OUT: 3.5mm |
| Network Interface | 1 x LAN: 10M/100M/1000M adaptive ethernet |
| Communication Interface | 1 x RS232 IN: 8pin Mini DIN, Max Distance 30m, Protocol: VISCA/Pelco-D/Pelco-P |
| | 1 × RS232 OUT: 8pin Mini DIN, Max Distance 30m, Protocol: VISCA |
| | 1×RS485: 2pin phoenix port, Max Distance 1200m, Protocol: VISCA/Pelco-D/ Pelco-P |
| Restore Button | Support |
| Power Interface | JEITA type (DC 12V) |
| **General Specifications** | |
| Input Voltage | DC 12V/PoE+ (802.3at) |
| Input Current | 2A (Max.) |
| Operating Temperature | 0°C~40°C |

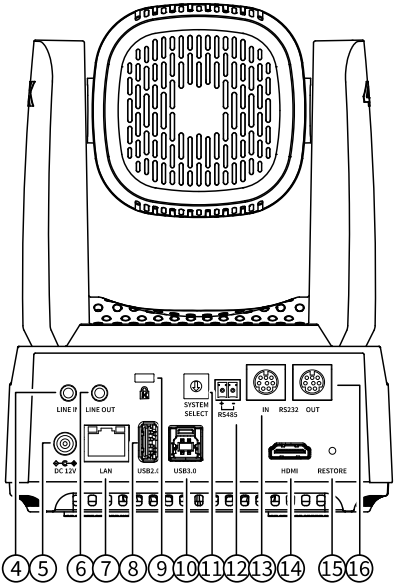
| | |
|---|---|
| Storage Temperature | -40°C~60°C |
| Power Consumption | 18W (Max.) |
| Dimension | 142.2x151.9x188.9 (mm) |
| Net Weight | About 1.6kg |

**Note**

Product features and specifications are subject to change without notice.

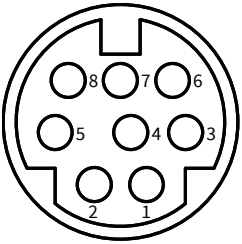
### 5.3 Interfaces




| No. | Name |
|---|---|
| 1 | TALLY Indicator |
| 2 | STANDBY Indicator |
| 3 | POWER Indicator |
| 4 | LINE IN Interface |
| 5 | DC 12V Interface |
| 6 | LINE OUT Interface |
| 7 | LAN Interface |
| 8 | USB2.0 Interface |
| 9 | Security Lock |
| 10 | USB3.0 Interface |
| 11 | System Select Switch |
| 12 | RS485 Interface |
| 13 | RS232 IN Interface |
| 14 | HDMI Interface |
| 15 | Restore Port |
| 16 | RS232 OUT Interface |

### 5.4 RS232 Interface




| No. | Function | No. | Function |
|---|---|---|---|
| 1 | DTR | 5 | RXD |
| 2 | DSR | 6 | GND |
| 3 | TXD | 7 | IR OUT |
| 4 | GND | 8 | NC |

The correspondence between RS232 and DB-9:

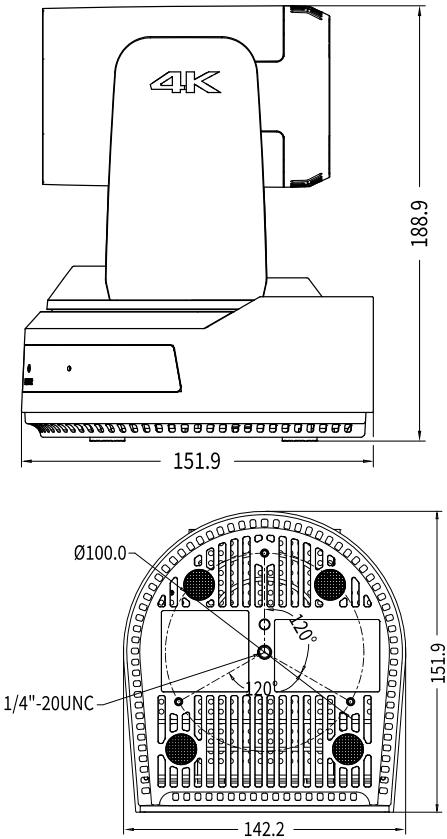
| RS232 | DB-9 |
|---|---|
| 1.DTR | 1.CD |
| 2.DSR | 2.RXD |
| 3.TXD | 3.TXD |
| 4.GND | 4.DTR |
| 5.RXD | 5.GND |
| 6.GND | 6.DSR |
| 7.IR OUT | 7.RTS |
| 8.NC | 8.CTS |
| - | 9.RI |

The correspondence between RS232 and Mini DIN:

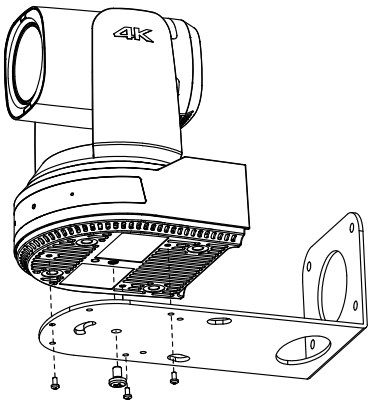
| RS232 | Mini DIN |
|---|---|
| 1.DTR | 1.DTR |
| 2.DSR | 2.DSR |
| 3.TXD | 3.TXD |
| 4.GND | 4.GND |
| 5.RXD | 5.RXD |
| 6.GND | 6.GND |
| 7.IR OUT | 7.NC |
| 8.NC | 8.NC |

### 5.5 Dimension

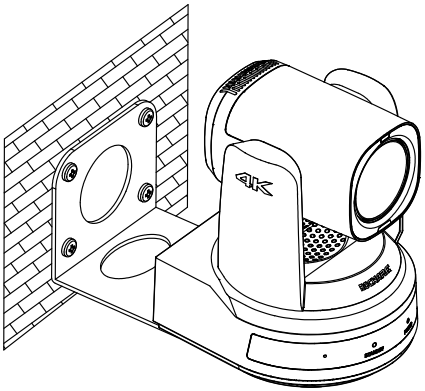
Unit: mm



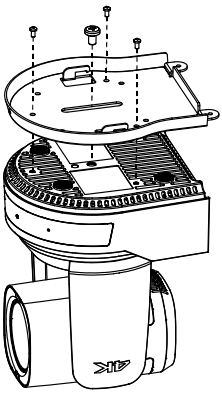
## 5.6 Installation



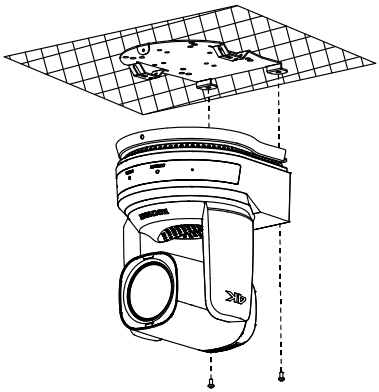
Install Bracket



Wall-mounted



Install Bracket

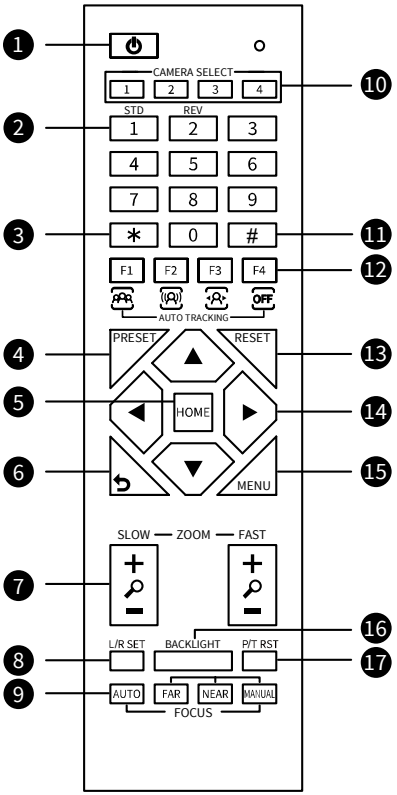


Ceiling-mounted

Note

The above installation diagram is for reference only. Please refer to actual product for the installation accessories.

## 5.7 Remote Control




| Key Description |
|---|
| **1. ⏻ (Standby) Key** |
| Press to enter standby mode |
| **2. Number Key** |
| To set preset or call preset |
| **3. * Key** |
| Use with other keys |
| **4. PRESET Key** |
| Successively press [PRESET] + Number key (0-9) to set preset position |
| **5. HOME Key** |
| Confirm selection or press to turn PTZ back to the middle position |
| **6. ⮌ (Return) Key** |
| Press to return to the previous menu |
| **7. ZOOM Key** |
| ● SLOW: Zoom In [+] or Zoom Out [-] slowly<br>● FAST: Zoom In [+] or Zoom Out [-] fast |
| **8. L/R SET Key** |
| ● Standard: Simultaneously press L/R SET + 1<br>● Reverse: Simultaneously press L/R SET + 2 |
| **9. FOCUS Key** |
| Auto/Manual/Far-end/Near-end focus |
| **10. CAMERA SELECT Key** |
| Press to select and control the camera |
| **11. # Key** |
| Use with other keys |
| **12. IR Remote Control Key** |
| Successively press [*] + [#] + [F1]/[F2]/[F3]/[F4] to set the camera address 1/2/3/4 |
| **13. RESET Key** |
| Successively press [RESET] + Number key (0-9) to clear preset position |
| **14. PTZ Control Key** |
| PTZ moved according to the arrow indicates |
| **15. MENU Key** |
| Enter or exit OSD MENU |
| **16. BACKLIGHT Key** |
| Backlight On/Off<br>NOTE:<br>● Effective in auto exposure mode<br>● If it is too bright behind the subject, it will become dark, press the backlight key to enable the backlight compensation. Press again to disable this function |
| **17. P/T RST (PTZ Reset) Key** |
| Press to preset Pan/Tilt self-test |
| **Shortcut Set** |
| F3: Enable Presenter Tracking<br>F4: Disable Presenter Tracking<br>Successively press [#] + [*] + [F4]:<br>Enable/Disable image freezing function<br>Successively press [*] + [#] + [1]:<br>OSD menu default English<br>Successively press [*] + [#] + [3]:<br>OSD menu default Chinese<br>Successively press [*] + [#] + [4]:<br>Display current IP address<br>Successively press [*] + [#] + [6]:<br>Quickly recover the default<br>Successively press [*] + [#] + [8]:<br>Check the camera version<br>Successively press [*] + [#] + [9]:<br>Quickly set up inversion<br>Successively press [*] + [#] + [MANUAL]:<br>Quickly restore to default IP address |

# 6 GUI Settings

## 6.1 MENU

Press the [MENU] key to display the main menu. Use the arrow key to move the cursor to the desired item and press the [HOME] key to enter the corresponding sub-menu.

**MENU**

▶ Exposure
Color
Image
P/T/Z
Noise Reduction
Setup
Tracking Config
Communication Setup
Restore Default

[HOME] Enter
[MENU] Exit

## 6.2 EXPOSURE

Move the cursor to [Exposure] and press the [HOME] key to enter the Exposure page as below.

**EXPOSURE**

| | | |
|---|---|---|
| ▶ | Mode | Auto |
| | ExpCompMode | Off |
| | Backlight | Off |
| | Gain Limit | 10 |
| | Anti-Flicker | 50Hz |
| | Meter | Average |
| | DRC | 1 |

▲▼ Select Item
◀▶ Change Value
[MENU] Back

**Mode**: Auto, Manual, SAE, AAE, Bright.
**ExpCompMode**: On, Off (Effective in Auto mode).
**ExpComp**: -7~+7 (Effective in ExpCompMode On).
**Backlight**: On, Off (Effective in Auto mode).
**Bright**: 0~17 (Effective in Bright mode).
**Gain Limit**: 0~15 (Effective in Auto, SAE, AAE, Bright mode).
**Anti-Flicker**: Off, 50Hz, 60Hz (Effective in Auto, AAE, Bright mode).
**Meter**: Average, Center, Smart, Top (Effective in Auto, SAE, AAE, Bright mode).
**Iris**: F1.8, F2.0, F2.4, F2.8, F3.4, F4.0, F4.8, F5.6, F6.8, F8.0, F9.6, F11.0, Close (Effective in Manual, AAE mode).
**Shutter**: 1/30, 1/60, 1/90, 1/100, 1/125, 1/180, 1/250, 1/350, 1/500, 1/725, 1/1000, 1/1500, 1/2000, 1/3000, 1/4000, 1/6000, 1/10000 (Effective in Manual, SAE mode).
**Gain**: 0~7 (Effective in Manual mode).
**DRC**: 0~8.

## 6.3 COLOR

Move the cursor to [Color] and press the [HOME] key to enter the Color page as below.

**COLOR**

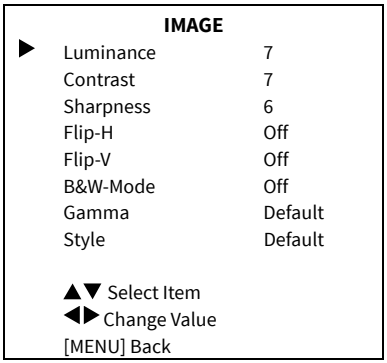
| | | |
|---|---|---|
| ▶ | WB Mode | Auto |
| | RG Tuning | 0 |
| | BG Tuning | 0 |
| | Saturation | 100% |
| | Hue | 7 |

▲▼ Select Item
◀▶ Change Value
[MENU] Back

**WB Mode**: Auto, Indoor, Outdoor, One Push, Manual, VAR.
**RG**: 0~255 (Effective in Manual mode).
**BG**: 0~255 (Effective in Manual mode).
**RG Tuning**: -10~+10 (Effective in Auto, One Push, VAR mode).
**BG Tuning**: -10~+10 (Effective in Auto, One Push, VAR mode).
**Saturation**: 60%~200%.
**Hue**: 0~14.
**Color Temp**: 2500K~8000K (Effective in VAR mode).

## 6.4 IMAGE

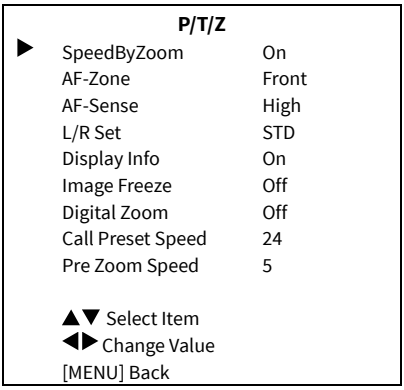
Move the cursor to [Image] and press the [HOME] key to enter the Image page as below.




**Luminance**: 0~14.
**Contrast**: 0~14.
**Sharpness**: 0~11.
**Flip-H**: On, Off.
**Flip-V**: On, Off.
**B&W-Mode**: On, Off.
**Gamma**: Default, 0.45, 0.48, 0.5, 0.56, PC.
**Style**: Default, Norm, Bright, PC.

## 6.5 P/T/Z

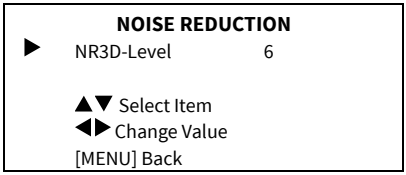
Move the cursor to [P/T/Z] and press the [HOME] key to enter the P/T/Z page as below.




**SpeedByZoom**: On, Off.
**AF-Zone**: Front, Top, Center, Bottom.
**AF-Sense**: High, Low, Normal.
**L/R Set**: STD, REV.
**Display Info**: On, Off.
**Image Freeze**: On, Off.
**Digital Zoom**: Off, 2x, 4x, 8x, 16x.
**Call Preset Speed**: 1~24.
**Pre Zoom Speed**: 0~7.

## 6.6 NOISE REDUCTION

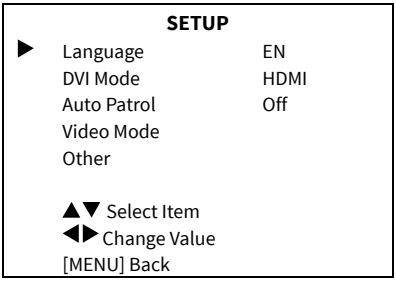
Move the cursor to [Noise Reduction] and press the [HOME] key to enter the Noise Reduction page as below.




**NR3D Level**: Off, 1~9.

## 6.7 SETUP

Move the cursor to [Setup] and press the [HOME] key to enter the Setup page as below.



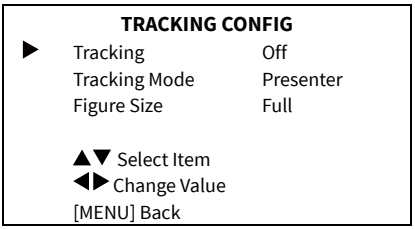

**Language**: EN, 中文, Русский.
**DVI Mode**: HDMI, DVI.
**Auto Patrol**: On, Off.
**Residence Time**: 1~60 (Effective in Auto Patrol item On).
**Call Preset Speed**: 1~24 (Effective in Auto Patrol item On).
**Video Mode**: Press the [HOME] key to confirm to enter the "Video Mode" page to set the SDI-3G Mode (Level-A/Level-B).
**Other**: Press the [HOME] key to confirm to enter the "Other" page to set the Auto Inversion (On/Off) and the Pre Attr (On/Off).

Note

The DVI Mode will take effect after pressing the [HOME] key to restart the device.

## 6.8 TRACKING CONFIG

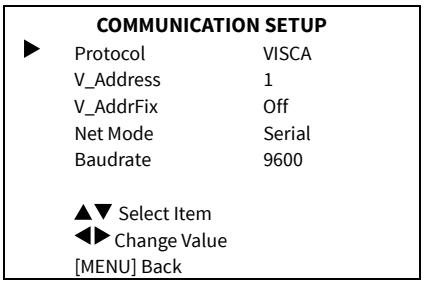
Move the cursor to [Tracking Config] and press the [HOME] key to enter the Tracking Config page as below.




**Tracking**: On, Off.
**Tracking Mode**: Zone, Presenter.
**Figure Size**: Full, Half Body, Close Up, Custom.

## 6.9 COMMUNICATION SETUP

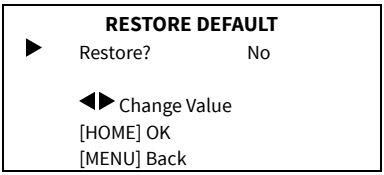
Move the cursor to [Communication Setup] and press the [HOME] key to enter the Communication Setup page as below.




**Protocol**: Auto, VISCA, PELCO-D, PELCO-P.
**V_Address**: 1~7 (Effective in Auto, VISCA protocol).
**V_AddrFix**: On, Off (When set to On, the 88 30 01 FF command does not work. Effective in Auto and VISCA protocol).
**P_D_Address**: 0~254 (Effective in Auto, PELCO-D protocol).
**P_P_Address**: 0~31 (Effective in Auto, PELCO-P protocol).
**Net Mode**: Serial, Paral (Effective in Auto, VISCA protocol).
**Baudrate**: 2400, 4800, 9600, 38400.

## 6.10 RESTORE DEFAULT

Move the cursor to [Restore Default] and press the [HOME] key to enter the Restore Default page as below.




**Restore**: Yes, No.

Notice

When selecting “Yes” and confirming with the [HOME] key, all parameters will be restored to default, including the IR Remote and VISICA address.

Note

GUI menu and device information are subject to change without notice.

# 7 WEB Settings

## 7.1 Access Camera

Access http://192.168.100.88 to pop up the login window, input the default username (admin) and password (admin) and click the “Submit” to enter the WEB page as below:

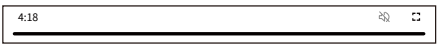



## 7.2 Control Camera

### A. Video Display Window

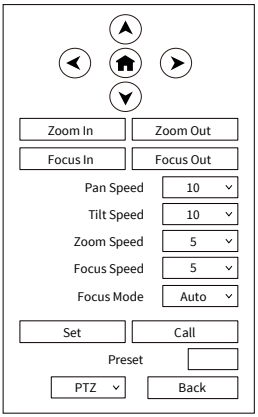
The video display window matches the video resolution, the larger the resolution, the larger the window.

The status bar is located below the display window is shown as below:




: Full screen button

### B. PTZ




**Pan and Tilt Control**

Use the arrow buttons to turn PTZ to up, down, left and right, click the HOME button to return it to the middle position.

**Zoom**

Zoom In/Zoom Out camera lens.

**Focus**

Focus In/Focus Out (it will take effect in “Manual” focus mode).

**PTZ Speeds**

The Pan speed value can be set to 1~24; the Tilt speed value can be set to 1~20; the Zoom and Focus speed value can be set to 1~7.

**Focus Mode**

Focus Mode: Auto, Manual.

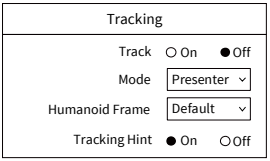
**PTZ Presets**

Use the arrow button to turn the PTZ to the desired position, enter a preset number (0~254) in the preset box and click the "Set" button to save. When the PTZ turn to another position, enter the preset number and click the “Call” button to return the PTZ to the preset position.

**PTZ/OSD**

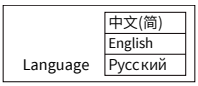
Move the cursor to pull-down the PTZ/OSD option, click "OSD" to open the on-screen menu and do menu settings on the interface.

### C. Tracking



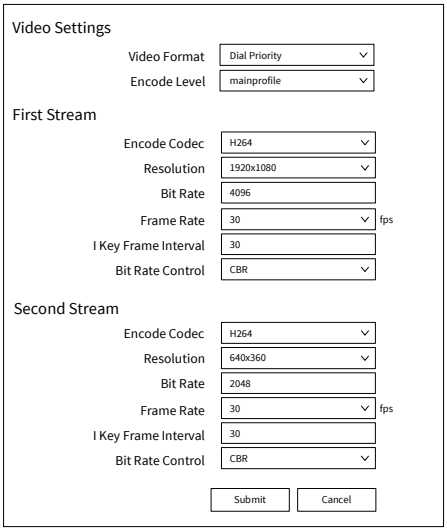

Select to turn On/Off the Track and the Tracking Hint. Set the Mode (Presenter, Zone) and the Humanoid Frame (Debug, Off, Default).

### D. Language




Click to select “English”, “中文 (简)” or “Русский” to change the language of the webpage.

## 7.3 Video Settings




**Video Format**

Support 50Hz (PAL), 60Hz (NTSC) and Dial Priority formats.

**Encode Level**

Support mainprofile and Highprofile encode level.

**Encode Codec**

Support H264, H265 and MJPEG encode Codec.

**Resolution**

The first stream supports 3840x2160, 1920x1080, 1280x720, 1024x576, 720x480, 720x408, 640x480, 640x360; The second stream supports 720x480, 720x408, 640x480, 640x360, 480x320, 320x240. The larger the resolution, the clearer the image, but it also requires a larger code stream, which consumes more network bandwidth.

**Bit Rate**

A higher bit rate enhances image clarity. Consider the network bandwidth when configuring the bit rate. If the network bandwidth is limited and a higher bit rate is set, video stream transmission is compromised, resulting in a degraded visual experience.

**Frame Rate**

Higher frame rates result in smoother pictures, while lower frame rates create a more dynamic effect.

**I Key Frame Interval**

Adjust the interval between two I-frames. A larger interval can slow down the initial image display.

**Bit Rate Control**

Two bit rate control modes are available.

CBR (Constant Bit Rate): Encodes video at the set bit rate speed.

VBR (Variable Bit Rate): Considers image quality while encoding but doesn't strictly follow the preset speed.

## 7.4 Tracking Settings

### 7.4.1 Presenter




**Auto Zoom/Auto Tilt**

Turn On/Off the Auto Zoom/Tilt. When the Auto Zoom or Tilt is off, the camera stops zooming in/out or tilting automatically. Determine the zoom size and tilt position based on the tracking start position you choose. When Auto Zoom is off, the camera stops zooming In/Out automatically. When Auto Tilt is off, the camera only turns horizontally.

**Target Retention Time**

Set the Target Retention Time to return to the starting point after losing the target.

**Figure Size**

Figure Size: Full, Half Body, Close Up, Custom.

**Tracking Start Position**

Tracking Start Position: Current Location, Preset 1.

**Character Position**

Character Position: Left, Middle, Right.

### 7.4.2 Zone




**Zone Setting**

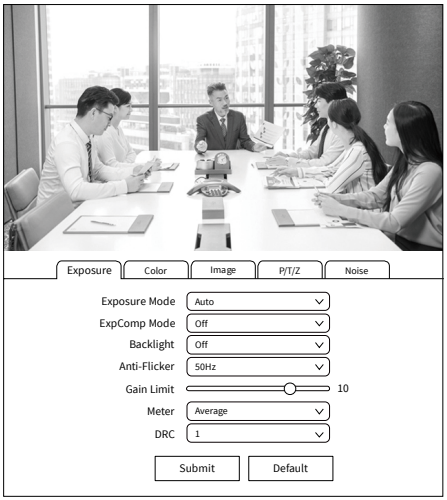
Zone Setting: Zone A, Zone B, Zone C, Zone D. The zone tracking must be set "from left to right", and each zone must have overlap.

**Tracking Start Area**

Tracking Start Area: Zone A, Zone B, Zone C, Zone D.

## 7.5 Image Settings

### 7.5.1 Exposure




**Exposure**: Auto, Manual, SAE, AAE, Bright.

**ExpComp Mode** (Exposure Compensation Mode): On, Off (Effective in Auto mode).

**ExpComp** (Exposure Compensation Value): -7~7 (Effective in ExpComp Mode “On”).

**Backlight**: On, Off (Effective in Auto mode).

**Anti-Flicker**: Off, 50Hz, 60Hz (Effective in Auto, AAE, Bright mode).

**Gain Limit**: 0~15 (Effective in Auto, SAE, AAE, Bright mode).

**Meter**: Average, Center, Smart, Top (Effective in Auto, SAE, AAE, Bright mode).

**DRC**: 0~8.

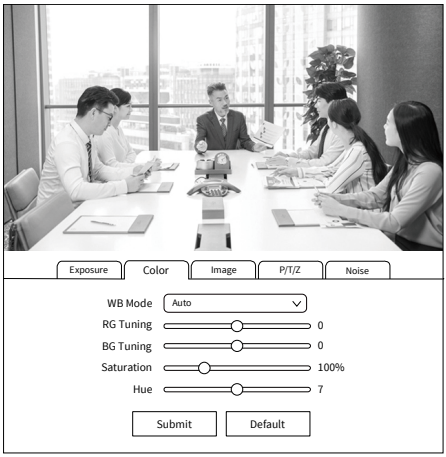
**Iris**: F1.8, F2.0, F2.4, F2.8, F3.4, F4.0, F4.8, F5.6, F6.8, F8.0, F9.6, F11.0, Close (Effective in Manual, AAE mode).

**Shutter**: 1/30, 1/60, 1/90, 1/100, 1/125, 1/180, 1/250, 1/350, 1/500, 1/725, 1/1000, 1/1500, 1/2000, 1/3000, 1/4000, 1/6000, 1/10000 (Effective in Manual, SAE mode).

**Gain**: 0~7 (Effective in Manual mode).

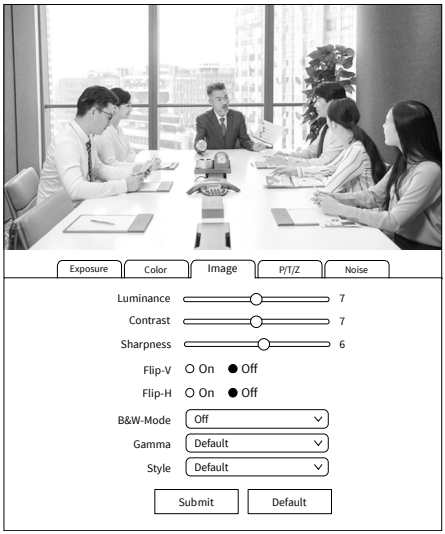
**Bright**: 0~17 (Effective in Bright mode).

### 7.5.2 Color



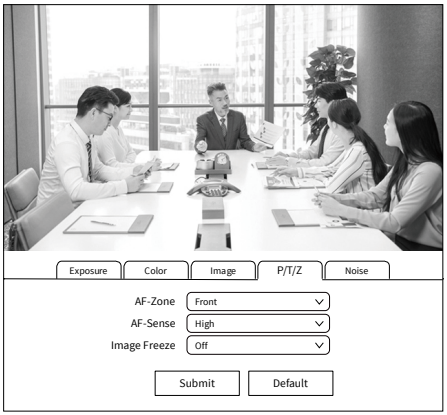

**WB-Mode** (White Balance Mode): Auto, Indoor, Outdoor, Manual, One_Push, VAR.
**RG Tuning** (Red Gain Tuning): -10~10 (Effective in Auto, One_Push, VAR mode).
**BG Tuning** (Blue Gain Tuning): -10~10 (Effective in Auto, One_Push, VAR mode).
**Saturation**: 60%~200%.
**Hue**: 0~14.
**RG** (Red Gain): 0~255 (Effective in Manual mode).
**BG** (Blue Gain): 0~255 (Effective in Manual mode).
**Color Temp**: 2000K~8000K (Effective in VAR mode).

### 7.5.3 Image



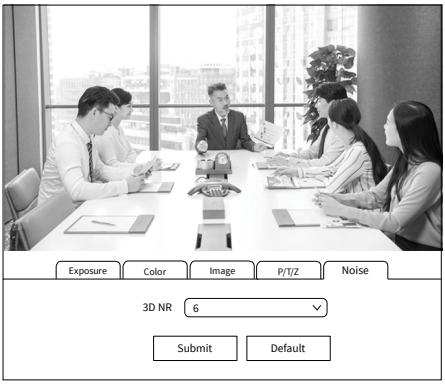

**Luminance**: 0~14.
**Contrast**: 0~14.
**Sharpness**: 0~11.
**Flip-V**: On, Off.
**Flip-H**: On, Off.
**B&W-Mode**: On, Off.
**Gamma**: Default, 0.45, 0.48, 0.50, 0.56, PC.
**Style**: Default, Norm, Bright, PC.

### 7.5.4 P/T/Z



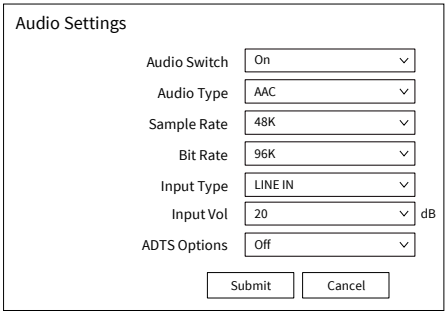
**AF-Zone**: Top, Center, Bottom, Front.
**AF-Sense**: High, Normal, Low.
**Image Freeze**: On, Off.

### 7.5.5 Noise




**3D NR**: Off, 1~9.

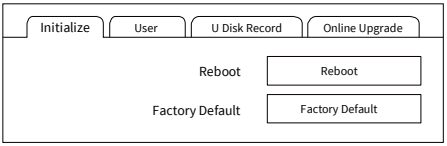
## 7.6 Audio Settings




**Audio Switch**
Select to turn On/Off the Audio Switch.
**Audio Type**
Audio type AAC.
**Sample Rate**
Sample rate 44.1K and 48K selectable.
**Bit Rate**
Bit rate 96K and 128K selectable.
**Input Type**
Input type LINE IN.
**Input Vol**
Input Vol: 0~59.
**ADTS Options**
Select to turn On/Off the ADTS Options.

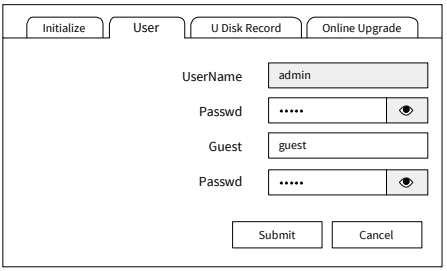
## 7.7 System Settings

### 7.7.1 Initialize



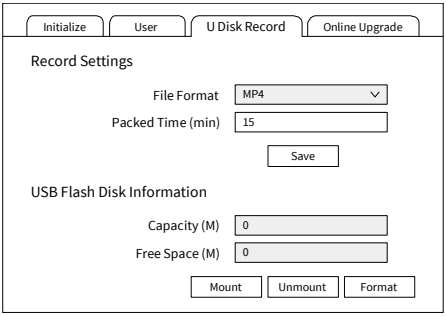

**Reboot**
Click “Reboot” to restart system.
**Factory Default**
Click “Factory Default” and select “OK” to confirm to restore the factory default.

### 7.7.2 User




**Username and Password**
Change the username and the guest login password (only use letters and numbers).

### 7.7.3 U Disk Record




**File Format**

Record file format default MP4.

**Packed Time (min)**

Set the record file packed time (1~300).

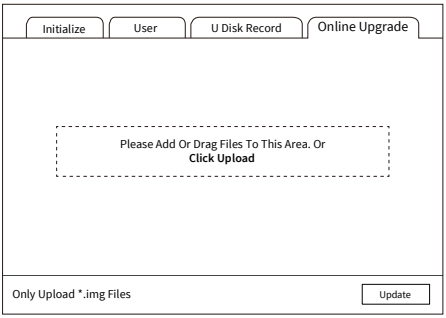
**Capacity (M)**

Display the capacity information of the USB flash disk.

**Free Space (M)**

Display the free space information of the USB flash disk.

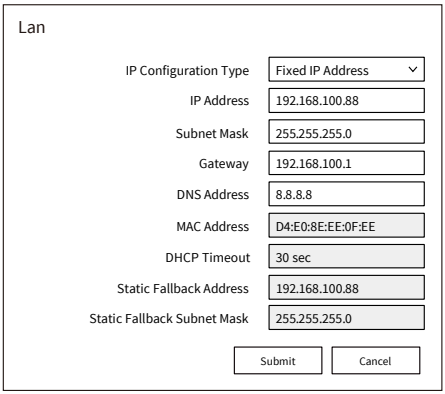
### 7.7.4 Online Upgrade




The device supports online upgrade. Please refer to the above upgrade instructions to select the upgrade file package and click “Update” to upgrade the camera program.

## 7.8 Network Settings

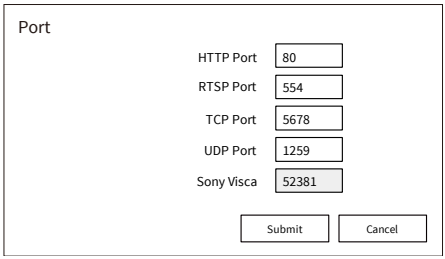
### 7.8.1 Lan Settings




The default IP address is 192.168.100.88.

The MAC address, DHCP Timeout, Static Fallback Address and Static Fallback Subnet Mask cannot be changed.

### 7.8.2 Port Settings




A. HTTP Port

The IP address identifies a device in a network that can run multiple network programs, each using a specific network port for data transmission. On this page, you can configure the port used by the WEB SERVER program for data transfer. During port mapping, ensure that the port matches this one (the default is 80).

B. RTSP Port

Set the RTSP port, default is 554.

C. TCP Port

Set the TCP port, default is 5678.

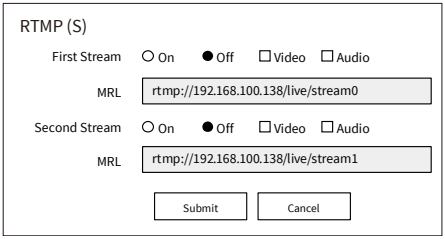
D. UDP Port

Set the UDP port, default is 1259.

E. Sony Visca

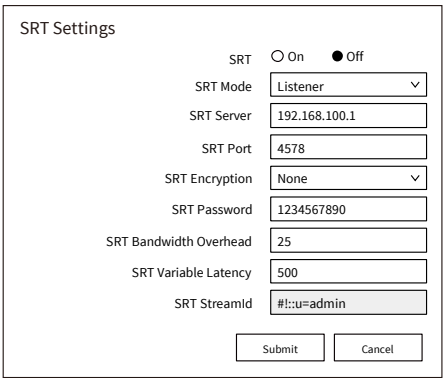
Sony Visca default is 52381.

### 7.8.3 RTMP(S) Settings



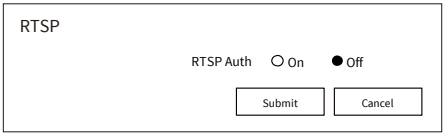

Set the MRL of RTMP(S) and select "On", "Off", "Video" and "Audio" to enable or disable video and audio functions in the two streams.

### 7.8.4 SRT Settings



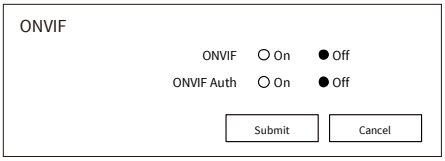

Select to turn On/Off the SRT, set the SRT Mode, SRT Server, SRT Port, SRT Encryption, SRT Password, SRT Bandwidth Overhead, SRT Variable Latency and SRT StreamId.

### 7.8.5 RTSP Settings



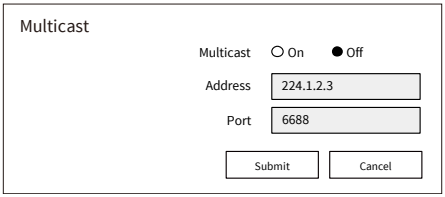

Select to turn On/Off the RTSP Auth.

### 7.8.6 ONVIF Settings



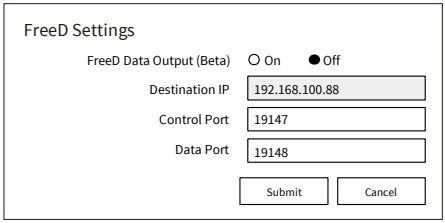

Select to turn On/Off the ONVIF and ONVIF Auth.

### 7.8.7 Multicast Settings



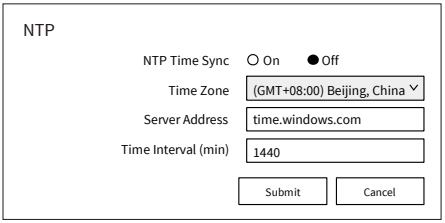

Select to turn On/Off the Multicast, set the Multicast Address (default is 224.1.2.3) and Port (default is 6688; 6688 is the multicast port of the first stream and 6690 is the multicast port of the second stream).

### 7.8.8 FreeD Settings




Select to turn On/Off the FreeD Data Output (Beta), set the Destination IP, Control Port and Data Port.

### 7.8.9 NTP Settings




Turn On/Off the NTP time sync, select the Time Zone and set the Server address and Time interval (min).

## 7.9 Overlay




**Stream**

Stream: First Stream, Second Stream.

**Time Enable**

Turn On/Off the Time Enable.

**Title Enable**

Turn On/Off the Title Enable.

**Title**

Set the Overlay Title.

**Title Horizontal Position**

Set the Title Horizontal Position.

**Title Vertical Position**

Set the Title Vertical Position.

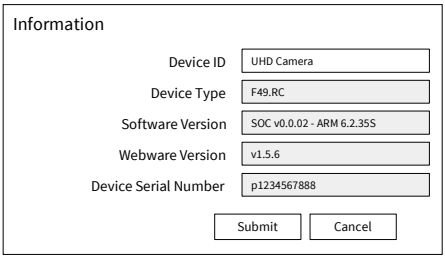
**Time Horizontal Position**

Set the Time Horizontal Position.

**Time Vertical Position**

Set the Time Vertical Position.

## 7.10 Information




**Note**

WEB interface and device information are subject to change without notice.

# 8 Troubleshooting

**Image**

- The monitor shows no image.

1) Ensure that the camera power supply is connected, the voltage is normal, and the power indicator is always on.
2) Turn off the power switch to check that the camera is self-testing.
3) Ensure the cable of the video platform and TV is in the correct connection.

- Image jitters after the camera is properly connected.

1) Ensure that the camera installation is in a stable position.
2) Check if any vibrating machinery or object is near the camera.

- There is no video image in the browser.

IE browser and IE core browser are not supported, the camera video image will be displayed correctly when using Google, Firefox, Edge, etc.

- Unable to access through the browser.

1) Use a PC to connect to the network to test whether the network access is functional. Eliminate network faults that may caused by cable faults and viruses until the PC and the camera can pass the Ping test.
2) Disconnect the network, connect the camera with the PC separately and reset the PC's IP address if necessary.
3) Ensure that the IP address, subnet mask and gateway settings are correct.
4) Check if the MAC address conflicts.
5) Check if the web port is modified. The default setting is 80.

- Forget the IP address or login password.

The default IP address is: 192.168.100.88; The default username and password are: admin (After changing the password, please log in with the new password).

**Control**

- Remote control malfunctioning.

1) Check and replace with new batteries.
2) Ensure that the camera working mode is correct.
3) Ensure that the address key of the remote control matches the camera.

- Serial port malfunctioning.

1) Ensure that the protocol, address and bit rate of the camera are consistent.
2) Ensure that the control cable is properly connected.

