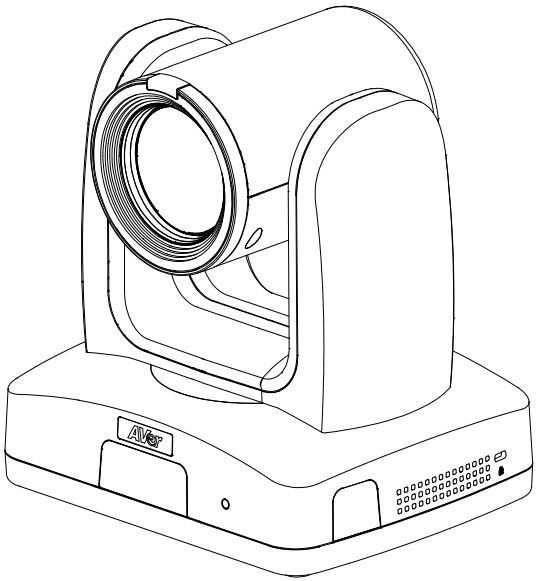
www.aver.com

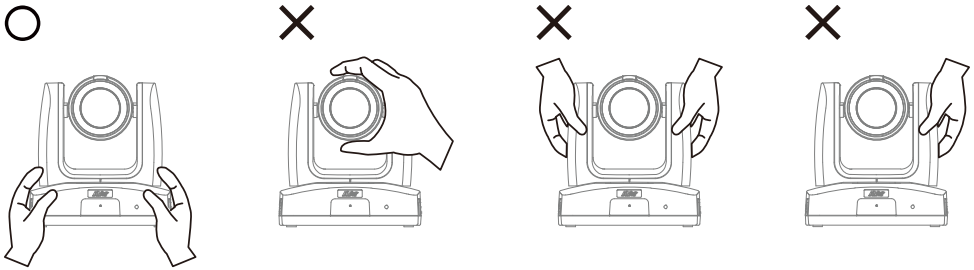


# Professional PTZ Camera

## User Manual

PTZ211 / PTZ310UV2 / PTZ310UNV2
PTZ231 / PTZ330UV2 / PTZ330UNV2

# Warning



- To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture. Warranty will be void if any unauthorized modifications are done to the product.
- Do not drop the camera or subject it to physical shock.
- Use the correct power supply voltage to avoid the damaging camera.
- Do not place the camera where the cord can be stepped on as this may result in fraying or damage to the lead or the plug.
- Hold the bottom of the camera with both hands to move the camera. Do not grab the lens or lens holder to move the camera.

**Federal Communications Commission**

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 when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radiofrequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with part 15 of the FCC Rules.

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.

This Class A digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

**PSTI Statement of Compliance**

Please refer to the following website: https://www.aver.com/product-security-advisory

**Warning**

This is a class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

**Caution**

Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.

**VCCI-A**

**この装置は、クラス A 機器です。この装置を住宅環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。**

**(注)本製品同梱の電源ケーブルは、本製品同梱の電源アダプタでのみ使用してください。 本製品同梱の電源ケーブルは、他の電気機器では使用できません。**

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| A 급 기기<br>(업무용 방송통신기자재) | 이 기기는 업무용(A 급) 전자파적합기기로서 판매자 또는 사용자는 이 점을 주의하시기 바라며, 가정외의 지역에서 사용하는 것을 목적으로합니다. |

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For FAQs, technical support, software and user manual download, please visit:

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Download Center: https://www.aver.com/download-center
Technical Support: https://www.aver.com/technical-support

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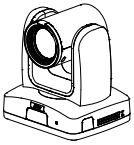
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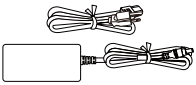
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# Overview

## Package Contents



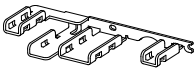
Camera



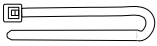
Power Adapter & Power Cord*



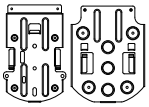
Remote Control



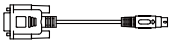
Cable Fixing Plate



Cable Tie (x4)



Ceiling Mount Bracket (x2)



DIN8 to D-Sub9 Cable



RS-232 In/Out Y Cable



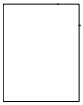
M2 x 4mm Screw (x3)



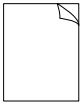
1/4”-20, L=6.5mm Screw (x2)



M3 x 6mm Screw (x3)



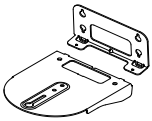
Drill Template



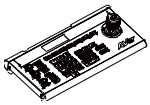
Quick Start Guide

*****The power cord may vary based on the country or region where sold.

## Optional Accessories



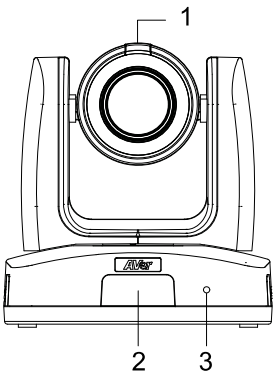
Wall Mount Bracket

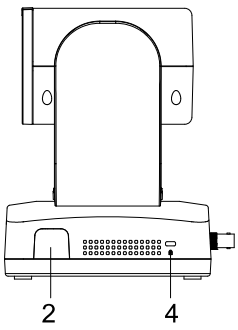


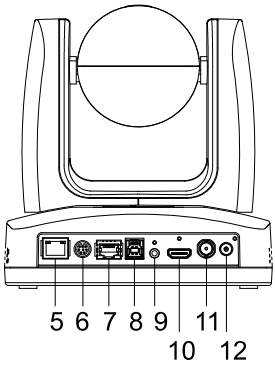
Camera Controller (CL01)

* For details on optional accessories, please consult with your local dealer.

# Parts Info




1. Tally Lamp
2. IR Sensor
3. LED Indicator

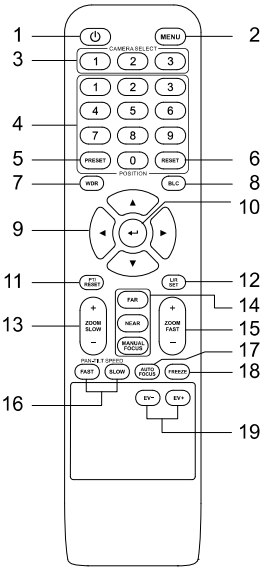
4. Kensington Lock

5. PoE+ IEEE 802.3AT
6. RS-232 Port
7. RS-422 Port
8. USB 3.0 Type-B Port
9. Audio In*
10. HDMI Port
11. 3G-SDI (unavailable for model names with H)
12. DC Power Jack

## LED Indicators

| Color | Status |
|---|---|
| Solid blue | Normal |
| Flashing red | Firmware update |
| Solid orange | Standby |
| Flashing orange | Start-up |
| Flashing purple | SmartShoot |
| Flashing blue | SmartFrame |

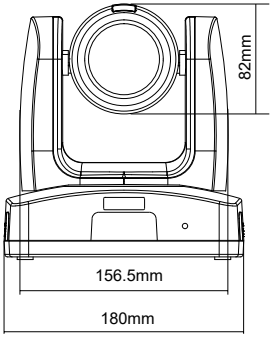
# Remote Control

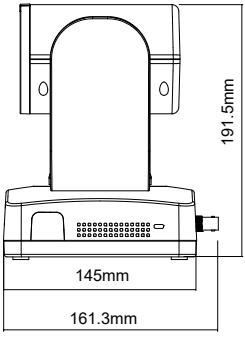


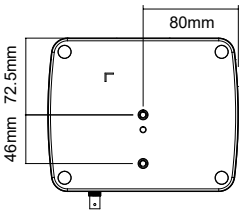

AAA Battery (x2)
(not included)

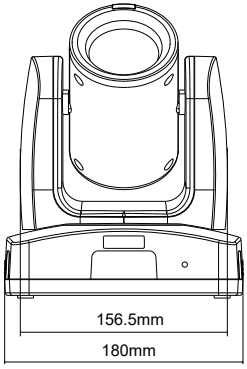
| Name | Function |
|---|---|
| 1. Power | Power on or enter standby mode. |
| 2. Menu | Open and close the OSD menu during HDMI output. |
| 3. Camera Select | No selection is required by default to operate the camera.<br>• Both camera and remote control have been set to 1.<br>• Specify a number in the OSD menu: **System** > **Camera Selector**. |
| 4. Number Pad | Press number button (0-9) to move the camera to pre-configured preset position 0-9. |
| 5. Preset | Press and hold **Preset**, then short press **Number button (0-9)** to save the preset position. |
| 6. Reset | Press and hold **Reset**, then short press **Number button (0-9)** to reset preset position. |
| 7. WDR | Turn Wide Dynamic Range on or off. |
| 8. BLC | Turn Backlight Compensation on or off. |
| 9. Directional Buttons | Press once for incremental movement or press and hold for continuous pan or tilt. |
| 10. Enter | • Confirm a selection in the OSD menu.<br>• Press and hold for 2 seconds for One Push Focus.<br>• If SmartFrame has been turned on in the OSD menu or on the web interface, press and hold for 2 seconds to use SmartFrame to frame entire group on screen.<br>**Note:** If SmartFrame has been turned on and you are in Manual Mode, press and hold **Enter** for 2 seconds to perform One Push Focus and SmartFrame together. |
| 11. PT Reset | Reset the pan-tilt position to the center. |
| 12. L/R SET | • **Invert L/R Pan Direction**: Press and hold **L/R SET**, then short press Position **2**.<br>• **Reset L/R Pan Direction**: Press and hold **L/R SET**, then short press Position **1**. |
| 13. Zoom Slow +/- | Zoom in or out slowly. |
| 14. Far / Near / Manual Focus | Enable manual focus. Use Far/Near to adjust the focus. |
| 15. Zoom Fast +/- | Zoom in or out fast. |
| 16. Pan-Tilt Speed Fast / Slow | Adjust pan-tilt speed. |
| 17. Auto Focus | Turn on Autofocus Mode. |
| 18. Freeze | Freeze the live view. |
| 19. EV +/- | • Short press to adjust EV level.<br>• Long press EV+ to turn on RTMP.<br>• Long press EV- to turn off RTMP. |

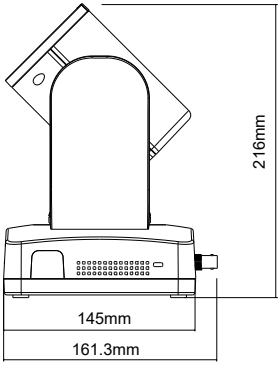
# Dimensions


82mm
156.5mm
180mm

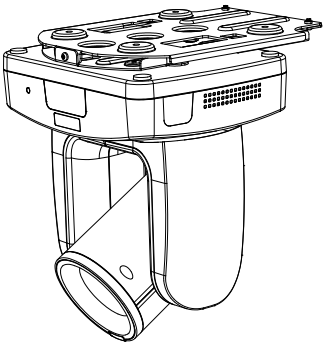

191.5mm
145mm
161.3mm

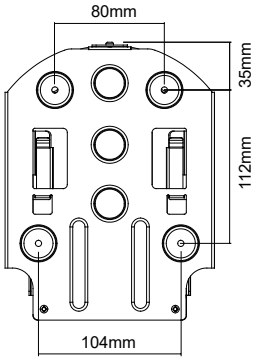

80mm
72.5mm
46mm

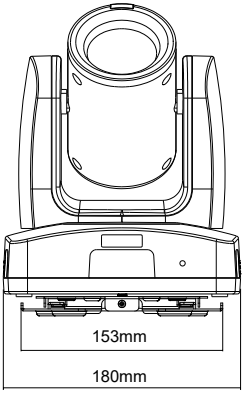

156.5mm
180mm

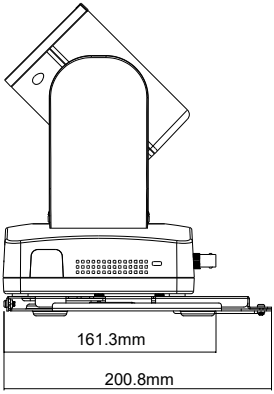

216mm
145mm
161.3mm

Ceiling Mount

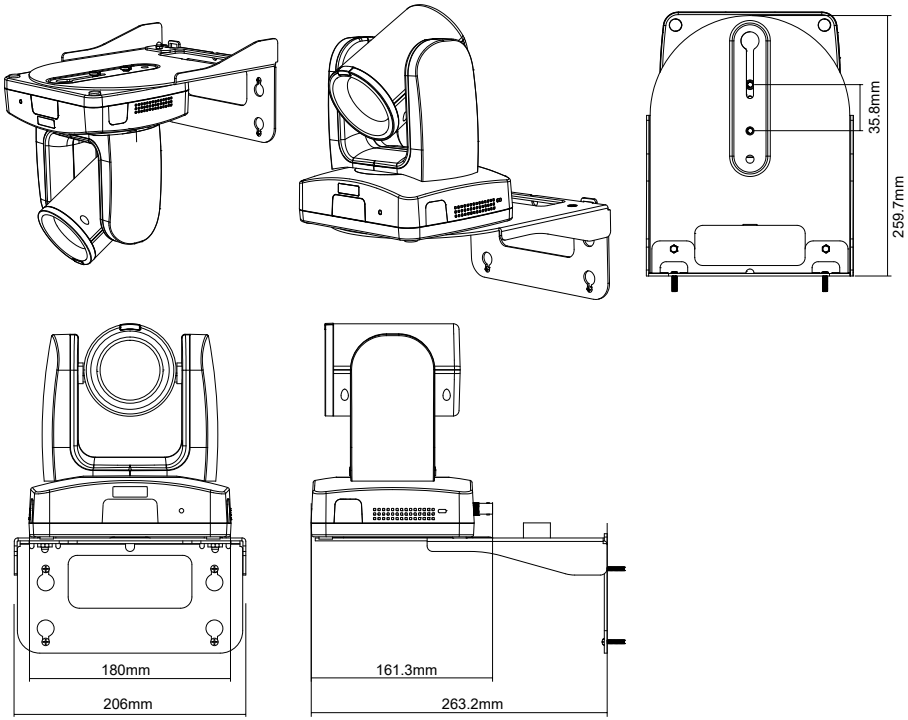




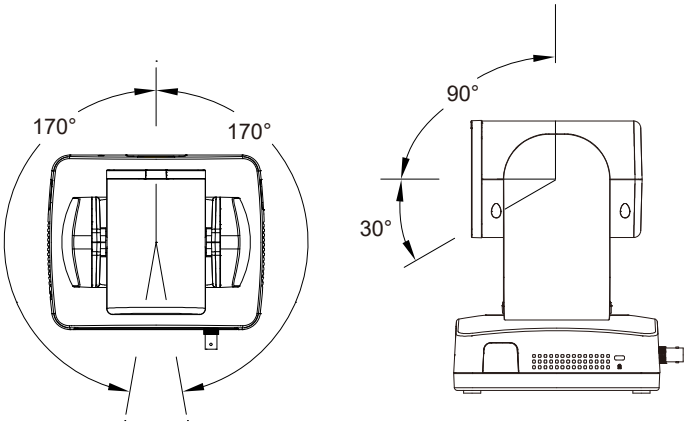



Wall Mount

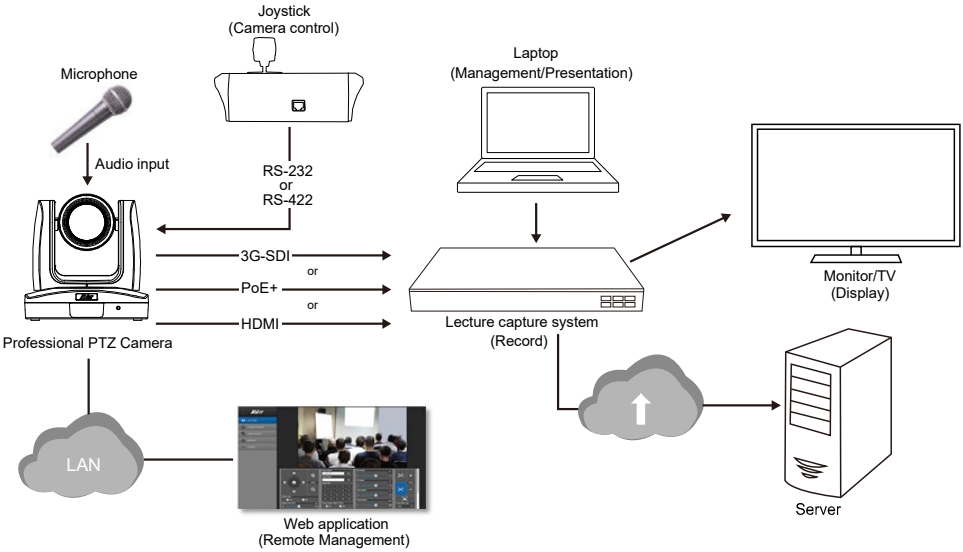



## Pan and Tilt Angle



# Connection

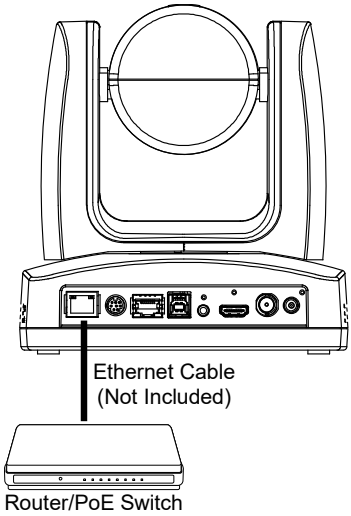
## Device Connection



# PoE Connection

Connect the camera to the router or switch through the PoE+ port.

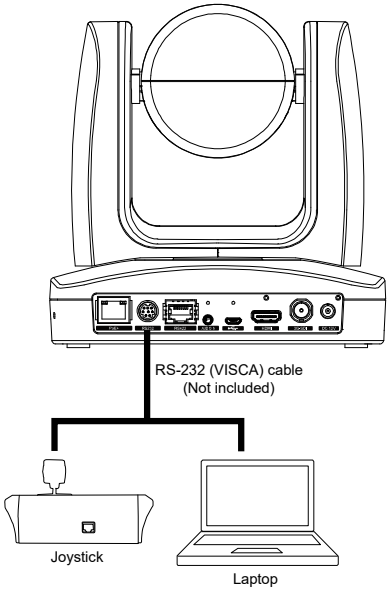
**[Note]** Only support IEEE 802.3AT PoE+ standard.



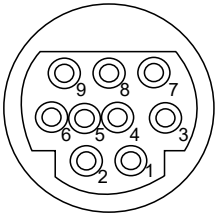
# RS-232 Connection

Connect through the RS-232 for camera control.

- **RS-232**

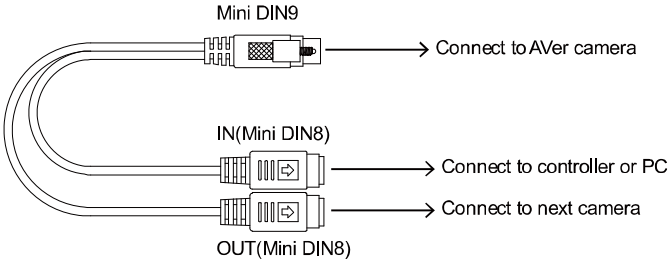


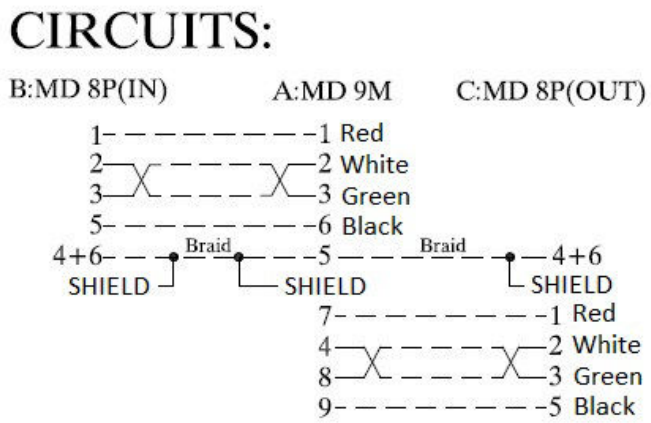
- **RS-232 Port Pin Definition**



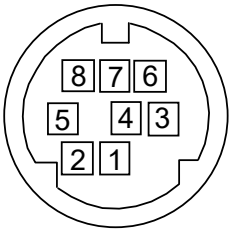

| Function | Mini DIN9 PIN # | I/O Type | Signal | Description |
|---|---|---|---|---|
| VISCA IN | 1 | Output | DTR | Data Terminal Ready |
| | 2 | Input | DSR | Data Set Ready |
| | 3 | Output | TXD | Transmit Data |
| | 6 | Input | RXD | Receiver Data |
| VISCA OUT | 7 | Output | DTR | Data Terminal Ready |
| | 4 | Input | DSR | Data Set Ready |
| | 8 | Output | TXD | Transmit Data |
| | 9 | Input | RXD | Receiver Data |
| | 5 | Input | I/O | Detect DIN8/DIN9 |
| --- | Shield | --- | GND | Ground |

- **RS-232 mini DIN9 to mini DIN8 Cable Pin Definition**



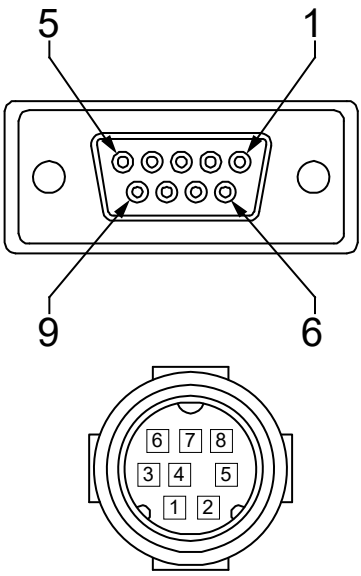




**Mini DIN8 Cable Pin Definition**



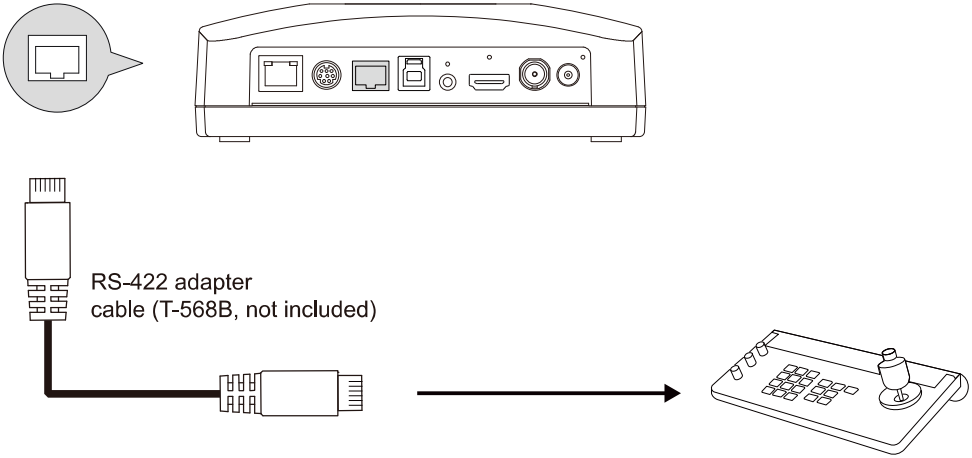

| No. | Signal |
|---|---|
| 1 | DTR |
| 2 | DSR |
| 3 | TXD |
| 4 | GND |
| 5 | RXD |
| 6 | GND |
| 7 | NC |
| 8 | NC |

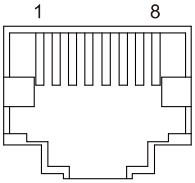
- **Din8 to D-Sub9 Cable Pin Definition**



# RS-422 Connection

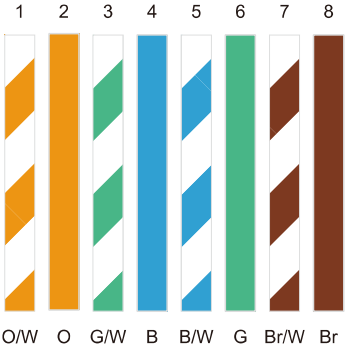
Use an RS-422 adapter cable to make a RS-422 connection to your control device.



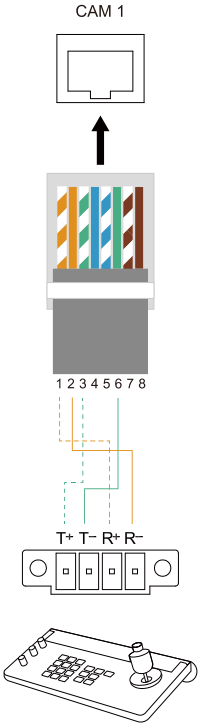



| Pin # | Pin |
|---|---|
| 1 | TX+ |
| 2 | TX- |
| 3 | RX+ |
| 4 | TX+ |
| 5 | TX- |
| 6 | RX- |
| 7 | RX+ |
| 8 | RX- |

RS-422 Port Pin Definition



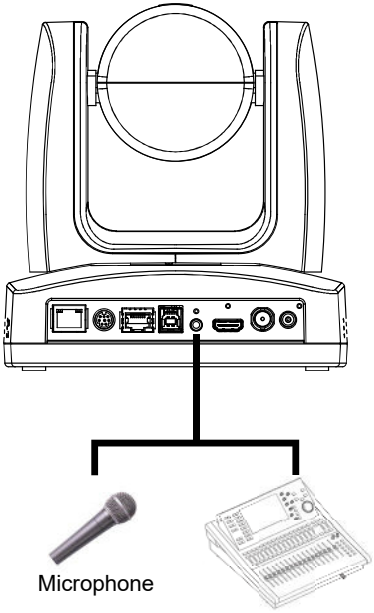

T-568B Cable



# Audio Input Connection

Connect the audio device for audio receiving.

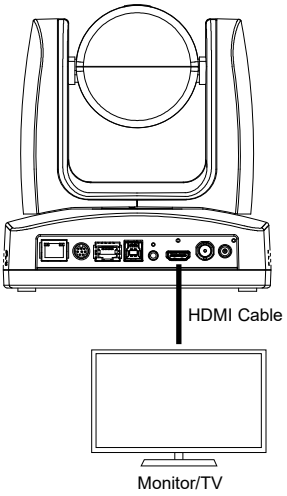
Line input level: 1Vrms (max.).
Mic input level: 50mVrms (max.); Supplied voltage: 2.5V.



# Video Output Connection

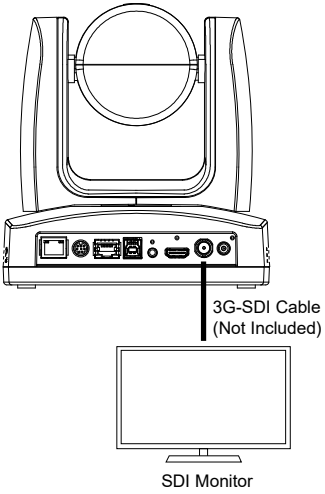
- **HDMI**

Use the HDMI cable to connect with monitor or TV for video output.




- **3G-SDI**

Connect to 3G-SDI monitor for video output.



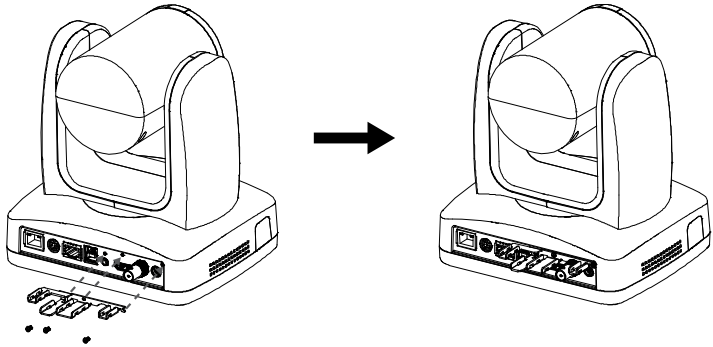

**[Notes]**

- HDMI and 3G-SDI monitors can be connected to camera and output live video simultaneously; Assuming HDMI monitor is well connected before the camera turned on, the OSD menu will be displayed on HDMI monitor in default.
- The model names with “H” do not have 3G-SDI.

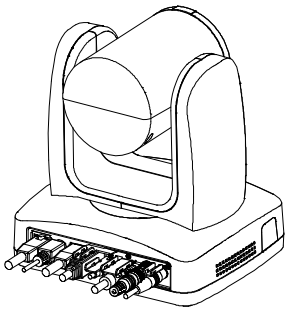
# Installation

## Cable Fixing Plate Installation

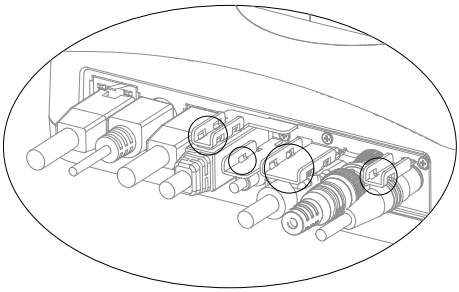
1. Secure the cable fixing plate to the camera with 3 M2 x 4mm screws (included).



2. Plug in cables.

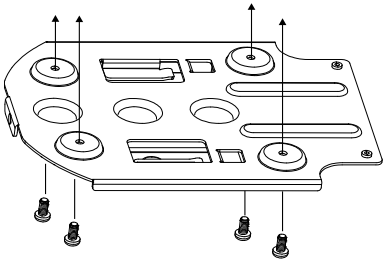


3. Use 4 cable ties to secure the cables and cable fixing plate.

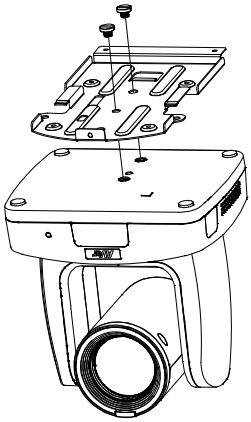


# Ceiling Mount Installation

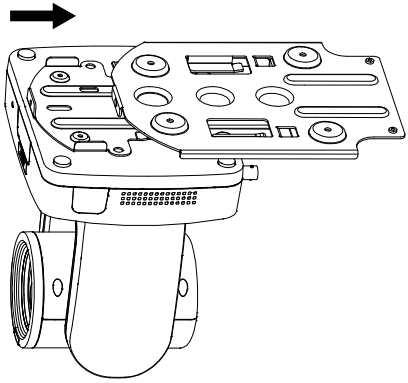
1. Secure the mount bracket on the ceiling.
   Screw: 4 screws, M4 x 10mm (not Included)



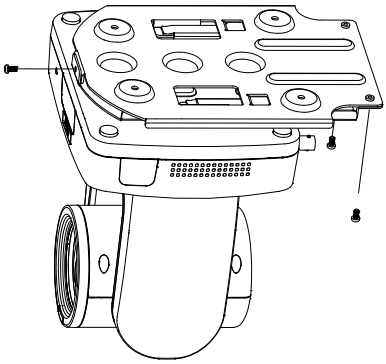
2. Install the mount bracket on the camera.
   Screw: 2 screws, 1/4"-20 L=6.5mm (included)



3. Slide the mount bracket with the camera into the mount bracket which secured on the ceiling.



4. Secure the camera with screws.
   Screw: 3 screws, M3 x 6mm (included)

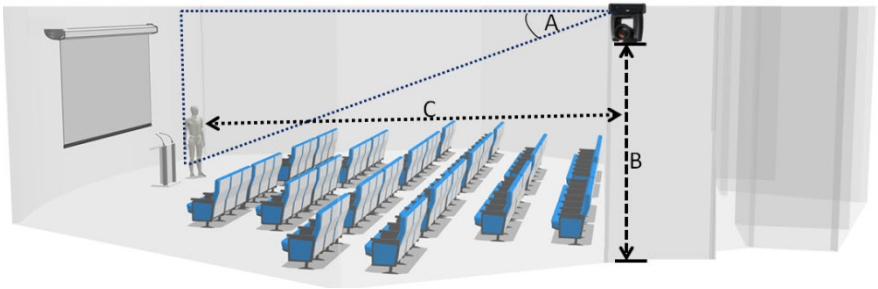


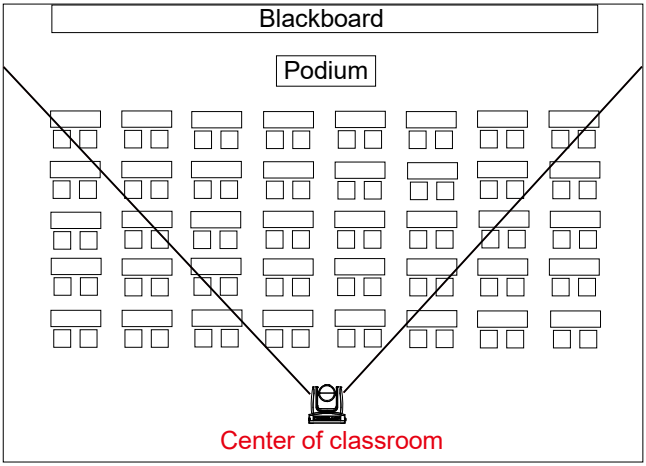
**[Note]** Connect necessary cables after sliding the camera into the mount bracket.

# Camera Installation

- **Angle A**: less than 30˚
- **Height B**: 2~3m from floor
- **Distance C**: longer than 3m away from podium
- **Position**: center of classroom
- **Distance between the camera and the target (presenter):**

| Optical zoom ratio ability | Upper body size | Full body size |
|---|---|---|
| 12X | 3-16m | 3-28m |
| 16X | 3-30m | 4-55m |
| 21X | 3-40m | 4-65m |
| 30X | 3-44m | 3-76m |

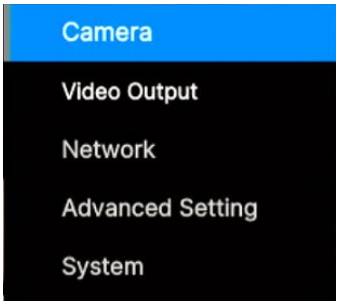


# Set Up the Camera

## OSD Menu

You can use the supplied Remote Control to operate the OSD Menu. Press the MENU button to call out the OSD menu and use the ▲, ▼, ◀, ▶ and ↵ buttons to operate the OSD menu.




## IP Address Setup

### Static IP

1. Press the MENU button on the remote control to call out the OSD menu.
2. Go to **Network** > **Static IP**.
   **[Note]** Turn the DHCP off before setting up static IP (**Network** > **DHCP** > **Off**).
3. Select the **IP Address**, **Gateway**, **Netmask** and **DNS** to configure. Press ↵ and use ◀, ▶ and Numeric Pad to enter the data.

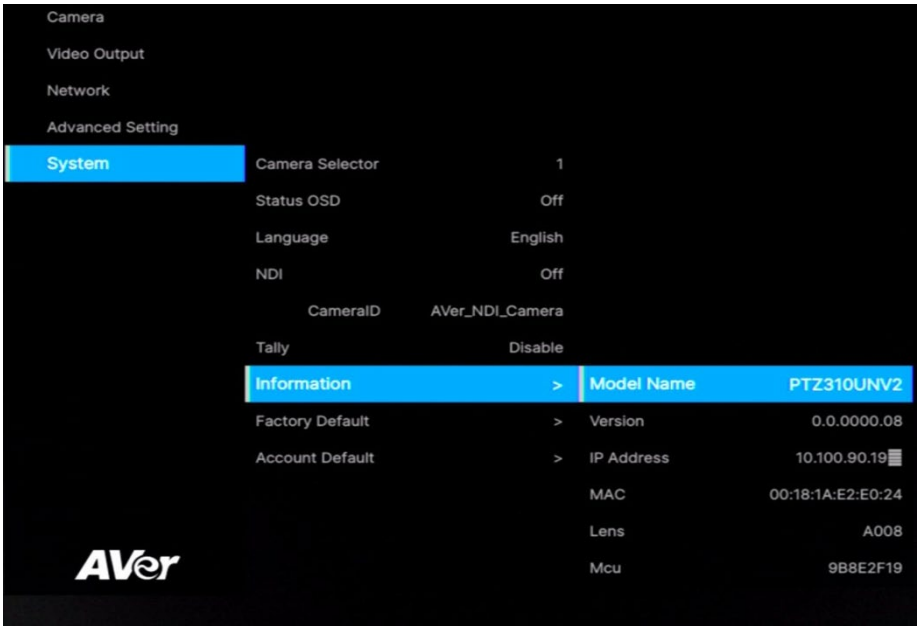


## DHCP

1. Press the (MENU) button on the remote control to call out the OSD menu.
2. Go to **Network** > **DHCP** > **On**.




3. After turning the DHCP on, the user can go to **System** > **Information** to view the IP address.



# OSD Menu Tree

## Camera

Set up camera parameters – Exposure Mode, White Balance, Pan Tilt Zoom, Noise Reduction, Saturation, Contrast, Sharpness, Mirror and Flip.

| 1st Layer | 2nd Layer | 3rd Layer | 4th Layer | 5th Layer |
|---|---|---|---|---|
| Camera | Exposure Mode | Full Auto | Exposure Value | -4/-3/-2/-1/0/1/2/3/4 |
| | | | Gain Limit Level | 24dB/27dB/30dB/33dB/36dB /39dB/42dB |
| | | | Slow Shutter | Off/On |
| | | Shutter Priority | Exposure Value | -4/-3/-2/-1/0/1/2/3/4 |
| | | | Shutter Speed | 60Hz: 1/1, 1/2, 1/4, 1/8, 1/15, 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, |
| | | | | 50Hz: 1/1, 1/2, 1/3, 1/6, 1/12, 1/25, 1/50, 1/75, 1/100,1/120,1/150,1/215, 1/300, 1/425, 1/600, 1/1000, 1/1250, 1/1750, 1/2500, 1/3500, 1/6000, 1/10000 |
| | | | Gain Limit Level | 24dB/27dB/30dB/33dB/36dB /39dB/42dB |
| | | Iris Priority | Exposure Value | -4/-3/-2/-1/0/1/2/3/4 |
| | | | Iris Level | F1.6/F2.0/F2.4/F2.8/ F3.4/F4.0/F4.8/F5.6/F6.8/ F8.0/F9.6/F11/F14/Close |
| | | | Gain Limit Level | 24dB/27dB/30dB/33dB/36dB /39dB/42dB |
| | | | Slow Shutter | On/Off |
| | | Manual | Shutter Speed | 60Hz: 1/1, 1/2, 1/4, 1/8, 1/15, 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, |

| | | | | |
|---|---|---|---|---|
| | | | | 50Hz:<br>1/1, 1/2, 1/3, 1/6, 1/12, 1/25, 1/50, 1/75, 1/100,1/120,1/150,1/215, 1/300, 1/425, 1/600, 1/1000, 1/1250, 1/1750, 1/2500, 1/3500, 1/6000, 1/10000 |
| | | | Iris Level | F1.6 /F2.0/F2.4/F2.8/ F3.4/F4.0/F4.8/F5.6/F6.8/ F8.0/F9.6/F11/F14/Close |
| | | | Gain Level | 0 dB/3 dB/6 dB/9 dB/12 dB /15 dB/18 dB/21 dB/24dB/ 27dB/30dB/33dB/36dB/39dB /42dB |
| | | Bright | 0-31 | - |
| | White Balance | Auto | - | - |
| | | ATW | - | - |
| | | Indoor | - | - |
| | | Outdoor | - | - |
| | | One push | - | - |
| | | Manual | R Gain (0-255) | - |
| | | | B Gain (0-255) | - |
| | Pan Tilt Zoom | Preset Speed | 5/25/50/100/150/ 200 | - |
| | | Digital Zoom | Off/On | - |
| | | Digital Zoom Limit | - | - |
| | | Pan/Tilt Slow | Off/On | - |
| | Noise Reduction | Off/Low/Medium/High | - | - |
| | Saturation | 0-10 | - | - |
| | Contrast | 0-4 | - | - |
| | Sharpness | 0-3 | - | - |
| | Mirror | Off/On | - | - |
| | Flip | Off/On | - | - |

## Video Output

Select video resolution (4K (2160p) is available for model names with U only).

| 1st Layer | 2nd Layer | 3rd Layer |
|---|---|---|
| Video Output | Theme Mode | Standard, ZOOM, Teams, NDI HX3 |
| | Frequency | 50 Hz, 59.94 Hz, 60 Hz |
| | Resolution | 2160P/60, 2160P/59, 2160P/50, 2160P/30, 2160P/29, 2160P/25, 1080P/60, 1080P/59, 1080P/50, 1080P/30, 1080P/29, 1080P/25, 1080I/60, 1080I/59, 1080I/50, 720P/60, 720P/59, 720P/50, |

## Network

Set up IP mode – DHCP or static IP.

| 1st Layer | 2nd Layer | 3rd Layer |
|---|---|---|
| Network | DHCP | Off/On |
| | Static IP | IP Address, Gateway, Mask, DNS |

## Advanced Setting

| 1st Layer | 2nd Layer | 3rd Layer | 4th Layer |
|---|---|---|---|
| Advanced Setting | Audio | Input Type | Line In |
| | | | MIC In |
| | | Auto Gain Control | Off/On |
| | | Noise Suppression | Off/Low/Normal |
| | | Audio Volume | 0-10 |
| | Control | Serial Port | RS-232/RS-422 |
| | | Protocol | VISCA/PELCO D/PELCO P |
| | | Camera Address | 1-7 |
| | | Baud Rate | 2400/4800/9600/38400 |
| | SmartShoot | Off/On | |
| | SmartFrame | Off/On | |

## System

- **Status OSD:** Enable/disable Preset status (Save Preset, Call Preset, Cancel Preset) display on the screen.
- **Camera Selector:** Set the camera ID 1~3 for using remote control on multiple cameras control (also see No.3 Camera Select in Remote Control chapter).
- **NDI:** Enable/disable NDI function.
- **Tally:** Enable tally function.
- **Account Default:** If you forget your password for the web interface, use Account Default to reset it to **admin/admin.**

| 1st Layer | 2nd Layer | 3rd Layer |
|---|---|---|
| System | Camera Selector | 1-3 |
| | Status OSD | Off/On |
| | Language | English/繁體中文/日本語/简体中文/한국어/ Tiếng Việt |
| | NDI | Off/On |
| | | Camera ID |
| | Tally | Disable/Enable |
| | Information | Model Name/Version/IP Address/MAC/Lens/Mcu |
| | Factory Default | Off/On |
| | Account Default | Off/On |

# Get Started

## Access the Web Interface

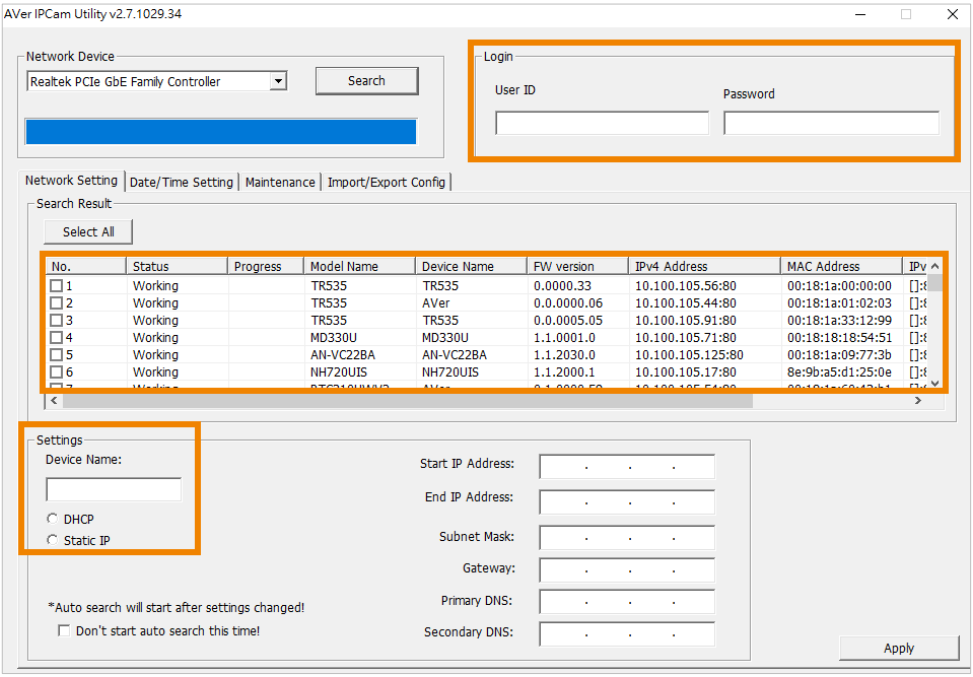
To access the web interface of the Matrix Tracking Box, you can use any of the following software to find its IP address:

- AVer IPCam Utility
- AVer PTZ Management

**Note:**

- The PoE+ port defaults to a static IP address of 192.168.1.168, while the Ethernet port uses DHCP.
- The camera default username and password is admin/admin.

### AVer IPCam Utility



**To access the web interface:**

1. Download IPCam Utility from AVer Download Center (https://www.aver.com/download-center) and launch the software.
2. Click **Search** to see available devices on the same local area network (LAN).

> **Note:**
> - Make sure your camera has internet.
> - IPCam Utility and camera must be on the same LAN.

3. Double-click on your camera's IP address in the **IPv4 Address** column to open the web interface in your browser.

**When you log in for the first time:**

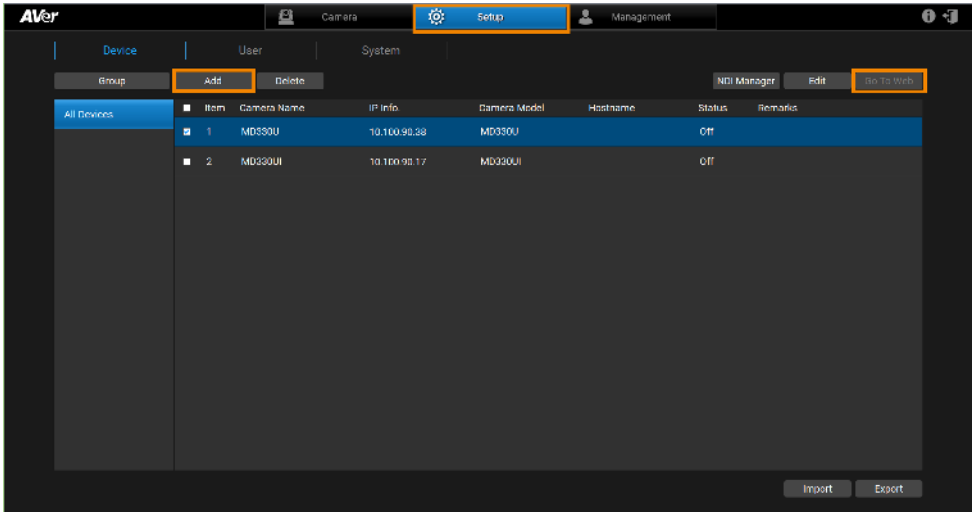
Change the username and password before logging in to the web interface.

- Username: Use 1-32 characters.
- Password: Use 8-32 characters and a combination of uppercase letters, lowercase letters, numbers, and symbols (%+=,-_^/@.~). The password cannot be the same as the username.

**To change your network to DHCP or static IP:**

1. Select the checkbox of your camera.
2. Enter the default or changed username and password in the **Login** field.
3. Select **DHCP** or **Static IP**, then enter your network settings if applicable in the **Settings** section.
4. Click **Apply**.

## AVer PTZ Management

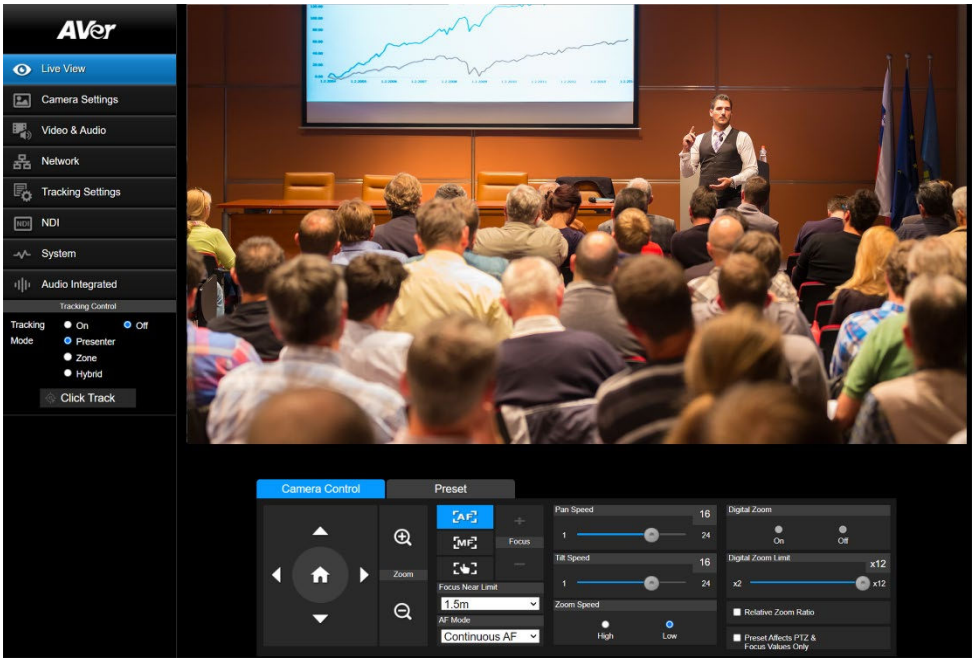



**Note:** The PTZ Management default username and password is **admin**/**admin**.

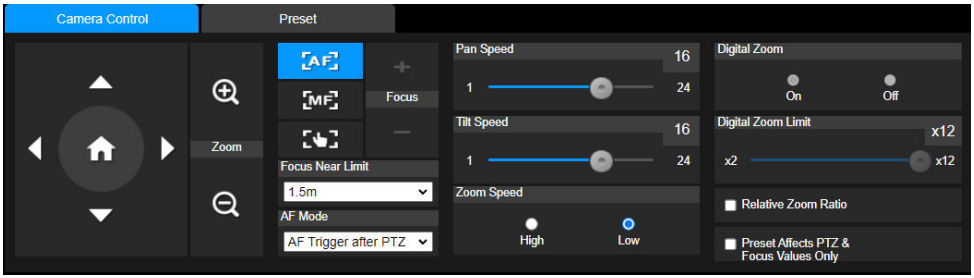
1. Download PTZ Management from AVer Download Center (https://www.aver.com/download-center) and launch the software.
2. Log in with the PTZ Management default username and password **admin**/**admin**.
3. Go to **Setup** > **Add**, then click **Auto Search** to see available devices on the same local area network (LAN).
4. Click to select your camera, enter the default or changed camera username and password, then click **Save** to add the camera to the device list.
5. Select the checkbox of your camera, then click **Go to Web** button to open the web interface in your browser.

# Web Interface

## Live View



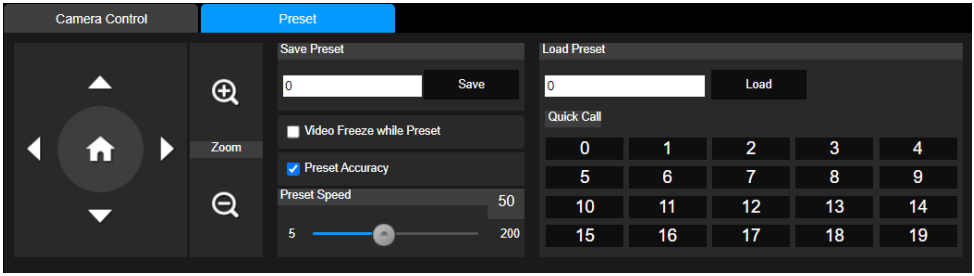

### Camera Control




| Item | Description |
|---|---|
| Pan and Tilt Controls | Position the camera.<br>Drag the slider to adjust **Pan Speed** and **Tilt Speed**. |
| Home Position | Move the camera to the Home position. |
| Zoom | Zoom in or zoom out the live view and select **Zoom Speed**. |
| Auto Focus | Select **Auto Focus** and then choose an **AF mode**: |

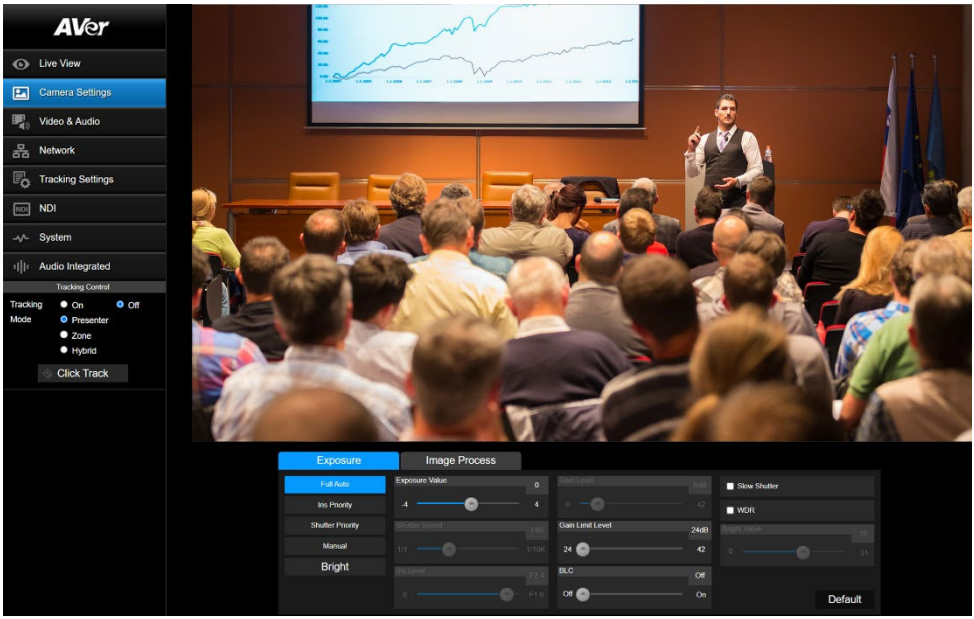
| | |
|---|---|
| | • **AF Trigger after PTZ:** Automatically focus after each pan, tilt or zoom.<br>• **Continuous AF:** Automatically focus continuously. |
| Manual Focus | Click to manually focus. Adjust the focus with + - buttons. |
| One Push Focus | Click to automatically focus once. |
| Focus Near Limit | Set up the nearest focus limit. |
| Digital Zoom | Turn digital zoom on or off. |
| Digital Zoom Limit | Adjust the digital zoom. |
| Relative Zoom Ratio | Select to automatically adjust pan and tilt speeds based on the zoom ratio. |
| Preset Affects PTZ & Focus Values Only | A preset typically includes pan, tilt, zoom, focus, and 3A (autofocus, autoexposure, auto white balance) values.<br>Select to save only pan, tilt, zoom and focus values for presets. |

## Preset

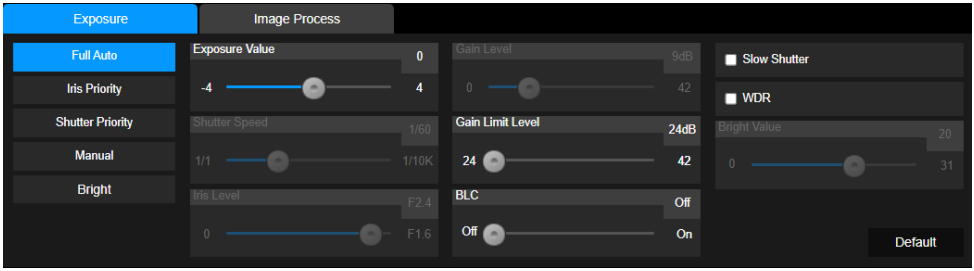



| Item | Description |
|---|---|
| Save Preset | 1. Position the camera using pan, tilt and zoom controls.<br>2. Enter a preset number (0–255) in the **Save Preset** field and click **Save**. |
| Load Preset | 1. Enter a preset number (0–255) in the **Load Preset** field and click **Load**.<br>2. Or click a preset number (0–19) in the **Quick Call** section. |
| Video Freeze while Preset | Select to display only the live view from presets. The live view from the moving path will not be displayed. |
| Preset Accuracy | Select to improve the accuracy of moving to presets. |
| Preset Speed | Adjust the camera speed when moving to presets. |
| Edit Scenes | To customize camera functions for preset 0–9:<br>1. Click **Edit Scenes**.<br>2. Select **Scenes 0–9** from the **Scenes List** to add up to 10 CGI commands.<br>3. Select a scene from the **Set Scenes** drop-down list for each preset. |

# Camera Settings




## Exposure

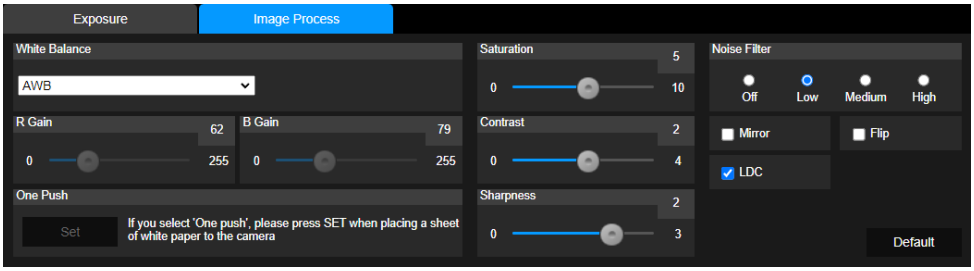



**Note:** Click **Default** to reset Exposure to factory default settings.

| Item | Description |
|---|---|
| Exposure Mode | Choose an exposure mode. |
| Exposure Value | Adjust exposure, shutter, iris and gain. |
| Shutter Speed | |
| Iris Level | |
| Gain Level | |

| | |
|---|---|
| Gain Limit Level | |
| BLC | Turn backlight compensation (BLC), slow shutter, wide dynamic range (WDR) on or off. |
| Slow Shutter | |
| WDR | |
| Bright Value | Drag the slider to adjust the brightness value. |

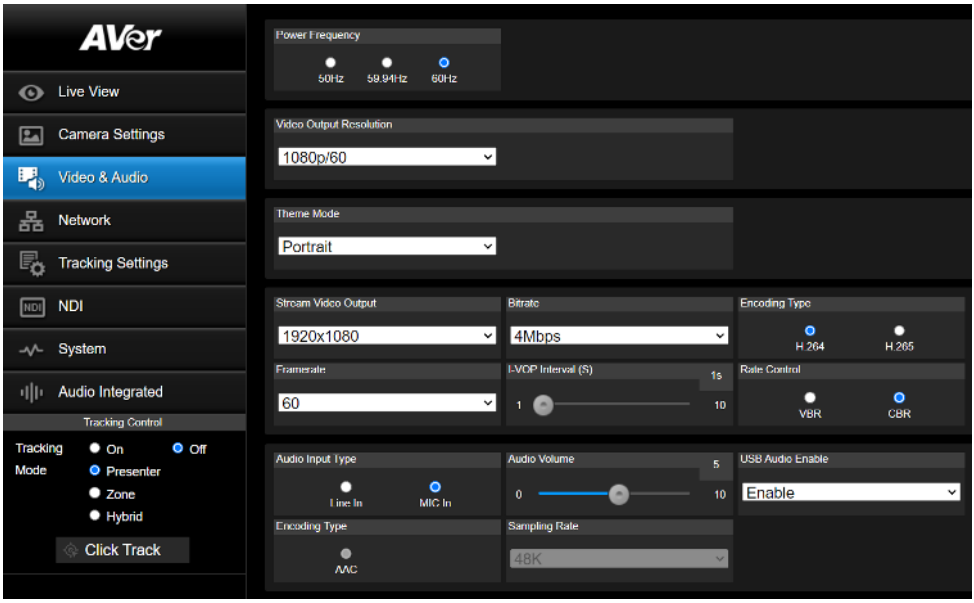
## Image Process




**Note:** Click **Default** to reset Image Process to factory default settings.

| Item | Description |
|---|---|
| White Balance | Choose a white balance mode<br>• In **Manual** mode, you can also adjust the **R Gain** and **B Gain**.<br>• In **One Push** mode, place a piece of white paper in front of the camera lens and click **Set** to calibrate white balance. |
| Saturation | Adjust saturation, contrast and sharpness. |
| Contrast | |
| Sharpness | |
| Noise Filter | Select a noise filtering level. |
| Mirror | Select the checkbox to flip the image horizontally. |
| Flip | Select the checkbox to flip the image vertically. |

# Video & Audio



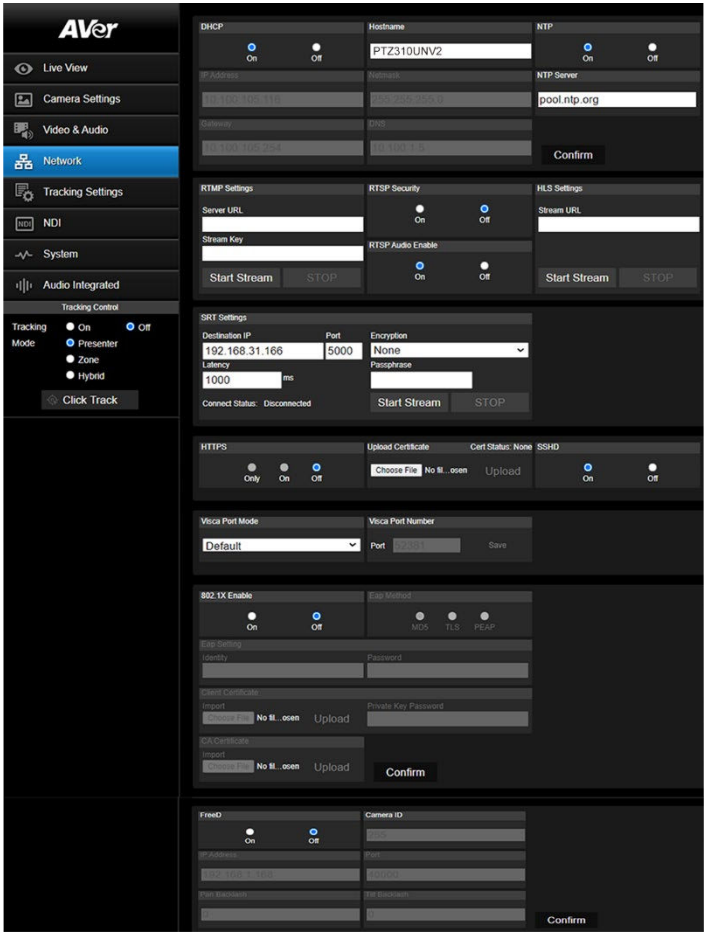

## Video and Audio Settings

| Item | Description |
|---|---|
| Power Frequency | Select **50Hz**, **59.94Hz** or **60Hz** based on your country and region. |
| Video Output Resolution | Select a resolution to display on your video output device. |
| Theme Mode | Select a video mode based on your output interface.<br><br>● NDI is available for model names with N only.<br>● To stream with NDI HX3, select NDI as the theme mode. |

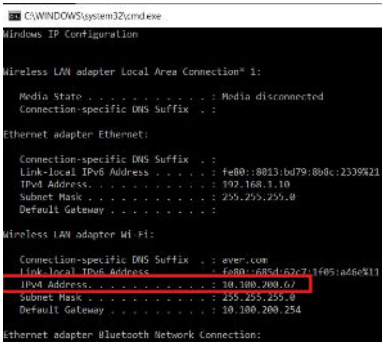
| Mode | Video Quality | Output Interface | Sleep Mode |
|---|---|---|---|
| Standard | Standard | HDMI, SDI, IP, USB, NDI HX2* | N/A |
| Teams | Teams certified | HDMI, SDI, IP, USB | Rotate towards the I/O ports (preset 20)* when not streaming over USB. |
| Zoom | Zoom certified | HDMI, SDI, IP, USB | Rotate towards the I/O ports (preset 20)* when not streaming over USB. |
| NDI* | Standard | HDMI, SDI, IP, | N/A |

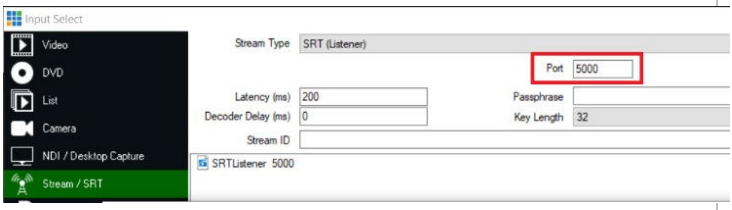
| | |
|---|---|
| | <table><tr><td></td><td></td><td>NDI HX3</td><td></td></tr></table><br>*To change the sleep mode position, go to **System** > **Sleep to Preset** on the web application. |
| Stream Video Output | Select a stream resolution on live view from the drop-down list. |
| Bitrate | Select a bitrate from the drop-down list. |
| Framerate | Select a framerate for live stream – **1**, **5**, **15**, **20** or **30** for power frequency **59.94Hz** or **60Hz**; **1**, **5**, **15**, **20** or **25** for power frequency **50Hz**. |
| I-VOP Interval (S) | Drag the slider to set the value from **1s** to **10s**. |
| Encoding Type (video) | ● Select **H.264** or **H.265** to encode streaming video. |
| Rate Control | Select **VBR** or **CBR**. |
| Audio Input Type | Select to input audio by **Line in** or **Mic in**. |
| Audio Volume | Drag the slider to set the volume from **0** to **10**. |
| Encoding Type (audio) | Select to encode audio. |
| Sampling Rate | Select a sampling rate from the drop-down list. |
| USB Audio Enable | Select from the drop-down list to turn on or off the setting. |

# Network

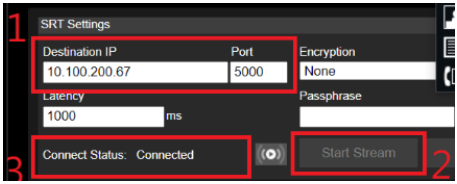



| Item | Description |
|---|---|
| DHCP | Set up the network to DHCP or Static IP.<br>● **DHCP**: Select **On** to assign the related IP settings with the camera automatically. Click **Confirm** to save the settings.<br>● **Static IP**: Select **Off** to manually enter the **IP Address**, **Netmask**, **Gateway** and **DNS**. Click **Confirm** to save the settings. |
| Hostname | Enter a hostname that is displayed on devices such as an IP router.<br>● The default is your model name. |
| NTP | Turn Network Time Protocol (NTP) on or off. |
| RTMP Settings | Stream camera live video to a video platform such as YouTube. |

| | |
|---|---|
| | 1. Enter the **Server URL** and **Stream Key** of the platform. Please refer to the instruction of the platform you use to obtain the server URL and stream key.<br>2. Click **Start Stream** to start streaming,<br>3. Click **Stop** to stop streaming. |
| RTSP Security | Protect your video stream on media players such as VLC, PotPlayer and QuickTime by ensuring that only authorized users can access it.<br>● When **Security** is turned off:<br>1. Enter your camera's RTSP URL into the media player.<br>2. RTSP URL: rtsp://[camera IP address]/live_st1<br>Example: rtsp://192.168.1.100/live_st1<br>● When **Security** is turned on:<br>1. Enter your camera's RTSP URL, username and password into the media player.<br>2. RTSP URL: rtsp://[username:password]@[camera IP address]/live_st1<br>Example: rtsp://1:1@192.168.1.100/live_st1<br>3. Username and password: camera's web interface login. |
| HLS Settings | Configure HTTP Live Streaming (HLS) settings to provide adaptive bitrate streaming, which ensures smooth playback and minimizes buffering.<br>1. Enter the stream URL obtained from the streaming service or server.<br>1. Click **Start Stream** to start streaming, **Stop** to stop streaming. |
| SRT Settings | ● vMix<br>1. Make sure the vMix workstation and your camera are on same network. Copy the workstation's IP address.<br><br>2. Go to **Stream** tab > select **SRT (Listener)** from the **Stream Type** drop-down list. Copy the **Port** value. |



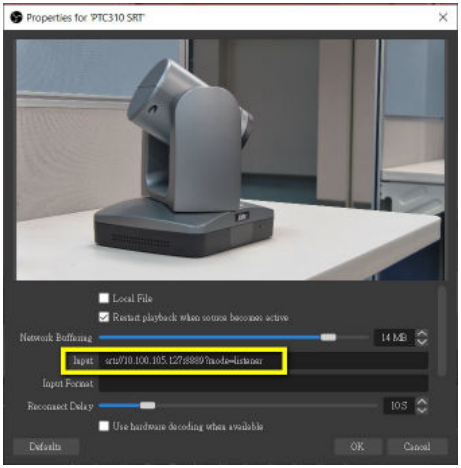

3. Paste the IP address and Port value into **SRT Settings** fields and click **Start Stream**. **Connect Status** will change to **Connected**.




- OBS (Open Broadcaster Software)
  1. Make sure the OBS workstation and your camera are on same network. Copy the workstation's IP address.

```
Connection-specific DNS Suffix  . : aver.com
Link-local IPv6 Address . . . . . : fe80::f1dc:bcda:87bd:ac1e%12
IPv4 Address. . . . . . . . . . . : 10.100.105.127
Subnet Mask . . . . . . . . . . . : 255.255.255.0
Default Gateway . . . . . . . . . : 10.100.105.254
```

  2. Open OBS. Add a scene and a source.
  3. Enter "srt://[Workstation IP]:[port]?mode=listener" in the **Input** field.
     Example: srt://10.100.105.127:8889?mode=listener

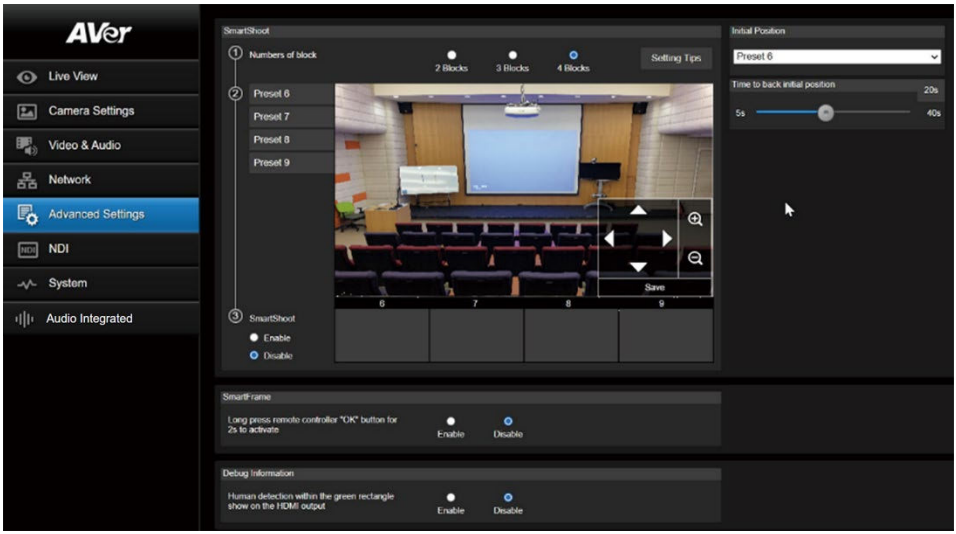



  4. If there is no image, right-click on the source > **Transform** > **Fit to screen** to re-scale image.

| | |
|---|---|
| HTTPS | Enable HTTPS to establish a secure connection between your browser and |

| | |
|---|---|
| | your camera. To enable HTTPS access on your camera:<br>1. Obtain a SSL certificate for encryption and decryption in base-64 encoded format and use a private key in PKCS#8 format (unencrypted).<br>2. Package the required certificate content into PEM format. The SSL certificate uploaded to the camera must be in PEM format.<br>3. Click **Choose File** to select the certificate file, and then click **Upload**.<br>4. Turn on HTTPS. |
| SSHD | Turn remote debugging from AVer on or off. |
| Visca Port Mode | Select a VISCA port mode.<br>After selected, enter **Visca Port Number**. |
| 802.1x Enable | Turn 802.1x Enable on or off. |

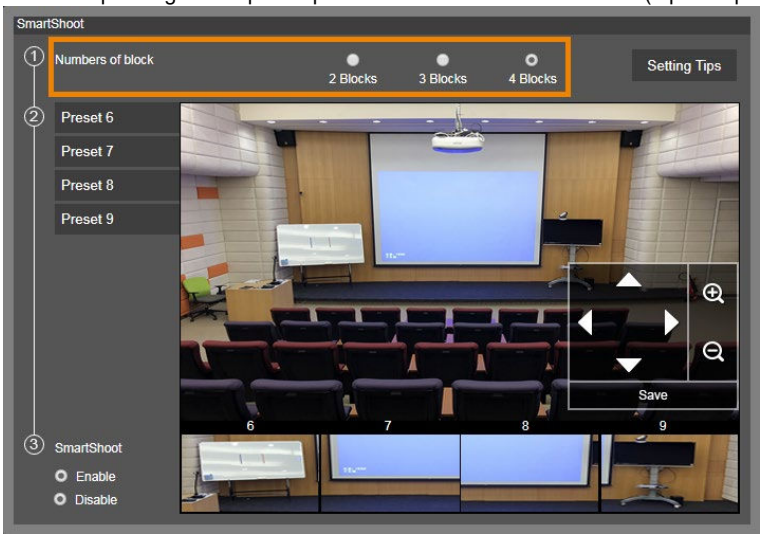
# Advanced Setting



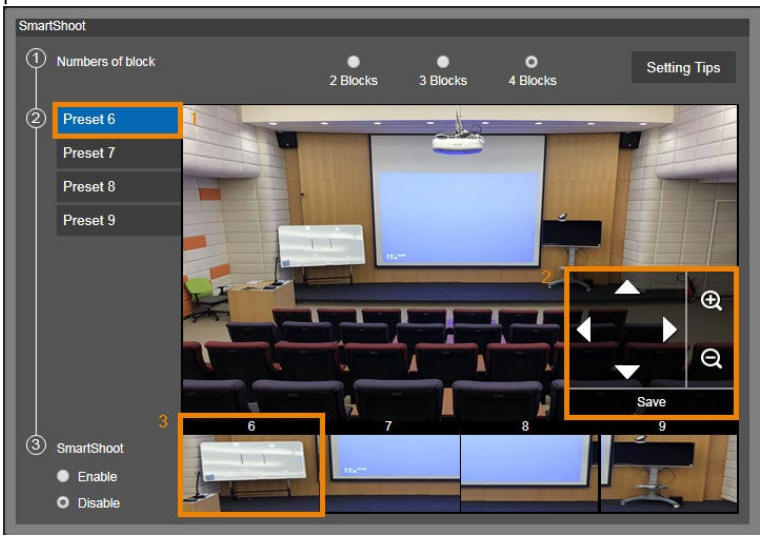

## SmartShoot

Setup the block area for the camera to detect object and follow-up the object to move the camera when the object is in block area that user has set.

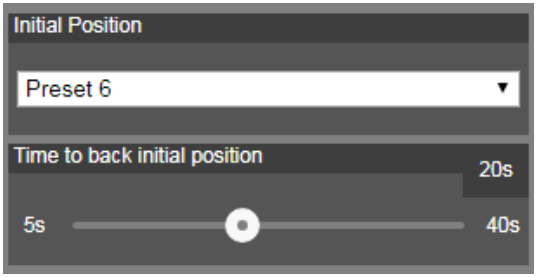
1. In the advanced setting interface, select the **Number of block** (2, 3, or 4). Each block is corresponding to one preset position. The maximum is 4 blocks (4 preset positions).



2. Set the preset positions in order (Preset 6 to Preset 9). Use direction control panel to move the camera to wanted position and select “save” to save the preset position. And, a snapshot of the preset image will show at corresponding image display box. Repeat the step to set another preset position.



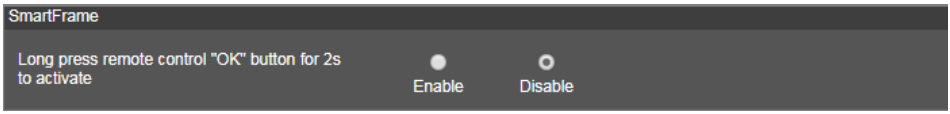

3. Set the **Initial Position** and **Time to back initial position**. The camera will go back to initial position based on the time set at Time to back initial position.




4. Select **Enable** to turn on SmartShoot. Or turn on SmartShoot in the OSD menu: **Advanced Setting** > **SmartShoot** > **On**.

## SmartFrame

Press button on the remote control to enable to auto focus the face of object and zoom in.
Select **Enable** to turn on SmartFrame.

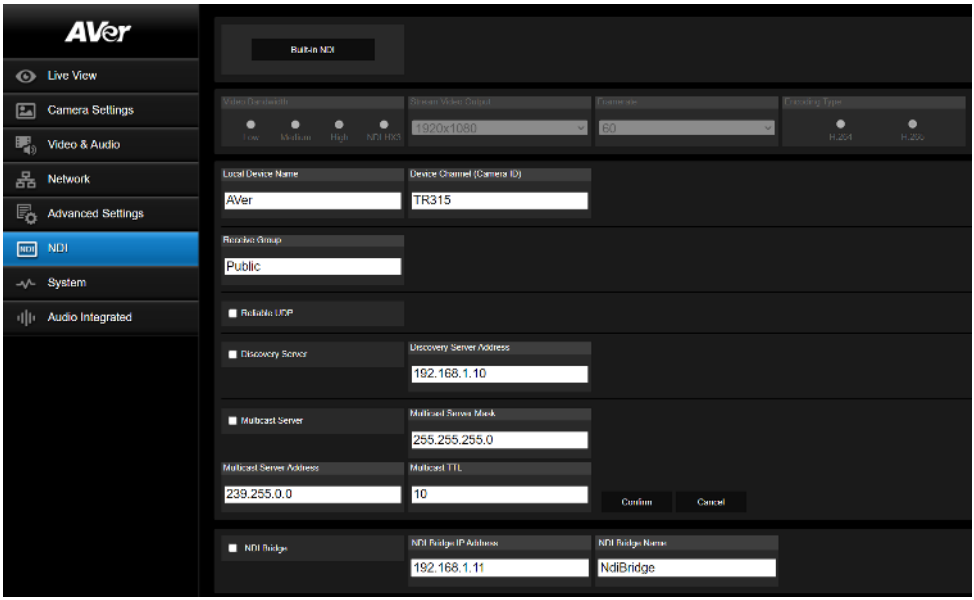



## Debug Information

Select **Enable**, and the human detection within the green rectangle will show on the HDMI output.

# NDI

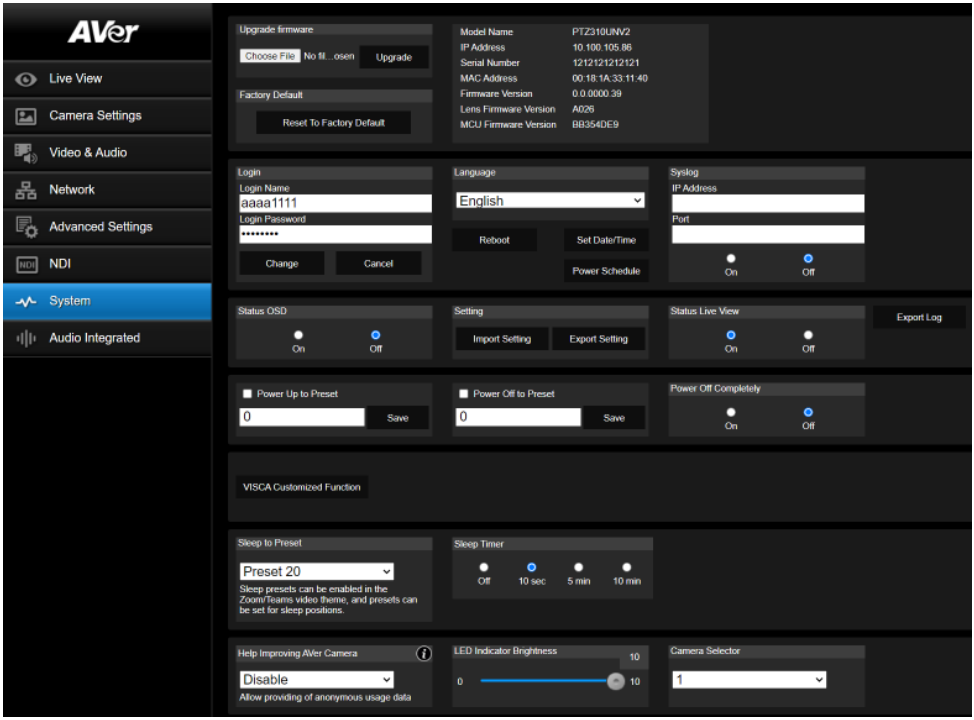
**Note:** NDI is available for model names with N only.




| Item | Description |
|---|---|
| Video Bandwidth | Select a bandwidth. NDI HX3 is a protocol that enables high-quality video streaming over IP networks. |
| Stream Video Output | Choose a streaming output resolution for the live view. 4K (2160p) is available for model names with U only. |
| Framerate | Choose a framerate. |
| Encoding Type | Select **H.264** or **H.265**. |
| Local Device Name | Enter a name that identifies your camera group on the NDI software.<br>● The default is AVer. |
| Device Channel (Camera ID) | Enter a name that identifies your camera on the NDI software.<br>● The default is your model name.<br>● A name must have no more than 10 characters. Use number, upper and lower case letter, or special character (! @ % ^ , . / : + ? [ ] { } - _ ~). |
| Receive Group | Enter a name for a receive group.<br>● All devices in the receive group receive the same NDI streams.<br>● The receive group should remain **public**. If this is changed, you will need to join the group through NDI® Access |

| | |
|---|---|
| | Manager. |
| Reliable UDP | Select the checkbox to enable Reliable User Datagram Protocol (RUDP). |
| Discovery Server | Select the checkbox to enable discovery server to allow devices to discover and connect to each other on a network automatically. |
| Discovery Server Address | Enter the IP address of a server running a discovery server application. |
| Multicast Server | Select the checkbox to enable multicast server to allow efficient distribution of NDI streams to multiple receivers without overwhelming the network. |
| Multicast Server Mask | Enter the network mask to specify the range of IP addresses that are eligible to receive NDI streams. |
| Multicast Server Address | Enter the IP address of a group of recipients that receive NDI streams from a multicast server. |
| Multicast TTL | Enter a multicast time to live (TTL) value between 1-255 to control the distance multicast packets can travel. |

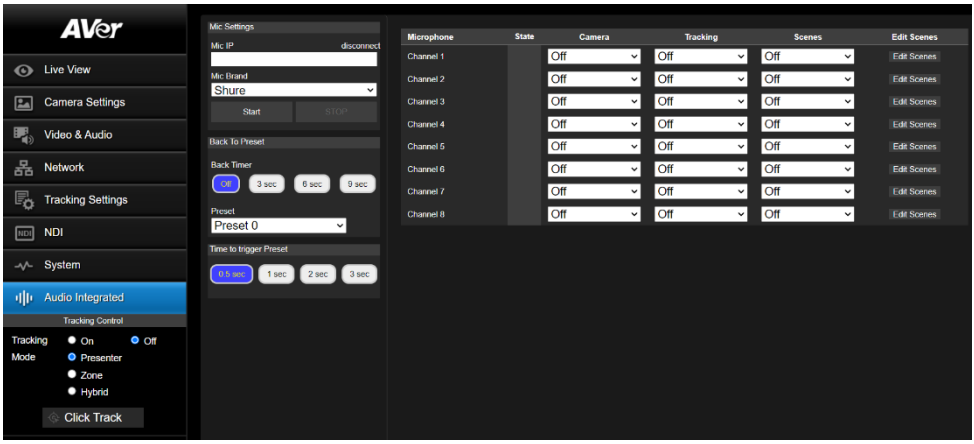
# System




| Item | Description |
|---|---|
| Upgrade Firmware | To upgrade the firmware:<br>1. Download the latest firmware from AVer Download Center (https://www.aver.com/download-center).<br>2. On the web interface, go to **System** > **Upgrade firmware**.<br>3. Click **Browse** to select the firmware.<br>4. Click **Upgrade**.<br>5. Refresh the browser after the upgrade is complete.<br>**Note:** Keep your camera connected to a power source during firmware upgrade. Network connection will be lost during the process and camera will reboot automatically after upgrading. |
| Factory Default | Reset the camera to factory default settings. |
| Login | For first-time login, you'll be prompted to change the username and Password:<br>● Username: Use 1-32 characters.<br>● Password: Use 8-32 characters and a combination of uppercase letters, lowercase letters, numbers, and symbols (%+=,-_^/@.~). The password cannot be the same as the username. |

| | |
|---|---|
| Language | Change the web interface language. |
| Reboot | Restart your camera. |
| Set Date/Time | Set the camera date and time. |
| Power Schedule | Schedule specific times for the camera to reboot or shut down. |
| Syslog | Turn on to receive technical supports.<br>Enter the **IP Address** and **Port** of the receiving device for debug and problem analysis. |
| Status OSD | Enable to display preset, zooming, SmartShoot and SmartFrame status on HDMI output. |
| Setting | Export or import your camera settings |
| Status Live View | Turn the camera live view on or off. |
| Export Log | Export system log. |
| Power Up to Preset | Move the camera to the defined preset after powering on. To enable:<br>1. Make sure the preset has been defined.<br>2. Select **Power Up to Preset** > enter a preset number > click **Save**. |
| Power Off to Preset | Move the camera to the defined preset before powering off. To enable:<br>1. Make sure the preset has been defined.<br>2. Select **Power Off to Preset** > enter a preset number > click **Save**. |
| VISCA Customized Function | Set VISCA customized functions and click **OK**. |
| Sleep to Preset<br>Sleep Timer | When no video is transmitted over USB on Zoom or Teams, set up **Sleep to Preset** and **Sleep Timer** to move the camera to a defined preset after a period of time for enhanced privacy.<br>● To enable:<br>1. Make sure the preset has been defined.<br>2. Go to **Video & Audio** > **Theme Mode** > choose **Zoom** or **Teams**.<br>3. Go to **Systems** > **Sleep to Preset** > choose a preset.<br>4. Go to **Systems** > **Sleep Timer** > select a duration.<br>● To disable, choose **Off** from the **Sleep to Preset** drop-down list or select **Off** in **Sleep Timer**. |
| Help Improving AVer Camera | Opt-in or opt-out of providing anonymous usage data. |
| LED Indicator Brightness | Drag the slider to adjust the brightness. |
| Camera Selector | Assign a number to the camera which corresponds with the Camera Select on the remote control. |

# Audio Integrated




| Item | Description |
|---|---|
| Mic Settings | Enter the microphone IP you want to connect. Click Start to connect and Stop to disconnect. |
| Back to Preset | Select an idle time before the camera goes to your selected preset. |
| Time to trigger Preset | Select an idle time for the camera to move to the preset when the microphone detects sound. |
| Mic Manager | ● Pair microphone channels with presets.<br>● Turn tracking on or off for each channel.<br>● Customize camera functions and add up to 10 CGI commands for each channel. |

# Appendix

## VISCA RS-232 Command Table

| Command Set | Command | Command Packet | Comments |
|---|---|---|---|
| CAM_Power | On | 8x 01 04 00 02 FF | Power ON/OFF |
| | Off | 8x 01 04 00 03 FF | |
| CAM_Zoom | Stop | 8x 01 04 07 00 FF | |
| | Tele(Variable) | 8x 01 04 07 2p FF | p=0 (Low) to 7 (High) |
| | Wide(Variable) | 8x 01 04 07 3p FF | |
| | Direct | 8x 01 04 47 0p 0q 0r 0s FF | pqrs: Zoom Position，<br>PTC310: 0x0000~0x6f20<br>PTC330: 0x0110~0x5490 |
| CAM_Focus | Stop | 8x 01 04 08 00 FF | |
| | Far (Standard) | 8x 01 04 08 02 FF | Each 'Far/Near' needs a 'stop' |
| | Near (Standard) | 8x 01 04 08 03 FF | |
| | Auto Focus | 8x 01 04 38 02 FF | |
| | Manual Focus | 8x 01 04 38 03 FF | |
| | One Push | 8x 01 04 18 01 FF | |
| | Direct | 8x 01 04 47 0p 0q 0r 0s FF | pqrs: Zoom Position |
| CAM_WB | Auto | 8x 01 04 35 00 FF | Normal Auto |
| | ATW | 8x 01 04 35 04 FF | |
| | Indoor | 8x 01 04 35 01 FF | |
| | Outdoor | 8x 01 04 35 02 FF | |
| | One Push WB | 8x 01 04 35 03 FF | One Push WB mode |
| | Manual | 8x 01 04 35 05 FF | Manual Control mode |
| | One Push | 8x 01 04 10 05 FF | One Push WB Trigger |
| CAM_RGain | Up | 8x 01 04 03 02 FF | Manual Control of R Gain |
| | Down | 8x 01 04 03 03 FF | |
| CAM_Bgain | Up | 8x 01 04 04 02 FF | Manual Control of B Gain |
| | Down | 8x 01 04 04 03 FF | |
| CAM_AE | Full Auto | 8x 01 04 39 00 FF | Automatic Exposure mode |
| | Manual | 8x 01 04 39 03 FF | Manual Control mode |
| | Shutter Priority | 8x 01 04 39 0A FF | Shutter Priority Automatic Exposure mode |
| | Iris Priority | 8x 01 04 39 0B FF | Iris Priority Automatic Exposure mode |

| Command Set | Command | Command Packet | Comments |
|---|---|---|---|
| | Bright | 8x 01 04 39 0D FF | Bright Mode (Manual control) |
| CAM_Shutter | Up | 8x 01 04 0A 02 FF | Shutter Setting |
| | Down | 8x 01 04 0A 03 FF | |
| CAM_Iris | Up | 8x 01 04 0B 02 FF | Iris Setting |
| | Down | 8x 01 04 0B 03 FF | |
| CAM_Gain | Up | 8x 01 04 0C 02 FF | Gain Setting |
| | Down | 8x 01 04 0C 03 FF | |
| CAM_Bright | Up | 8x 01 04 0D 02 FF | Bright Setting |
| | Down | 8x 01 04 0D 03 FF | |
| CAM_Exposure Comp. | Up | 8x 01 04 0E 02 FF | Exposure Compensation Amount Setting |
| | Down | 8x 01 04 0E 03 FF | |
| CAM_Backlight | On | 8x 01 04 33 02 FF | Back Light Compensation ON/OFF |
| | Off | 8x 01 04 33 03 FF | |
| CAM_Preset | Reset | 8x 01 04 3F 00 pp FF | pp: Preset Number 0x00~0xFF |
| | Set | 8x 01 04 3F 01 pp FF | |
| | Recall | 8x 01 04 3F 02 pp FF | |
| CAM_Menu | On/Off | 8x 01 06 06 10 FF | Display ON/OFF |
| Pan-tilt Drive | Up | 8x 01 06 01 VV WW 03 01 FF | VV: Pan speed setting 0x01 (low speed) to 0x18 (high speed)<br>WW: Tilt speed setting 0x01 (low speed) to 0x18 (high speed) |
| | Down | 8x 01 06 01 VV WW 03 02 FF | |
| | Left | 8x 01 06 01 VV WW 01 03 FF | |
| | Right | 8x 01 06 01 VV WW 02 03 FF | |
| | UpLeft | 8x 01 06 01 VV WW 01 01 FF | |
| | UpRight | 8x 01 06 01 VV WW 02 01 FF | |
| | DownLeft | 8x 01 06 01 VV WW 01 02 FF | |
| | DownRight | 8x 01 06 01 VV WW 02 02 FF | |
| | Stop | 8x 01 06 01 VV WW 03 03 FF | |
| | Home | 8x 01 06 04 FF | |
| | Reset | 8x 01 06 05 FF | |
| CAM_WDR | On | 8x 01 04 3D 02 FF | Wdr ON/OFF |
| | Off | 8x 01 04 3D 03 FF | |
| CAM_MenuEnter | | 8x 01 7E 01 02 00 01 FF | Enter Submenu |
| Tally Lamp | ON (Red) | 8x 01 7E 01 0A 00 02 FF | |
| | OFF | 8x 01 7E 01 0A 00 03 FF | |
| | ON (Green) | 8x 01 7E 01 0A 00 04 FF | |

| Command Set | Command | Command Packet | Comments |
|---|---|---|---|
| | ON (Amber) | 8x 01 7E 01 0A 00 05 FF | |
| Freeze | Freeze On | 81 01 04 62 02 FF | Freeze On Immediately |
| | Freeze Off | 81 01 04 62 03 FF | Freeze Off Immediately |
| | Preset Freeze On | 81 01 04 62 22 FF | Freeze On When Running Preset |
| | Preset Freeze Off | 81 01 04 62 23 FF | Freeze Off When Running Preset |
| CAM_Memory Special | Set | 8x 01 04 3F 01 pp FF | **These are changeable depending on VISCA Customized Functions web setting:**<br>pp: 0x00 To 0xFF normal preset<br>pp: 0x5F => Trun on OSD menu<br>pp: 0xA0 => Full Body<br>pp: 0xA1 => Upper Body<br>pp: 0xA2 => Tracking Point<br>pp: 0xA3 => Switch<br>pp: 0xA4 => Presenter mode (supported in FW v25 or newer)<br>pp: 0xA5 => Zone mode (supported in FW v25 or newer)<br>pp: 0xA6 => Hybrid mode (supported in FW v35 or newer)<br>pp: 0x5A => SmartFrame Enable<br>pp: 0x5B => SmartFrame Disable<br>pp: 0x5C => SmartFrame Trigger<br>pp: 0x5D => SmartShoot Enable<br>pp: 0x5E => SmartShoot Disable |

| Command Set | Command | Command Packet | Comments |
|---|---|---|---|
| Absolute Position | Set | 8x 01 06 02 VV WW 0Y 0Y 0Y 0Y 0Z 0Z 0Z 0Z FF | VV: Pan speed setting 0x01 (low speed) to 0x18 (high speed)<br>WW: Tilt speed setting 0x01 (low speed) to 0x18 (high speed)<br>YYYY: Pan Position<br>ZZZZ: Tilt Position |
| RTMP | On | 8x 01 04 A2 02 FF | |
| | Off | 8x 01 04 A2 03 FF | |
| Video mode | Standard | 8x 01 04 A3 00 FF | |
| | ZOOM | 8x 01 04 A3 01 FF | |
| | Teams | 8x 01 04 A3 02 FF | |
| | NDI | 8x 01 04 A3 03 FF | |
| Reboot | On | 8x 01 04 A4 FF | |
| Preset Affects PTZ & Focus Values Only | On | 8x 01 04 A5 02 FF | |
| | Off | 8x 01 04 A5 03 FF | |
| Relative Zoom Ratio | On | 8x 01 04 A6 02 FF | |
| | Off | 8x 01 04 A6 03 FF | |

| Inquiry Command | Command Packet | Reply Command Packet | Comments |
|---|---|---|---|
| CAM_PowerInq | 8x 09 04 00 FF | y0 50 02 FF | On |
| | | y0 50 03 FF | Off |
| CAM_WBModeInq | 8x 09 04 35 FF | y0 50 00 FF | Auto |
| | | y0 50 01 FF | In Door |
| | | y0 50 02 FF | Out Door |
| | | y0 50 03 FF | One Push WB |
| | | y0 50 04 FF | ATW |
| | | y0 50 05 FF | Manual |
| CAM_RGainInq | 8x 09 04 43 FF | y0 50 00 00 0p 0q FF | pq: R Gain |
| CAM_BGainInq | 8x 09 04 44 FF | y0 50 00 00 0p 0q FF | pq: B Gain |
| CAM_AEModeInq | 8x 09 04 39 FF | y0 50 00 FF | Full Auto |
| | | y0 50 03 FF | Manual |
| | | y0 50 0A FF | Shutter Priority |
| | | y0 50 0B FF | Iris Priority |
| | | y0 50 0D FF | Bright |
| CAM_ShutterPosInq | 8x 09 04 4A FF | y0 50 00 00 0p 0q FF | pq: Shutter Position |
| CAM_IrisPosInq | 8x 09 04 4B FF | y0 50 00 00 0p 0q FF | pq: Iris Position |
| CAM_GainPosInq | 8x 09 04 4C FF | y0 50 00 00 0p 0q FF | pq: Gain Position |
| CAM_BrightPosInq | 8x 09 04 4D FF | y0 50 00 00 0p 0q FF | pq: Bright Position |
| CAM_ExpCompPosInq | 8x 09 04 4E FF | y0 50 00 00 0p 0q FF | pq: ExpComp Position |
| CAM_FocusModeInq | 8x 09 04 38 FF | y0 50 02 FF | Auto Focus |
| | | y0 50 03 FF | Manual Focus |
| CAM_FocusPosInq | 8x 09 04 48 FF | y0 50 0p 0q 0r 0s FF | pqrs: Focus Position |
| zoom_Pos_Inq | 8x 09 04 47 FF | y0 50 0p 0q 0r 0s FF | pqrs: Zoom Position |
| PT_Pos_Inq | 8x 09 06 12 FF | y0 50 0Y 0Y 0Y 0Y 0Z 0Z 0Z 0Z FF | YYYY: Pan Position<br>ZZZZ: Tilt Position |
| CAM_Preset Inq | 8x 09 04 3F FF | y0 50 pp FF | Return the last preset number which has been operated pp:01-FF |
| CAM_OSD MENU on/off | 8x 09 7E 04 76 01 FF | y0 50 02 FF | On |
| | | y0 50 03 FF | Off |
| CAM_Tally | 8x 09 7E 01 0A FF | y0 50 02 FF | On |
| | | y0 50 03 FF | Off |
| CAM_WDR mode | 8x 09 04 3D FF | y0 50 02 FF | On |

| Inquiry Command | Command Packet | Reply Command Packet | Comments |
|---|---|---|---|
| | | y0 50 03 FF | Off |
| CAM_BLC mode | 8x 09 04 33 FF | y0 50 02 FF | On |
| | | y0 50 03 FF | Off |
| CAM_Live Freeze | 8x 09 04 62 01 FF | y0 50 02 FF | Freeze On |
| | | y0 50 03 FF | Freeze Off |
| CAM_Preset Freeze | 8x 09 04 62 02 FF | y0 50 02 FF | Preset Freeze On |
| | | y0 50 03 FF | Preset Freeze Off |
| Firmware version | 8x 09 36 69 04 FF | y0 50 0p 0q 0r 0s 0t 0u 0v 0w FF | fw_ver: p.q.rstu.vw |
| USB Status | 8x 09 36 69 05 FF | y0 50 00 FF | USB cable plug out |
| | | y0 50 01 FF | USB cable plug in |
| UVC Status | 8x 09 36 69 06 FF | y0 50 00 FF | UVC stream off |
| | | y0 50 01 FF | UVC stream on |

# Visca over IP Settings

PORT

| | |
|---|---|
| Internet protocol | IPv4 |
| Transport protocol | UDP |
| Port address | 52381 |

FORMAT

| | byte 0 | byte 1 | byte 2 | byte 3 | byte 4 | byte 5 | byte 6 | byte 7 | byte8 ~~~ byte23 |
|---|---|---|---|---|---|---|---|---|---|
| func | Payload type | | Payload length | | Sequence number | | | | Payload (1 to 16 bytes) |
| data | Value1 | Value2 | 1~16 (0x0001~0x0010) | | 0X00000000 ~ 0XFFFFFFFF | | | | VISCA Packet (see page VISCA) |

Payload type

| Name | Value1 | Value2 | Description |
|---|---|---|---|
| VISCA command | 0x01 | 0x00 | Stores the VISCA command. |
| VISCA inquiry | 0x01 | 0x10 | Stores the VISCA inquiry. |
| VISCA reply | 0x01 | 0x11 | Stores the reply for the VISCA command or VISCA inquiry |

# CGI Command

| CGI List for Video Transmission | | | | | |
|---|---|---|---|---|---|
| **CGI item name** | **URL** | **Command** | **Parameter Name** | **Parameter value** | **Description** |
| Get JPEG | /snapshot | | | | 1280x720 jpg |
| Get RTSP stream | rtsp://ip/live_st1 | | | | |
| Get MJPG | http://IP/html/live.html | | | | |

| CGI List for Camera Control | | | | | |
|---|---|---|---|---|---|
| **CGI item name** | **URL** | **Command** | **Parameter Name** | **Parameter value** | **Description** |
| up start | /cgi-bin?SetPtzf= | 1,0,1&(random) | | | |
| up end | /cgi-bin?SetPtzf= | 1,0,2&(random) | | | |
| down start | /cgi-bin?SetPtzf= | 1,1,1&(random) | | | |
| down end | /cgi-bin?SetPtzf= | 1,1,2&(random) | | | |
| left start | /cgi-bin?SetPtzf= | 0,1,1&(random) | | | |
| left end | /cgi-bin?SetPtzf= | 0,1,2&(random) | | | |
| right start | /cgi-bin?SetPtzf= | 0,0,1&(random) | | | |
| right end | /cgi-bin?SetPtzf= | 0,0,2&(random) | | | |
| zoom_in start | /cgi-bin?SetPtzf= | 2,0,1&(random) | | | |
| zoom_in end | /cgi-bin?SetPtzf= | 2,0,2&(random) | | | |
| zoom_out start | /cgi-bin?SetPtzf= | 2,1,1&(random) | | | |
| zoom_out end | /cgi-bin?SetPtzf= | 2,1,2&(random) | | | |
| set preset: | /cgi-bin?ActPreset= | 1,N&(random) | | | N : position |
| load preset: | /cgi-bin?ActPreset= | 0,N&(random) | | | N : position |
| set preset speed | /cgi-bin?Set=preset_speed,3,val | val: {min: 1, max: 6} | | | |
| Absolute Position (Pan) | /cgi-bin?Set=ptz_p,3,val | val: {min: 2048, mid: 962944, max: 1925888} | | | Follows CGI preset speed |
| Absolute Position (Tilt) | /cgi-bin?Set=ptz_t,3,val | val: {min: 2048, mid: 165696, max: 662784} | | | Follows CGI preset speed |

| | | | | | |
|---|---|---|---|---|---|
| Absolute Position (Zoom) | /cgi-bin?Set=ptz_z,3,val | val: {min: 2048, mid: 14224, max: 28448} | | | Follows CGI preset speed |

| **CGI List for Various Settings** | | | | | |
|---|---|---|---|---|---|
| exposure value | /cgi-bin?Set= | img_expo_expo,3,N&(random) | value | 1 ~ 9 | N : value |
| saturation | /cgi-bin?Set= | img_saturation,3,N&(random) | value | 0 ~ 10 | N : value |
| contrast | /cgi-bin?Set= | img_contrast,3,N&(random) | value | 0 ~ 4 | N : value |
| Reboot | GET(Basic Authentication) | /cgi-bin?OnePush=! | | | |
| Factory Reset | GET(Basic Authentication) | /cgi-bin?OnePush=d | | | |
| RTMP Start streamming | /cgi-bin?Set= | vdo_rtmp_enable,3,1 | | | |
| RTMP Stop streamming | /cgi-bin?Set= | vdo_rtmp_enable,3,0 | | | |
| Save RTMP server URL | | /cgi-bin?SaveRtmpUrl= | | value empty for clearing up the field | |
| Save RTMP stream Key | | /cgi-bin?SaveRtmpKey= | | value empty for clearing up the field | |
| Inquiry for RTMP status | | /cgi-bin?Get=vdo_rtmp_status | | Streaming: vdo_rtmp_status=2 Stopped: vdo_rtmp_status=0 | |
| Get RTMP server URL | | /cgi-bin?GetRtmpUrl | | | |
| Get RTMP stream key | | /cgi-bin?GetRtmpKey | | | |
| USB status | GET(Basic Authentication) | /cgi-bin?Get=usb_status_inquire,3 | | | |
| | - Reply | "usb_status_inquire,3=X\r\n" | X: 0(plug out), 1(plug in) | | |
| UVC status | GET(Basic Authentication) | /cgi-bin?Get=uvc_status_inquire,3 | | | |
| | - Reply | "uvc_status_inquire,3=X\r\n" | X: 0(stream off), 1(stream on) | | |
| Status get (Model name & mac & FW_VER) | | /cgi-bin?SetString=sys_name&net_mac&sys_fw_version&_=1635216271678 | | http://10.100.105.110/cgi-bin?GetString=sys_name&net_mac&sys_fw_version&_=1635216271678 | |

| | | | | | |
|---|---|---|---|---|---|
| Serial No. get | | /cgi-bin?GetSerialNumber&_=1635216271680 | | http://10.100.105.110/cgi-bin?GetSerialNumber&_=1635216271680 | |
| script<br>(Using cURL to update firmware) | curl.exe -X POST --user NAME:PASSWORD -F file1=@./ISP_FILE "http:///IP_ADDRESS/system/" | | | Please download curl (curl for Windows), this is a command line tool for network transferring.<br>Put curl.exe and ISP file in the same folder. and then execute the script to upgrade camera.<br><br>For example, ISP file is 0.0.0000.29.dat , IP address is 10.100.105.109 and username:password is 1:1 , you can enter this script to execute ISP process.<br><br>curl.exe -X POST --user 1:1 -F file1=@./0.0.0000.29.dat "http://10.100.105.109/system/" | |