

# MT300 Matrix Tracking Box

— User Manual —

## **Federal Communication 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.

## **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.

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The information contained in this documentation is subject to change without notice.

## More Help

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

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Technical Support: <https://www.aver.com/technical-support>

### USA Branch office

Download Center: <https://www.averusa.com/pro-av/support/>

Technical Support: <https://averusa.force.com/support/s/contactsupport>

### Europe Branch office

Download Center: <https://www.avereurope.com/download-center>

Technical Support: <https://www.avereurope.com/technical-support>

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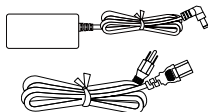
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# Overview

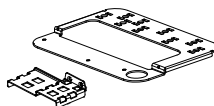
## Package Contents



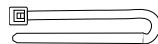
MT300  
Matrix Tracking Box



Power Adapter &  
Power Cord



Cable Fixing Plate  
(x2)



Cable Ties (x13)



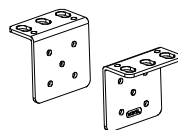
3.0 x 5mm  
Flat Head Screw (x5)



3.0 x 5mm  
Truss Head Screw  
(x4)



M3 x 10mm  
Screws (x4)



Rack Mount Bracket  
(x2)



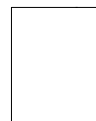
USB 3.0 Cable (x2)  
1.5 m/4.92 ft



RS-422 Cable

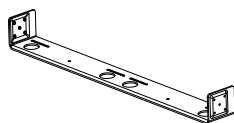


Quick Start Guide



Warranty Card  
(Japan only)

## Optional Accessories



Server Rack Mount

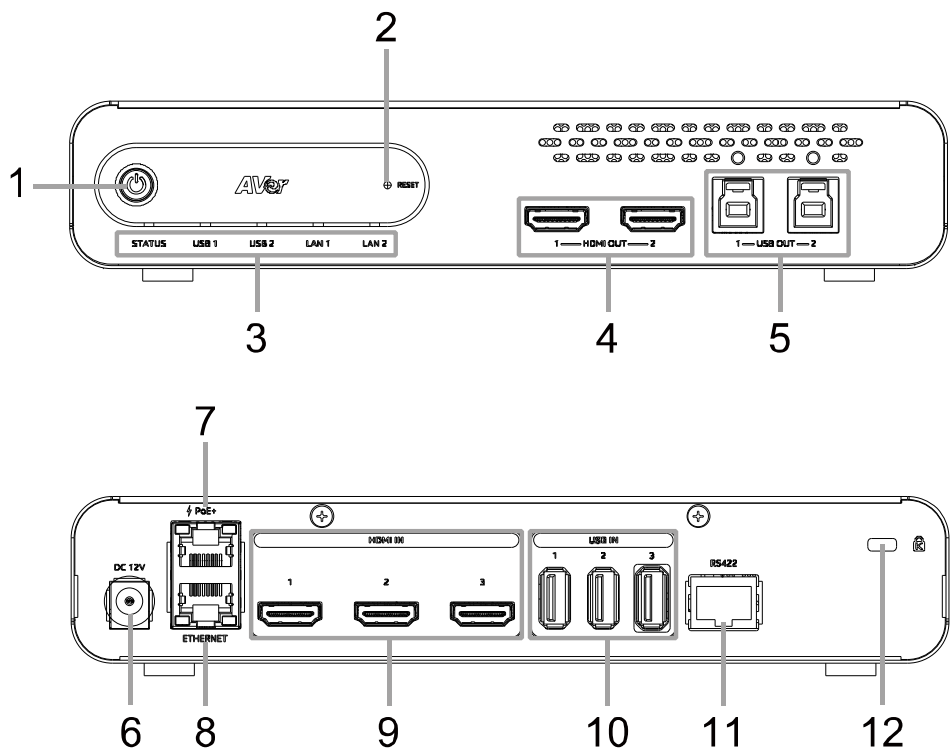


3.0 x 5mm  
Flat Head Screw (x3)



3.0 x 5mm  
Truss Head Screw (x2)

# Parts Info



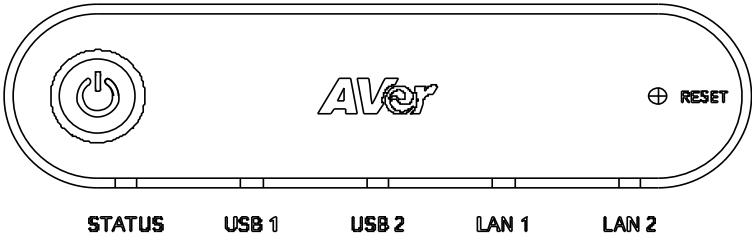
## Front Panel

- 1. Power Button
- 2. Reset Button
- 3. LED Indicators
- 4. HDMI Out Port (x2)
- 5. USB Out 3.0 Type-B Port (x2)  
(single USB out port per use only)

## Back Panel

- 6. DC Power Jack
- 7. PoE+ Port IEEE 802.3AT
- 8. Ethernet Port
- 9. HDMI In Port (x3)
- 10. USB In 2.0 Type-A Port (x3)
- 11. RS-422 Port
- 12. Kensington Lock

# LED Indicators



## STATUS

Color	Status
Solid orange	Standby
Solid green	Normal
Flashing green	Firmware upgrade

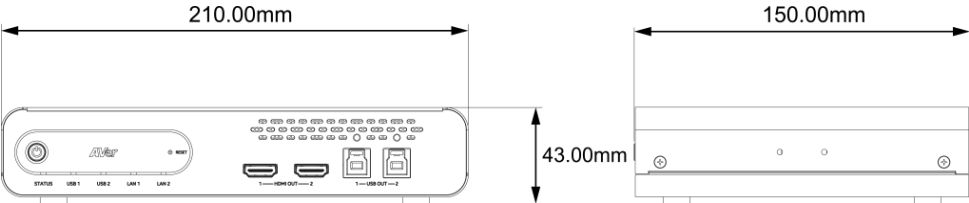
## USB 1, USB 2

Color	Status
Solid green	Connected
Flashing green	Streaming

## LAN 1, LAN 2

Color	Status
Solid green	Connected

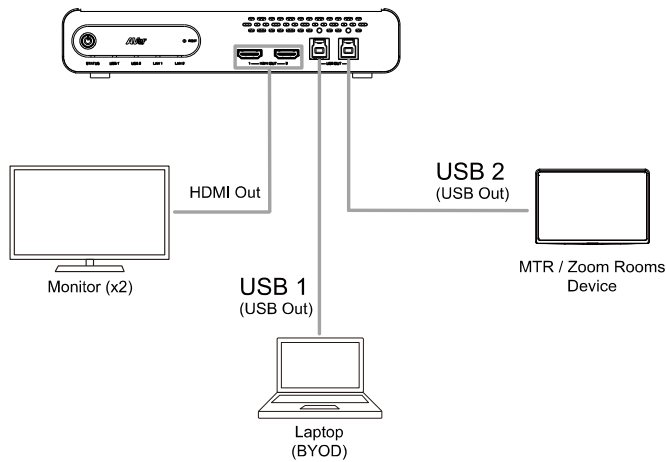
# Dimensions



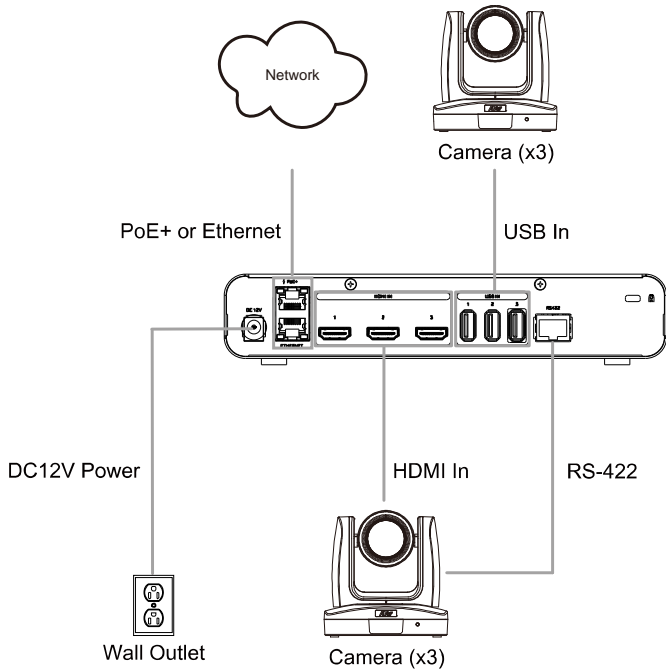


# Connections

## Front Panel



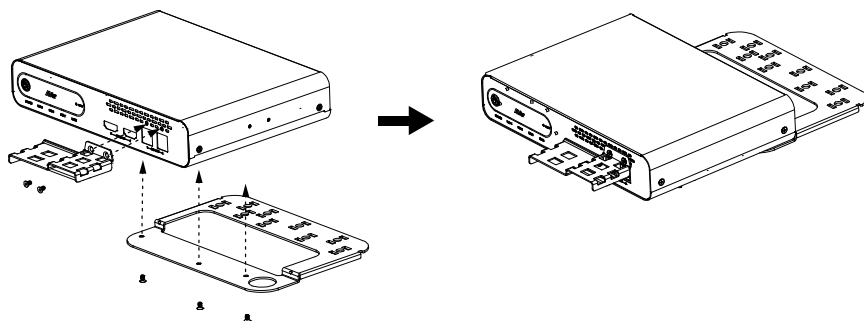
## Back Panel



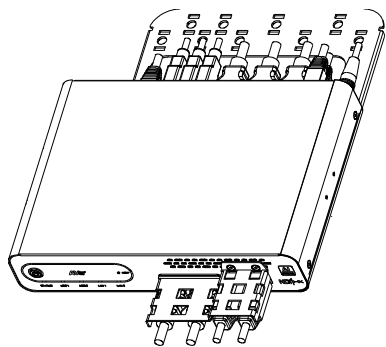
# Installation

## Cable Fixing Plate Installation

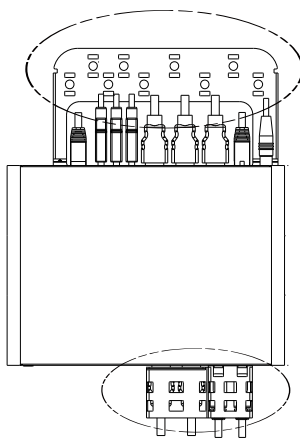
1. Secure the cable fixing plates to the tracking box with 5 flat hat 3.0 x 5mm screws in the package.



2. Plug in cables.



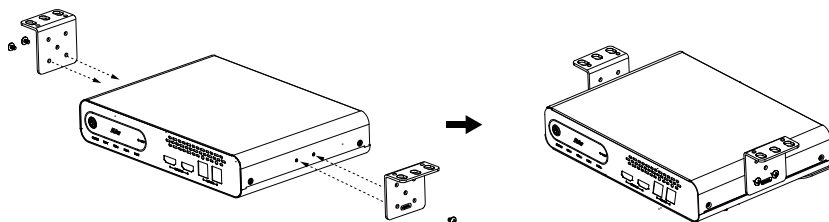
3. Use 13 cable ties in the package to secure the cables and cable fixing plates.



## Desk Mount Installation

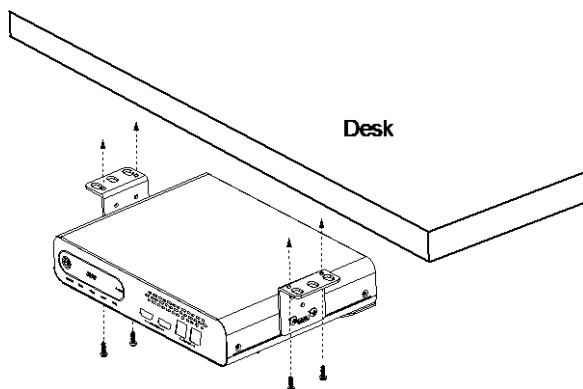
1. Secure the mount brackets on the tracking box.

Screw: 4 truss head screws, 3.0 x 5mm



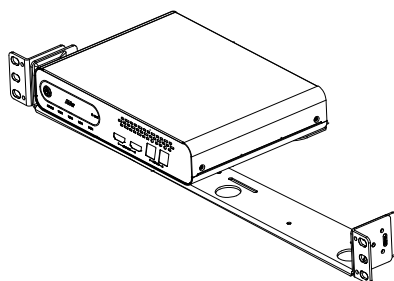
2. Install the mount brackets and the tracking box under the desk.

Screw: 4 screws, M3 x 10mm



## Server Rack Mount (Optional Accessories)

For details on optional accessories, consult your local dealer.



# Get Started

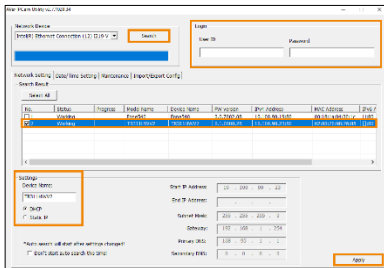
## Web Interface Setup

You can access your tracking box's web interface with a DHCP address or a static IP address.

- PoE+ port is used for DHCP and static IP connections.
- Ethernet port is only used for static IP connection.
- The default username/password is **admin/admin**.

### DHCP

1. Download and install AVer IPCam Utility on your computer from AVer Download Center (<https://www.aver.com/download-center>).
2. Connect your tracking box to the network using the PoE+ port.
3. Make sure your device and the computer running AVer IPCam Utility are on the same network.
4. Open AVer IPCam Utility. Click **Search**.
5. Enter the default username/password **admin/admin** in the **Login** field.
6. Select the checkbox for your device.
7. Select **DHCP** in **Settings**. Click **Apply**.
8. Double-click on the device row to access the web interface
9. Enter the default username/password **admin/admin** in the pop-up window.

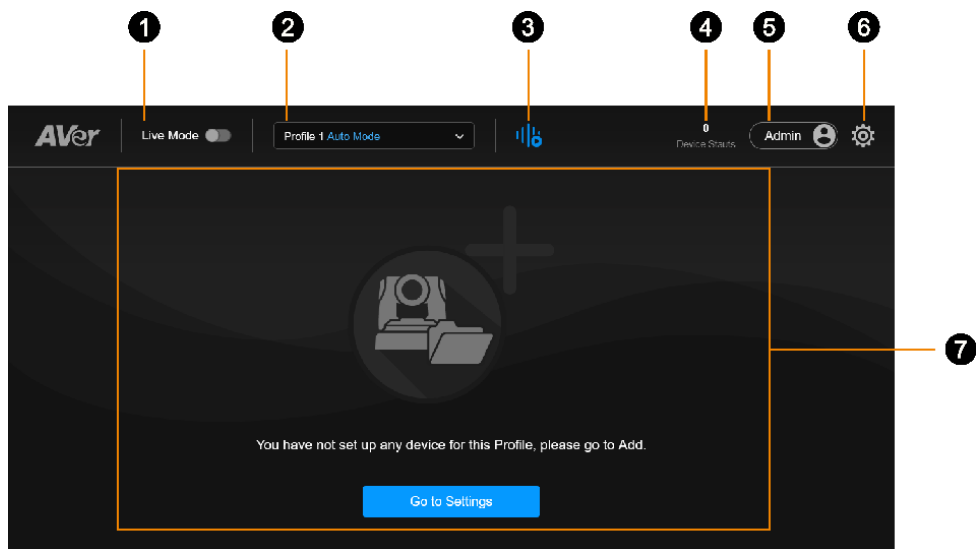


### Static IP

1. Connect your tracking box to the network using the PoE+ or Ethernet port.
2. Set your computer's IP address to 192.168.1.x.
3. Enter 192.168.1.168 in your browser to access the web interface.
4. Enter the default username/password **admin/admin** in the pop-up window.
5. You can also use the Ethernet port, its default IP address and computer IP setting to access the web interface.

Port	Default IP Address	Computer IP setting
PoE+ (Recommended)	192.168.1.168	192.168.1.x
Ethernet	192.168.168.168	192.168.168.x

# Main Page




## 1. Live Mode

Toggle Live Mode on or off.

## 2. Select profile

Choose a defined profile.

- While you can save Auto Mode and Manual Mode settings in the same profile, only one mode is applied per use.
- To switch modes, click the **Settings** icon  on the main page > **Profile**.

## 3. Pause / Resume Voice-Tracking

Click to pause or resume voice-tracking.

## 4. Device Status

Displays the number of online devices and the number of all added devices.

## 5. Account

Switch between Admin and User accounts.

- A User can use voice-tracking function without editing the settings.

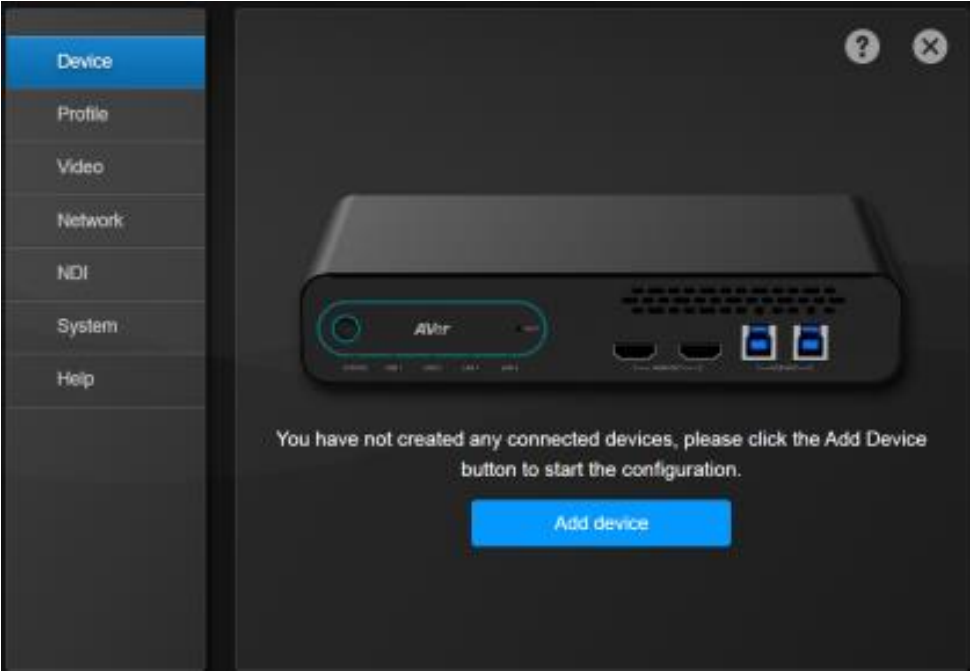
## 6. Settings

Click to enter the settings menu.


## 7. Live view

Displays the camera live view.

# Add a Device



## To add cameras and microphones:

- 1. Click the **Settings** icon  on the main page > **Device** > **Add device**.
- 2. Fill out the **Add New Device** dialog box.

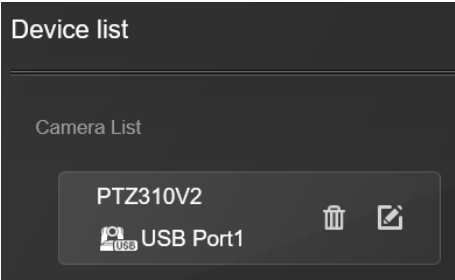
Item	Description
Select Camera or Microphone	Add a camera or a microphone.
Connect Camera via IP Connect Camera via USB Port Connect Camera via HDMI Port	<ul style="list-style-type: none"><li>● IP: Connect the camera via Ethernet or PoE+ port.</li><li>● USB: Port 1 and 2 is used for video streaming, while Port 3 is used for video and audio streaming. Enter a name to be displayed in the device list.</li><li>● HDMI: Select Control via IP or Control via RS-422. When <b>Control via RS-422</b> is selected, turn <b>Support Human Tracking</b> on or off and enter a name to be displayed in the device list.</li></ul>
IP Address	Automatically search or manually enter the IP address.
Camera Account	Enter your camera's account and password.
Camera Password	
Streaming via RTSP	<ul style="list-style-type: none"><li>● Real-Time Streaming Protocol (RTSP): Make sure your</li></ul>

Streaming via NDI	camera and receiving device or application support RTSP. <ul style="list-style-type: none"><li>● Network Device Interface (NDI): Make sure your camera and receiving device or application support NDI. Enter a name for your NDI group (optional).</li></ul>
Device Name	Enter a name to be displayed in the device list.

3. Click **Save**.

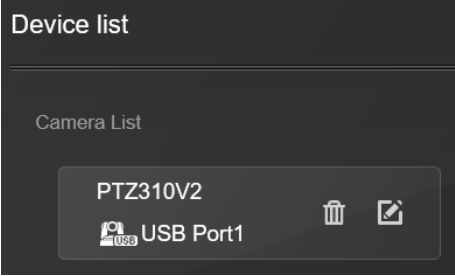
**To edit devices:**

1. Hover over the device and click the **Pencil** icon.
2. Edit device in the dialog box and click **Save**.



**To delete devices:**

Hover over the device and click the **Trash can** icon.



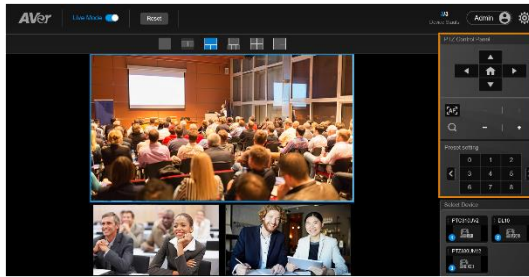
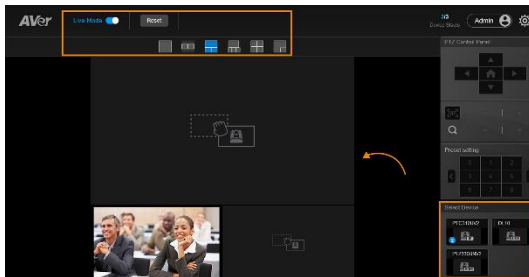
# Set up Your MT300

The modes built into your MT300 help you present video feeds in a single stream composited gallery, follow the presenter in real time as they move, or frame the active talker. Choose from Live Mode, Manual Mode and Auto Mode.

Before you start, make you have added your devices.

## Live Mode

Live Mode requires no setup. Both Admin and User can see live views of added cameras, change layouts and use pan-tilt-zoom functionality.



1. Toggle on **Live Mode** to enter Live Mode.
2. Select a layout.
3. Drag a camera icon from the **Select Camera** section to a cell.  
A blue circled number will appear on the camera icon to indicate the cell position.
4. Click to select a live view. The selected live view will be in a blue frame.
5. Use the pan-tilt-zoom control panel to position and focus the camera.
6. Or go to a preset by selecting a preset number.
7. Toggle off **Live Mode** to exit Live Mode. Live Mode settings are saved automatically. Your last selected profile in **Setting** > **Profile** will be applied when you return to the main page.
8. To clear settings, click **Reset** to reset Live Mode to factory default settings.

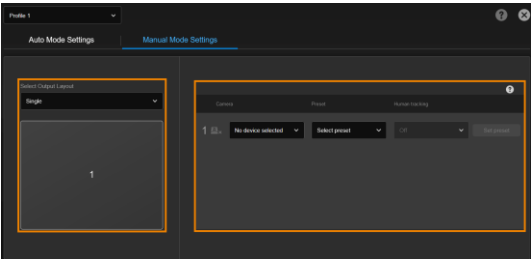
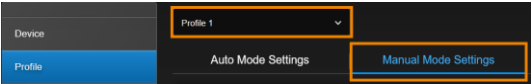



# Manual Mode

Follow the presenter in real time as they move using presets and Human Tracking modes.

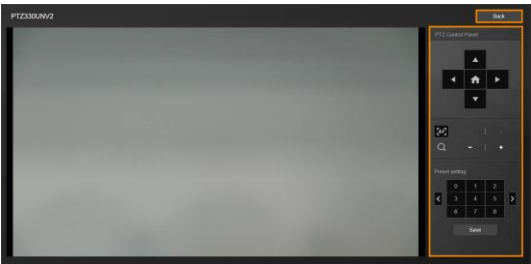
Create a profile to save your Manual Mode settings:


- You can rename a profile.
- While you can save Manual Mode and Auto Mode settings in the same profile, only one mode is applied per use.
- Switch to Manual Mode by clicking the **Manual Mode Settings** tab.
- A profile is saved and applied automatically when leaving the **Profile** page.



1. Click the **Settings** icon  on the main page > **Profile** > **Manual Mode Settings**.
2. Choose a profile from the **Profile** drop-down list to save your settings.
3. Select a layout from the **Select Output Layout** drop-down list for up to 4 cameras.
4. Select **Camera**, **Preset**, **Human Tracking** mode. Refer to [<Human Tracking>](#) for details.

## Set a Preset



5. If you haven't defined presets for your camera, click **Set preset** to add presets.
6. Position your camera using pan, tilt, zoom and focus controls.
7. Click a number and click **Save** to save that position.
8. Click **Back** to return to the **Profile** page.
9. Click the cross icon  on the upper right corner to return to the main page.

## Human Tracking

- For supported AVer cameras, refer to [<Supported AVer Cameras>](#).
- For camera settings, refer to your AVer camera's user manual.

Human tracking includes three modes:

- Presenter
- Zone
- Hybrid

Presenter Mode example:

1. Both microphone channel 1 and preset 1 are set to the whiteboard.
2. Select **Presenter** from the **Human tracking** drop-down list.
3. When microphone channel 1 picks up audio from the presenter, the camera moves to preset 1. Presenter Mode frames the presenter on screen and continues to follow them.

Channel 1 detects voice

Camera moves to preset 1

Presenter Mode is turned on



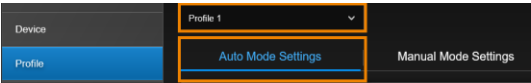
# Auto Mode (Channel)


Frame the active talker with voice-tracking functionality by linking AVer cameras with third-party microphone systems (supported models) from Audio-Technica, Biamp, ClearOne, Nureva, Sennheiser, Shure and Yamaha.

Third-party microphone systems may require setup in their manufacture software. For details on settings, please refer to <[Supported Microphones](#)>.

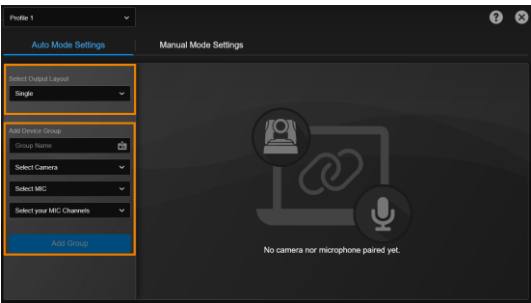
Create a profile to save your Auto Mode settings:

- You can rename a profile.
- While you can save Manual Mode and Auto Mode settings in the same profile, only one mode is applied per use.
- Switch to Auto Mode by clicking the **Auto Mode Settings** tab.
- A profile is saved and applied automatically when leaving the **Profile** page.

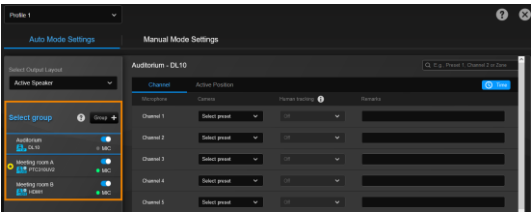


1. Click the **Settings** icon  on the main page > **Profile** > **Auto Mode Settings**.
2. Choose a profile from the **Profile** drop-down list to save your settings.

## Add a Camera and Microphone Group

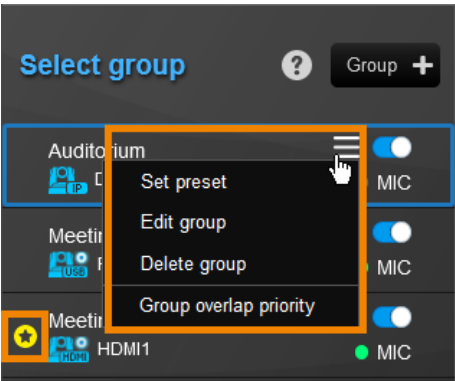
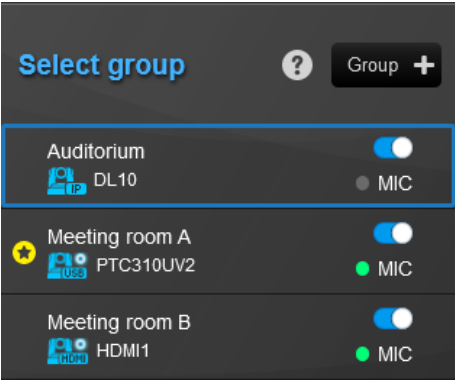


3. Select a layout from the **Select Output Layout** drop-down list for up to 3 cameras.
4. Add up to 25 groups of AVer camera and microphone pairs in the **Add Device Group** dialog box.



5. Your groups will be displayed in **Select group**.

## Select Group



The **Select group** menu includes:

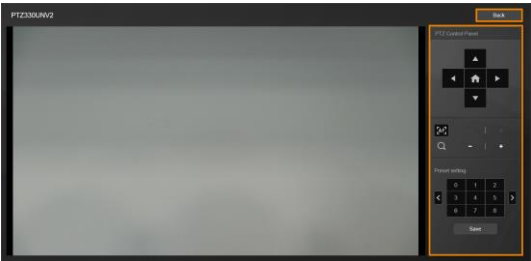
- **Device status:** Click the question mark icon for reference.

	Camera is sending data to MT300
	Device online
	Device offline
	Incorrect account or password
- **Group +:** Add a camera and microphone group.
- **Toggle switch:** Enable or disable a group.
- **MIC indicator:**

	Online
	Offline
- **Hamburger menu:** Hover over a group to display the hamburger menu. Click the menu to set presets, edit a group, delete a group or set a group overlay priority.
- **Group overlay priority:** Select **Group overlay priority** on the hamburger menu to set a priority. To cancel, deselect. The star icon indicates a priority group.

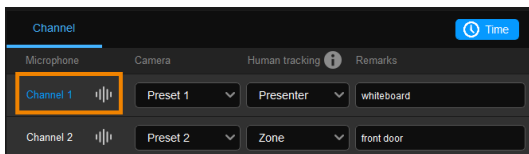
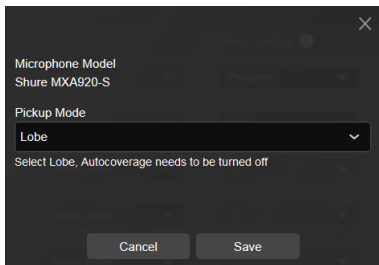
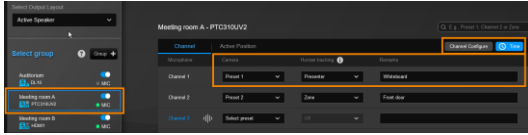
This can be used when groups are sharing a camera. When these microphones receive the same sound source, the camera moves to the preset defined in the priority group.


## Set a preset




- **Set preset:** If you haven't defined presets for your camera, click **Set preset** on the hamburger menu to add presets. Refer to the steps in [Set a Preset](#) in Manual Mode.

## Pair Microphone Channels with Presets



6. Select a device group in **Select group**. A blue frame indicates that it is selected.
7. Select a preset from the **Select preset** drop-down list under **Camera** for each microphone channel.
8. Select a **Human Tracking** mode. Refer to [<Human Tracking>](#) for details.
9. Add notes in the **Remarks** field, such as whiteboard to identify the location.
10. Click **Channel Configure** to select a pickup mode based on your microphone setting.
11. Click the **Time** button  to set a duration for:
  - **Time to trigger Preset:** Move to a preset after the microphone detects a voice.
  - **Value for time to go back to Preset 0:** Return to Preset 0 after the microphone detects no voice.
12. The pairing is complete.

The voice-tracking icon  next to a channel indicates that it detects a voice. The blue channel marks the current preset.

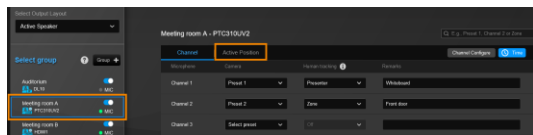
## Auto Mode (Active Position)

Active Position reports active talker positions from supported microphones in the form of X, Y, Z coordinates to deliver enhanced camera tracking.

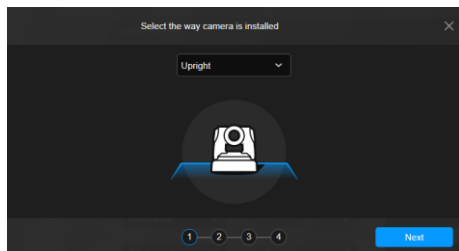
Active Position supports:

- USB-connected AVer cameras
- Shure MXA920 Ceiling Array Microphone

### To set up Active Position:

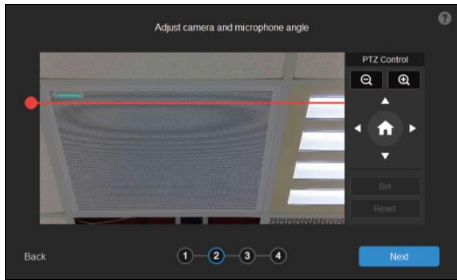


1. Make sure the USB-connected AVer camera has been paired with a Shure MXA920 in [Add a Camera and Microphone Group](#).
2. Select a device group in **Select group**. A blue frame indicates that it is selected.
3. Click the **Active Position** tab. For first-time setup, calibrate the camera and microphone as prompted.




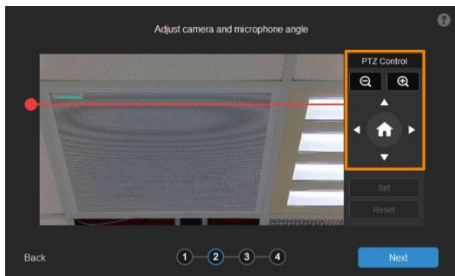
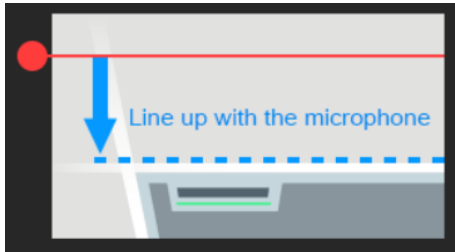
### Step 1

4. Select the way camera is installed from the drop-down list and click **Next**.

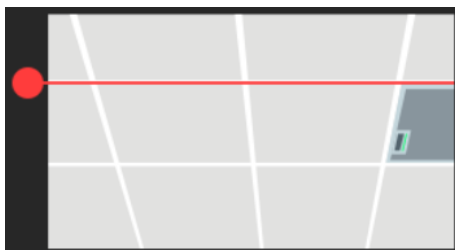


## Step 2

5. Align the red line with the top or bottom edge of the microphone by dragging the red dot.
  - Click the question mark  for reference.




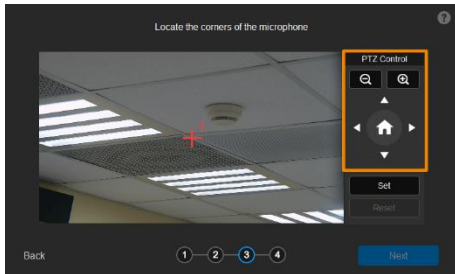
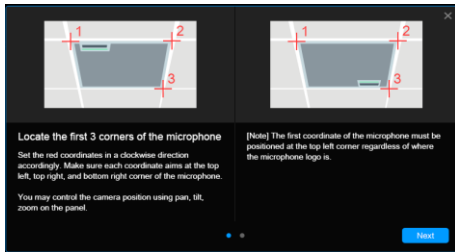
6. Adjust the camera angle using pan, tilt and zoom controls, if the microphone appears at a slight angle.
  - Zoom controls here are for alignment only and don't affect the zoom ratio of the camera.



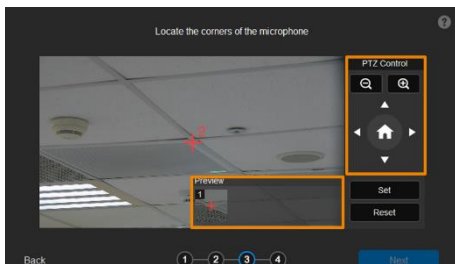
- The microphone doesn't need to be in the center of the live view, as long as the red line is aligned with the edge.
7. Click **Next**.

### Step 3

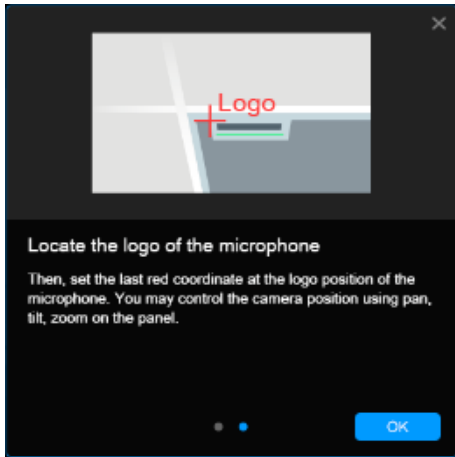
8. Starting with the upper left, locate 3 microphone corners in a clockwise direction.
  - Click the question mark  for reference.



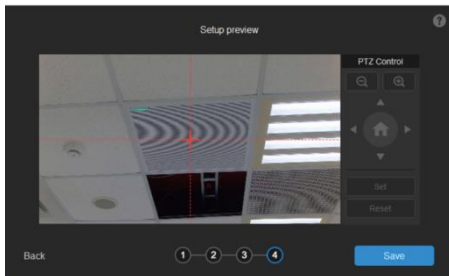
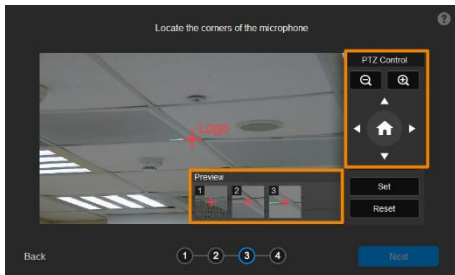
9. Move the red cross to the 1<sup>st</sup> corner (upper left) in the live view using pan, tilt and zoom controls.
10. Click **Set**. The saved location will appear in the thumbnail.
11. Repeat the steps to location the 2<sup>nd</sup> (upper right) and 3<sup>rd</sup> (lower right) corners (lower right).







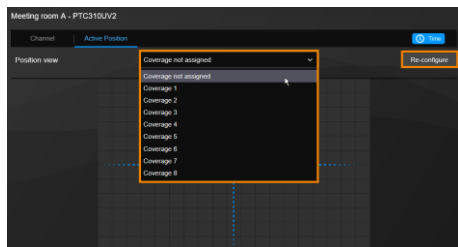
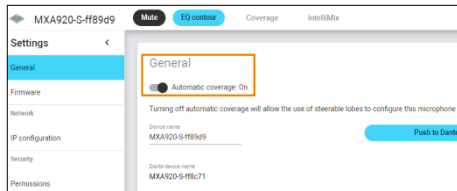
12. Finally, locate the logo on the microphone to indicate its orientation. Move the red cross to the logo in the live view using pan, tilt and zoom controls.
  - Depending on the microphone orientation, the logo corner may be the same as one of the 3 corners.
13. Click **Set**. The saved location will appear in the thumbnail.
14. Click **Next** after locating 3 corners and the logo. Or click **Reset** to relocate all of them.



#### Step 4


15. Make sure the red cross appears in the center of the microphone, and click **Save**.
16. To reconfigure, click **Back**.

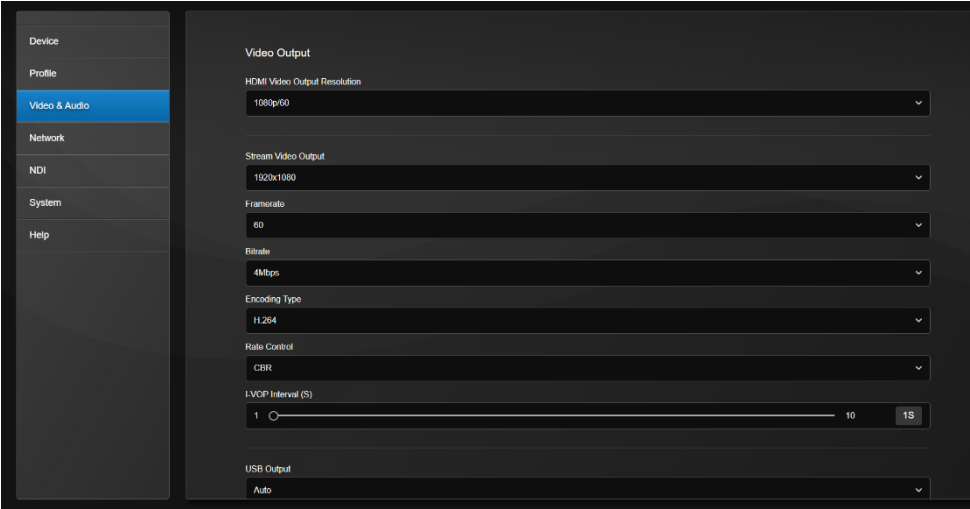
## To adjust or add a coverage area:



1. Open the MXA920 web application.
2. Go to **Settings > General > Automatic coverage**.
3. To add a mix of up to 8 dynamic and dedicated coverage areas, turn on **Automatic coverage**.
  - The default setting is a 30 by 30 foot (9 by 9 meter) dynamic coverage area.
4. To add more coverage areas, go to **Coverage > Add coverage**.
5. On the **Active Position** tab, select **Coverage not assigned** to use all MXA920 coverage areas.
6. Or select a coverage area that you have added in the MXA920 web application from the drop-down list.
  - Talker positions outside of the selected coverage area won't be picked up by the tracking box.
7. To change coverage areas, click **Re-configure**.

# Video & Audio

Select the **Settings** icon  on the main page > **Video & Audio**.



## Video Output

Item	Description
Video Output Resolution	Choose a video output resolution.
Stream Video Output	Choose a streaming output resolution for the live view.
Framerate	Choose a framerate.
Bitrate	Choose a bit rate.
Encoding Type	Choose <b>H.264</b> or <b>H.265</b> .
Rate Control	Choose Variable Bit Rate ( <b>VBR</b> ) or Constant Bit Rate ( <b>CBR</b> ).
I-VOP Interval (S)	Drag the slider to choose how often I-VOPs appear in a video stream. <ul style="list-style-type: none"><li>● Shorter I-VOP intervals result in higher video quality but also larger file sizes.</li></ul>
USB Output	Choose a USB output source. <ul style="list-style-type: none"><li>● Auto: Automatic detection.</li><li>● USB #1: USB out port 1.</li><li>● USB #2: USB out port 2.</li></ul>

## Audio Output

Item	Description
2-way UAC	Turn on to make USB in port 3 available for both audio input and output.

# Network

Select the **Settings** icon  on the main page > **Network**.

Device

Profile

Video & Audio

Network

NDI

System

Help

Network Settings

PoE+ (LAN1)

DHCP

Hostname

Aver

IP Address

10.100.100.42

Netmask

255.255.255.0

Gateway

10.100.100.254

DNS

10.100.1.5

Ethernet (LAN2)

IP Address

192.168.168.168

Netmask

Confirm

## PoE+ (LAN1)

Item	Description
DHCP	Toggle DHCP on or off.
Hostname	Enter a hostname that is displayed on devices such as an IP router. <ul style="list-style-type: none"><li>● The default is AVer.</li></ul>
IP Address	Enter your network settings to set up a static IP connection. Toggle off DHCP first.
Netmask	
Gateway	
DNS	

## Ethernet (LAN2)

Item	Description
IP Address	Enter your network settings to set up a static IP connection.
Netmask	
Gateway	
DNS	

## RTMP Settings

Stream live video to a video platform such as YouTube.

### To enable live streaming on YouTube:

1. Go to YouTube.
2. From the top right, click **Create > Go live**.
3. Copy and paste your YouTube server URL and stream key into the web interface.
4. Click **Start Stream** to start streaming, **Stop** to stop streaming.

## RTSP Settings

Turn on Real-Time Streaming Protocol (RTSP) Security to protect your video stream on media players such as VLC, PotPlayer and QuickTime by ensuring that only authorized users can access it.

- When RTSP Security is turned off, enter your camera's RTSP URL into the media player.  
RTSP URL: rtsp://[camera IP address]/live\_st1  
- Example: rtsp://192.168.1.100/live\_st1
- When RTSP Security is turned on, enter your camera's RTSP URL and username/password into the media player.  
RTSP URL: rtsp://[username:password]@[camera IP address]/live\_st1  
- Example: rtsp://1:1@192.168.1.100/live\_st1  
- username/password: camera's username/password (web interface login)

## HLS Settings

Configure HTTP Live Streaming (HLS) settings to provide adaptive bitrate streaming, which ensures smooth playback and minimizes buffering.

1. Enter the stream URL obtained from the streaming service or server.
2. Click **Start Stream** to start streaming, **Stop** to stop streaming.

## HTTP Settings

Set a **TCP Command String Control Port** number. The default is 1315.

## HTTPS

Enable HTTPS to establish a secure connection between your browser and your camera. To enable HTTPS access on your camera:

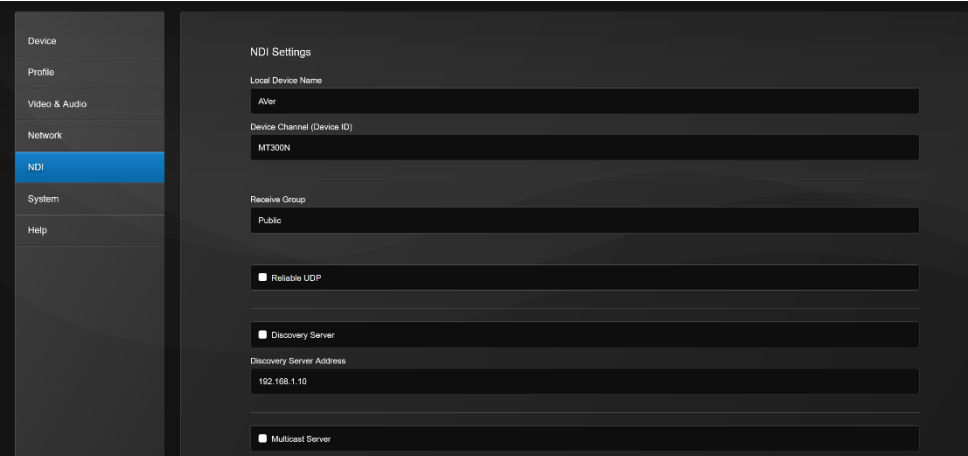
1. Obtain a SSL certificate for encryption and decryption in base-64 encoded format and use a private key in PKCS#8 format (unencrypted).
2. Package the required certificate content into PEM format. The SSL certificate uploaded to the camera must be in PEM format.
3. Click **Browse** to select the certificate file, and then click **Upload**.
4. Turn on **HTTPS**.

# NDI

Network Device Interface (NDI) is a protocol that transmits high-quality, low-latency video and audio streams over IP networks.

Tracking box comes in two models: MT300 (without NDI) and MT300N (with NDI). To purchase NDI|HX upgrade, please visit NewTek Online Store (<https://store.newtek.com/ndi-hx-upgrade-for-cameras.html#>).

Select the **Settings** icon  on the main page > **NDI**.

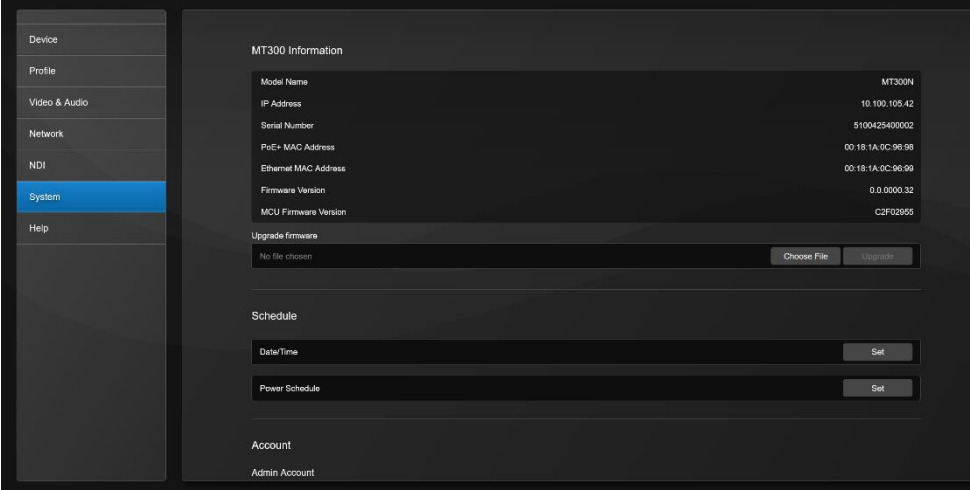


Item	Description
Local Device Name	Enter a name that identifies your camera group on the NDI software.
Device Channel (Device ID)	Enter a name that identifies your camera on the NDI software. <ul style="list-style-type: none"><li>● The default is MT300 or MT300N.</li><li>● Use no more than 10 characters, upper and lowercase letters, numbers and punctuation marks (! @ % ^ , . / : + ? [ ] { } - _ ~).</li></ul>
Receive Group	Enter a name for a receive group. <ul style="list-style-type: none"><li>● All devices in the receive group receive the same NDI streams.</li><li>● The receive group should remain <b>public</b>. If this is changed, you will need to join the group through NDI® Access Manager.</li></ul>
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 Address	Enter the IP address of a group of recipients that receive NDI streams from a multicast server.
Multicast Server Mask	Enter the network mask to specify the range of IP addresses that are eligible to receive NDI streams.
Multicast TTL	Enter a multicast time to live (TTL) value between 1-255 to control the distance multicast packets can travel.

# System

Select the **Settings** icon  on the main page > **System**.



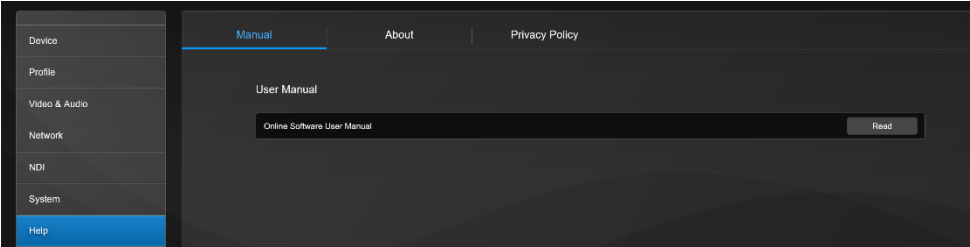
Item	Description
MT300 Information	Display MT300 information such as the IP address.
Upgrade Firmware	Download the latest firmware from AVer Download Center ( <a href="https://www.aver.com/download-center">https://www.aver.com/download-center</a> ).
Schedule	Date/Time: Set date and time for your tracking box. Power Schedule: Schedule specific times for your tracking box to start up, reboot, or shut down.
Account	Edit your admin and user account login. <ul style="list-style-type: none"><li>● Admin: The default username/password is <b>admin/admin</b>.</li><li>● User: The default username/password is <b>user/user</b>.</li></ul>
General	<ul style="list-style-type: none"><li>● Language: Change the web interface language.</li><li>● Help us improve: Opt-in or opt-out of providing anonymous usage data.</li><li>● Factory default: Erase all data and settings and reset your tracking box to factory default settings.</li><li>● Reboot: Restart your tracking box.</li></ul>
Export / Import Settings	Export or import your tracking box settings and save debug files.
Shortcuts Key Setting	Set USB keyboard shortcuts.



# Help

View our user manual, terms and conditions, and private policy.

Select the **Settings** icon  on the main page > **Help**.



# Specifications

<b>DC Power</b>	12V/1.5A
<b>PoE+</b>	42.5-57V / 0.6A
<b>Reset Button</b>	Yes
<b>USB Inputs</b>	3, Type-A for peripherals input #1,#2 are UVC only #3 can be UVC or UAC
<b>USB Outputs</b>	2, Type-B for user application  Non-simultaneous output Automatic switch to the port that is connected to host. Port #1 has higher priority if both ports are connected to host (PC or MTR),.  Resolution, providing 4K, 1080p FPS: 15, 30, 60
<b>HDMI Inputs</b>	3 Input resolution: up to 1080p per channel
<b>HDMI Outputs</b>	2 Simultaneous display, same configuration 1080p, 25Hz / 1080p, 50Hz / 1080p, 30Hz / 1080p, 60Hz / 4K, 25Hz / 4K, 50Hz / 4K, 30Hz / 4K, 60Hz
<b>Ethernet</b>	2, 1 PoE+, 1 RJ-45 Max connection number: 5 (Web/RTSP/RTMP) Resolution, providing 1080p and 4K FPS: 1, 5, 10, 15, 30, 60
<b>LED Indicators</b>	Yes
	Status, USB 1, USB 2, network 1, network 2
<b>Security</b>	Kensington security lock
<b>RS-422</b>	Yes
<b>Operating Temperature</b>	0-50°C
<b>Dimension</b>	4.3 x 21 x 15 cm (1.7 x 8.3 x 5.9 in.)
<b>Installation</b>	2, mountable in a rack or under a table

Specifications are subject to change without prior notice.

# Troubleshooting


## No human tracking.

- Make sure your camera supports human tracking. For supported AVer cameras, see [Supported AVer Cameras](#).
- If your camera is connected via HDMI and controlled via RS-422, make sure you select "Support Human Tracking" from the drop-down list. Hover over the device in the Device list and click the Pencil icon to edit.

## Camera is too sensitive and flickering between presets.

- Select a longer length of time for [Time to Trigger Preset](#).
- If your camera is shared among several camera and microphone groups, set a priority group in [Group Overlay Priority](#).

## Stop voice-tracking.

- Click the voice-tracking icon  on the main page to pause voice-tracking for the current profile.
- Mute the microphone by pressing its physical button or accessing its web interface.
- Use the toggle switch to disable the group in the [Select group](#) section.  
Single video output: Audio is muted while video is still transmitting.  
Multiple video output: Both audio and video stop transmitting.

# Appendix

## Supported AVer Cameras

**Professional Tracking Cameras** (US model name in italics)

PTC300 V2 Series	PTC300 Series	PTC500 Series	PTC115 Series
PTC330UV2 <i>TR333V2</i>	PTC330 <i>TR331</i>	PTC500S <i>TR530</i>	PTC115 <i>TR320</i>
PTC320UNV2 <i>TR323NV2</i>	PTC330N <i>TR331N</i>	PTC500+ <i>TR530+</i>	PTC115+ <i>TR320+</i>
PTC320UV2	PTC330U <i>TR333</i>		
PTC310UV2 <i>TR313V2</i>	PTC310 <i>TR311</i>		
PTC310HWV2 <i>TR311HWV2</i>	PTC310N <i>TR311N</i>		
	PTC310U <i>TR313</i>		
	PTC310UN <i>TR313N</i>		
	PTC310H		
	PTC310HN		

**Professional PTZ Cameras** (do not support human tracking)

PTZ300 V2 Series	PTZ300 Series
PTZ330UV2	PTZ330
PTZ330UNV2	PTZ330N
PTZ310UV2	PTZ310
PTZ310UNV2	PTZ310N

**Distance Learning Camera**

DL Series
DL30


# Supported Microphones

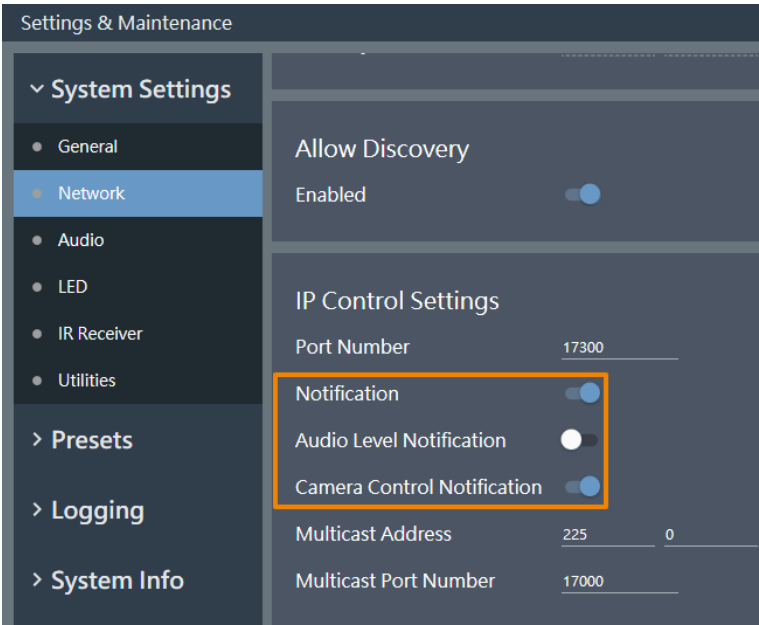
Some models may require setup in their manufacture software before using MT300.

## Audio-Technica

ATND1061 Beamforming Ceiling Array Microphone

To set up ATND1061 Beamforming Ceiling Array Microphone:

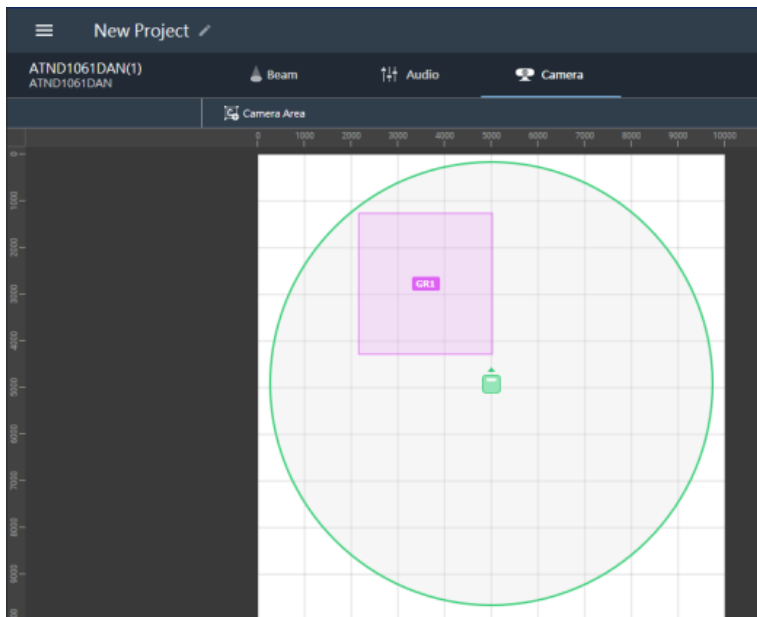
- 1. Open Digital Microphone Manager. Go to **Settings & Maintenance**  > **System Settings** > **Network** > **IP Control Settings**.
- 2. Turn on **Notification** and **Camera Control Notification**.



- 3. Select a microphone in the main area.

4. Go to **Camera > Camera Area**. Add a Camera Area by dragging it within the microphone pickup area.

  - Each Camera Area group corresponds to MT300 channel 1-8.



# ClearOne

## BMA 360 Microphone System

CONVERGE® Pro 2 (supports up to 3 daisy-chained BMA 360s)

- MT300 assigns 12 channels to each BMA 360. Unused channels are retained in the assigned BMA 360.

Daisy-Chained	Channel Start/End
1 <sup>st</sup> BMA 360	1-12
2 <sup>nd</sup> BMA 360	13-24
3 <sup>rd</sup> BMA 360	25-36

- When adding your device in MT300, select your MIC channels in the drop-down list according to the number of BMA 360 daisy-chained.

Auto Mode Settings

Select Output Layout

Single

Add Device Group

Group Name

Select Camera

Select MIC

Select your MIC Channels

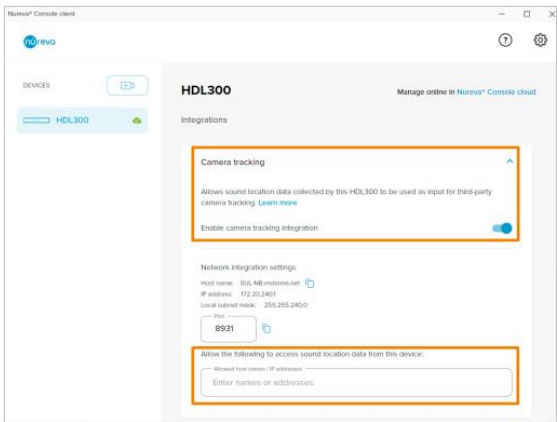
Add Group

# Nureva

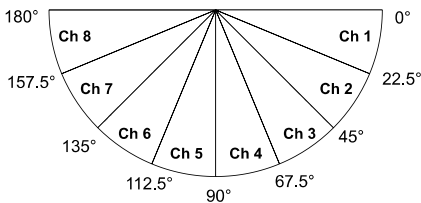
- HDL300
- HDL310
- Dual HDL300
- HDL410

## To set up HDL microphones:

- Nureva Console Client:
  - Turn on **Enable camera tracking integration**.
  - Enter the IP address of the computer running MT300 in the **Allowed host names / IP addresses** field.



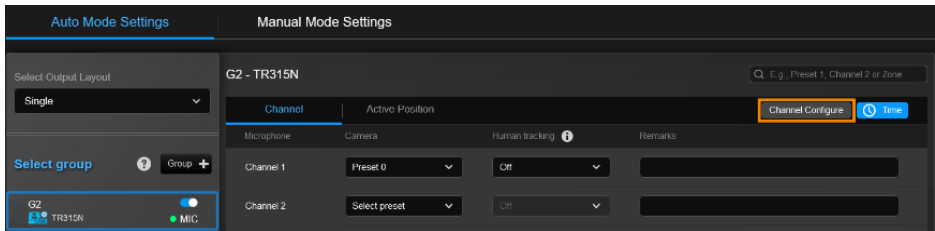
- MT300:
  - MT300 divides HDL microphones' horizontal angles into 8-24 equal parts, which correspond to MT300 channel 1-24.
  - When adding microphones in MT300, enter the IP address of the computer running Nureva Console Client in the **IP Address** field.



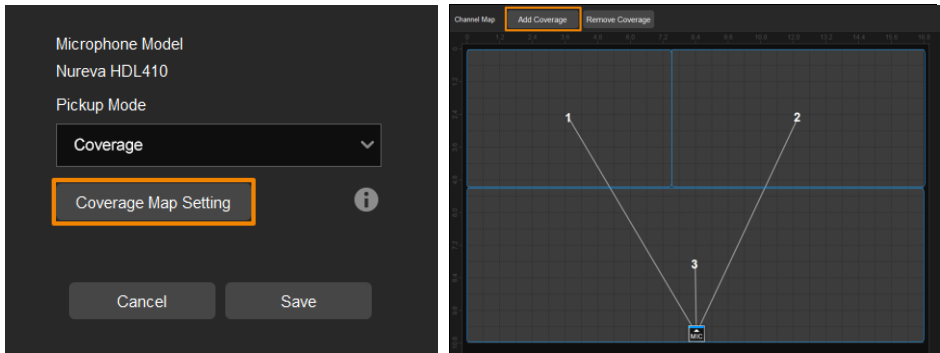


**To add a coverage area for HDL410 in MT300:**

1. Go to **Auto Mode Settings > Channel > Channel Configure**.



2. Select **Coverage** from the **Pickup Mode** drop-down list.
3. Click **Coverage Map Setting** > Click **Add Coverage**.



4. Add a coverage area by dragging it.
- You can add up to 8 coverage areas per microphone.
  - When coverage areas overlap, the microphone will default to the area with the smaller number.

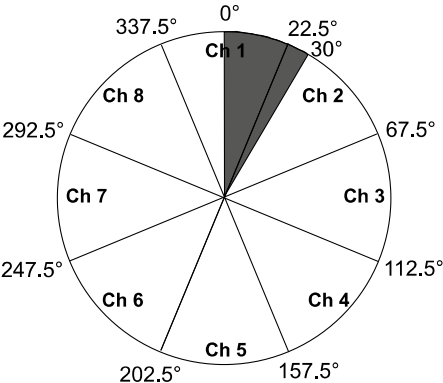
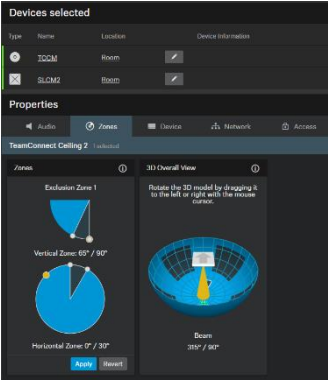
# Sennheiser

TeamConnect Ceiling 2  
TeamConnect Ceiling Medium

MT300 divides TeamConnect Ceiling 2's and TeamConnect Ceiling Medium's horizontal angles into 8-24 equal parts, which correspond to MT300 channel 1-24.

## ● TeamConnect Ceiling 2

An Exclusion Zone set in Sennheiser Control Cockpit also affects the corresponding channel in MT300.



## ● TeamConnect Ceiling Medium

The 3rd party media control access for TeamConnect Ceiling Medium is encrypted and protected using username and password. It has to be enabled using Sennheiser Control Cockpit before use.

The screenshot shows the Sennheiser Control Cockpit interface. At the top, there are tabs for 'Audio', 'Zones', 'Device', 'Network', and 'Access'. The 'Access' tab is selected. Below the tabs, there is a header for 'TeamConnect Ceiling Medium' with '1 selected' items. The main content area is divided into two panels: '3rd Party Access' and 'Device Access'. In the '3rd Party Access' panel, there is a toggle switch for 'Access' set to 'Activated', a 'Username' field with the value 'api', and a 'Password' field with the value '@User12345'. In the 'Device Access' panel, there is a 'Password' field with four asterisks and a 'Change Password' button. At the bottom of the '3rd Party Access' panel, there are 'Ok' and 'Cancel' buttons.

### To set a 3rd Party device control password:

1. Open Sennheiser Control Cockpit. Go to the **Access** tab in the device configuration page.
2. Activate the toggle switch.
3. Enter a password.
4. You can use the username "api" and configured password for your API calls.

### Note:

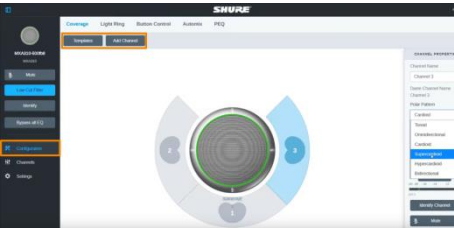
- If you deactivate 3rd party access, the previously set password will be deleted.
- Password must be at least 10 characters and no more than 64 characters. Use at least one lowercase letter, one uppercase letter, one number and one special character (!#\$%&()\*+,-./:;<=>?@[^\_{}~).

# Shure

- Microflex® Complete Wireless
- IntelliMix® P300 Audio Conferencing Processor
- MXA710 Linear Array Microphone
- MXA310 Table Array Microphone
- MXA910 Ceiling Array Microphone
- MXA920 Ceiling Array Microphone

## ● MXA310 Table Array Microphone

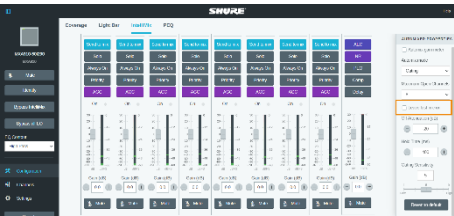
Web Application



1. Open the **Configuration** tab.
2. Select a template from the multi-channel options. Or select **Add Channel** to add more than 1 channel.
  - MT300 does not support single channel for the MXA310.

## ● MXA910 Ceiling Array Microphone

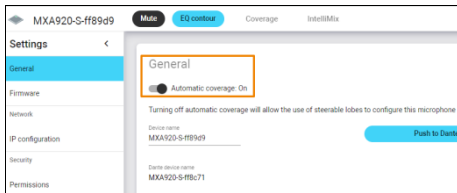
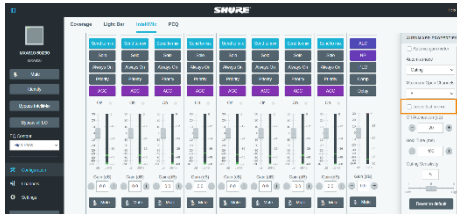
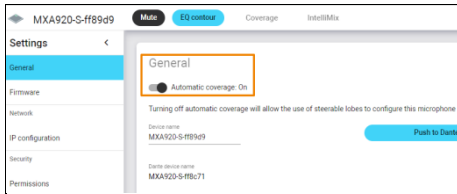
Web Application



1. Go to **IntelliMix > Automixer Properties > Deselect Leave last mic on.**

## ● MXA920 Ceiling Array Microphone

### Web Application



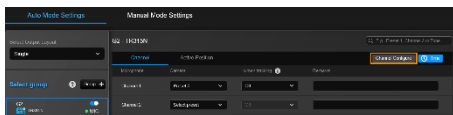
To manually position up to 8 lobes:

1. Go to **Settings > General > Automatic coverage**.
2. Turn off **Automatic coverage**.
3. Go to **IntelliMix > Automixer Properties > Deselect Leave last mic on**.

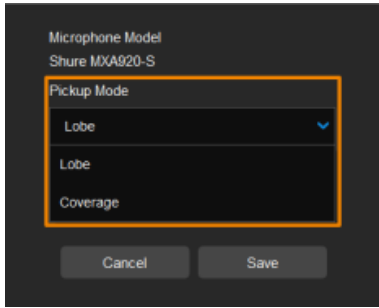
To add a mix of up to 8 dynamic and dedicated coverage areas:

1. Go to **Settings > General > Automatic coverage**.
2. Turn on **Automatic coverage**.
  - The default setting is a 30 by 30 foot (9 by 9 meter) dynamic coverage area.
3. To add more coverage areas, go to **Coverage > Add coverage**.

### MT300



4. Go to **Auto Mode Settings > Channel**.
5. Click **Channel Configure** to choose a **Pickup Mode**.



6. Select a **Pickup Mode** from the drop-down list:
  - **Lobe:** The lobes you have positioned in the MXA920's web application. They correspond to MT300 channel 1-8.
  - **Coverage:** The coverage areas you have added in the MXA920's web application. They correspond to MT300 channel 1-8.
7. To integrate with supported AVer camera tracking system via active talker positions, please refer to <[Auto Mode \(Active Position\)](#)>.

# Yamaha

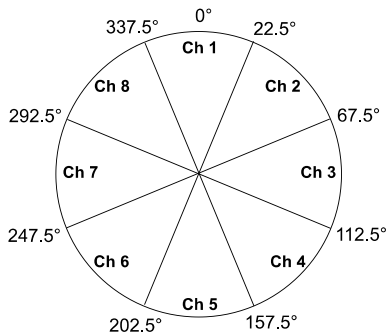
RM-CG Ceiling Array Microphone

RM-TT Tabletop Array Microphone

RM-CR Remote Conference Processor

RM-W Wireless Microphone System

- MT300 divides RM-CG's horizontal angles into 8-24 equal parts, which correspond to MT300 channel 1-24.



- MT300 voice tracking function requires linking more than one RM-TT or RM-W microphones for location data.
- When linking RM-TT or RM-W microphones to the RM-CR Remote Conference Processor, enter the processor's IP address in the **IP Address** field when adding microphones in MT300.

## HTTP Requests

[illegible]



	"	
Enable live mode	http://[account]:[password]@[IP Address]/request=enableLiveMode	
Disable live mode	http://[account]:[password]@[IP Address]/request=disableLiveMode	
Get live mode layout	http://[account]:[password]@[IP Address]/request=getLiveLayout	liveLayout: PIP(0), Single(1), Side-by-side(2), Main Speaker(3), Main Speaker(4), Quad View(5)
Set live mode layout	http://[account]:[password]@[IP Address]/request=setLiveLayout&liveLayout=5	liveLayout: PIP(0), Single(1), Side-by-side(2), Main Speaker(3), Main Speaker(4), Quad View(5)
Get 2-way UAC	http://[account]:[password]@[IP Address]/cgi-bin?Get=TrkBox_Two_way_uac_on	0: disable 1: enable
Set 2-way UAC	http://[account]:[password]@[IP Address]/cgi-bin?Set=TrkBox_Two_way_uac_on,3,0  http://[account]:[password]@[IP Address]/cgi-bin?Set=TrkBox_Two_way_uac_on,3,1	0: disable 1: enable
Get USB output	http://[account]:[password]@[IP Address]/cgi-bin?Get=TrkBox_Usb_output_switch	0: Auto 1: USB#1 2: USB#2
Set USB output	http://[account]:[password]@[IP Address]/cgi-bin?Set=TrkBox_Usb_output_switch,3,0  http://[account]:[password]@[IP Address]/cgi-bin?Set=TrkBox_Usb_output_switch,3,1  http://[account]:[password]@[IP Address]/cgi-bin?Set=TrkBox_Usb_output_switch,3,2	0: Auto 1: USB#1 2: USB#2
Get device status	http://[account]:[password]@[IP Address]/request=queryDeviceStatus	Device Info: name=device name, type=camera or microphone, port=USB1~3, HDMI1~3, or IP status=online or offline

## TCP Requests

A TCP command string starts with AVER:[account]:[password]:/request=X. X is as HTTP requests above.

For example, AVER:[account]:[password]:/request=pause,

AVER:[account]:[password]:/request=resume, and so on.