![AVer logo](www.aver.com)

AVer TR530, TR3xx / TR3xxV2, and PTZ310/330 Cameras

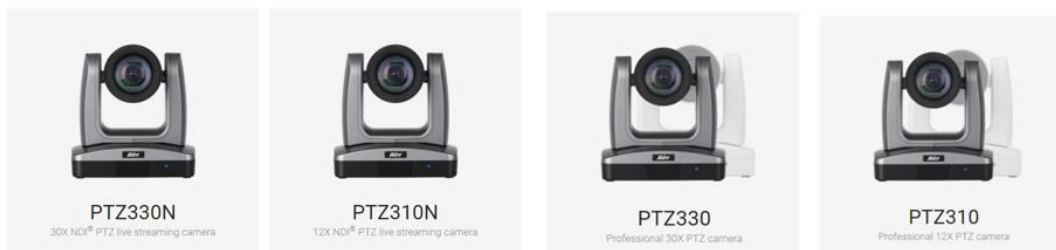# HDMI/USB use with Panopto

(February 2022)

Steps to integrate the Aver TR530, TR3xx/TR3xxV2, and PTZ Cameras via HDMI / USB with Panopto

AVer Pro-AV has high quality image Cameras (TR530, TR3xx/TR3xxV2, and PTZ310/330) that will integrate with Panopto workflows for peak performance and ease of use.   We will show the configuration process for these camera lines and Panopto software.
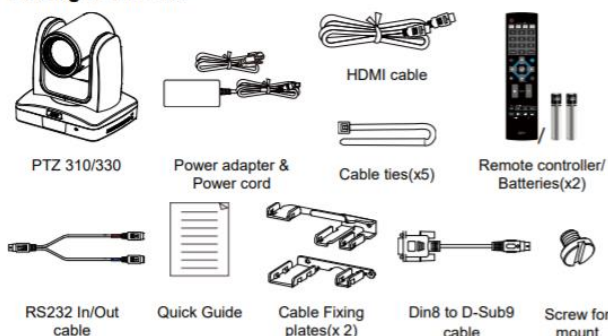
Panopto has an easy to use online video platform solution for video management, recording, live streaming, video search, quizzing, analytics, and more.
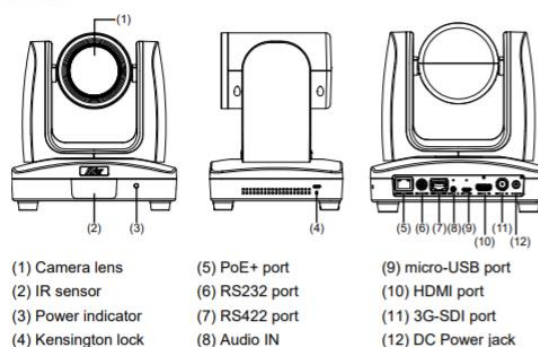
PTZ310/330 Camera

- AVer PTZ330/N Camera and accessories.

Package Contents

- PTZ 310/330
- Power adapter & Power cord
- HDMI cable
- Cable ties(x5)
- Remote controller/ Batteries(x2)
- RS232 In/Out cable
- Quick Guide
- Cable Fixing plates(x 2)
- Din8 to D-Sub9 cable
- Screw for mount

Overview

(1) Camera lens
(2) IR sensor
(3) Power indicator
(4) Kensington lock
(5) PoE+ port
(6) RS232 port
(7) RS422 port
(8) Audio IN
(9) micro-USB port
(10) HDMI port
(11) 3G-SDI port
(12) DC Power jack

- Chrome Browser, version 79.0.3945.xxx and later.
- Panopto user account.
- Windows 10 Pro OS, i7 Processor, 16GB Memory, used in this setup.

**PTZ310/330 Camera Video Output to the Panopto System**

1. Type the IP address of the camera in your Chrome browser (Setup on same subnet) and you should now see the login to the PTZ310/330 camera shown below.


2. The default Username/Password is "administrator" or "admin / admin".
   *Note: If this is the first time accessing the PTZ330 camera via the Web login it will ask you to change the Username/Password.   Please write down the new credentials.

3. Next, you should now see the main login screen with a "Live View" of the PTZ Camera.
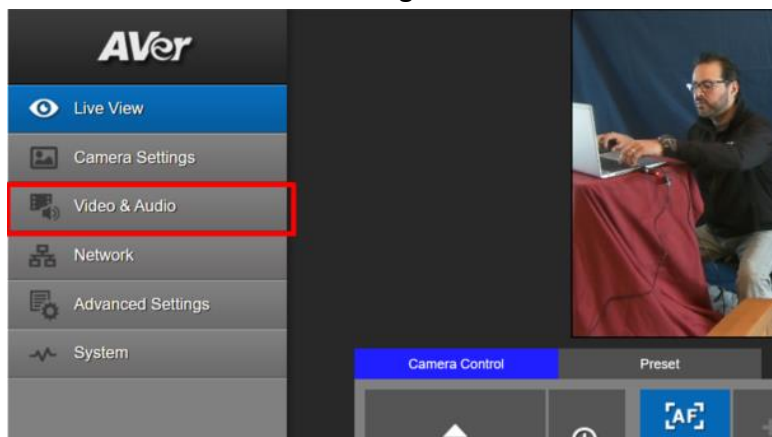
4. Next, after selecting the *Video & Audio* setting, verify the Video Mode you are in.   In this setup you should *NOT* be in NDI and *Stream Only* Video Mode, as it will disable the USB output.
   *Note: Some servers require a minimum bitrate of 2.5Mbps for their environment.

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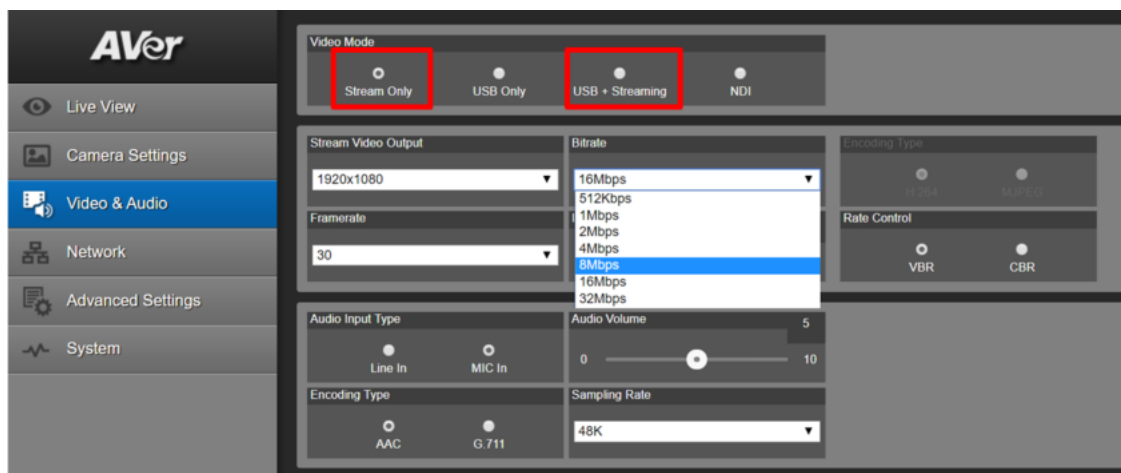
PTZ310/330 Camera Video Output to the Panopto System (continued)

The PTZ Camera will have an SDI/HDMI output in ALL modes.

|	Stream Only (Various)	USB Only (Various)	USB + Streaming (Various)	NDI (1080p/60)
SDI Output	✓	✓	✓	✓
HDMI Output	✓	✓	✓	✓
USB Output	x	✓	✓	x
RTSP Output	✓	x	✓	✓

PTZ310/330 Camera HDMI/USB connection to Panopto

When connecting the cameras to a Panopto laptop or desktop, the PTZ310/330 provides HDMI, SDI, and USB output.   If you are using a desktop with a video card, they can typically have a direct HDMI input connection with high performance data transfer.

If you are using a laptop to capture video, a portable HDMI to USB dongle like the AVer Media BU110 and BU111 provides a high speed, high quality connection.

Two Likely Scenarios:

- HDMI or USB direct connection
- HDMI / SDI connection using an AVer Media converter to USB

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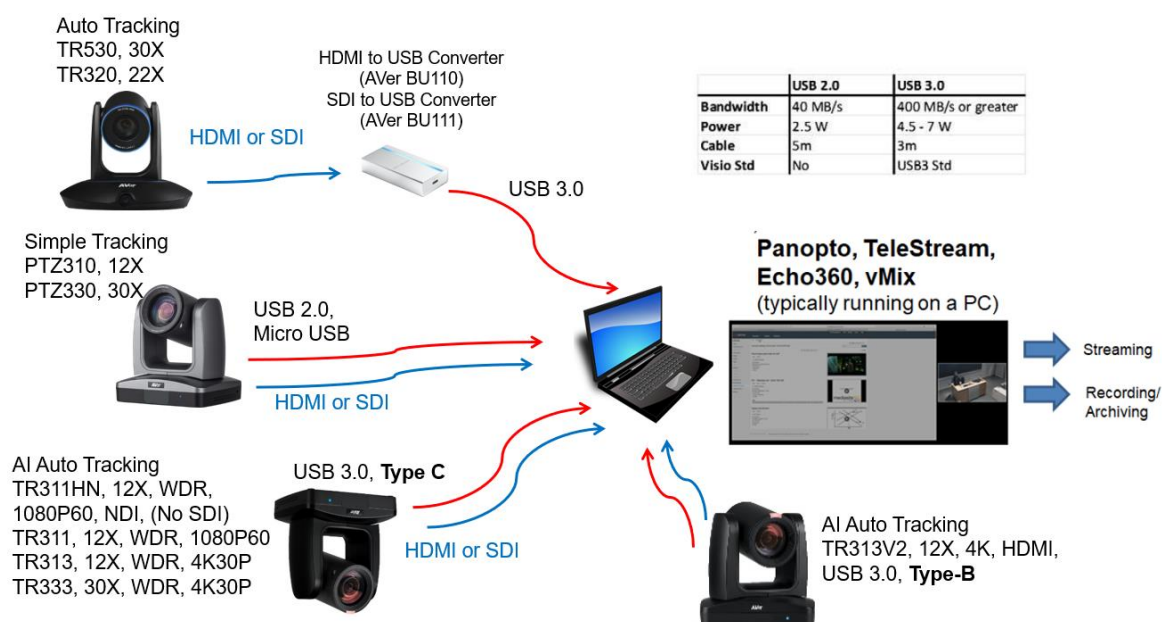
PTZ310/330 Camera Video Output to the Panopto System (continued)

Panopto for Windows System Video Input (HDMI / USB)

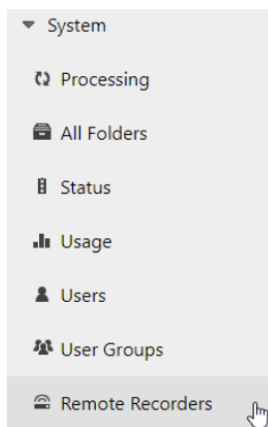1. Go to the Panopto's desktop client; select the PTZ camera source from the list.
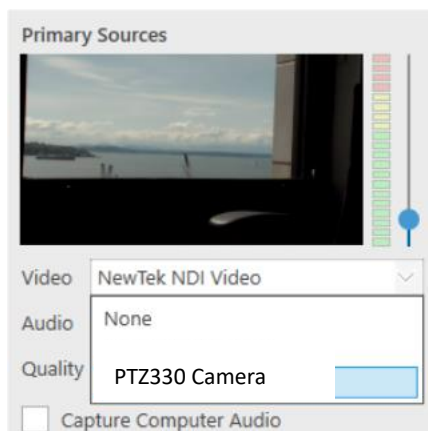
2. Next, you should be seeing the video from the PTZ camera.   If you don't see any video, in Windows, open Device Manger and verify the PTZ330 is listed under cameras when USB connected.
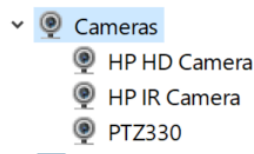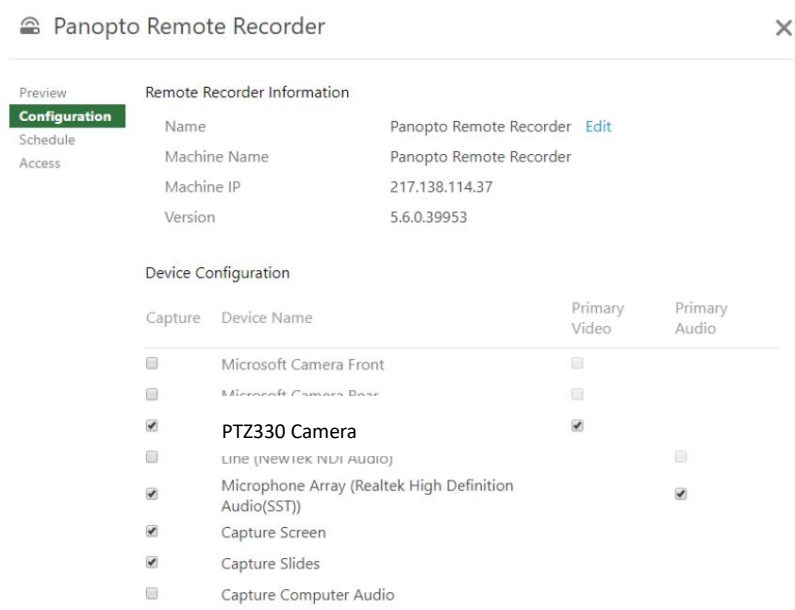

Panopto Remote Recording

1. As an Administrator, from the Panopto VCMS select *System -> Remote Recorders.*

2. Next, select the remote recorder you have configured with the PTZ330 Camera input, and choose the configuration.
3. Next, select the PTZ330 Camera source as a Primary or secondary source.   You can also choose to select the Line (PTZ330 Audio) source if you are using the input as an audio source as well.

## PTZ Camera Video Output to the Panopto System (continued)

Panopto Remote Recorder ✕

Preview
Configuration
Schedule
Access

Remote Recorder Information

Name	Panopto Remote Recorder Edit
Machine Name	Panopto Remote Recorder
Machine IP	217.138.114.37
Version	5.6.0.39953

Device Configuration

Capture	Device Name	Primary Video	Primary Audio
☐	Microsoft Camera Front	☐	
☐	Microsoft Camera Rear	☐	
☑	PTZ330 Camera	☑	
☐	Line (NewTek NDI Audio)		☐
☑	Microphone Array (Realtek High Definition Audio(SST))		☑
☑	Capture Screen		
☑	Capture Slides		
☐	Capture Computer Audio		

4. You are now able to record into Panopto with your configured PTZ330 Camera source.

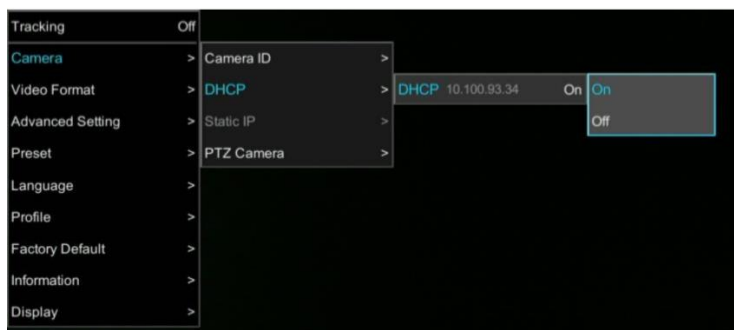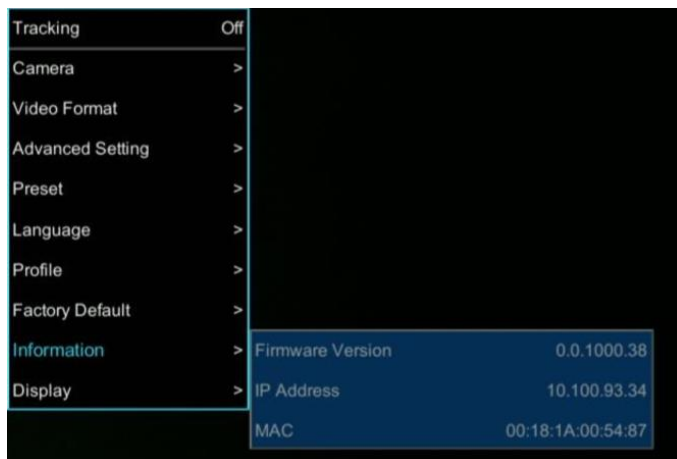# TR320/530 Camera Video Output to the Panopto System

Device Connections
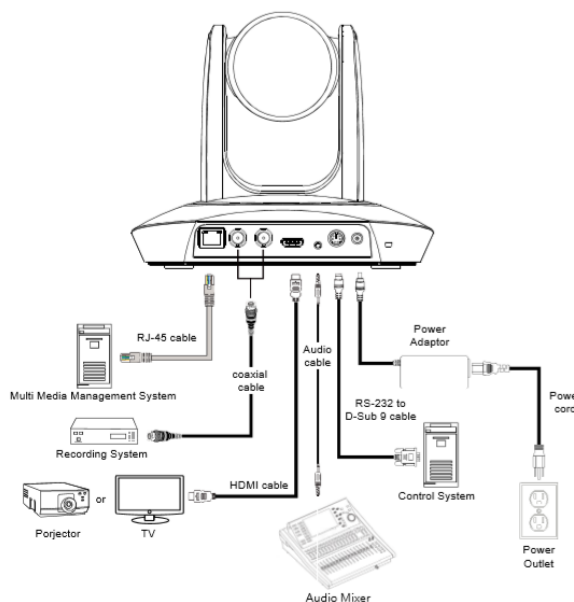
1. Connect the TR530 camera via RJ45 Network Cat5E (or better) cable; verify IP address of Camera in order to connect via Web browser.   If IP address is not known, locate the remote, select the "Menu" icon and navigate to the "**Camera->DHCP->**" setting, verify DHCP is set to "On" in order to grab an available IP address.   If you are reserving IP addresses, verify it is set to "OFF" and that the correct IP address has been set.

   Go to **Camera > DHCP > DHCP >On**.

   After turning DHCP on, go to **Information** to view the IP address.

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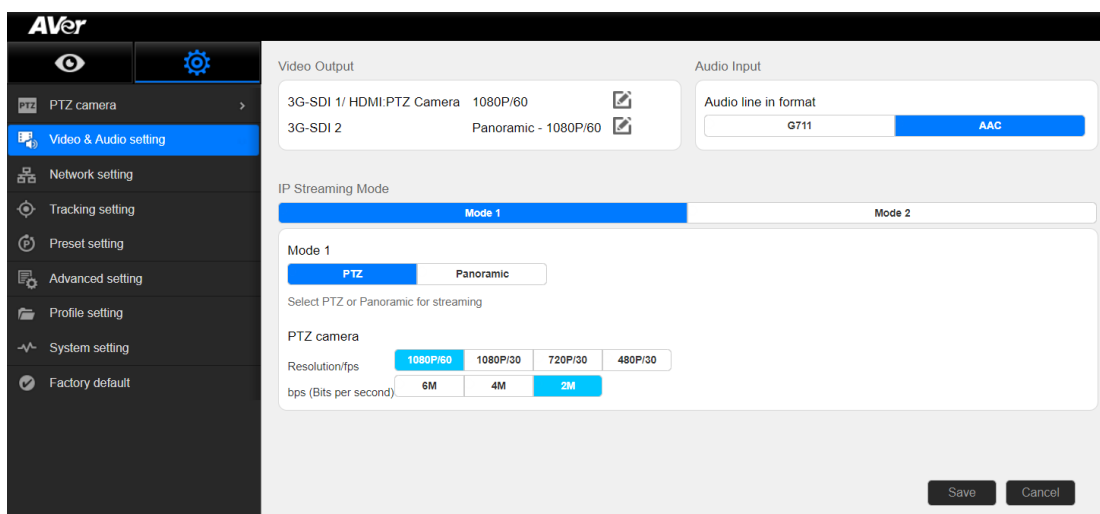# TR320/530 Camera Video Output to the Panopto System (continued)

2. Another way to find the Camera IP address (On same Subnet) is to use the AVer IPCam Utility to find the camera.   AVer software can be found here: https://www.aver.com/download-center. OR https://www.averusa.com/pro-av/support/ , select the software tab.

3. Next, type the IP address in your Chrome browser (Setup on same subnet) and you should now see a login to the TR320/530 camera shown below.
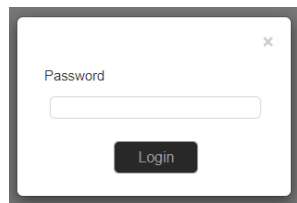
4. The default password is "admin".
5. Next, you should now see the main login screen with a "Live View" of the PTZ Camera.
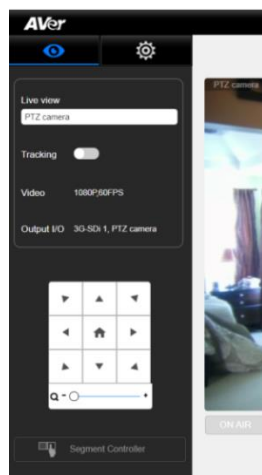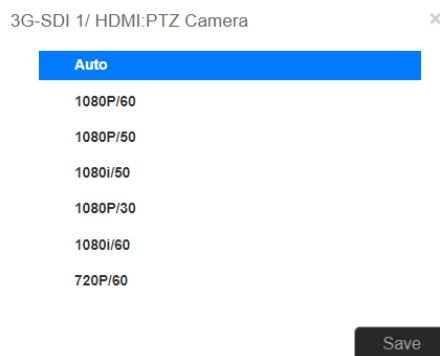

6. Next, select the settings gearbox ⚙ , then select *Video & Audio setting*, this is where you can select the Video Output of the TR320/530.

TR320/530 Camera Video Output to the Panopto System (continued)

7. Next, selecting 3G-SDI / HDMI will open the following window, allowing you to choose which video standard or set to Auto.
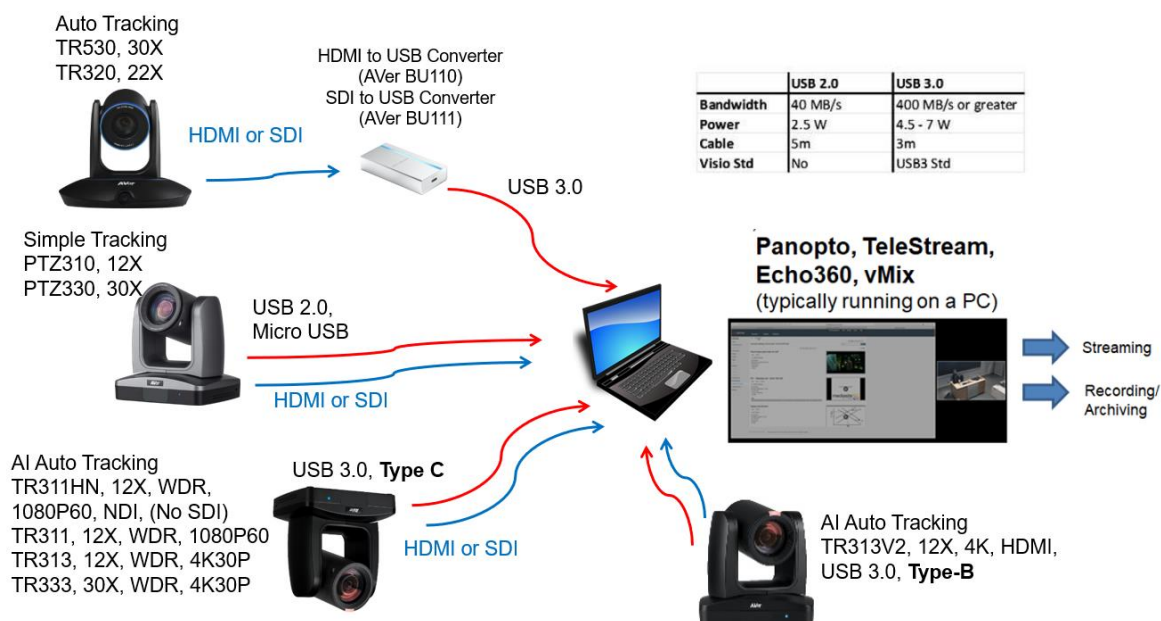

3G-SDI 1/ HDMI:PTZ Camera   ×

| **Auto** |
| 1080P/60 |
| 1080P/50 |
| 1080i/50 |
| 1080P/30 |
| 1080i/60 |
| 720P/60 |

Save

*Note: Only the standards listed are available currently, no 29.97/59.94 type selections.

TR320/530 Camera HDMI/USB connection to Panopto

The PTZ camera does offer USB output, the TR camera does not.   If the PC you are using happens to have an HDMI video capture card, you can direct connect to it.   If there is no HDMI Input and you are using a laptop to capture video, a portable HDMI/SDI to USB dongle like the AVer Media BU110 and BU111 provides a high speed, high quality connection.
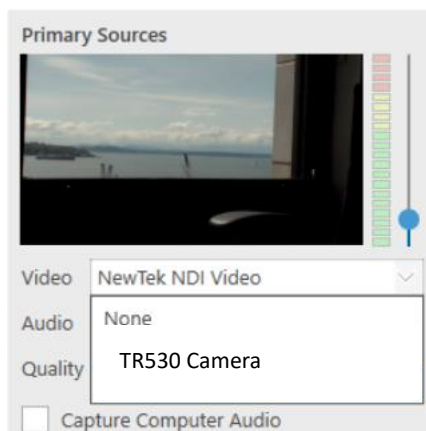
Likely Scenario:

- HDMI / SDI connection using an AVer Media converter to USB.

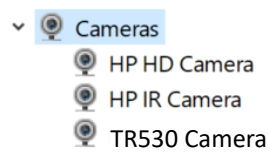|	USB 2.0	USB 3.0
Bandwidth	40 MB/s	400 MB/s or greater
Power	2.5 W	4.5 - 7 W
Cable	5m	3m
Visio Std	No	USB3 Std

Panopto for Windows System Video Input (HDMI to USB)

3. Go to the Panopto's desktop client; select the TR530 camera source from the list.

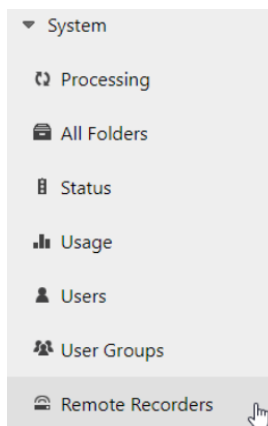4. Next, you should be seeing the USB video from the TR camera. If you don't see any video, open *Device Manger* in Windows and verify the TR530 is listed under cameras.

Panopto Remote Recording

5. As an Administrator, from the Panopto VCMS select *System -> Remote Recorders.*

6. Next, select the remote recorder you have configured with the PTZ330 Camera input, and choose the configuration.
7. Next, select the TR530 Camera source as a Primary or secondary source.   You can also choose to select the Line (TR530 Audio) source if you are using the input as an audio source as well.

TR320/530 Camera Video Output to the Panopto System

Panopto Remote Recording

8. You are now able to record into Panopto with your configured TR530 Camera video source.

TR3xx/TR3xxV2 AI Tracking Camera Overview

There are new AI Tracking cameras available, from the TR311, TR311HN, to the NEWER TR313V2 cameras.   These cameras use advanced artificial intelligence (AI) technology to effectively track your speaker or Zone track, without a dedicated camera operator.   We will compress the camera models in this document for viewing to be TR3xx/TR3xxV2, the process is the same for all the new camera models.
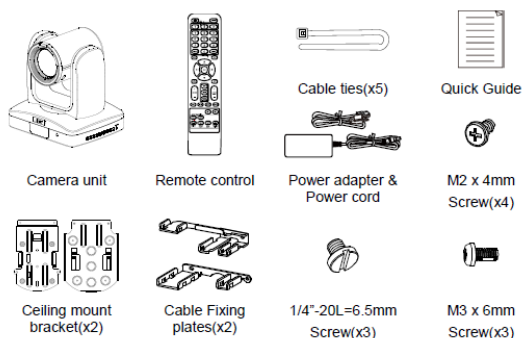
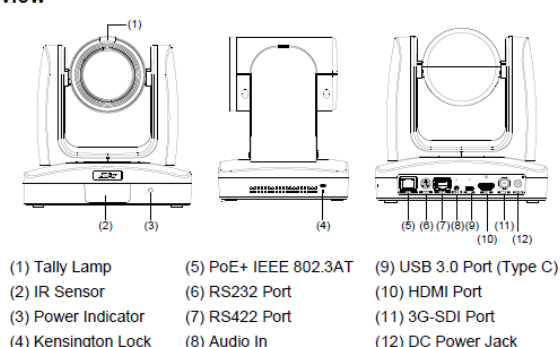## AVer TR3xx Camera and accessories

AVer TR3xxV2 Camera

TR313V2
12X Ultra HD PTZ live streaming camera
Featuring NEW AI Auto Tracking
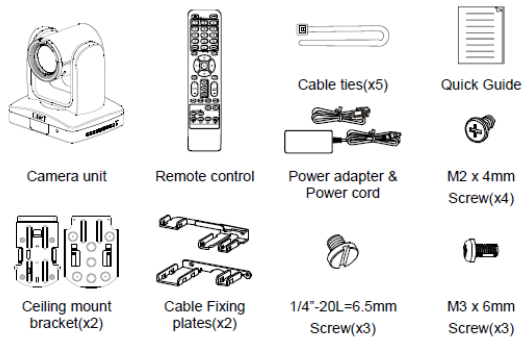
- 3 Auto Tracking Modes
- 12X+ Optical Zoom
- 3G-SDI IP USB — 3G-SDI, HDMI,IP USB Output
- Ultra HD 4K Resolution
- 8 MP Picture
- WDR Wide Dynamic Range

Tally Light
PTZ Camera
IR Receiver
Kensington Lock
PoE+
RS232
RS422
USB TypeB
Audio In
HDMI
3G-SDI
DC 12V

Package Contents

- Camera unit
- Remote control
- Cable ties(x5)
- Quick Guide
- Power adapter & Power cord
- M2 x 4mm Screw(x4)
- Ceiling mount bracket(x2)
- Cable Fixing plates(x2)
- 1/4"-20L=6.5mm Screw(x3)
- M3 x 6mm Screw(x3)

- Chrome Browser, version 79.0.3945.xxx and later.
- Panopto user account.
- Windows 10 Pro OS, i7 Processor, 16GB Memory, used in this setup.

TR3xx/TR33xxV2 Camera Video USB Output to the Panopto System

1. Type the IP address of the camera in your Chrome browser (Setup on same subnet) and you should now see the login to the TR3xx/TR3xxV2 camera shown below.
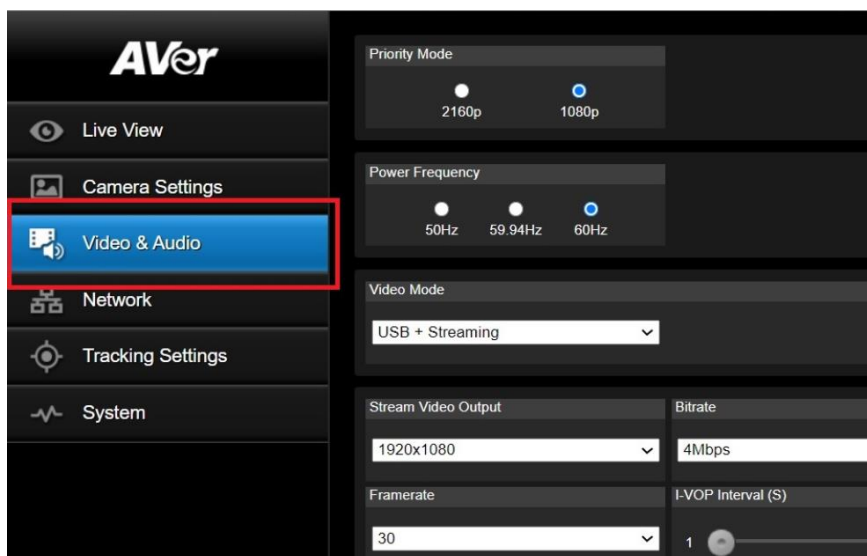

2. The default Username/Password is "admin / admin".
   *Note: If this is the first time accessing the TR313 camera via the Web login it will ask you to change the Username/Password.   Please write down the new credentials.

3. Next, you should now see the main login screen with a "Live View" of the PTZ Camera.

4. Next, select the *Video & Audio* setting, verify which Video Mode you are in.   In this setup you should *NOT* be in NDI and *Stream Only* Video Mode, as it will disable the USB output.
   *Note: Some servers require a minimum bitrate of 2.5Mbps for their environment.
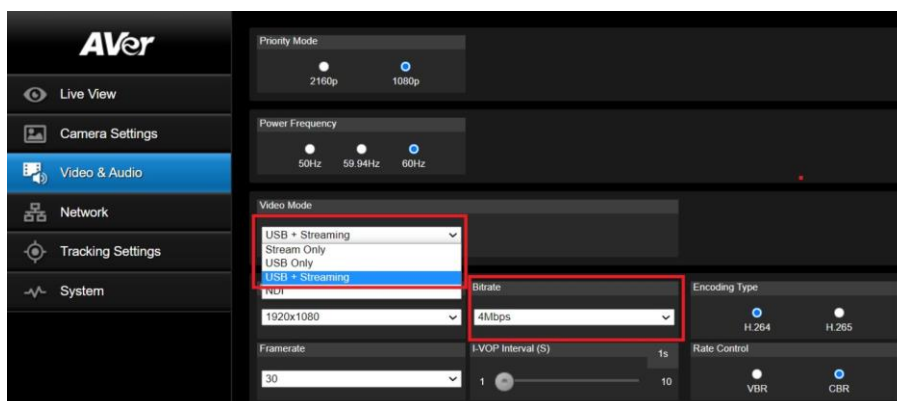
TR3xx/TR3xxV2 Camera Video Output to the Panopto System (continued)

The TR3xx/TR3xxV2 Camera will have an SDI/HDMI output in ALL modes.

	Stream Only (Various)	USB Only (Various)	USB + Streaming (Various)	NDI (1080p/60)
SDI Output	✓	✓	✓	✓
HDMI Output	✓	✓	✓	✓
USB Output	x	✓	✓	x
RTSP Output	✓	x	✓	✓

TR3xx / TR3xxV2 Camera USB connected CaptureShare Software

Aver Information Inc. offers a _free_ software for the NEW TR3xx and TR3xxV2 series of cameras, _CaptureShare_, that works in Windows and MAC OS's.   It allows you to be able to configure the TR3xx/TR3xxV2 camera for Presenter, Zone, and Hybrid Mode Tracking, as well as some of the basic video settings such as Contrast, Saturation, Mirroring, and video output settings while being ONLY connected to the camera via USB.

Once downloaded and installed you will have two modules:

- **AverCamera Setting Tool**; used if you only need control/configuration of the camera.
- **CaptureShare**; has additional features, like PiP, annotation, recording, streaming, etc.
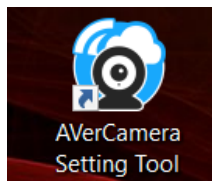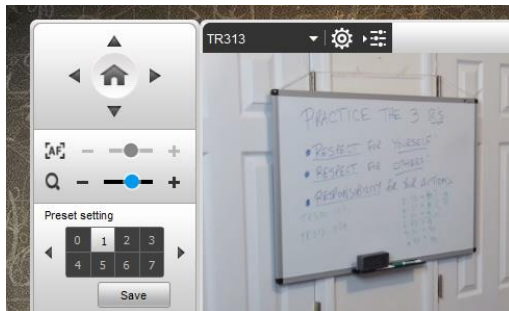

For more detailed information, download the User Manual on the AVer Pro-AV website.

The following is used to setup the TR3xx/TR3xxV2 camera with CaptureShare.

1. Once _CaptureShare_ is opened, select the Camera carrot, then select the TR313 camera as the source.
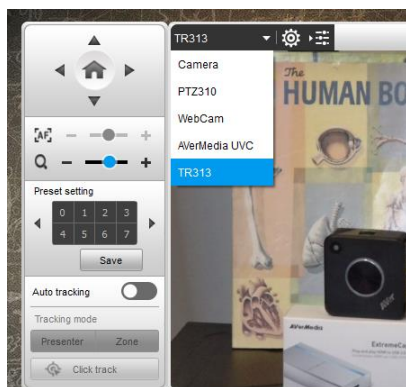

2. Next, you should see video from the camera, and have control via the Up/Down and Left/Right arrows.
3. Use the Up/Down and Left/Right arrows to position the camera to save Preset #1, then select _"Save"._   This preset is used when in _Presenter Mode_ tracking, if tracking is lost, the camera will automatically go to Preset #1 after 5 seconds.
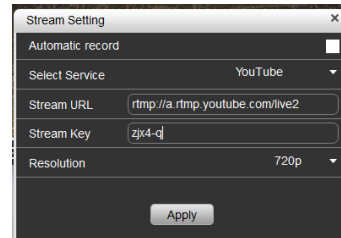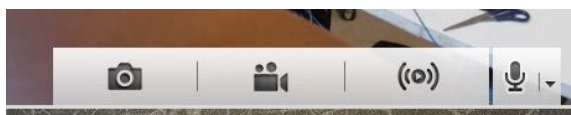
4. Next, save Presets 6, 7, 8, and 9, these presets are used when in *Zone Mode* tracking.
5. You can Enable/Disable Tracking via CaptureShare and the camera remote.
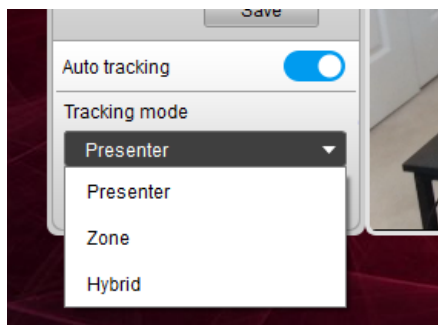
6. You also can record locally and "stream" out to YouTube/FB/other streaming services once the RTMP Server / RTMP Key are configured.

7. Opening the *AVerCamera Setting Tool* will allow you to setup the camera without the additional tools for Streaming, Recording, etc. This can be used while the camera is being used on a Zoom/Teams call.

8. This concludes the brief introduction to *CaptureShare* and the *AVerCamera Setting Tool*.
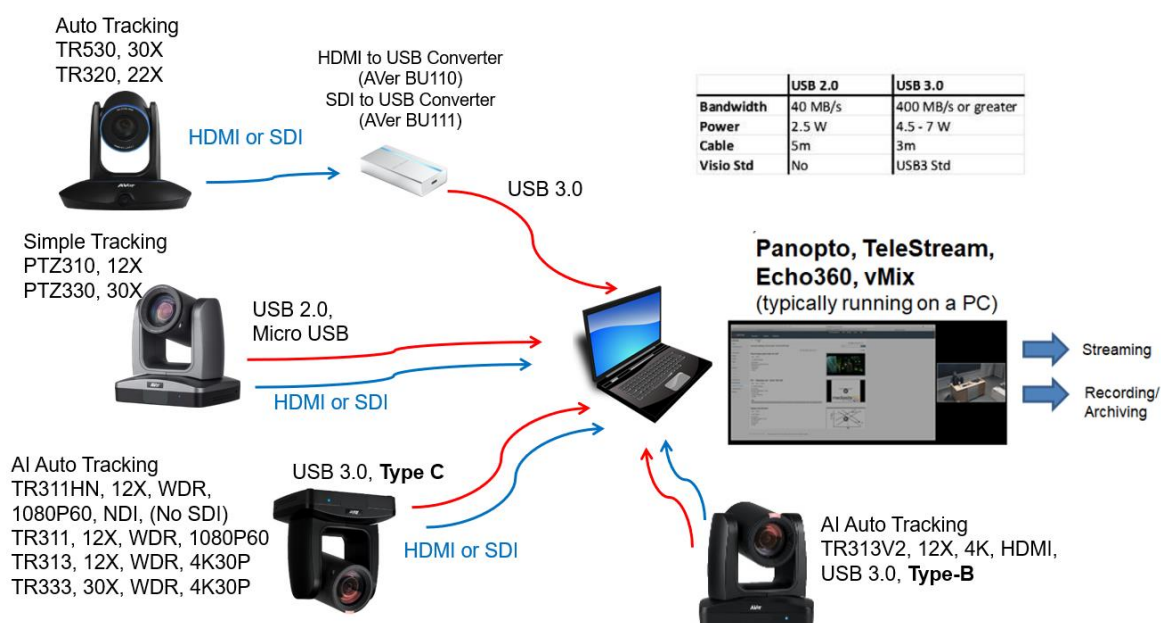
TR3xx/TR3xxV2 Camera HDMI/USB connection to Panopto

When connecting the cameras to a Panopto laptop or desktop, the TR3xx/TR3xxV2 provides HDMI, SDI, and USB output.   If you are using a desktop with a video capture card, they can typically have a direct HDMI input connection with high performance data transfer.

If you are using a laptop to capture video, a portable HDMI to USB dongle like the AVer Media BU110 and BU111 provides a high speed, high quality connection.
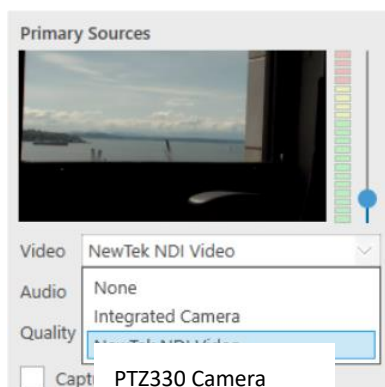
Two Likely Scenarios:

- HDMI or USB direct connection
- HDMI / SDI connection using an AVer Media converter to USB or similar.

	USB 2.0	USB 3.0
Bandwidth	40 MB/s	400 MB/s or greater
Power	2.5 W	4.5 - 7 W
Cable	5m	3m
Visio Std	No	USB3 Std

Panopto for Windows System Video Input (HDMI / USB)

1. Go to the Panopto desktop client; select the TR camera source from the list.
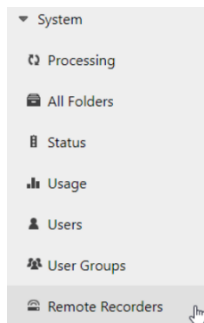
TR3xx/TR3xxV2 Camera Video Output to the Panopto System (continued)

2. Next, you should be seeing the live video from the TR camera. If you don't see any video, in Windows OS, open Device Manger and verify the TR313 is listed under cameras.


Panopto Remote Recording

1. As an Administrator, from the Panopto VCMS select *System -> Remote Recorders.*

2. Next, select the remote recorder you have configured with the TR313 Camera input, and choose the configuration.

3. Next, select the TR313 Camera source as a Primary or secondary source.   You can also choose to select the Line (TR313 Audio) source if you are using the input as an audio source as well.
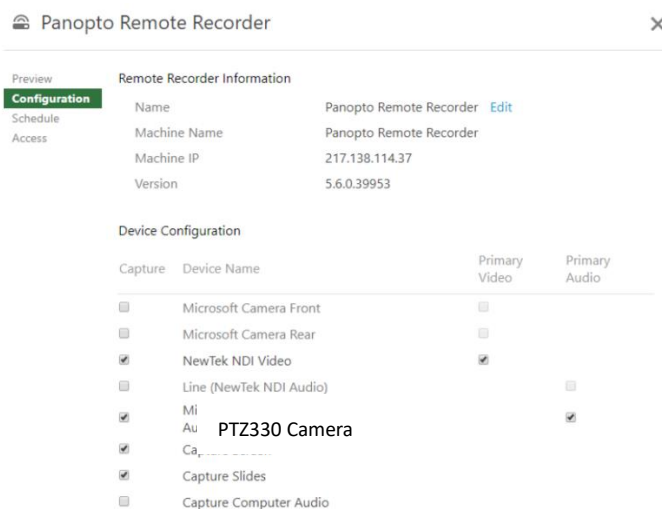
4. You are now able to record into Panopto with your configured TR3xx/TR3xxV2 Camera source.

Check the AVer Pro-AV Website for additional support documentation.

https://www.averusa.com/pro-av/support/

AVer Information Inc. Support Guide – AVer Pro-AV Cameras (02/01/2022)