

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

Streaming with Facebook Live

(February 2022)

Steps to integrate the Aver TR530, PTZ, and TR3xx/TR3xxV2 Cameras with Facebook Live

AVer Pro-AV has high quality image Cameras (TR530, PTZ310/330, TR3xx/TR3xxV2) that will integrate with Facebook Live workflows for peak performance and ease of use. We will show the configuration process for camera lines and Facebook streaming service. There are some pre-requisites for this to happen, see below.

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

PTZ310/330 Camera

• AVer PTZ330/N Camera and accessories.



PTZ310/330 Camera RTMP Streaming to Facebook Live Camera Settings

Connect the PTZ310/330 camera via an RJ45 Network Cat5E (or better) connection; verify IP address of Camera to connect via Web browser. Locate the remote, select the "Menu" icon on the remote and navigate to the "Network->DHCP->" setting, verify it is set to DHCP "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 **Network > DHCP > On**.

Camera		
Video Output		
Network	DHCP	On Off
Advanced Setting	Static IP	> On
System		

Camera Video Output Network					
Advanced Setting					
System	Camera Selector				
	Status OSD	On			
	Language	English			
	Information		Model Name	PTZ310	
	Factory Default		Version	0.0.0000.32	
			IP Address	192.168.0.100	
			MAC	50:33:8b:9a:94:38	

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

2. Once you have the IP address setup, type the IP address in your Chrome browser (Setup on same subnet) and you should now see the login to the PTZ330 camera shown below.

Sign in			
http://192.16 Your connect	8.0.106 ion to this site is not private		
Username			
Password			
		Sign in	Cancel

3. 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.

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



 Next, after selecting the Video & Audio setting, verify that you have either "Stream Only" selected or "USB + Streaming" selected, depending on your setup. Select your Stream Video Output standard, Bitrate, Framerate, Encoding, etc.

AVer	Video Mode	•	
O Live View	Stream Only USB Only	USB + Streaming NDI	
Camera Settings	Stream Video Output	Bitrate	Encoding Type
🛃 Video & Audio	1920x1080		H 284 MJPEG
Network	Framerate	L-VOP Interval (S) 1s 1 • 10	Rate Control O VBR CBR
Advanced Settings	Audio Input Type	Audio Volume 5	
-vv- System	Line In MIC In	0 10	
	Encoding Type	Sampling Rate	
	● ● AAC G.711	48K v	

*Note: Once streaming has started do not change the Stream Video Output on the fly, you will need to "STOP" streaming, change the Stream Video Output, then "Start" the stream again.



***Note:** Some RTMP servers require a minimum bitrate of 2.5Mbps for their environment.

6. Next, select the *Network* setting; this is where you will enter the RTMP *Server URL* and *Stream Key*. *RTSP Security* to either "On" or "Off" depending if you want encryption when using *RTSP*.

AV er	DHCP	l	
	On Off		
Live View	IP	Netmask	
Camera Settings	192.168.0.107	255.255.255.0	
Video & Audio	Gateway	DNS	
器 Network	192.168.0.1	192.168.0.1	Confirm
Advanced Settings	RTMP Settings	RTSP Security	
-v- System	Server URL	On Off	
	Stream Key		
	Stream Key Start Stream STOP		

Some recommended settings from Facebook:

- Recommended max bit rate is 4000 Kbps (4 Mbps).
- Recommended audio bit rate is 96 Kbps or 128 Kbps.
- Max: 1080p (1920x1080) resolution, at 60 frames per second.
- An I-frame (keyframe) must be sent at least every 2 seconds throughout the stream.
- Titles must have fewer than 255 characters or the stream will fail.
- H264 encoded video and AAC encoded audio only.

Facebook Live Settings

1. Go to your Facebook account and login and select the "Live Video" icon.

🖋 Create Post 🙆 Ph	oto/Video	o 🚩 Life Event	
What's on you	r mind?		
Photo/Video	Tag Friends	Check in ••••	
Posts	<u>⊤</u> Manage Posts		Grid View

2. The *Live Video* selection may also be located in the more (3 dots) section and takes you to Facebook Live Producer.



3. Next, under the Camera section select "Use Stream Keys".



4. Next, this will expand the window with more options and the Live API Server URL and Stream Key needed for the PTZ camera.

Get Started Choose how you want to create your live vid	leo	Live API Copy and paste these settings into your streaming software.
Use Stream Keys	•	Server URL
Use a Persistent Stream Key This can be reused every time you go live. You can only broadcast one live video at a time with your persistent stream key. Use a Backup Stream Once a backup stream is added to your live video, it cannot be removed. It will not affect your stream if you choose not to use it.		rtmps://live-api-s.facebook.com:443/rtmp/ Copy This may be referred to as "URL" or "Address" in your streaming software. Stream Key 10 Copy Stream keys are valid for 7 days. Once you start to create the broadcast you have up to 5 hours to go live.
Stream Viewing	~	Event Logs

- 5. Next, copy Server URL and Stream Key information by using the Copy selection.
- 6. Next, go back to the PTZ WebLogin and paste the Facebook URL and Stream Key information to the PTZ Camera RTMP Settings.

RTMP Settings		RTSP Security	_
Server URL		•	0
/		On	Off
Stream Key			
Start Stream	STOP		

7. Next, select *Start Stream*; this will begin the stream to Facebook. You should see a Streaming icon appear to indicate the stream process has started.

RTMP Settings		RTSP Security	
Server URL	((0))	On	0
rtmps://	internet in the second s	On	Off
Stream Key			
10157	15		
Start Stream	STOP		

To verify, go to your Facebook account and in the lower right corner, verify the video stream feed from the PTZ330 camera. A message should appear "Connecting live video" and the video should appear within 10-15 seconds. *Note: If no message or video is displayed, verify your Network Gateway/DNS settings are correct in the PTZ camera.



9. Next, scrolling up will show the streaming video with information of the feed; Video bit rate/standard/frame rate, Audio, etc.



10. To end the streaming feed from the PTZ camera, go to the WebLogin and select "STOP". The video should stop streaming within 5-10 seconds.

RTMP Settings		RTSP Security	
Server URL	_	● On	Off
Stream Key	_		
Start Stream	STOP		

11. To verify streaming has stopped, go back to your Facebook account; it should now be displaying a "Black" screen with a message "Waiting for live video".



12. This concludes the AVer PTZ310/330 Camera Streaming within the Facebook Live environment.

TR530 (Tracking) Camera RTMP Streaming to Facebook Live Camera Settings

Important Camera Setup

Installation Suggestion:

- Install height: 2~3m (6.56~9.84 feet). 2.4m (7.87 feet) is recommended. If the camera height is too low, tracking may be compromised. Please raise the camera to at least 6.56 feet.
- Distance from podium:
 - > TR320: 4~10m (13~33 feet)
- TR530: 4~15m (13~49 feet)





 Connect the TR530 camera via a RJ45 Network Cat5E (or better) cable; verify IP address of Camera 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.

Tracking	Off				
Camera	>	Camera ID			
Video Format	>	DHCP	> DH	On	On
Advanced Setting	>	Static IP			Off
Preset	>	PTZ Camera			
Language					
Profile					
Factory Default					
Information					
Display					

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

Tracking	Off	
Camera	>	
Video Format	>	
Advanced Setting	>	
Preset	>	
Language	>	
Profile	>	
Factory Default	>	
Information	> Firmware Versi	on 0.0.1000.38
Display	> IP Address	10.100.93.34
	MAC	

TR320/530 (Tracking) Camera RTMP Streaming to Facebook Live (continued)

- 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: <u>https://www.aver.com/download-center</u>.
 OR <u>https://www.averusa.com/pro-av/support/</u>, select the software tab.
- 3. Once you have the IP address setup, 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 TR Camera.



6. Next, select the settings gearbox even where the select Video & Audio setting, this is where

you can select Video Output, Audio, and the type of Streaming mode to use and Streaming video standard.

A	Ver							
	•	ø	Video Output			Audio Input		
PTZ	PTZ camera	>	3G-SDI 1/ HDMI:PTZ Camera			Audio line in format		
	Video & Audio setting		3G-SDI 2	Panoramic - 1080P/60		G711	AAC	
格	Network setting		IP Streaming Mode					
	Tracking setting		-	Mode 1			Mode 2	
	Preset setting		Mode 1					
Po	Advanced setting			noramic				
Ē	Profile setting		Select PTZ or Panoramic for stream	ing				
	System setting		PTZ camera Resolution/fps	1080P/30 720P/30	480P/30			
Ø	Factory default		bps (Bits per second) 6M	4M 2M				
							Save Cancel	

Mode 1: You will use either the PTZ Camera OR Panoramic Camera view for your stream with varying video selections.

Mode 2: There will be 2 simultaneous streams from PTZ and Panoramic views set to (1080p/30) with adjustable **bps** (bits per second) if selected.

TR320/530 (Tracking) Camera RTMP Streaming to Facebook Live (continued)

P Streaming Mode			
	Mo	ode 1	
Mode 2			
PTZ camera			
	1080P/30		
Resolution	6.0M	3.0M	1.5M
bps (Bits per second)	oroni (olom	
Panoramic camera			
Resolution/fps	1080P/30		
bps (Bits per second)	6.0M	3.0M	1.5M

7. Next, select *Network Setting*. You should now see the following information displayed.

AVer			
O	Network		
PTZ camera >	DHCP enable	Netmask	
Video & Audio setting	[10], [, [, []]	255 . 255 . 255 . 0	
움 Network setting	Gateway	DNS	
Tracking setting			
Preset setting	[10], [], [], [[10 . [. [. [Apply
Advanced setting	RTMP Server (PTZ)		
Profile setting	Server URL	Stream Key	
A System setting	rtmp://a.rtmp		Connect
Factory default	RTSP (PTZ camera: rtsp://Camera IP 554/	live_st1; Panoramic camera: rtsp://Camera IP.8554/live_st2)	
	Password Confirmation		
		_	

*Note: It is a good idea to verify the Gateway/DNS of your network; this is how the camera stream will access the *WWW*.

8. Next, notice the *RTMP Server (PTZ) URL* selection, this is where you will "paste" the *URL string* and *Stream Key* from Facebook.

Some recommended settings from Facebook:

- Recommended max bit rate is 4000 Kbps (4 mbps).
- Recommended audio bit rate is 96 Kbps or 128 Kbps.
- Max: 1080p (1920x1080) resolution, at 60 frames per second.
- An I-frame (keyframe) must be sent at least every 2 seconds throughout the stream.
- Titles must have fewer than 255 characters or the stream will fail.
- H264 encoded video and AAC encoded audio only.

TR320/530 (Tracking) Camera RTMP Streaming to Facebook Live (continued) Facebook Live Settings

1. Go to your Facebook account and login and select the "Live Video" icon.



2. The *Live Video* selection may also be located in the more (3 dots) section and takes you to *Facebook Live Producer*.



3. Next, under the Camera section select "Use Stream Keys".

Get Started Choose how you want to create your live	ve video		
Camera			•
Use Stream Keys Use Paired Encoders			•
Camera	~	LifeCam	-

4. Next, this will expand the window with more options and the Live API Server URL and Stream Key needed for the Tracking camera.

Get Started Choose how you want to create your live vide	eo	Live API Copy and paste these settings into your streaming software.
Use Stream Keys	•	Server URL
Use a Persistent Stream Key This can be reused every time you go live. You can only broadcast one live video at a time with your persistent stream key.		rtmps://live-api-s.facebook.com:443/rtmp/ Copy This may be referred to as "URL" or "Address" in your streaming software.
Use a Backup Stream Once a backup stream is added to your live video, it cannot be removed. It will not affect your stream if you choose not to use it.		Stream Key 10 Copy Stream keys are valid for 7 days. Once you start to create the broadcast you have up to 5 hours to go live.
Settings		Event Logs
Stream	~	
Viewing	\sim	

- 5. Next, copy Server URL and Stream Key information by using the Copy selection.
- 6. Next, go to the TR Camera WebLogin, *Network Setting*, and paste the *Server URL* and *Stream Key* information into the fields provided.

Server URL	Stream Key	
rtmp://a.rtmp.		Connect

TR320/530 (Tracking) Camera RTMP Streaming to Facebook Live

 Next, to begin the Stream from the TR Camera, select *Connect*, you should see a red "Streaming" text appear, to indicate you are now streaming. This is where you would also "Disconnect" the stream.



To verify, go to your Facebook account and in the lower right corner, verify the video stream feed from the TR320/530 camera. A message should appear "Connecting live video" and the video should appear within 10-15 seconds. *Note: If no message or video is displayed, verify your Network Gateway/DNS settings are correct in the Tracking camera.



9. Next, scrolling up will show the streaming video with information of the feed; Video bit rate/standard/frame rate, Audio, etc.

Video	Audio	Actions
4.0 Mbps	97.1 Kbps	Event Logs
1920×1080, 60 fps	AAC	Event Logs
	\checkmark	Chat (10) 亿 휴 충

10. To end the streaming feed from the TR camera, go to the WebLogin and select "*Disconnect*". The video should stop streaming within 5-10 seconds.



11. To verify streaming has stopped, go back to your Facebook account; it should now be displaying a "Black" screen with a message "Waiting for live video".



12. This concludes the AVer TR320/530 Camera Streaming within the Facebook Live environment.

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. All the cameras have the same Tracking Modes and can be setup to stream via RTMP the same way. 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







Pa	ICK	age	Cor	nten	ts



Camera unit







Cable ties(x5)

Quick Guide

T

()=



and the age Cable Fixing plates(x2)

1/4"-20L=6.5mm Screw(x3)

M3 x 6mm Screw(x3)

TR3xx/TR3xxV2 Camera RTMP Streaming to Facebook Live **Camera Settings**

1. Connect the TR3xx/TR3xxV2 camera via a RJ45 Network Cat5E (or better) connection; verify IP address of Camera to connect via Web browser. If IP address is not known, locate the remote, select the "Menu" icon on the remote and navigate to the "Network->DHCP->" setting, verify it is set to DHCP "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 **Network > DHCP > On**.

Camera				
Video Output				
Network	DHCP	On	Off	
Advanced Setting	Static IP		On	
System				

Camera Video Output Network Advanced Setting System Camera Selector Status OSD English Language Information > Model Name PTZ310 Factory Default 0.0.0000.32 IP Address 192.168.0.100 50:33:8b:9a:94:38

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

2. Once you have the IP address setup, type the IP address in your Chrome browser (Setup on same subnet) and you should now see the login to the TR3xx/TR3xxV2 camera shown below.

Sign in				
http://192.16 Your connect	8.0.106 ion to this site is not priv	ate		
Username	1			
Password				
			Sign in	Cancel

3. The default Username/Password is "administrator" or "admin / admin".

*Note: If this is the first time accessing the TR31xx/TR3xxV2 camera via the Web login, it will ask you to change the Username/Password. Please write down the new credentials.

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

- ▲ Ver

 • Live View

 • Camera Sottings

 • Video & Audio

 • Network

 • Tracking Settings

 • System

 Camera Control

 Preset

 Tracking Control
- Next, after selecting the Video & Audio setting, verify that you have either "Stream Only" selected or "USB + Streaming" selected, depending on your setup. Select your Stream Video Output standard, Bitrate, Framerate, Encoding, etc.

***NDI Mode:** If NDI is selected, the USB output is disabled, this is by design.

AV er	Priority Mode	
Live View	2160p 1080p	
Camera Settings	Power Frequency	
Video & Audio	50Hz 59.94Hz 60Hz	2
器 Network	Video Mode	
• Tracking Settings	USB + Streaming Stream Only	×
-vv- System	USB Only USB + Streaming NDI	Bitrate Encodin
	1920x1080	✓ 4Mbps ✓
	Framerate	I-VOP Interval (S) 1s Rate Co
AVer	● ● 2160p 1080p	
Live View	Power Frequency	
Camera Settings	50Hz 59.94Hz 60Hz	
Video & Audio	Video Mode	
몸 Network	USB + Streaming V	
- Tracking Settings	Stream Video Output Bitrate	Encoding Type
-√- System	1920x1080	→ ● ● H264 H265
	Framerate 11Mbps 2Mbps 60 3Mbps 8Mbps	Rate Control
	16Mbps 32Mbps Audio Input Type , Auto	
	Line In MIC In	
	Encoding Type Sampling Rate	<u>`</u>

***Note:** Some RTMP servers require a minimum bitrate of 2.5Mbps for their environment.

6. Next, select the *Network* setting; this is where you will enter the RTMP *Server URL* and *Stream Key*. *RTSP Security* to either "On" or "Off" depending if you want encryption when using *RTSP*.

*Note: Once streaming has started do not change the Stream Video Output on the fly, you will need to "STOP" streaming, change the Stream Video Output, then "Start" the stream again.

DHCP		
On Off	Netmask	
192.168.0.223	255.255.255.0	
Gateway	DNS	
192.168.0.1	192.168.0.1	Confirm
RTMP Settings	RTSP Security	
Server URL rtmp://a.rtmp.youtube.com/live2/ Stream Key	On Off	
cyyq- Start Stream STOP		
	on Oit P 192.168.0.223 Gateway 192.168.0.1 RTMP Settings Server URL rtmp://a.rtmp.youtube.com/live2/ Stream Key Cyyq-l	On Off IP Netmask 192.168.0.223 255.255.250 Gateway DNS 192.168.0.1 192.168.0.1 192.168.0.1 192.168.0.1 RTMP Settings RTSP Security Server URL rtmp://a.rtmp.youtube.com/live2/ On Start Stream STOP

Some recommended settings from Facebook:

- Recommended max bit rate is 4000 Kbps (4 Mbps).
- Recommended audio bit rate is 96 Kbps or 128 Kbps.
- Max: 1080p (1920x1080) resolution, at 60 frames per second.
- An I-frame (keyframe) must be sent at least every 2 seconds throughout the stream.
- Titles must have fewer than 255 characters or the stream will fail.
- H264 encoded video and AAC encoded audio only.

Facebook Live Settings

7. Go to your Facebook account and login and select the "Live Video" icon.

Create Post D Photo/Video	Live Video	🚩 Life Event		
What's on your mind?				
🔀 Photo/Video 🛛 🗞 Tag Friends 🤨 Check in 🚥				
Posts 👼	Manage Posts	\equiv List View	Grid View	

8. The *Live Video* selection may also be located in the more (3 dots) section and takes you to Facebook Live Producer.



9. Next, under the Camera section select "Use Stream Keys".



10. Next, this will expand the window with more options and the Live API *Server URL* and *Stream Key* needed for the TR camera.

Get Started Choose how you want to create your live vid	leo	Live API Copy and paste these settings into your streaming software.
Use Stream Keys	•	Server URL
Use a Persistent Stream Key This can be reused every time you go live. You can only broadcast one live video at a time with your persistent stream key. Use a Backup Stream Once a backup stream is added to your live video, it cannot be removed. It will not affect your stream		rtmps://live-api-s.facebook.com:443/rtmp/ Copy This may be referred to as "URL" or "Address" in your streaming software. Stream Key 10
it cannot be removed, it win not allect your sitean if you choose not to use it.		Stream keys are valid for 7 days. Once you start to create the broadcast you have up to 5 hours to go live.
Stream	~	
Viewing	\sim	

- 11. Next, copy Server URL and Stream Key information by using the Copy selection.
- 12. Next, go back to the TR313 WebLogin and paste the Facebook URL and Stream Key information to the PTZ Camera RTMP Settings.

RTMP Settings		RTSP Security	
Server URL		•	•
rtmp://		On	Off
Stream Key			
Start Stream	STOP		

13. Next, select *Start Stream*; this will begin the stream to Facebook. You should see a Streaming icon appear to indicate the stream process has started.

RTMP Settings		RTSP Security		
Server URL	((0))	•	0	
rtmps://	mp/	On	Off	
Stream Key				
10157	5			
Start Stream	STOP			

14. To verify, go to your Facebook account and in the lower right corner, verify the video stream feed from the TR3xx/TR3xxV2 camera. A message should appear "Connecting live video" and the video should appear within 10-15 seconds. *Note: If no message or video is displayed, verify your Network Gateway/DNS settings are correct in the PTZ camera.



15. Next, scrolling up will show the streaming video with information of the feed; Video bit rate/standard/frame rate, Audio, etc.



16. To end the streaming feed from the TR3xx/TR3xxV2 camera, go to the WebLogin and select "STOP". The video should stop streaming within 5-10 seconds.

RTMP Settings		RTSP Security	
Server URL		• On	Off
/ Stream Key			
Start Stream	STOP		

17. To verify streaming has stopped, go back to your Facebook account; it should now be displaying a "Black" screen with a message "Waiting for live video".



18. This concludes the AVer TR3xx/TR3xxV2 AI Tracking Camera Streaming within the Facebook Live environment.

Check the AVer Pro-AV Website for additional support documentation. <u>https://www.averusa.com/pro-av/support/</u>