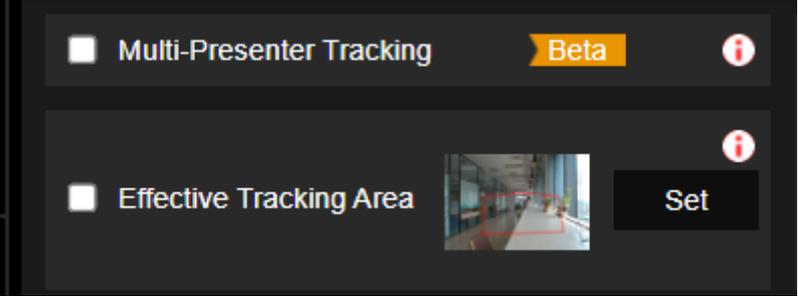


Release note

Product:

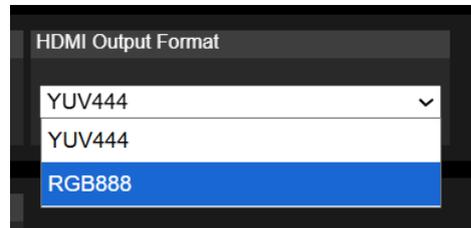
PTZ Camera: PTZ211/PTZ231/PTZ310UV2/PTZ330UV2

Tracking Camera: TR211/TR315/TR335

FW version	V0.0.0000.70
Release date	2026/03/31
New Feature	<p>1. Multi-Presenter tracking</p> <p>Enables simultaneous tracking of multiple presenters, automatically keeping the active speaker centered within the camera’s field of view.</p> <p>Before enabling Multi-Presenter Tracking, the effective tracking area must be configured to ensure optimal camera movement during event capture. An “i” icon is available on the right-hand side to provide additional information and help users better understand this feature.</p> <p>If the effective tracking area is not configured, Multi-Presenter Tracking cannot be enabled.</p> <p>Remark 1: Multi-Presenter Tracking only available in Presenter Tracking mode.</p> <p>Remark 2: Multi-Presenter Tracking only supported on TR211, TR315, and TR335.</p> 
Improvement	<ol style="list-style-type: none"> Fixed an issue where the “OSD OFF” did not turn off when using the FAST ZOOM in/out function via the remote control. OSD manual added a scrolling marquee function to support longer text display, optimizing the Camera ID name presentation. Security & Network Optimization Improved syslog behavior to eliminate unnecessary background network packets. Disabled unused SSH ports to enhance device security and reduce vulnerability scan exposure.

4. Enhanced Display Compatibility

Improved compatibility with certain DVI displays to prevent color shift issues. Introduced HDMI color format selection, allowing users to choose RGB888 for optimal color accuracy on affected screens.



5. System Stability & Configuration Consistency Improvement

Improved system behavior to ensure frame rate and bitrate settings remain consistent across theme mode changes and system reboot. Resolved issues where settings could revert to default values after power cycle or mode switching. Enhanced parameter retention to provide a more stable and predictable user experience.

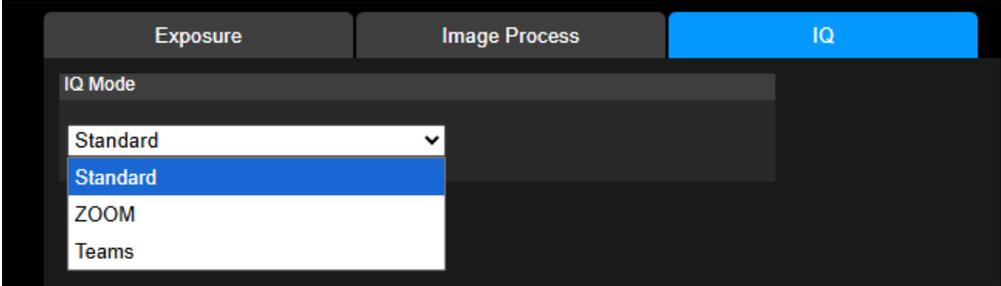
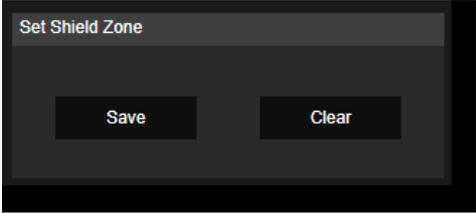
6. Added VISCA command support for Auto framing mode.

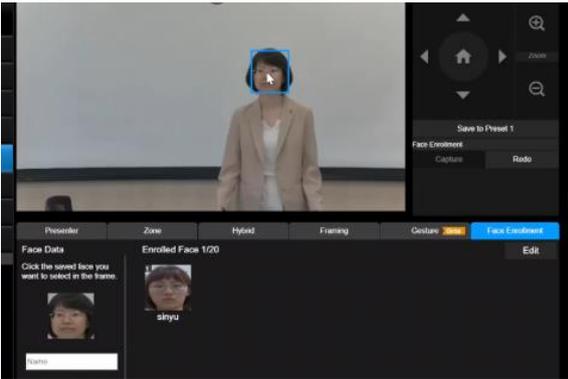
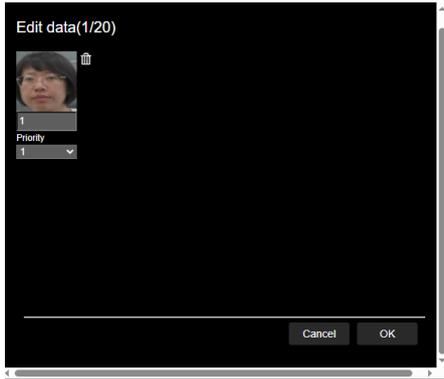
7. Preset Freeze Reliability Improvement

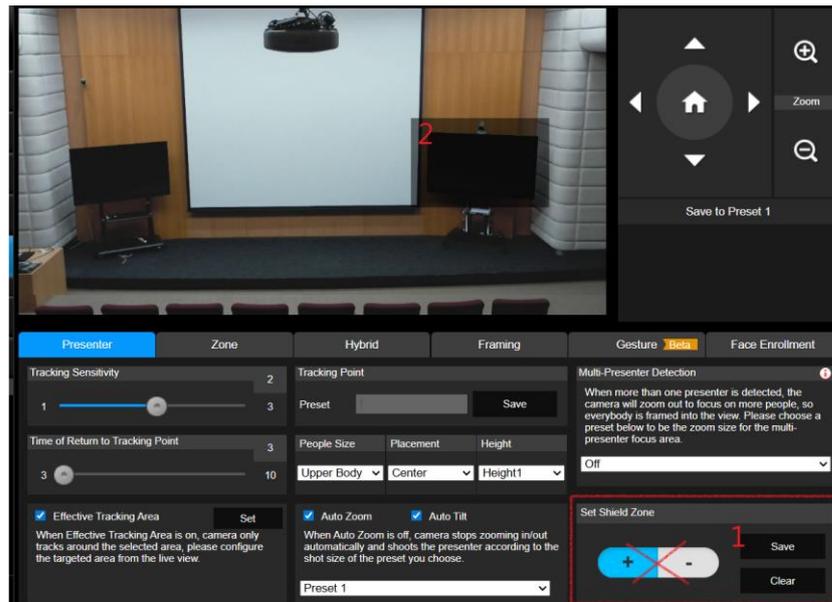
Improved Video Freeze behavior during preset recall to ensure consistent freeze effect across pan, tilt, and zoom movements.

8. Consistent Framing During Tracking

Ensures a stable field of view (FOV) during tracking, maintaining consistent pan and tilt without unnecessary zoom in or zoom out when the presenter switches between front-facing and side-facing positions.

FW version	V0.0.0000.64
Release date	2025/11/07
New Feature	<ol style="list-style-type: none"> Added an Image Quality configuration option designed of Camera setting page to comply with various certification requirements (e.g., Microsoft Teams, Zoom Rooms), providing enhanced compatibility and deeper integration with professional video conferencing systems. 
Improvement	<ol style="list-style-type: none"> Simultaneous pan and tilt movement when transitioning to a preset position, providing a smoother and more fluid visual experience. Improved auto focus transition speed between preset positions with identical zoom ratios during voice tracking on the MT300 to deliver a smoother visual experience. (Bug Fixed) Optimized VISCA command response to improve speed and stability when quickly switching between preset positions. (Bug Fixed) Corrected the Shield Zone configuration UI to allow defining one shield zone that blocks the TV screen during Teams calls, preventing duplicate presenter faces and improving streaming stability. *This feature is available only on TR cameras. 

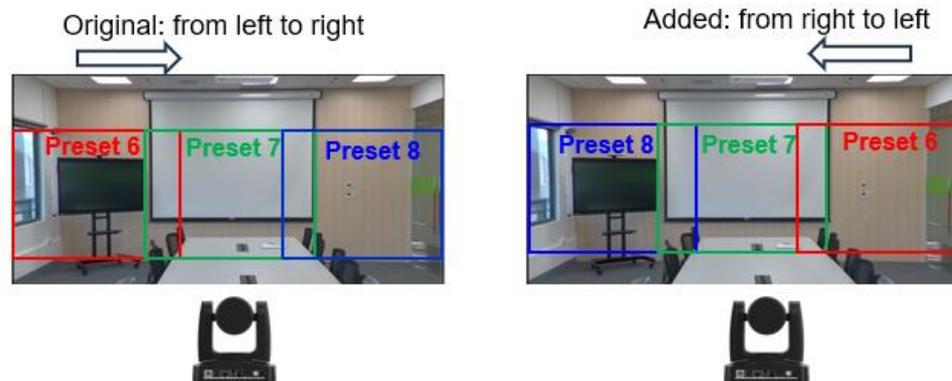
FW version	V0.0.0000.60
Release date	2025/09/02
New Feature	<ol style="list-style-type: none"> Added Face Enrollment feature to preload presenter faces, ensuring the camera only tracks designated professors while skipping students' faces to comply with school privacy rules. Supports preloading up to 20 presenter faces, making classroom tracking more accurate and secure. <div style="border: 1px dashed gray; padding: 10px; margin: 10px 0;"> <p>Note: Face Enrollment – Privacy Notice</p> <ul style="list-style-type: none"> ➤ Registered face data is stored only inside the camera and will not be transmitted to AVer or third parties. ➤ Data is used only for auto-tracking, not for other purposes. ➤ Users can delete registered face data at any time. ➤ Inform the person before enrollment and obtain consent if required by local law. ➤ Use must comply with applicable privacy and data protection regulations (e.g., GDPR, CCPA). </div> <div style="display: flex; justify-content: space-around; margin: 10px 0;">   </div> Added Shield Zone feature to allow skipping a presenter's face during Teams calls. The current version supports configuring <u>one shield zone</u>. Users can click the "Set" button, drag a box on the screen to define the shielded area, and click "Save" to complete the setup. This helps prevent unwanted tracking and ensures smoother video performance.



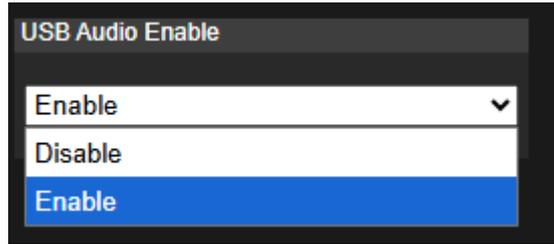
3. Added support for Multicast in Dante AV-H, enabling more efficient network bandwidth usage and improved scalability in AV-over-IP deployments.

Improvement

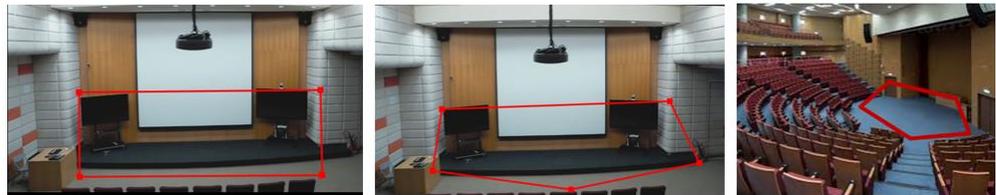
1. Added support for setting presets 6/7/8/9 in both directions on Zone Tracking for TR211, TR315, and TR335 cameras, making it easier for users to configure and reducing the chance of setup errors. Also improved SmartShoot functionality on PTZ211/PTZ231/PTZ310U(N)V2 and PTZ330U(N)V2 models.



2. UAC can now be enabled or disabled independently in Standard/NDI mode, while it is automatically disabled in Teams/Zoom mode to comply with certification requirements. This ensures compatibility and reduces potential configuration conflicts for users.



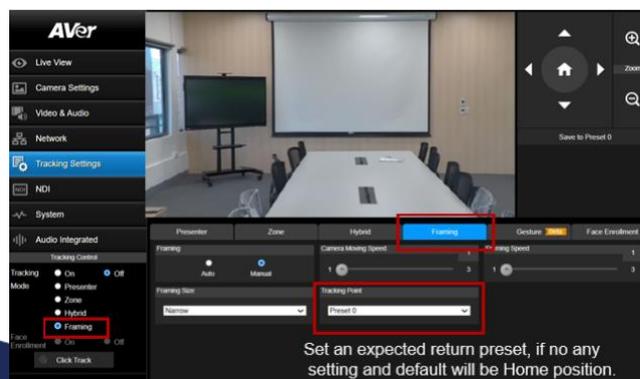
- Improved image quality with more natural color reproduction for a lifelike appearance and enhanced auto white balance to deliver more stable and balanced video. This provides users with clearer, more true-to-life visuals.
- Enhanced the effective tracking area shape from a rectangle (four corners) to a pentagon (five corners), allowing better coverage of round stages and ensuring more accurate presenter tracking.



Note: All five angles of the pentagon must be convex (outward), and none of them can be concave (inward).



- Improve People Framing feature to automatically center participants in the frame, providing a more professional and balanced video composition.



6. Redefine the NDI Camera logic to use the model's name combined with the last 6 digits of the MAC address.

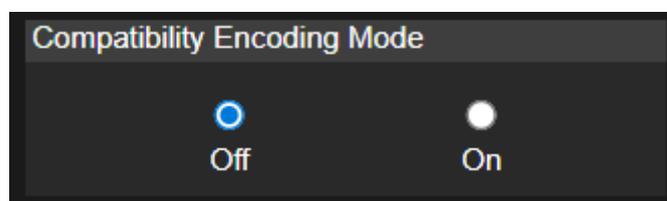
Note: When upgrading an existing TR315 camera to FW V60, the hostname will remain unchanged. However, once the "Default" option is executed on the OSD, the hostname will update to the model's name combined with the last 6 digits of the MAC address.



7. **Compatibility Encoding Mode:** When enabled, the camera uses Multi-Slice encoding to improve compatibility and performance on certain devices when playing UHD content.

Note 1: Recommended to enable only for specific decoding compatibility requirements; otherwise, it can remain off by default.

Note 2: Multi-Slice encoded data can be decoded using multiple threads, whereas without it, decoding is single-threaded. This can significantly reduce CPU load on systems using software decoding.



8. **GOP Value:** This parameter sets the number of frames between two I-frames (key frames) to control the insertion frequency of I-frames in the video.

When **I-VOP Interval** is set to 0 seconds, the system inserts I-frames based on the GOP Value.

When **I-VOP Interval** > 0, the system inserts I-frames according to the specified time interval, and the GOP Value will not be used.

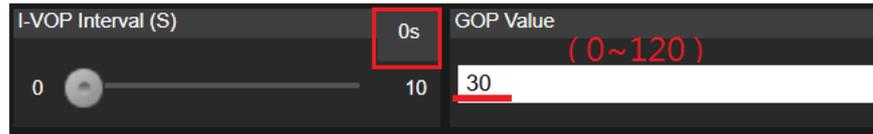
Note:

An I-frame (key frame) is a type of frame in video compression with the following characteristics:

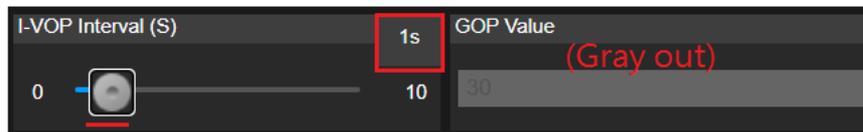
- A. It is a fully encoded frame that can be decoded independently of other frames.

- B. Commonly used as the starting frame of a GOP (Group of Pictures).
- C. Helps quickly restore clear images during scene changes or fast motion.
- D. More I-frames improve video stability and decoding ease but increase file size.

When the I-VOP Interval is set to 0 seconds, users can configure the GOP value between 0 and 120 to control the frequency of I-frame insertion.



When the I-VOP Interval is greater than 0 seconds, the GOP setting is disabled and grayed out.



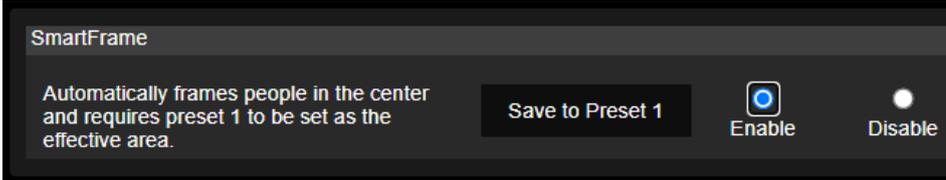
Known issue

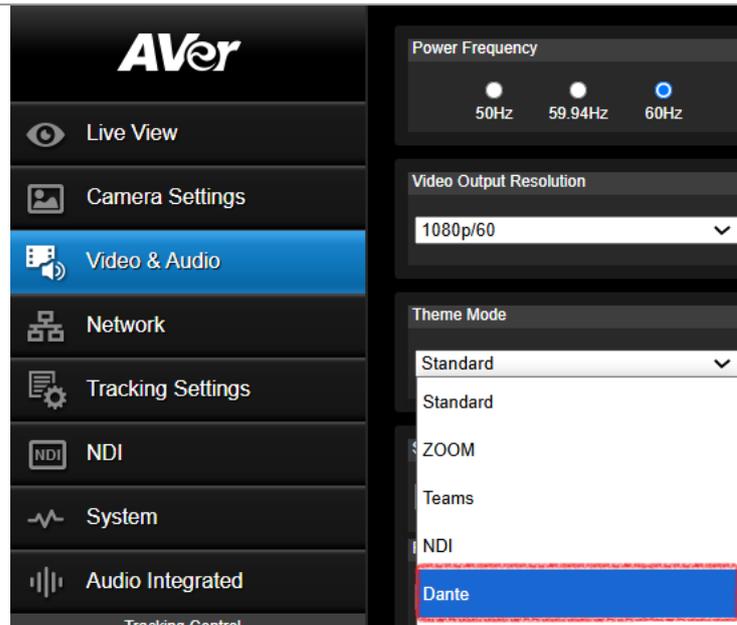
1. We recommend using the Chrome browser for configuring webpages.
2. When using NDI video theme mode, the USB video stream will be temporarily paused in order to ensure the best possible NDI HX3 video streaming experience.

*Simultaneous outputs in different video theme modes:

Video modes	PTZ310UNV2/PTZ330UNV2 TR315N/TR335N	PTZ310UV2/PTZ330UV2 PTZ211/PTZ231/TR315/TR335
Standard/Teams/Zoom	HDMI/IP/NDI HX2/USB (4K60) 3G-SDI (1080P60)	HDMI/IP/USB(4K60) & 3G-SDI (1080P60)
NDI	HDMI/IP/NDI HX3 (4K60) & 3G-SDI (1080P60)	NA

3. HTTPS: Enable HTTPS to establish a secure connection between the browser and the camera. To enable HTTPS, please follow the steps below.
 - A. Obtain an SSL certificate in base-64 encoding format for encryption and decryption, and a private key in PKCS#8 format (must be unencrypted).
 - B. Convert the required certificate content into PEM format. The SSL certificate uploaded to the camera must be in PEM format.
 - C. In the HTTPS settings field, select "On", then click "Choose File" to select the certificate file, and then click "Upload".

FW version	V0.0.0000.56
Release date	2025/04/06 updated
New Feature	NA
Improvement	<p>1. Improved 3G-SDI compatibility to address rare cases where certain devices show no signal on the first connection but display properly after re-plugging.</p> <p>2. SmartFrame is available only on V2 PTZ camera:PTZ211, PTZ231, PTZ310U(N)V2, and PTZ330U(N)V2. Manual framing has been upgraded to Auto Framing, utilizing sensor zoom. When SmartFrame is enabled, the resolution will be limited to 1080p. How to use:</p> <ul style="list-style-type: none"> ● Set the desired detection area as Preset 1. This will define the effective area. ● Enable the SmartFrame button as shown below.  <p><i>Note: This is an alternative solution. The final version is expected by the end of June.</i></p> <p>3. Dante Ready SDK Preloaded in “N” models:TR315N/TR335N The Dante Ready SDK is now preloaded into the camera, allowing users to enable Dante AV-H through Dante software (Dante Controller). How to use:</p> <ul style="list-style-type: none"> ● Set the Camera theme mode of “Dante” from camera webpage. ● Install Dante Controller to activate “Dante Ready”. <p>https://www.getdante.com/products/software-essentials/dante-controller/ (Dante controller is free to download)</p>



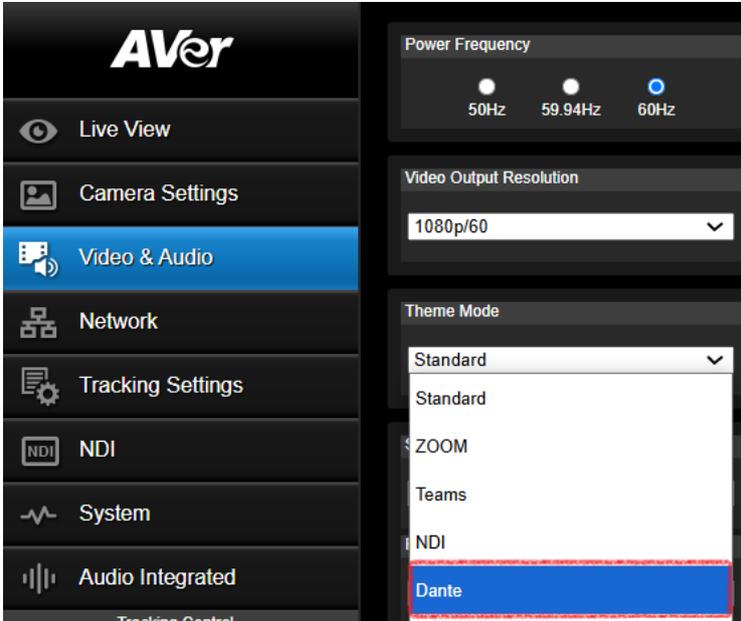
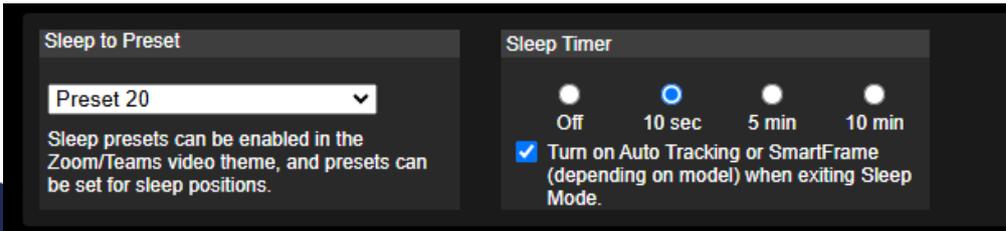
Known issue

- 4. We recommend using the Chrome browser for configuring webpages.
- 5. When using NDI video theme mode, the USB video stream will be temporarily paused in order to ensure the best possible NDI HX3 video streaming experience.

*Simultaneous outputs in different video theme modes:

Video modes	PTZ310UNV2/PTZ330UNV2 TR315N/TR335N	PTZ310UV2/PTZ330UV2 PTZ211/PTZ231/TR315/TR335
Standard/Teams/Zoom	HDMI/IP/NDI HX2/USB (4KP60) 3G-SDI (1080P60)	HDMI/IP/USB(4KP60) & 3G-SDI (1080P60)
NDI	HDMI/IP/NDI HX3 (4KP60) & 3G-SDI (1080P60)	NA

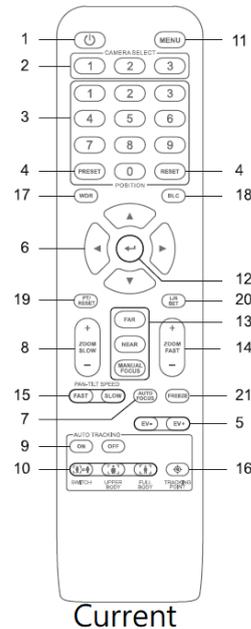
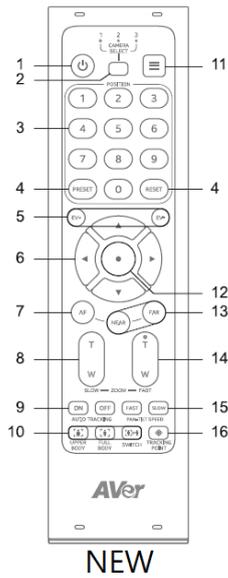
- 6. HTTPS: Enable HTTPS to establish a secure connection between the browser and the camera. To enable HTTPS, please follow the steps below.
 - D. Obtain an SSL certificate in base-64 encoding format for encryption and decryption, and a private key in PKCS#8 format (must be unencrypted).
 - E. Convert the required certificate content into PEM format. The SSL certificate uploaded to the camera must be in PEM format.
 - F. In the HTTPS settings field, select "On", then click "Choose File" to select the certificate file, and then click "Upload".

FW version	V0.0.0000.50
Release date	2025/02/14
New Feature	<p>1. Dante Ready SDK Preloaded in none-NDI models:TR211/TR315/TR335/PTZ211/PTZ231/PTZ310UV2/PTZ330UV2</p> <p>The Dante Ready SDK is now preloaded into the camera, allowing users to enable Dante AV-H through Dante software (Dante Controller).</p> <p>How to use:</p> <ul style="list-style-type: none"> ● Set the Camera theme mode of “Dante” from camera webpage. ● Install Dante Controller to activate “Dante Ready”. <p>https://www.getdante.com/products/software-essentials/dante-controller/ (Dante controller is free to download)</p>  <p>2. Auto Tracking can now be automatically enabled when connected to a USB video output, without the need for remote control. This user-friendly configuration ensures that Auto Tracking activates alongside USB video output and disables when USB video is disconnected, with the camera returning to a sleep preset to maintain user privacy.</p> <p>This feature is supported in two video modes: Teams and Zoom.</p> 

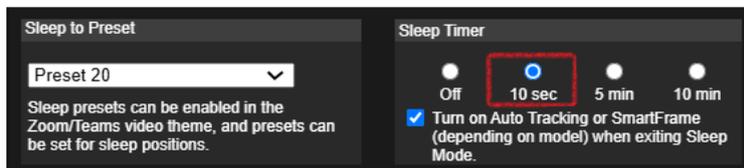
<p>Improvement</p>	<ol style="list-style-type: none"> 1. Improved VISCA Auto Focus Command: The focus command now functions as a press-hold-release action. When pressing the Focus Far/Near button, the camera continues focusing (hold) until the button is released. 2. Added "P/T Reset" and "Panning Direction (L/R Set)" to the Web Interface and OSD Manual to prepare for the new remote control rollout in Q2, we have added the "P/T Reset" and "Panning Direction (L/R Set)" options to the web interface and OSD manual. The new remote control features a simpler design, removing two buttons and relocating their functions to the web interface and OSD manual. Both the current and new remote controls will be fully compatible with the camera. Please see the new remote control design below. <div style="text-align: center;"> </div> <div style="text-align: center;"> </div>

Remote Control

Your device may come with one of the following remote controls.



- Bug Fix: Resolved an issue where the live image would freeze when switching to Portrait mode while connected to an HDMI output.
- Bug Fix: Resolved a 2-second timer delay issue, where the actual delay was 12 seconds instead of the configured 10 seconds when disconnecting a Zoom Room meeting.



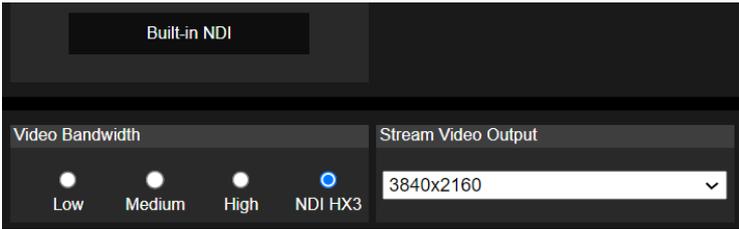
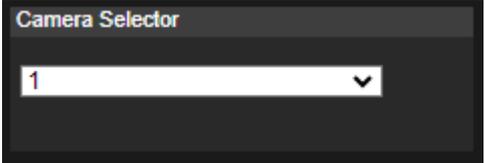
Known issue

- We recommend using the Chrome browser for configuring webpages.
- When using NDI video theme mode, the USB video stream will be temporarily paused in order to ensure the best possible NDI HX3 video streaming experience.

*Simultaneous outputs in different video theme modes:

Video modes	PTZ310UNV2/PTZ330UNV2 TR315N/TR335N	PTZ310UV2/PTZ330UV2 PTZ211/PTZ231/TR315/TR335
Standard/Teams/Zoom	HDMI/IP/NDI HX2/USB (4KP60) 3G-SDI (1080P60)	HDMI/IP/USB(4KP60) & 3G-SDI (1080P60)
NDI	HDMI/IP/NDI HX3 (4KP60) & 3G-SDI (1080P60)	NA

- | | |
|--|---|
| | <p>3. HTTPS: Enable HTTPS to establish a secure connection between the browser and the camera. To enable HTTPS, please follow the steps below.</p> <ul style="list-style-type: none">G. Obtain an SSL certificate in base-64 encoding format for encryption and decryption, and a private key in PKCS#8 format (must be unencrypted).H. Convert the required certificate content into PEM format. The SSL certificate uploaded to the camera must be in PEM format.I. In the HTTPS settings field, select "On", then click "Choose File" to select the certificate file, and then click "Upload". |
|--|---|

FW version	V0.0.0000.47								
Release date	2024/11/22								
New Feature	<p>4. Able to enable the NDI HX3 through FW upgrade and without any activation process. *Remark1: If your camera has previously activated NDI HX2 using a license key, this firmware upgrade will enable NDI HX3 directly. *Remark2: Deactivation requires downgrading the firmware.</p>  <p>5. Added NDI6 Bridge function</p>  <p>6. Added NDI status indicator for NDI streaming: red indicates disconnected, green indicates connected.</p>  <p>7. Added ONVIF command support for the BOSCH CCS1000 D Digital Discussion System. https://www.boschsecurity.com/xc/en/solutions/conference-solutions/plug-and-play-digital-discussion/</p> <p>8. Added a Camera Selector on the webpage (located on the System page).</p>  <p>9. Remote control (Hotkey) supports the following functions:</p> <table border="1"> <thead> <tr> <th>Button</th> <th>Function name</th> <th>How to use</th> <th>Functions description</th> </tr> </thead> <tbody> <tr> <td>6</td> <td>Factory default</td> <td>Press 6 times (666666)</td> <td>Restore factory default settings</td> </tr> </tbody> </table>	Button	Function name	How to use	Functions description	6	Factory default	Press 6 times (666666)	Restore factory default settings
Button	Function name	How to use	Functions description						
6	Factory default	Press 6 times (666666)	Restore factory default settings						

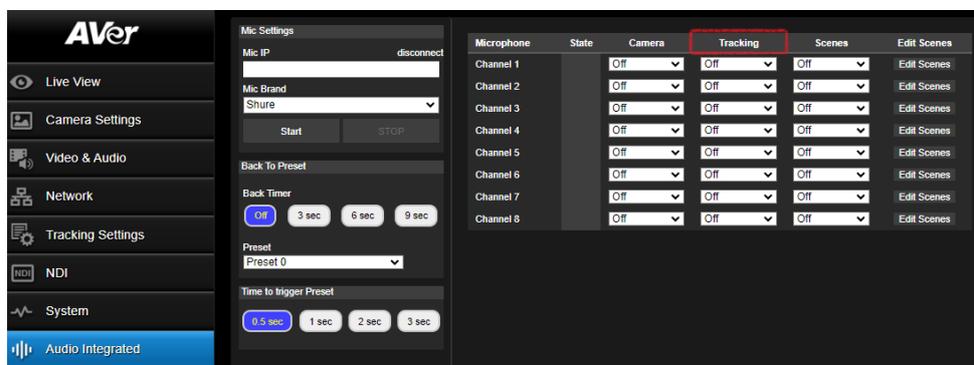
7	AI frame*	Press 7 times (7777777)	Shown Human AI frame on HDMI output
8	Set Static IP	Press 8 times (88888888)	Set the IP address to static IP (192.168.1.168)
9	Account Default	Press 9 times (999999999)	Restore account settings to default

*When AI frame is enabled, both image quality and AI performance may be affected. It is recommended to enable this feature only for troubleshooting purposes.

10. Able to do digital zoom of 1080p resolution.

Improvement

11. Correct the name of the Audio integrated function:



12. Redefine the hostname logic to use the model's name combined with the last 6 digits of the MAC address.

Note: When upgrading an existing TR535 camera to FW V47, the hostname will remain unchanged. However, once the "Default" option is executed on the OSD, the hostname will update to the model's name combined with the last 6 digits of the MAC address.



13. **Stream Video Output:** Change the default Bitrate setting from 4Mbps to "Auto" to improve video quality.

Note1: When upgrading an existing camera to FW V47, the Bitrate setting will remain unchanged. However, once the "Default" option is executed on the OSD, the Bitrate will be updated to "Auto."

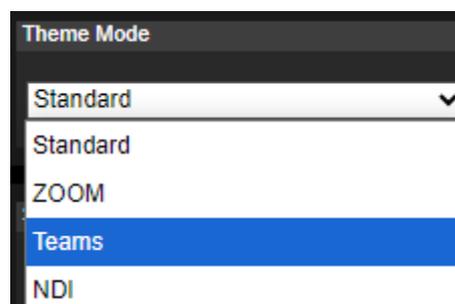
Note2: The default "Auto" Bitrate will be configured according to different resolutions as shown in the following table.

Resolution	Non-NDI Theme mode			NDI Theme mode		
	60FPS	30FPS	<30FPS	60FPS	30FPS	<30FPS
2160p	H265:32M	H265:16M	H265:8M	H265:56M	H265:56M	H265:56M
	H264:64M	H264:32M	H264:8M	H264:56M	H264:56M	H264:56M
1080p	H265:16M	H265:8M	H265:4M	H265:40M	H265:40M	H265:40M
	H264:16M	H264:8M	H264:4M	H264:40M	H264:40M	H264:40M
720p	H265:8M	H265:4M	H265:2M	H265:24M	H265:24M	H265:24M
	H264:8M	H264:4M	H264:2M	H264:24M	H264:24M	H264:24M
540p	H265:8M	H265:4M	H265:2M	H265:20M	H265:20M	H265:20M
	H264:8M	H264:4M	H264:2M	H264:20M	H264:20M	H264:20M
480p	H265:4M	H265:2M	H265:1M	H265:12M	H265:12M	H265:12M
	H264:4M	H264:2M	H264:1M	H264:12M	H264:12M	H264:12M
360p	H265:2M	H265:1M	H265:512K	H265:12M	H265:12M	H265:12M
	H264:2M	H264:1M	H264:512K	H264:12M	H264:12M	H264:12M

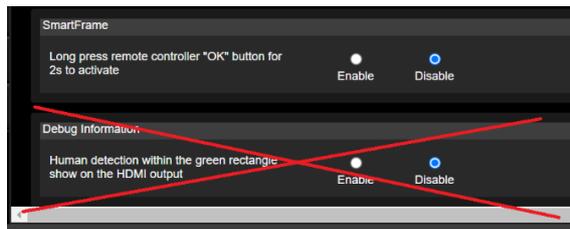
14. Optimized the network logic: The default setting is DHCP. If the camera fails to obtain an IP address within 30 seconds, it will switch to a static IP. Once a DHCP server is detected, the camera will automatically revert to DHCP mode.

15. Optimized the Teams mode logic:

1. Disable AV output (IP, HDMI, and SDI) when Teams mode is enabled.
2. Disable video preview in the WebUI when Teams mode is enabled.
3. Disable the UAC driver when Teams mode is enabled.
4. When the camera is not in use, it will automatically face downward for privacy.
5. When USB video is connected and the Tally lamp is on, the Tally lamp will turn off when the USB video is disconnected.



16. Removed “Debug Information” from the webpage for models PTZ211, PTZ231, PTZ310U(N)V2, and PTZ330U(N)V2.



17. Bug fix: Resolved image flickering issue during Teams meetings.

Known issue

18. We recommend using the Chrome browser for configuring webpages.

19. When using NDI video theme mode, the USB video stream will be temporarily paused in order to ensure the best possible NDI HX3 video streaming experience.

*Simultaneous outputs in different video theme modes:

Video modes	PTZ310UNV2/PTZ330UNV2 TR315N/TR335N	PTZ310UV2/PTZ330UV2 PTZ211/PTZ231/TR315/TR335
Standard/Teams/Zoom	HDMI/IP/NDI HX2/USB (4K60) & 3G-SDI (1080P60)	HDMI/IP/USB(4K60) & 3G-SDI (1080P60)
NDI	HDMI/IP/NDI HX3 (4K60) & 3G-SDI (1080P60)	NA

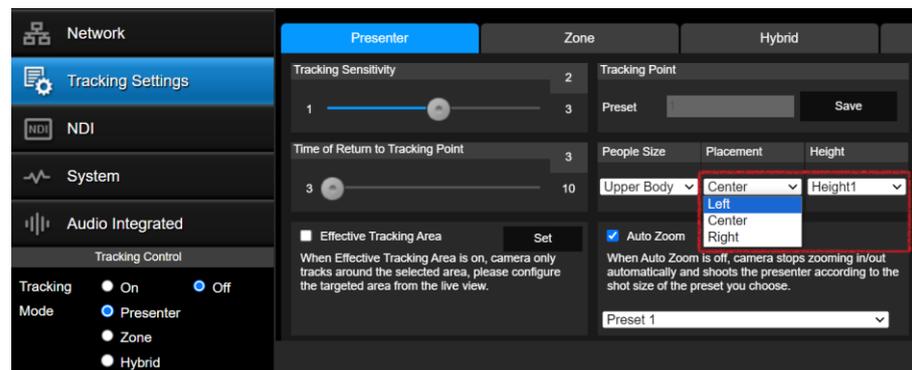
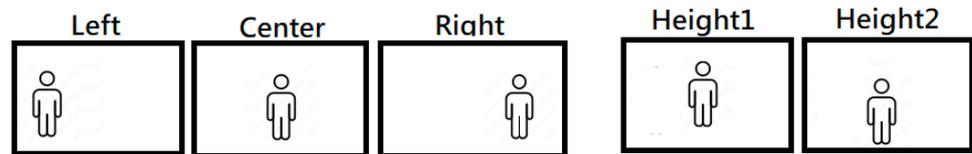
20. HTTPS: Enable HTTPS to establish a secure connection between the browser and the camera. To enable HTTPS, please follow the steps below.

- J. Obtain an SSL certificate in base-64 encoding format for encryption and decryption, and a private key in PKCS#8 format (must be unencrypted).
- K. Convert the required certificate content into PEM format. The SSL certificate uploaded to the camera must be in PEM format.
- L. In the HTTPS settings field, select "On", then click "Choose File" to select the certificate file, and then click "Upload".

FW version	V0.0.0000.37
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Release date	2024/5/24
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New Feature	<p>21. Able to set presenter position and height level on screen of Presenter mode and Hybrid mode.</p> <p>Note: This feature is only supported on TR211, TR315, TR315N, and TR335N.</p>
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22. Supports Zoom Room's new feature "Presenter Focus." When "Presenter Focus" is enabled, the camera will start auto-tracking; when it is disabled, the camera will stop auto-tracking.

Note 1: This feature is only supported on TR211, TR315, TR315N, and TR335N.

Note 2: Zoom certification is still in process. This information is not yet listed on the Zoom Rooms Certified Hardware page. The announcement will be made by June. (It is recommended to start using Presenter Focus by June.)

Note 3: Zoom Rooms support starts with version 6.0.10



<p>Improvement</p>	<p>23. Optimized Camera Setup Webpage Log-In Password Rules:</p> <ol style="list-style-type: none"> 1. Password Length: Passwords must be between 8 to 32 characters long. 2. Mixed Characters: Passwords should include a mix of numbers and English letters. 3. Password and Account Name: The password must not be the same as the account name. 4. Supported Characters: <ol style="list-style-type: none"> i. Numeric characters: 0123456789 ii. Alphabetic characters: ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz iii. Symbols: %+=, - _ ^ / @ . ~ 									
<p>Known issue</p>	<p>24. We recommend using the Chrome browser for configuring webpages.</p> <p>25. When using NDI video theme mode, the USB video stream will be temporarily paused in order to ensure the best possible NDI HX3 video streaming experience.</p> <p>*Simultaneous outputs in different video theme modes:</p> <table border="1" data-bbox="434 1055 1398 1447"> <tr> <td>Video modes</td> <td>PTZ310UNV2/PTZ330UNV2 TR315N/TR335N</td> <td>PTZ310UV2/PTZ330UV2 PTZ211/PTZ231/TR315/TR335</td> </tr> <tr> <td>Standard/Teams/Zoom</td> <td>HDMI/IP/NDI HX2/USB (4KP60) 3G-SDI (1080P60)</td> <td>HDMI/IP/USB(4KP60) & 3G-SDI (1080P60)</td> </tr> <tr> <td>NDI</td> <td>HDMI/IP/NDI HX3 (4KP60) & 3G-SDI (1080P60)</td> <td>NA</td> </tr> </table> <p>26. HTTPS: Enable HTTPS to establish a secure connection between the browser and the camera. To enable HTTPS, please follow the steps below.</p> <ol style="list-style-type: none"> M. Obtain an SSL certificate in base-64 encoding format for encryption and decryption, and a private key in PKCS#8 format (must be unencrypted). N. Convert the required certificate content into PEM format. The SSL certificate uploaded to the camera must be in PEM format. O. In the HTTPS settings field, select "On", then click "Choose File" to select the certificate file, and then click "Upload". 	Video modes	PTZ310UNV2/PTZ330UNV2 TR315N/TR335N	PTZ310UV2/PTZ330UV2 PTZ211/PTZ231/TR315/TR335	Standard/Teams/Zoom	HDMI/IP/NDI HX2/USB (4KP60) 3G-SDI (1080P60)	HDMI/IP/USB(4KP60) & 3G-SDI (1080P60)	NDI	HDMI/IP/NDI HX3 (4KP60) & 3G-SDI (1080P60)	NA
Video modes	PTZ310UNV2/PTZ330UNV2 TR315N/TR335N	PTZ310UV2/PTZ330UV2 PTZ211/PTZ231/TR315/TR335								
Standard/Teams/Zoom	HDMI/IP/NDI HX2/USB (4KP60) 3G-SDI (1080P60)	HDMI/IP/USB(4KP60) & 3G-SDI (1080P60)								
NDI	HDMI/IP/NDI HX3 (4KP60) & 3G-SDI (1080P60)	NA								

Product:

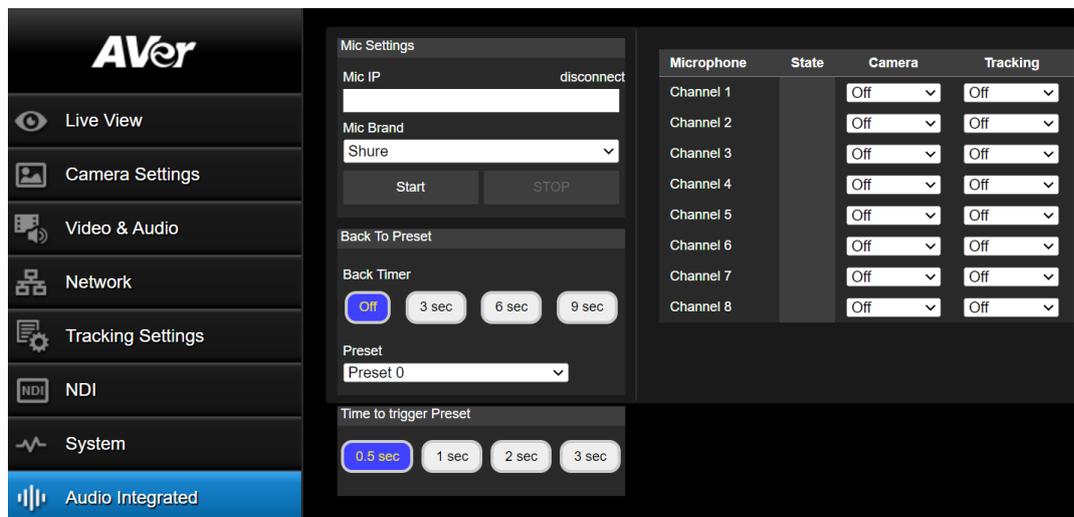
PTZ Camera: PTZ211/PTZ231/PTZ310UV2/PTZ310UNV2/PTZ330UV2/PTZ330UNV2

Tracking Camera: TR211/TR315/TR315N/TR335/TR335N

FW version	V0.0.0000.32
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Release date	2024/5/17
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New Feature	27. Audio partner integration with Shure for Audio tracking function supported models:MXA910&MXA920
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*Long press (2 sec) Auto Tracking ON button from remote control to Start Audio tracking function.

*Long press (2 sec) Auto Tracking OFF button from remote control to Stop Audio tracking function.



	<p>28. NDI HX2 License key code activation feature.</p> <p>29. Able to pan/tilt camera through Onvif command.</p> <p>30. Support Bosch's new version: DICENTIS Conference System 5.0</p>									
<p>Improvement</p>	<ul style="list-style-type: none"> ● Optimized the “Auto Tilt” function while Auto Tracking in Hybrid mode. (this improvement only for Tracking camera TR211/315(N)/335(N)) 									
<p>Known issue</p>	<p>31. We recommend using the Chrome browser for configuring webpages.</p> <p>32. When using NDI video theme mode, the USB video stream will be temporarily paused in order to ensure the best possible NDI HX3 video streaming experience.</p> <p>*Simultaneous outputs in different video theme modes:</p> <table border="1" data-bbox="363 768 1326 1162"> <tr> <td data-bbox="363 768 603 869">Video modes</td> <td data-bbox="603 768 967 869">PTZ310UNV2/PTZ330UNV2 TR315N/TR335N</td> <td data-bbox="967 768 1326 869">PTZ310UV2/PTZ330UV2 PTZ211/PTZ231/TR315/TR335</td> </tr> <tr> <td data-bbox="363 869 603 1016">Standard/Teams/Zoom</td> <td data-bbox="603 869 967 1016">HDMI/IP/NDI HX2/USB (4KP60) & 3G-SDI (1080P60)</td> <td data-bbox="967 869 1326 1016">HDMI/IP/USB(4KP60) & 3G-SDI (1080P60)</td> </tr> <tr> <td data-bbox="363 1016 603 1162">NDI</td> <td data-bbox="603 1016 967 1162">HDMI/IP/NDI HX3 (4KP60) & 3G-SDI (1080P60)</td> <td data-bbox="967 1016 1326 1162">NA</td> </tr> </table> <p>33. HTTPS: Enable HTTPS to establish a secure connection between the browser and the camera. To enable HTTPS, please follow the steps below.</p> <p>P. Obtain an SSL certificate in base-64 encoding format for encryption and decryption, and a private key in PKCS#8 format (must be unencrypted).</p> <p>Q. Convert the required certificate content into PEM format. The SSL certificate uploaded to the camera must be in PEM format.</p> <p>R. In the HTTPS settings field, select "On", then click "Choose File" to select the certificate file, and then click "Upload".</p>	Video modes	PTZ310UNV2/PTZ330UNV2 TR315N/TR335N	PTZ310UV2/PTZ330UV2 PTZ211/PTZ231/TR315/TR335	Standard/Teams/Zoom	HDMI/IP/NDI HX2/USB (4KP60) & 3G-SDI (1080P60)	HDMI/IP/USB(4KP60) & 3G-SDI (1080P60)	NDI	HDMI/IP/NDI HX3 (4KP60) & 3G-SDI (1080P60)	NA
Video modes	PTZ310UNV2/PTZ330UNV2 TR315N/TR335N	PTZ310UV2/PTZ330UV2 PTZ211/PTZ231/TR315/TR335								
Standard/Teams/Zoom	HDMI/IP/NDI HX2/USB (4KP60) & 3G-SDI (1080P60)	HDMI/IP/USB(4KP60) & 3G-SDI (1080P60)								
NDI	HDMI/IP/NDI HX3 (4KP60) & 3G-SDI (1080P60)	NA								

Product:

PTZ Camera: PTZ211/PTZ231/PTZ310UV2/PTZ310UNV2/PTZ330UV2/PTZ330UNV2

Tracking Camera: TR211/TR315/TR315N/TR335/TR335N

FW version	V0.0.0000.28										
Release date	2023/12/20										
New Feature	<p>34. Enabled FQDN setting for direct access to the camera webpage using “http://hostname”. If there are two cameras in the LAN pool with identical hostnames, it may be difficult for the user to identify the correct one. Therefore, modifying the hostname before using this function is necessary. e.g. http://PTZ310UNV2</p> <p>35. Updated the NDI SDK to version 5.6 for NDI models in PTZ310UNV2, PTZ330UNV2, TR315N, and TR335N</p>										
Improvement	<ul style="list-style-type: none"> ● Optimized the Freed protocol and corrected the terminology from “FreeD” to “Freed”. ● Optimized the Onvif protocol for integration with Bosch meeting system. ● Optimized the auto operation smoothly movement in AI Auto Tracking function on TR211/TR315(N)/TR335(N) models. ● Bug fix: Corrected the VISCA command for the following: CAM_BrightPosInq, CAM_Live Freeze, USB Status, UVC Status ● Bug Fix: Corrected the display issue in NDI Studio Monitor where names were not showing correctly for spaces. ● Bug Fix: Resolved this issue where RTSP could not be activated when camera was power off. ● Bug Fix: Corrected the wording of SmartShoot and SmartFrame in the OSD. ● Bug Fix: Corrected bright mode setting in webpage. 										
Known issue	<p>36. We recommend using the Chrome browser for configuring webpages.</p> <p>37. When using NDI video theme mode, the USB video stream will be temporarily paused in order to ensure the best possible NDI HX3 video streaming experience.</p> <p>*Simultaneous outputs in different video theme modes:</p> <table border="1"> <tr> <td>Video modes</td> <td>PTZ310UNV2/PTZ330UNV2 TR315N/TR335N</td> <td>PTZ310UV2/PTZ330UV2 PTZ211/PTZ231/TR315/TR335</td> </tr> <tr> <td>Standard/Teams/Zoom</td> <td>HDMI/IP/NDI HX2/USB (4KP60) & 3G-SDI (1080P60)</td> <td>HDMI/IP/USB(4KP60) & 3G-SDI (1080P60)</td> </tr> <tr> <td>NDI</td> <td>HDMI/IP/NDI HX3 (4KP60) &</td> <td>NA</td> </tr> </table>		Video modes	PTZ310UNV2/PTZ330UNV2 TR315N/TR335N	PTZ310UV2/PTZ330UV2 PTZ211/PTZ231/TR315/TR335	Standard/Teams/Zoom	HDMI/IP/NDI HX2/USB (4KP60) & 3G-SDI (1080P60)	HDMI/IP/USB(4KP60) & 3G-SDI (1080P60)	NDI	HDMI/IP/NDI HX3 (4KP60) &	NA
Video modes	PTZ310UNV2/PTZ330UNV2 TR315N/TR335N	PTZ310UV2/PTZ330UV2 PTZ211/PTZ231/TR315/TR335									
Standard/Teams/Zoom	HDMI/IP/NDI HX2/USB (4KP60) & 3G-SDI (1080P60)	HDMI/IP/USB(4KP60) & 3G-SDI (1080P60)									
NDI	HDMI/IP/NDI HX3 (4KP60) &	NA									

	3G-SDI (1080P60)	
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38. HTTPS: Enable HTTPS to establish a secure connection between the browser and the camera. To enable HTTPS, please follow the steps below.

- S. Obtain an SSL certificate in base-64 encoding format for encryption and decryption, and a private key in PKCS#8 format (must be unencrypted).
- T. Convert the required certificate content into PEM format. The SSL certificate uploaded to the camera must be in PEM format.
- U. In the HTTPS settings field, select "On", then click "Choose File" to select the certificate file, and then click "Upload".

Product:

PTZ Camera: PTZ310UV2/PTZ310UNV2/PTZ330UV2/PTZ330UNV2

Tracking Camera: TR315/TR315N/TR335/TR335N

FW version	V0.0.0000.24									
Release date	2023/11/14									
New Feature	None									
Improvement	<ul style="list-style-type: none"> ● Resolved NDI function disable issue of V22. Users can now enjoy the original NDI HX3 functionality. ● Improved switch presenter functionality through click tracking on the webpage for a more optimized experience. 									
Known issue	<p>39. We recommend using the Chrome browser for configuring webpages.</p> <p>40. When using NDI video theme mode, the USB video stream will be temporarily paused in order to ensure the best possible NDI HX3 video streaming experience.</p> <p>*Simultaneous outputs in different video theme modes:</p> <table border="1"> <thead> <tr> <th>Video modes</th> <th>PTZ310UNV2</th> <th>PTZ310UV2</th> </tr> </thead> <tbody> <tr> <td>Standard/Teams/Zoom</td> <td>HDMI/IP/NDI HX2/USB (4KP60) & 3G-SDI (1080P60)</td> <td>HDMI/IP/USB(4KP60) & 3G-SDI (1080P60)</td> </tr> <tr> <td>NDI</td> <td>HDMI/IP/NDI HX3 (4KP60) & 3G-SDI (1080P60)</td> <td>NA</td> </tr> </tbody> </table> <p>41. HTTPS: Enable HTTPS to establish a secure connection between the browser and the camera. To enable HTTPS, please follow the steps below.</p> <p>V. Obtain an SSL certificate in base-64 encoding format for encryption and decryption, and a private key in PKCS#8 format (must be unencrypted).</p> <p>W. Convert the required certificate content into PEM format. The SSL certificate uploaded to the camera must be in PEM format.</p> <p>X. In the HTTPS settings field, select "On", then click "Choose File" to select the certificate file, and then click "Upload".</p>	Video modes	PTZ310UNV2	PTZ310UV2	Standard/Teams/Zoom	HDMI/IP/NDI HX2/USB (4KP60) & 3G-SDI (1080P60)	HDMI/IP/USB(4KP60) & 3G-SDI (1080P60)	NDI	HDMI/IP/NDI HX3 (4KP60) & 3G-SDI (1080P60)	NA
Video modes	PTZ310UNV2	PTZ310UV2								
Standard/Teams/Zoom	HDMI/IP/NDI HX2/USB (4KP60) & 3G-SDI (1080P60)	HDMI/IP/USB(4KP60) & 3G-SDI (1080P60)								
NDI	HDMI/IP/NDI HX3 (4KP60) & 3G-SDI (1080P60)	NA								

FW version	V0.0.0000.22
Release date	2023/09/06
New Feature	<ol style="list-style-type: none"> <li data-bbox="405 353 1426 427"> 1. Able utilize the NTP function directly from the webpage under System > Network > NTP. <div data-bbox="405 443 963 770" data-label="Image"> </div> <li data-bbox="405 831 1401 904"> 2. Able configure the VISCA Port Mode function through the webpage by going to Network > VISCA Port Mode. <div data-bbox="405 920 1310 1061" data-label="Image"> </div> <li data-bbox="405 1122 1426 1196"> 3. Able utilize the FreeD function directly from the webpage by accessing Network > FreeD. <div data-bbox="405 1211 1305 1435" data-label="Image"> </div> <li data-bbox="405 1503 1310 1532"> 4. Able to export Log from the webpage by accessing System > Export Log. <div data-bbox="405 1547 732 1666" data-label="Image"> </div>

5. Able to continuously export logs to a selected IP and Port directly from the webpage under System > Export Log..

6. Able to configure and set the date and time from the webpage by accessing System > set Date/Time.

7. Able to schedule the Power-up time from the webpage by accessing System > Power Schedule.

Day/Hour	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Sunday																								
Monday																								
Tuesday																								
Wednesday																								
Thursday																								
Friday																								
Saturday																								

Improvement	<ol style="list-style-type: none"> 1. Optimizing USB video for a seamless Zoom Room video streaming experience. 2. Users can now utilize symbols (%+=,-_^/@.~) when creating their login names and passwords. 3. Enhancements to the username and password fields now include the ability to toggle password visibility using an eye icon. 									
Known issue	<ol style="list-style-type: none"> 42. We recommend using the Chrome browser for configuring webpages. 43. When using NDI video theme mode, the USB video stream will be temporarily paused in order to ensure the best possible NDI HX3 video streaming experience. <p>*Simultaneous outputs in different video theme modes:</p> <table border="1" data-bbox="434 768 1399 1113"> <thead> <tr> <th>Video modes</th> <th>PTZ310UNV2/PTZ330UNV2</th> <th>PTZ310UV2/PTZ330UV2</th> </tr> </thead> <tbody> <tr> <td>Standard/Teams/Zoom</td> <td>HDMI/IP/NDI HX2/USB (4KP60) & 3G-SDI (1080P60)</td> <td>HDMI/IP/USB(4KP60) & 3G-SDI (1080P60)</td> </tr> <tr> <td>NDI</td> <td>HDMI/IP/NDI HX3 (4KP60) & 3G-SDI (1080P60)</td> <td>NA</td> </tr> </tbody> </table> 44. HTTPS: Enable HTTPS to establish a secure connection between the browser and the camera. To enable HTTPS, please follow the steps below. <ol style="list-style-type: none"> Y. Obtain an SSL certificate in base-64 encoding format for encryption and decryption, and a private key in PKCS#8 format (must be unencrypted). Z. Convert the required certificate content into PEM format. The SSL certificate uploaded to the camera must be in PEM format. AA. In the HTTPS settings field, select "On", then click "Choose File" to select the certificate file, and then click "Upload". 	Video modes	PTZ310UNV2/PTZ330UNV2	PTZ310UV2/PTZ330UV2	Standard/Teams/Zoom	HDMI/IP/NDI HX2/USB (4KP60) & 3G-SDI (1080P60)	HDMI/IP/USB(4KP60) & 3G-SDI (1080P60)	NDI	HDMI/IP/NDI HX3 (4KP60) & 3G-SDI (1080P60)	NA
Video modes	PTZ310UNV2/PTZ330UNV2	PTZ310UV2/PTZ330UV2								
Standard/Teams/Zoom	HDMI/IP/NDI HX2/USB (4KP60) & 3G-SDI (1080P60)	HDMI/IP/USB(4KP60) & 3G-SDI (1080P60)								
NDI	HDMI/IP/NDI HX3 (4KP60) & 3G-SDI (1080P60)	NA								

FW version	V0.0.0000.14									
Release date	2023/03/31									
New Feature	None									
Improvement	<ul style="list-style-type: none"> ● Enhanced the firmware upgrade progress experience. ● Enabled the LDC function on the web page. ● Added RTC (Real-Time Clock) check. 									
Known issue	<p>45. We recommend using the Chrome browser for configuring webpages.</p> <p>46. When using NDI video theme mode, the USB video stream will be temporarily paused in order to ensure the best possible NDI HX3 video streaming experience.</p> <p>*Simultaneous outputs in different video theme modes:</p> <table border="1" data-bbox="432 824 1399 1167"> <thead> <tr> <th>Video modes</th> <th>PTZ310UNV2</th> <th>PTZ310UV2</th> </tr> </thead> <tbody> <tr> <td>Standard/Teams/Zoom</td> <td>HDMI/IP/NDI HX2/USB (4KP60) & 3G-SDI (1080P60)</td> <td>HDMI/IP/USB(4KP60) & 3G-SDI (1080P60)</td> </tr> <tr> <td>NDI</td> <td>HDMI/IP/NDI HX3 (4KP60) & 3G-SDI (1080P60)</td> <td>NA</td> </tr> </tbody> </table> <p>47. HTTPS: Enable HTTPS to establish a secure connection between the browser and the camera. To enable HTTPS, please follow the steps below.</p> <p>BB. Obtain an SSL certificate in base-64 encoding format for encryption and decryption, and a private key in PKCS#8 format (must be unencrypted).</p> <p>CC. Convert the required certificate content into PEM format. The SSL certificate uploaded to the camera must be in PEM format.</p> <p>DD. In the HTTPS settings field, select "On", then click "Choose File" to select the certificate file, and then click "Upload".</p>	Video modes	PTZ310UNV2	PTZ310UV2	Standard/Teams/Zoom	HDMI/IP/NDI HX2/USB (4KP60) & 3G-SDI (1080P60)	HDMI/IP/USB(4KP60) & 3G-SDI (1080P60)	NDI	HDMI/IP/NDI HX3 (4KP60) & 3G-SDI (1080P60)	NA
Video modes	PTZ310UNV2	PTZ310UV2								
Standard/Teams/Zoom	HDMI/IP/NDI HX2/USB (4KP60) & 3G-SDI (1080P60)	HDMI/IP/USB(4KP60) & 3G-SDI (1080P60)								
NDI	HDMI/IP/NDI HX3 (4KP60) & 3G-SDI (1080P60)	NA								

FW version	V0.0.0000.12									
Release date	2023/03/17									
New Feature	None									
Improvement	1. Optimizing USB video for a seamless Zoom Room video streaming experience.									
Known issue	<p>2. We recommend using the Chrome browser for configuring webpages.</p> <p>3. When using NDI video theme mode, the USB video stream will be temporarily paused in order to ensure the best possible NDI HX3 video streaming experience.</p> <p>*Simultaneous outputs in different video theme modes:</p> <table border="1"> <thead> <tr> <th>Video modes</th> <th>PTZ310UNV2</th> <th>PTZ310UV2</th> </tr> </thead> <tbody> <tr> <td>Standard/Teams/Zoom</td> <td>HDMI/IP/NDI HX2/USB (4KP60) & 3G-SDI (1080P60)</td> <td>HDMI/IP/USB(4KP60) & 3G-SDI (1080P60)</td> </tr> <tr> <td>NDI</td> <td>HDMI/IP/NDI HX3 (4KP60) & 3G-SDI (1080P60)</td> <td>NA</td> </tr> </tbody> </table> <p>4. HTTPS: Enable HTTPS to establish a secure connection between the browser and the camera. To enable HTTPS, please follow the steps below.</p> <p>A. Obtain an SSL certificate in base-64 encoding format for encryption and decryption, and a private key in PKCS#8 format (must be unencrypted).</p> <p>B. Convert the required certificate content into PEM format. The SSL certificate uploaded to the camera must be in PEM format.</p> <p>C. In the HTTPS settings field, select "On", then click "Choose File" to select the certificate file, and then click "Upload".</p>	Video modes	PTZ310UNV2	PTZ310UV2	Standard/Teams/Zoom	HDMI/IP/NDI HX2/USB (4KP60) & 3G-SDI (1080P60)	HDMI/IP/USB(4KP60) & 3G-SDI (1080P60)	NDI	HDMI/IP/NDI HX3 (4KP60) & 3G-SDI (1080P60)	NA
Video modes	PTZ310UNV2	PTZ310UV2								
Standard/Teams/Zoom	HDMI/IP/NDI HX2/USB (4KP60) & 3G-SDI (1080P60)	HDMI/IP/USB(4KP60) & 3G-SDI (1080P60)								
NDI	HDMI/IP/NDI HX3 (4KP60) & 3G-SDI (1080P60)	NA								