



# Firmware Release Notes

**A1D-500-V6.21.03-AC**



**ACTi**  
Connecting Vision

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# Firmware Version

**Firmware Version:** **A1D-500-V6.21.03-AC**

**Release Date:** 2024.08.01

## New Features

1. (v6.21.03) Support Firefox web browser.
2. (v6.19.11) Add "FTP over SSH" on FTP server configuration page to support SFTP client function.
3. (v6.19.11) Add user access level options on User Account page to sync ONVIF three user levels (Administrator, Operator, User).
4. (v6.19.11) Support TAICS security level and provide Idle timeout setting in System Security Settings page to auto logout.
5. (v6.19.11) Add System Log page and support to read, remove and select various events into Log.
6. (v6.19.11) Support multiple web browsers, such as Google Chrome, Microsoft Edge and Apple Safari.
7. (v6.19.11) Add "Loss video streams" for TCP/RTP connections in event handling.
8. (v6.19.11) Add "System Log Buffer Overrun" and "Remove System Log" for system log events.
9. (v6.19.11) Add "Login Failure", "Login Success" and "Block an Account" for login events.
10. (v6.19.11) Add "Format Storage Media" and "Format Storage Media" for local storage events.
11. (v6.19.11) Support Enable/Disable Control Server, Streaming Server and RTSP Server ports
12. (v6.18.06) Supported new model: Q116, Q117
13. (v6.17.02) Support ONVIF Profile T
14. (v6.16.14) Add the option to enable or disable HTTP server service for camera's web page.
15. (v6.15.06) Support ONVIF Profile Q and pass the ONVIF Device Test Tool v19.06.
16. (v6.15.06) The login account will no longer have the default password, and the camera will require a user to set a new password before access the camera or connecting it to any NVR servers for the first time.

17. (v6.14.16) Support “Camera Firmware Auto Upgrade” function of standalone NVR (ENR/MNR series).
18. (v6.14.16) Support 256GB MicroSD card.
19. (v6.13.18) Supported new model: Q970
20. (v6.13.18) PMON-2000 Camera Installation Kit compatibility (please set “ACTi mode” on PMON-2000)
21. (v6.12.34) Supported IEEE 802.1x EAP Protocol V3
22. (v6.12.34) Supported Audio Out function via ONVIF
23. (v6.12.34) Supported failover for uploading video and audio to NVR server in event handler function. The function is available on the camera with local storage function and MicroSD card is required.
24. (v6.12.34) Supported RTP over HTTPS streaming
25. (v6.12.34) Supported HTTPS video streaming on GET\_STREAM and Event Response Image
26. (v6.12.34) Supported GOP length up to 300 seconds
27. (v6.12.34) Supported “Play the audio file” in event response on camera with audio supported. The format of audio file is .WAV file with PCM, 16-bit, 8KHz sampling rate, and the maximum file size is 256 KB.
28. (v6.12.34) Supported public SMTP servers  
smtp.gmail.com,  
smtp.mail.yahoo.com  
smtp.live.com  
smtp.yandex.com  
smtp-mail.outlook.com  
smtp.gmx.com  
smtp.zoho.com
29. (v6.12.34) Added Mongolian language
30. (v6.12.34) Added QVGA 320x240 resolution capability on video stream 1.
31. (v6.12.34) Added Tamper detection in Event trigger function for E44A, E77, B51 and B53.
32. (v6.11.30) Supported new models:  
Q series:  
Q12, Q112-K1, Q14-K1, Q22, Q22-K1
33. (v6.11.30) Supported IEEE 802.1x with Cisco ISE
34. (v6.11.30) Supported push Video/Audio to NVR 3 Corporate server with v3.0.12.39 and later versions
35. (v6.11.30) Supported independent video mirror and flip for E37, E54 and B51
36. (v6.11.30) Supported Electronic Day / Night for E918, E918M, E920, E920M,

- E922 and E922M
37. (v6.11.30) Supported Tamper detection in Event trigger function for E924 and E924M
38. (v6.11.30) Supported Notification Server in Event server and the available event triggers including Digital input, Motion detection, Sound detection and Tamer.
39. (v6.11.30) Supported up to 63 speed levels on I91~I96, I910 and I912 models with ISP firmware version v2.01.16 and newer versions to make pan and tilt speed smoothly.
40. (v6.11.30) PTZ control panel on live view page can be hidden by URL command "PTZ\_CTRL\_PANEL"
41. (v6.10.25) Supported new models:
- E series:
    - E210
  - Q series:
    - Q11, Q112, Q115, Q13, Q14, Q19
42. (v6.10.25) Supported GB28181 protocol
43. (v6.09.45) Supported new models:
- E series:
    - E213, E215, E223, E413, E415, E416, E418, E616, E617, E618, E621, E815, E816, E817, E822, E925, E925M, E927, E927M, E928, E928M, E929, E929M
  - B series:
    - B22, B46, B49, B82, B210, B410, B910
  - I series:
    - I27, I47, I73, I910, I912
  - Q series:
    - Q12, Q110, Q111, Q113
44. (v6.09.45) Supported ONVIF Profile G for models with local storage.
45. (v6.09.45) Added ACTi DDNS service ("mediacss.com", "smmaas.com", "vmsaas.com"), please login ACTi DDNS (<https://portal.acti.com/>) to manager devices.
46. (v6.09.45) Supported 32 privacy masks (3D masks) for zoom position on I24, I25, I27, I44, I45 and I47.
47. (v6.09.45) Supported 4 privacy masks for each of 17 preset points on zoom box (B2x), zoom bullet (B4x), zoom dome (B6x, B8x), Mini PTZ (B94~B97, B94A~B97A, B910)
48. (v6.09.45) Supported 4 privacy masks on zoom box (E213, E210, E215, E223,

- B210), zoom bullet (E413, E415, E416, E418, B410), zoom dome (E616~E618, E621, E815~E817, E822)
49. (v6.09.45) Supported “Auto Firmware Upgrade” function that camera can be upgraded firmware from local computer or from ACTi download center through internet service provider.
50. (v6.08.30) Added Ground mode in view option for all fisheye and hemispheric cameras
51. (v6.08.30) Added DIS function on I24, I25, I44 and I45
52. (v6.08.30) Added Defogging function in I series models.
53. (v6.08.30) Supported 32 privacy masks (3D masks) for I9x series models.
54. (v6.08.30) Added Joystick Simulated Mode/Mouse PTZ mode for I9x series models.
55. (v6.08.30) Added GPS position setting by manually
56. (v6.08.30) Supported Sound Detection in event handler for audio-in function is supported models.
57. (v6.08.30) Supported ONVIF multicast metadata configurations
58. (v6.08.30) Supported Audio function for E918M, E919M, E920M, E921M, E922M, E923M.
59. (v6.08.30) Supported new models:
- E series:
    - E15, E16, E23B, E48, E924, E926
  - B series:
    - B62, B94A, B95A, B96A, B97A
60. (v6.07.24) Added 800 x 600 resolution for all D/E/B/I series models
61. (v6.07.24) Supported new models:
- E series:
    - E11A, E12A, E13A, E14, E31A, E32A, E33A, E34A, E35, E36, E98, E918, E918M, E919, E919M, E920, E920M, E921, E921M, E922, E922M, E923, E923M
  - B series:
    - B21, B24, B25, B27, B54
  - I series:
    - I51, I71, I24, I25, I44, I45
62. (v6.07.24) Redesign the local storage function to continue recording automatically from stream 1 for all time. The new design can provide the timeline bar, view the snapshot, export the selectable duration, show motion detection and DI events in File Management page.
63. (v6.07.24) Supported Fisheye view, ePTZ and Panorama view modes for I51

- and I71. Maximum resolution is 2592 x 1944 for fisheye view and panorama; 1920 x 1080 for ePTZ mode.
64. (v6.07.24) Supported active and passive microphone types and audio in level adjustment for E918~E923
65. (v6.07.24) Supported single video streaming mode
66. (v6.07.24) Added 20 fps for 2048 x 1536 resolution on specific 3MP camera models.
67. (v6.07.24) Added 8 fps on specific 1.3MP, 3MP and 5MP camera models.
68. (v6.07.24) Supported 7 fps for 3648 x 2736, 3648 x 2160, 2592 x 1944 and 2048 x 1536 resolutions on 10MP camera models.
69. (v6.06.16) ONVIF Profile S compliance
70. (v6.06.16) Added video resolution 1440x1080 and 1280x960 options for video stream1 on fisheye cameras.
71. (v6.06.16) Supported IR Exposure Compensation setting for all camera with IR LED. (Default is enabled)
72. (v6.06.16) Supported Scan function and Return to Auto Scan setting for PTZ/Speed dome camera
73. (v6.06.16) Browser auto detection for plug-in application (Safari with QuickTime installed, and other browsers with VLC installed)
74. (v6.06.16) Supported new models
- D series:
- D41A, D42A, D61A, D62A, D64A, D65A
- E series:
- E41B, E42B, E43B, E44A, E45, E45A, E46A, E47, E61A, E62A, E63A, E64A, E65A, E66A, E67A, E68, E69, E85, E85A
- B series:
- B41, B44, B45, B47
75. (v6.05.23) Supported local storage function with MicroSDXC
76. (v6.05.23) Supported Microsoft Internet Explorer 11.0
77. (v6.05.23) Supported 720p with 60 fps High frame rate mode for 1.3MP camera models
78. (v6.05.23) Supported Saturation, Edge Enhancement and 2D/3D DNR configuration for I series cameras
79. (v6.05.23) Supported build-in Defogging for I series cameras
80. (v6.05.23) Supported Image Stabilization, dynamic Privacy Mask and Digital Zoom for I series PTZ/Speed dome cameras
81. (v6.05.23) Supported IR LED control for camera model with Adaptive IR-LED specification



82. (v6.05.23) Changed plug-in application from VLC to QuickTime for non-IE browser
83. (v6.05.23) Supported 10 Megapixel resolution
84. (v6.05.23) Supported new models
- D series:
- D21FA, D21VA, D22FA, D22VA, D71A, D72A, D81A, D82A
- E series:
- E21FA, E21VA, E22FA, E22VA, E23A, E24A, E25A, E270, E271, E37, E56, E57, E58, E59, E610, E71A, E72A, E73A, E74A, E75, E76, E77, E81A, E82A, E83A, E84A, E86A, E88, E89, E97
- B series:
- B51, B52, B53, B55, B56, B61, B64, B65, B67, B81, B84, B85, B87, B94, B95, B96, B97
- I series:
- I91, I92, I93, I94, I95, I96
85. (v6.05.23) Supported IR LED Strength Level setting for specific models, such as Zoom lens models and B51, B52, B53, E610, E89 ...etc.
86. (v6.04.15) Supported local storage function with MicroSDHC
87. (v6.04.15) Supported Microsoft Internet Explorer 10.0
88. (v6.04.15) Supported different H.264 profile switching. User can configure the H.264 Baseline/ Main/ High profile on camera's Web Configurator.
89. (v6.04.15) Supported software dewarping function in ActiveX with different view modes (Fisheye View, Dewarped View, Panorama Wall and Ceiling Mount) for fisheye cameras
90. (v6.04.15) Supported new models
- D series: D21F, D21V, D22F, D22V, D42, D91, D92
- E series: E21F, E21V, E22F, E22V, E93, E94, E95, E96
91. (v6.03.17) Supported new models
- D series:
- D12, D21, D22, D31, D32, D41, D54, D55, D61, D62, D64, D65, D71, D72, D81, D82
- E series:
- E21, E22, E23, E24, E25, E34, E41A, E42A, E43A, E44, E45, E46, E61, E62, E63, E64, E65, E66, E67, E71, E72, E73, E74, E81, E82, E83, E84, E85, E86, E91, E92
92. (v6.03.17) Added 1280x720 video resolution for 1.3M camera models (e.g. D61, E66 and E25)
93. (v6.02.03) Compliant with ONVIF Core Specification v2.2

- 94. (v6.02.03) Supported Anonymous login for live view
- 95. (v6.02.03) Supported WDR function on E series products

## Enhancements

- 1. (v6.21.03) Added HTTPS CSR upload in Web UI.
- 2. (v6.19.11) Improved the auto focus design for day/night changing.
- 3. (v6.19.11) Change the file system in local storage from EXT4 to EXT3 to improve compatibilities.
- 4. (v6.16.14) Security enhancement on URL commands
- 5. (v6.16.14) Support upcenter and downcenter positions on OSD.
- 6. (v6.16.14) Compatible with IP Utility v5.0.0.4 and newer versions, to be able to set root password and change network configurations without root login for conveniently installing IP camera in the networking environment without DHCP server.
- 7. (v6.15.06) HTTPS is enabled by default, and supports built-in default self-signed certificate and private key.
- 8. (v6.15.06) Support comma (,) character in URL command of event response setting.
- 9. (v6.15.06) Extended Host URL length from 63 to 127 characters.
- 10. (v6.14.16) Q970 intercom enhancement. When simultaneous talk and push the button, camera will light up LED indicator and will suspend the ringer to make speaker as high priority.
- 11. (v6.14.16) Add x-dimensions for media description in RTSP session.
- 12. (v6.14.16) Improve the reliability of the firmware
- 13. (v6.13.18) Update the ACTi Digital Signature of ActiveX on WEB UI.
- 14. (v6.13.18) Reliability enhancement
- 15. (v6.13.18) Network session handling improvement to avoid "Service not available" issue on camera web configurator
- 16. (v6.13.18) Added "sysmnd" URL command for troubleshooting
- 17. (v6.13.18) Supported URL command for camera rebooting
- 18. (v6.13.18) Supported base64 authentication for ONVIF
- 19. (v6.12.34) Supported switching color or monochrome video of camera by URL command "IMAGE\_COLOR\_MODE".
- 20. (v6.12.34) Added "Default", "Fast" and "Slow" speed options in Auto Pan/Tilt speed function for PTZ and speed dome cameras (I91~I96, I910 and I912) with ISP firmware version ISP-0521-V2.01.21 and later.
- 21. (v6.12.34) ICMP/TCP timestamp response, UPnP, Bonjour are disabled by

default for security reasons.

- 22. (v6.11.30) The supported ONVIF version is changed from 2.0 to 2.4
- 23. (v6.11.30) To update DI event format for ONVIF integration
- 24. (v6.10.25) OSD on Video Stream 2 could be disabled
- 25. (v6.10.25) Video contrast enhancement for I27 and I47 with new ISP firmware.
- 26. (v6.09.45) To change the speed of Pan and tilt speed to improve the preset precision for I9x PTZ and Speed Dome with new ISP firmware,
- 27. (v6.09.45) Added the option for 10MP models to change video resolution to 1920x1080 on video stream 1 when the camera enters night time mode.
- 28. (v6.09.45) Added the heater fan control function for I93~I96 and I910 outdoor cameras by URL command
- 29. (v6.09.45) The valid characters in login name can accept “!” and “^” characters.
- 30. (v6.09.45) The default digital image stabilization (DIS) setting is changed to disable.
- 31. (v6.09.45) Added PT speed option on B94(A)~B97(A) and B910 cameras.
- 32. (v6.09.45) All camera models support mirror and flip functions except the I73 and I53.
- 33. (v6.09.45) Added Home Preset setting on the zoom only camera without serial port.
- 34. (v6.08.30) Added camera calibration, the rotation and tilt angle adjustment for ceiling mount type, and installation angle adjustment for wall mount type in camera options for software dewarp fisheye cameras
- 35. (v6.08.30) Changed the bitrate default setting from 4Mbps to 6Mbps in video stream 1 for 2MP and higher megapixel cameras.
- 36. (v6.08.30) Added continue Auto Focus enabled/disabled setting by URL command for I9x series models. (default is enabled)
- 37. (v6.08.30) Stream Mode selection in Camera Options page is removed due to cameras already support single stream can be added by ONVIF integrations. Fisheye and Hemispheric camera will keep Stream Mode selection.
- 38. (v6.08.30) Supported move limit in go preset for I9x series models.  
(Default is -180°~180°in pan and 0~90° in tilt)
- 39. (v6.08.30) To reduce the PTZ speed in manual mode for I9x series models.
- 40. (v6.08.30) Supported SMTP/FTP user names that begin with a number
- 41. (V6.08.30) Motion detection 3 profiles are all enabled by default
- 42. (v6.08.30) Added Ping-Pong partition management for device reliability
- 43. (v6.07.24) Added Korean language
- 44. (v6.07.24) Video jitter improvement

- 45. (v6.07.24) Troubleshooting page will be disable by default.
- 46. (v6.07.24) Added RTC realtime clock information to the System Log
- 47. (v6.06.16) Audio quality improvement
- 48. (v6.06.16) Maximum Zoom Ratio setting for optical zoom control
- 49. (v6.06.16) Added "IDLE position" in touring state for PTZ camera
- 50. (v6.06.16) Faster response of event to snapshot and concurrent snapshot requests
- 51. (v6.06.16) Supported PT control in Web configuration for camera with RS-485/422 serial port
- 52. (v6.06.16) Supported Stream 2 profile and change resolution from maximum resolution to 1080p or 720p of Stream 1 profile for ONVIF integration
- 53. (v6.06.16) Added video resolution 3648x2160 for 10MP non-fisheye camera
- 54. (v6.05.23) Increased the PTZ preset points up to 256
- 55. (v6.05.23) Supported OPTIONS command for keep-alive with RTSP connection
- 56. (v6.05.23) Enhanced the image quality with ISP firmware improvement
- 57. (v6.04.15) Enhanced the sensitivity of motion detection
- 58. (v6.04.15) Reliability enhancement
- 59. (v6.04.15) Supported the QVGA(320x240) resolution for video stream 2 only
- 60. (v6.04.15) H.264 compatibility enhancement and set proper H.264 level with different video resolution
- 61. (v6.03.17) Supported variable GOP in Constant Bit Rate mode with shutter speed changes
- 62. (v6.03.17) Improved the audio quality
- 63. (v6.03.17) Improved the sensitivity of motion detection
- 64. (v6.03.17) Improved video bite rate control on Motion JPEG and H264 Variable Bit Rate mode
- 65. (v6.02.03) Increase the maximum Pre-Buffer Time to 10 seconds for upload video in event handler function.

## Issue Solved

- 1. (v6.21.03) Resolved WS-Security authentication failure caused by a nonce timing check error when the nonce table is full.
- 2. (v6.19.11) Fixed the issue with SNMP function on v6.18.06.
- 3. (v6.19.11) Fix the incorrect SetPreset command for ONVIF integration.
- 4. (ISP v1.03.00) Fixed 3D masks disappear or refocusing failed randomly for

- the zoom camera models (I24, I25, I27, I44, I45, I47)
5. (ISP v2.03.00) Fixed 3D masks disappear or refocusing failed randomly for the PTZ camera models.
  6. (v6.18.06) Fixed the setting preset point configuration failed sometimes from camera web UI.
  7. (v6.17.02) Fixed the firmware upgrade failed though WEB UI because some of URL commands are not working when guest preview is enabled.
  8. (v6.17.02) Fixed the camera stop streaming when using MJPEG video streams
  9. (v6.16.14) Fixed choppy or dropped streaming video connections with ZNR series video servers.
  10. (v6.16.14) Fixed the user level accounts will be reset when the camera is rebooted.
  11. (v6.13.19) No audio package out sometimes after the stress test of Audio out back channel testing.
  12. (v6.13.18) Integration problem with URL command for third-party software
  13. (v6.13.18) Camera will not respond when the two scan points in PTZ camera are set to the same position.
  14. (v6.13.18) Fix noise problem when audio out function is enabled.
  15. (v6.12.34) IR LED Strength Level setting is disappeared on web configurator
  16. (v6.12.34) Daylight saving function does not work in some time zones
  17. (ISP v2.02.04) I910 will show green block in live view and playback randomly.
  18. (v6.11.31) The production id of B910 is updated to adapt the production system.
  19. (ISP v1.04.01) I73 night mode video image is over-exposed
  20. (v6.11.30) The scan function for speed 1 and 2 not working on B9x Mini PTZ.
  21. (v6.11.30) Manual Event trigger will be disappeared from live view mode once the camera is disconnected and connected again
  22. (v6.11.30) Zoom in/out function cannot work for ONVIF integration when selected Relative Mode
  23. (v6.11.30) To fix the inaccurate RTP timestamp
  24. (v6.11.30) Time synchronization problem when daylight saving time is shifted

by a hour

- 25. (v6.11.30) To fix uploading multiple snapshots with notification message on single email at the same time.
- 26. (v6.09.45) “members.dyndns.org”, “cgi.tzo.com”, “www.justlinux.com” and “www.hn.org” are removed in DDNS supported list
- 27. (v6.08.30) Pelco-D and Pelco-P protocols are not supported on I24, I25
- 28. (v6.08.30) Event trigger by “device boots successfully” cannot upload video to FTP server sometimes.
- 29. (v6.08.30) Bug fixed in local storage file management page.
- 30. (v6.08.30) Video from stream 2 is abnormal for getting video by encoder?CHANNEL=1&STREAM=2&VIDEO\_H264\_QUALITY=HIGH
- 31. (v6.07.24) Bug fixed for local storage function
- 32. (v6.07.24) B8X models are not able to switch day mode automatically
- 33. (v6.07.24) Compatibility with Avigilon software due to the VMS cannot recognize ONVIF version higher than 2.2
- 34. (v6.07.24) Camera may skip frame during speed up recording
- 35. (v6.07.24) The whiteout issue happened when Day/ Night changed
- 36. (v6.06.16) No video frame when changing shutter speed or day/night
- 37. (v6.06.16) Touring function is unstable for I series PTZ camera
- 38. (v6.05.23) Showed Mouse PT direction icon on Zoom only camera
- 39. (v6.05.23) Snapshot function cannot work by user account level
- 40. (v6.05.23) Event time calculation issue with Event Handler function
- 41. (v6.04.15) ONVIF compatibility issue (e.g. PTZ control, video stream 2 capability setting ...etc.)
- 42. (v6.03.17) Device will not synchronize its time with NTP server automatically when camera is in static IP address.
- 43. (v6.03.17) Cannot upload snapshot to Local Storage and FTP at same time
- 44. (v6.03.17) The output snapshot file in Live View is broken when the resolution is 2048x1536 or 1280x720
- 45. (v6.03.17) IEEE 802.1x may not work normally
- 46. (v6.03.17) Stability issue with local storage function

- 47. (v6.03.17) Integration issue with ONVIF function
- 48. (v6.03.17) The snapshot function will show error message sometimes.
- 49. (v6.02.03) Fixing Audio noise problem by using “GET\_STREAM” HTTP command.

## Removed

- 1. (v6.21.03) Remove GB28181 functions
- 2. (v6.07.24) To remove alarm response “Save snapshot to local storage “ for event recording into local storage

## Known Issue

- 1. (v6.15.06) The user level accounts will be reset when the camera is rebooted.

## Supported Languages

Czech, Dutch, English, French, German, Hebrew, Hungarian, Italian, Japanese, Korean, Mongolian, Polish, Romanian, Russian, Spanish, Simplified Chinese and Traditional Chinese.

## Supported Video Management System

For supported ACTi VMS list, please refer to

<http://www.acti.com/UnifiedSolution>

For supported Third-party Software Integration list, please refer to

<http://www.acti.com/3rdpartysoftware>

## Remark

- 1. If the earlier firmware versions do not support this new model, please do not downgrade FW to earlier version, otherwise you need to upgrade new firmware again.
- 2. Please keep enable “RTP B2 Frame” on camera to prevent compatibility problem with software NVR or standalone NVR.
- 3. Please check the motion region setting and privacy masking window after changing video resolution.
- 4. After remove HTTPS certificate files, the WEB UI has to redirect to the login page with HTTP protocol.
- 5. Please save and reboot the device after remove HTTPS certificate files.



6. Not support Motion detection regions and Privacy mask regions in non-IE browser.
7. Not support MPEG4 CGI, this CGI is replaced with Encoder CGI.
8. When OSG function is activated, the snapshot function will be only available from channel 1.
9. The “Ready for service” and “Service is not available” had been renamed to “Device boots successfully” and “Reboot device” in Event triggered list.
10. H.264 level 5 is for 3M and higher video resolution, level 3 is for VGA and lower and level 4 is for 720p and 1080p.
11. ONVIF function is disabled by default. Please enable the ONVIF in “Network” page from Web Configurator or by the following URL command for ONVIF testing.  
[http://ip:port/cgi-bin/cmd/system?ONVIF\\_STATE=1](http://ip:port/cgi-bin/cmd/system?ONVIF_STATE=1) or  
[http://ip:port/cgi-bin/system?USER=admin&PWD=123456&ONVIF\\_STATE=1](http://ip:port/cgi-bin/system?USER=admin&PWD=123456&ONVIF_STATE=1)  
(USER is camera's root account name, PWD is password.)
12. When OSG function is activated, the snapshot always captured image data from channel 1.
13. FPS number of model I92/I94/I96 is 27 fps at 1080p resolution.
14. For High frame rate mode, image sensor output will up to 60FPS at 1280 x 720 resolution if the shutter speed is 1/100 sec or higher in the 50Hz power line frequency environment.
15. For plug-in application in browser, it is recommended to install the browser and then install the plug-in application.
16. QuickTime plug-in application is not available for 5M and above resolution with H.264 Level 5.1.
17. PTZ control panel in web UI can configure up to 32 preset points and 32 preset tour points in a tour group. You can configure the additional preset points up to 256 by using PTZ URL command.
18. When video resolution is 3648x2160, camera might not be able to switch back to day mode.
19. Firmware version V6.07 and future versions had a disparate database structure for local storage function from previous versions, therefore please format the local storage again after upgrading to v6.07, otherwise camera will remove the video which is recorded from v6.06.16 and previous versions. Besides, Edge Recorder Client V1.0.02 and earlier software version will be not compatible with camera firmware v6.07.
20. GB28181 function is verified by test software  
“mss-1.4.0.FINAL-apache-tomcat-6.0.29”



21. The SMTP server with two-factor authentication is not supported.
22. ANS (ACTi Notification Services) is ACTi's implementation of Amazon SNS through the usage of ACTi's server domain and ACTi's member center accounts. Please contact us for more information regarding Notification Services.
23. The camera will have ability to support ACTi SMTP server by project request, please contact us for more details.
24. Tampering detection and Motion detection are mutually exclusive events. The VMS software will appear "MD1" event when tampering detection is triggered.
25. The plugin controls had been removed from some web browsers such as Google Chrome. Therefore, the video stream and configurations through video display will be not available.
26. Please ensure that the firewall allows TCP communication through the default http service port for troubleshooting.
27. It is not recommended for formatting the MicroSD card through camera if the capacity of storage card is larger than 32GB.
28. The camera firmware can support camera firmware upgrading through ENR/MNR series with firmware V5.03 or newer versions.
29. The supported functions of ONVIF profile T on camera firmware v6.17.02 included Secure Streaming, Motion Detection Configurations, OSD Configurations and Audio Out Streaming, but Tampering Detection is not supported yet.
30. By following the TAICS specification, some settings are changed as default settings after switching Account Security Level to TAICS mode.
  - HTTP service is disabled
  - Firmware upgrade from download center is not available
  - Not support Anonymous login
  - Search Server Port2 is disabled
  - Hide FTP server setting in the event server setup page
  - Hide "snapshot to FTP" and "video to FTP and NVR" in image upload setup page

# Upgrade

To achieve the best possible functionality and video quality of the camera, performing both camera firmware and the ISP firmware upgrade is recommended.

You can use the IP Utility 5.0.0.7 or later version to upgrade both camera firmware and ISP conveniently and can upgrade multiple cameras at the same time using IP Utility.

## Firmware upgrade notice

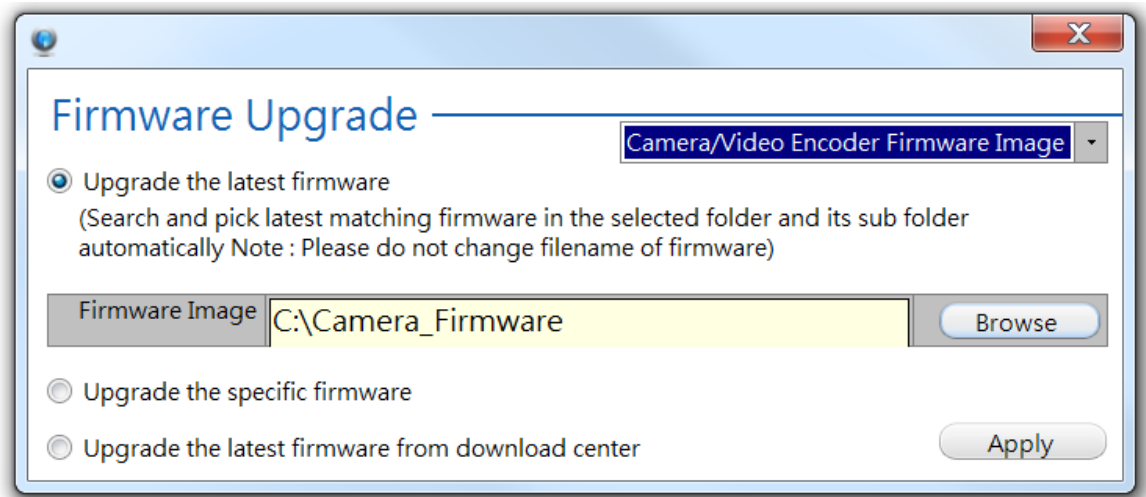
Firmware Version Before Upgrading	Firmware upgrade rule	Upgrade by
6.01.03 or earlier	Please upgrade to v6.01.06 first, then upgrade to v6.04.15 directly	1.Camera Web Configurator via Microsoft Internet Explorer 11 2.IP Utility v5.0.0.8 or later versions
6.04.15 ~ 6.08	Please upgrade to v6.09.45 first, then upgrade to v6.19.11 twice.	
6.09.45 or newer	Please upgrade to v6.19.11 directly	

## Camera Firmware Upgrade Procedure

1. Please unzip the image package, it included V6.21.03 camera firmware Image and ISP firmware image for I series camera.
2. Run IP Utility.
3. Please select the camera models you want to upgrade in the model list that IP Utility has found. At this point, you can see directly within IP Utility which D/E/B/I models do not have the latest camera firmware yet.
4. Input camera’s account, password and HTTP port number value and click “Firmware” on Configuration tool bar.

Account  Password  HTTP

The following pop-up window will appear.



5. Please save the downloaded firmware files and keep their filenames unchanged.
6. Select “Camera/Video Encoder Firmware Image” and “Upgrade the latest firmware” to have IP Utility automatically decide the firmware file <A1D-500-V6.21.03-AC.upg> from the location you give. Please click “Browse” button to choose the specific “Firmware Image” folder location, and click “Apply”.

The device needs 2 minutes for FW upgrading, and it will reboot automatically and show return message “Success” after the image upload completes.

7. Then user can check FW Version in IP Utility or login to camera’s Web Configurator by typing the camera’s IP address to the IE browser’s address bar to check if the new camera’s firmware has been correctly loaded into camera.  
“Setup”→“System” → “System Info”  
If you see the new firmware version there, then everything is correct.
8. It is recommended to restore to factory default after firmware upgrade for PTZ and speed dome models.

## Latest ISP firmware Version

I Series		Camera Firmware	ISP			IP Utility
			ISP Firmware	ISP Resource	ISP Hardware	
I47	Version	V6.21.03	<b>V1.03.00</b>	V1.03.00	V0.00.19	V5.0.0.8  or later versions
	Filename	A1D-500-V6.21.03-AC	ISP-U-0331-V1.03.00.bin			

For other models, there is no requirement or no newer versions for ISP firmware upgrading.

## ISP Firmware Upgrade Procedure

Some models have ISP firmware can be upgraded. To achieve the best possible functionality and video quality of the camera, ISP firmware should be upgraded.

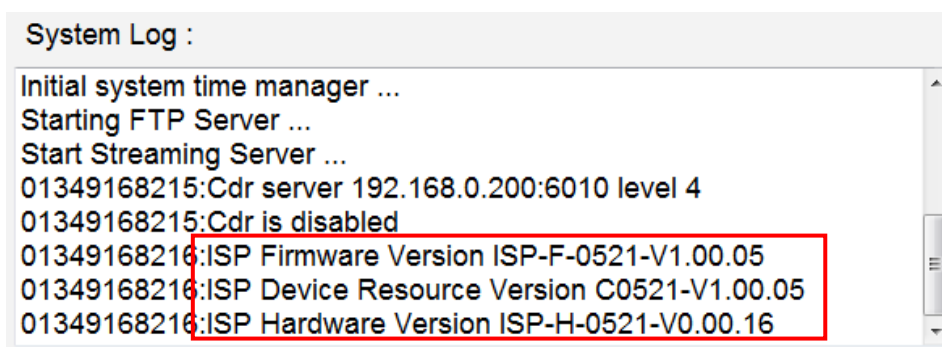
Before you start to upgrade the ISP, please check the camera already upgrade to camera latest version **V6.21.03**

1. First, please make sure whether the camera you are trying to upgrade already has the latest ISP firmware or not. To confirm that, please login to camera's Web Configurator by typing the camera's IP address to the IE browser's address bar and click following buttons then:

**“Setup” → “System” → “System Info” → “System Log”**

You will see ISP items there – ISP Firmware Version, ISP Device Resource Version and ISP Hardware.

Example: I94



2. Please save the downloaded firmware files and keep their filenames unchanged.
3. Run IP Utility
4. Please select the camera models you want to upgrade in the model list that

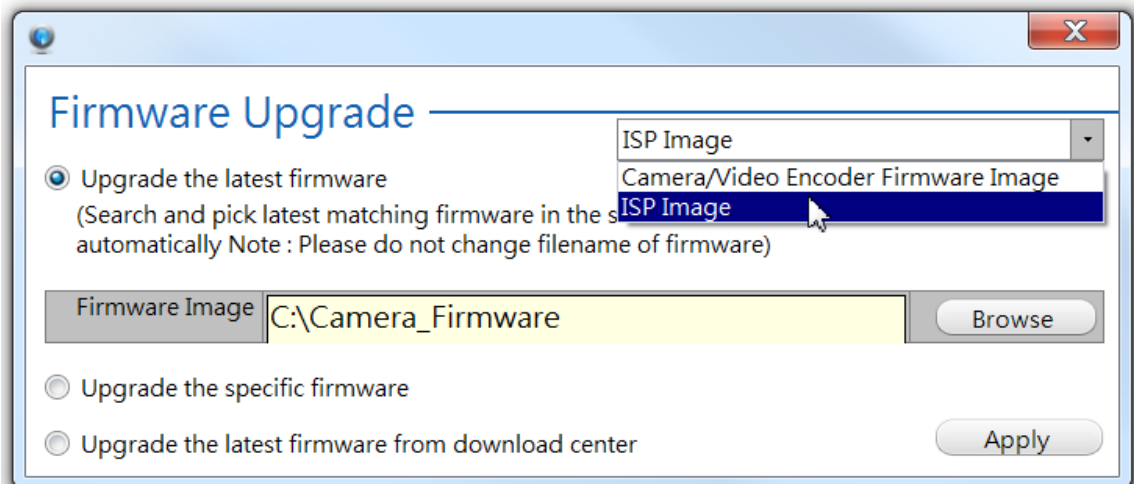
IP Utility has found.

5. Input camera's account, password and http port number value and click "Firmware Upgrade" on Configuration tool bar.

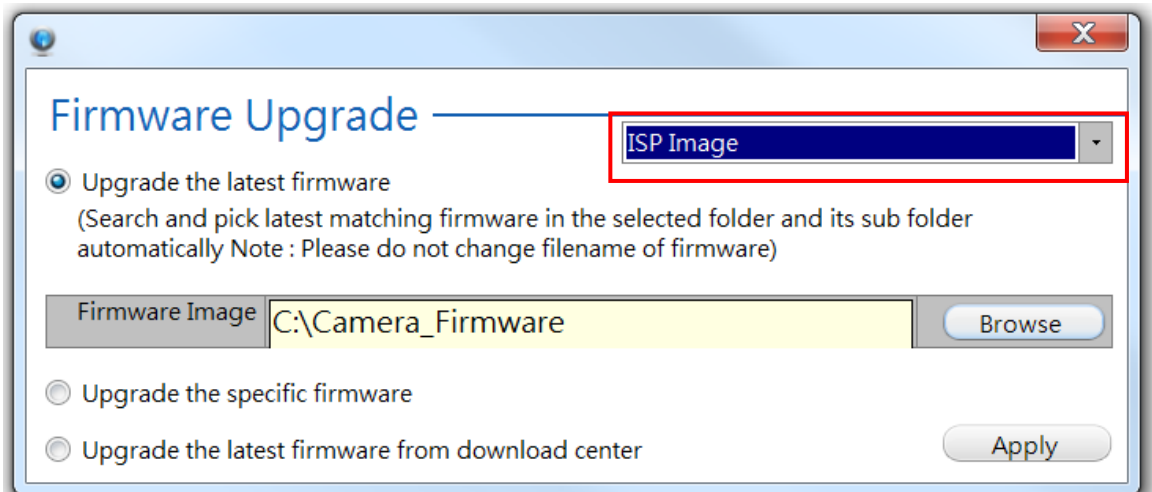
Account  Password  HTTP



The following pop-up window will appear.



6. Please select "Upgrade the latest firmware" to have IP Utility automatically decide the firmware file from the location you give.



The device needs 7 minutes for ISP upgrading, and it will reboot automatically and show return message "Success" after the image upload completes.

7. After successful upgrade the ISP firmware, please login to camera's Web Configurator by typing the camera's IP address to the IE browser's address

bar to check if the new camera's ISP firmware has been correctly loaded into camera.

**“Setup” → “System” → “System Info” → “System Log”**

If you see the new ISP Firmware version there, then everything is correct.

## Download and Documentation

V6.21.03 is official released, the Firmware User Manual and Release Notes are available for download on ACTi website.

You may also visit ACTi Download Center for updates and documents

<http://www.acti.com/downloadcenter>

## Support

If you have any question or need additional assistance, please feel free to contact our engineers via our **Customer Help Desk** platform <http://www.acti.com/CHD>