

## What's New in This Release

This camera handler release provides integration and improvements for the following cameras:

- This camera handler supports new feature of Saturation for Hikvision Cameras
- Support for the following new Hikvision Cameras
- Camera pack version: 4.3.0.2000016

Model	CODEC Supported	Audio	I/O	VideoEdge Versions	Certification
<b>IP Cameras</b>					
DS-2CD753F-E	H.264, MJPEG	Yes	2/0	4.3	Tested & Certified
DS-2CD853F-E	H.264, MJPEG	Yes	1/0	4.3	Tested & Certified
DS-2CD793PF-E	H.264, MJPEG	Yes	2/0	4.3	Tested & Certified
DS-2CD7264FWD-EZ	H.264, MJPEG	No	0/0	4.3	Tested & Certified
<b>Encoders</b>					
DS-6708HFI	H.264, MJPEG	Yes	8/0	4.3	Tested & Certified

## Hikvision Corp

VideoEdge camera handler is fully integrated with the Hikvision line of IP cameras. Hikvision, generally, doesn't change the core API interface for their cameras. VideoEdge camera handler is based on Hikvision core API package version HIK\_IMP\_D\_V1\_5\_9. As Hikvision continue to release new cameras there may be instances where specific Hikvision cameras are not listed in the available camera pack. A generic Hikvision camera handler is available for these cameras.

Down below list cameras/encoders has been certified by this release:

Model	CODEC Supported	Audio	I/O	VideoEdge Versions Supported	Certification
<b>IP Cameras</b>					
DS-2CD853F-E	H.264, MJPEG	Yes	1/0	4.3	Tested & Certified
DS-2CD793PF-E	H.264, MJPEG	Yes	2/0	4.3	Tested & Certified
DS-2CD7264FWD-EZ	H.264, MJPEG	No	0/0	4.3	Tested & Certified
<b>Encoders</b>					
DS-6708HFI	H.264, MJPEG	Yes	8/0	4.3	Tested & Certified

Down below list cameras/encoders was suggested to be supported according to Hikvision's advice, but not under certified:

IP cameras:

Standard Network Camera

DS-2CD893PF(NF)-E(W)  
 DS-2CD893PFWD(NFWD)-E(W)  
 DS-2CD833F-E(W)  
 DS-2CD8233F-EI(Z)(S)  
 DS-2CD8433F-E(I)  
 DS-2CD793PF(NF)-E(I)(Z)  
 DS-2CD793PFWD(NFWD)-E(I)(Z)  
 DS-2CD733F-E(I)(Z)  
 DS-2CD7293PF(NF)-E(I)Z(H)(S)  
 DS-2CD7293PFWD(NFWD)-E(I)Z(H)(S)  
 DS-2CD7233F-E(I)Z(H)(S)  
 DS-2CD8133F-E(I)(W)  
 DS-2CD7133-E

1.3MP High-definition Network Camera

DS-2CD864FWD-E(W)  
 DS-2CD864FWD-FC  
 DS-2CD864F-E  
 DS-2CD864-EI3(EI5)  
 DS-2CD2012-I  
 DS-2CD2112-(I)  
 DS-2CD8464F-E(I)  
 DS-2CD863PF(NF)-E(W)  
 DS-2CD8264FWD-EI(Z)(S)  
 DS-2CD8264F-EI(Z)(S)  
 DS-2CD764FWD-E(I)(Z)  
 DS-2CD764F-E(I)(Z)  
 DS-2CD763PF(NF)-E(I)(Z)

DS-2CD7263PF(NF)-E(I)Z(H)(S)

DS-2CD7264FWD-E(I)Z(H)(S)

DS-2CD7164-E

2MP High-definition Network Camera

DS-2CD877BF

DS-2CD876BF

DS-2CD876MF

DS-2CD855F-E

DS-2CD855-EI3(EI5)

DS-2CD855F-IR5

DS-2CD855F-FC

DS-2CD8255F-EI(Z)(S)

DS-2CD853F-E(W)

DS-2CD8253F-EI(Z)(S)

DS-2CD755F-E(I)(Z)

DS-2CD7255F-E(I)Z(H)(S)

DS-2CD754FWD-E(I)(Z)

DS-2CD753F-E(I)(Z)

DS-2CD7253F-E(I)Z(H)(S)

DS-2CD8153F-E(I)(W)

DS-2CD7153-E

3MP High-definition Network Camera

DS-2CD854F-E(W)

DS-2CD854FWD-E

DS-2CD8254F-EI(Z)(S)

DS-2CD8254FWD-EI(Z)(S)

DS-2CD754F-E(I)(Z)

DS-2CD7254F-E(I)Z(H)(S)

DS-2CD7254FWD-E(I)Z(H)(S)

5MP High-definition Network Camera

DS-2CD883F-E(W)

DS-2CD8283F-EI(Z)(S)

DS-2CD783F-E(I)(Z)

DS-2CD7283F-E(I)Z(H)(S)

Encoders:

DS-6601HCI

DS-6602HCI

DS-6604HCI

DS-6601HFI

DS-6602HFI

DS-6604HFI

DS-6601HCI-SATA

DS-6602HCI-SATA

DS-6604HCI-SATA

DS-6601HFI-SATA

DS-6602HFI-SATA

DS-6604HFI-SATA

DS-6708HFI

DS-6708HWI

## Supported Key Functions

- Video Streaming – Single and Dual
  - Video Codec – H.264, MJPEG
- Audio Streaming
  - Audio codec supported depends on camera functionality
- PTZ
- Dry Contact Events
- Query Device
- Reboot Device

## Supported Camera API & Models

Model	Minimum Camera Firmware Version
<a href="#">IP Cameras</a> DS-2CD753F-E, DS-2CD853F-E, DS-2CD793PF-E, DS-2CD7264FWD-EZ	V4.1.1 build130507
<a href="#">Encoders</a> DS-6708HFI, DS-6708HWI	V1.0.0 build130509

### Note

- 1 The Hikvision camera handler supports Generic camera for those unlisted models. If one camera is not in the supported list but compatible with the Hikvision CGI interface “HIK\_IMPD\_V1\_5\_9”, it can be supported as a Generic camera.

## Required Network Ports

- Port 443 is for HTTPS
- Port 554 is for RTSP

## Default Username & Password

- Username: admin
- Password: 12345

## Camera Serial Number

NVR will use the camera’s MAC address as the camera serial number.

## Video Stream Feature

The specific Video stream feature characteristics by model families are:

Model Family	Video Stream Feature
DS-2CD753F-E DS-2CD853F-E DS-2CD793PF-E DS-2CD7264FWD-EZ	Dual stream: H.264 + MJPEG
DS-6708HFI, DS-6708HWI	Dual stream: H.264 + MJPEG
Generic	(Depends on camera capability)

## Audio Stream Feature

The specific Audio stream feature characteristics by model families are:

Model Family	Audio Stream Feature
DS-2CD753F-E DS-2CD853F-E DS-2CD793PF-E	G711mulaw
DS-2CD7264FWD-EZ	No Audio
DS-6708HFI, DS-6708HWI	G711mulaw
Generic	(Depends on camera capability)

## Event Stream Feature

Handler uses HTTPS polling mode to get the dry contact status. The maximum number of dry contact events supported by each camera family:

Model	Max # of Dry Contact Supported
DS-2CD753F-E DS-2CD853F-E DS-2CD793PF-E	2
DS-2CD7264FWD-EZ	0
DS-6708HFI, DS-6708HWI	8
Generic	Dynamically acquire from camera

## Special Points

1. When add camera into NVR, users should restore camera to factory default through camera web page.
2. Users should use NVR configure page to set camera codec parameters including FPS, resolution, quality after add camera to NVR. Users can use camera web page to set other codec properties (bitrate, bitrate control type, key frame interval, etc.).
3. Before use Events (Dry contacts) function, users should configure alarm input arming schedule on camera's web page (for example, configure schedule to 7x24 hrs.).
4. Users must enable https on encoder web page before add the encoder to NVR.

## Limitations

Model	Limitations
All	<ol style="list-style-type: none"> <li>1. Due to the performance limitation of the MJPEG / MPEG4 / H264 models, while streaming MJPEG and H264 or MPEG4 simultaneously, the camera might not deliver the requested frame rate. Please refer to the Hikvision product catalog for details.</li> <li>2. QuickTime player cannot play the MPEG4 stream due to the MPEG4 stream is generated in Advanced simple profile</li> <li>3. Users change dry contact active state will cause camera/encoder reboot.</li> <li>4. There isn't obvious change of image when quality is changed from the lowest to highest</li> <li>5. The volume of audio displays incorrectly, it always displays 100 although it is set to value not 100.</li> <li>6. Change camera's password via webGUI, but stream can still be played on Victor</li> </ol>

IP Cameras	1. Camera will reboot after codec changed, reboot time needs 45 second, while changing resolution, quality, GOP or FPS does not need to reboot camera.
DS-2CD853F-E	2. When set to max resolution and max FPS, the H264 video latency of DS-2CD853F-E is about 400ms
DS-2CD853F-E, DS-2CD753F-E	1. h264's max FPS are down below: 50Hz(PAL): 12.5 fps(1600x1200) 12.5 fps(1600x912) 25 fps(1280x960) 25 fps(1280x720) 60Hz(NTSC): 15 fps(1600x1200)15 fps(1600x912)25 fps(1280x960)25 fps(1280x720) MJPEG's max FPS are down below: 50Hz(PAL):12.5fps(704x480) 12.5fps(352x240) 12.5fps(320x240) 60Hz(NTSC):15fps(704x480) 15fps(352x240) 15fps(320x240). 2. Resolution set to 1600x912, 1600x1200 Case 1: VideoStand 50Hz(PAL), users can not set FPS to 15, 16, 18, 20, 22 Case 2: VideoStand 60Hz(NTSC), users can not set FPS to 16, 18, 20, 22. Due to camera does not support.
DS-2CD7264FWD-EZ	1. The value of WDR is incorrectly on NVR and camera web GUI, when set X0~X5, it will display X0 both on NVR and camera web GUI, and if set X6~X9, it will display X6.
DS-6708HFI	1. The default values will never change back once the value has been changed for Image Settings on NVR client. (Include Brightness, Contrast, hue, Saturation) 2. When encoder connect to PEL-CO analog cameras. The pattern will not work and progress bar will never be disappear if edit an existed pattern 3. When encoder connect to PEL-CO analog cameras. The Iris will change to auto setting when do ptz action 4. It's interactive between the values of Brightness, Contrast, hue, Saturation, when change one of them, the others will changed accordingly.

## Known Issues

Model	Known Issues
ALL	1. The auto-iris button on victor client does not have any effect. 2. The searched audio still play when shift to other video view as top window
DS-2CD853F-E, DS-2CD753F-E	3. For H264 codec, when resolution set to 1600x912, 1600x1200, FPS set to 12, real FPS will reach 12.5.
DS-2CD853F-E, DS-793PF-E	4. If dry contact last within 1 second, some alarm may lost in the NVR log / victor event viewer
DS-6708HFI, DS-6708HWI	1. There are missing frame (missing rate < 0.0135%). 2. It's interactive between the values of Brightness, Contrast, hue, Saturation, when change one of them, the others will change accordingly. 3. The video stream is break and never recovers on live view on victor client after change resolution on NVR client; Refresh the victor view can solve this issue.