

NLSS HD Media Decoder Version 3.0 Supported Devices

The NLSS HD Media Decoder (DC-400, DC-400-2) is a full High Definition (HD) video and audio decoder. It interoperates with many IP cameras from leading vendors, can display RTSP streams, and display locally stored video. This technical bulletin details support for specific devices and formats in version 3.0.20306. Additional information can be found at www.nlss.com

IP Cameras

The following IP cameras and encoders are supported:

Vendor	Model/Series	Video Codec	Max Resolution	Multicast
AXIS	VAPIX 2.0 and above	H.264, MJPEG, MPEG4	1920x1080	H.264, MJPEG, MPEG4
Sony	SNC-XH120, 140, 180 series, X=C, D	H.264, MJPEG	1280x720	
Sony	SNC-XM110, 120, 160 series, X=C, D	MPEG4	640x480	
Sony	SNC-DFXXN series, XX=50, 80, 85	H.264, MJPEG, MPEG4	704x480	
Sony	SNC-RS series	H.264, MJPEG, MPEG4	720x480	
Sony	SNC-RH series	H.264, MJPEG, MPEG4	1280x720	
Sony	SNC-H180 series	H.264, MJPEG, MPEG4	1280x720	
Sony	SNC-CH110, 210 series	H.264, MJPEG, MPEG4	1920x1080	
Sony	SNC-DH110, 210 series	H.264, MJPEG, MPEG4	1920x1080	
Sony	SNC-CH220 series, 240 series, 260 series, 280 series	H.264, MJPEG, MPEG4	1920x1080	
Sony	SNC-DH220 series, 240 series, 260 series, 280 series	H.264, MJPEG, MPEG4	1920x1080	
Pelco	IXE20 series	H.264, MJPEG	1920x1080	
Pelco	IX30 series	H.264, MJPEG	1920x1080	
Panasonic	WV-SF33X series	H.264, MJPEG, MPEG4	1280x720	
Panasonic	WV-SC385	H.264, MJPEG, MPEG4	1280x720	
Panasonic	NP244, NF284, NW484	MPEG4	640x480	
Panasonic	NS series	MPEG4	640x480	
Panasonic	NX502 series	MPEG4	1280x960	

Panasonic	NW502S	H.264	1280x960	
Panasonic	WV-SW352	H.264, MJPEG	800x600	
Arecont Vision	AV21X5 series, X=0,5	H.264, MJPEG	1600x1200	
Arecont Vision	AV28X5 series, X=0,1,2	H.264, MJPEG	1920x1080	
Arecont Vision	AV31X5 series, X=0,5	H.264, MJPEG	1600x1200	
Arecont Vision	AV51X5 series, X=0,5	H.264, MJPEG	1920x1080	
IQinVision	4 series, 5 series	MJPEG	1600x1200	
IQinVision	7 series	H.264, MJPEG	1920x1080	H.264
IQinVision	Alliance Series (Domes, MiniDomes)	H.264, MJPEG	1920x1080	H.264
IQinVision	Sentinel Series	H.264, MJPEG	1920x1080	H.264
Bosch	NBC, NDC Series	H.264, MJPEG	640x480	
Bosch	Dimion, Flexidome	H.264, MJPEG	704x480	
Verint	1708	MPEG4	704x576	

Audio Codecs on IP Security Cameras

The following audio codecs are supported:

G.711

G.726

Advanced Audio Codec (AAC)

RTSP Streams

If an IP camera is not in the list above, and it supports RTSP, it can be displayed as a “Stream” on the NLSS HD Media Decoder. To display an RTSP stream, the user must configure the RTSP syntax and provide the user, password, and video resolution of the IP Camera. Examples for some vendors are below.

Manufacturer	Default User	Default Password	Sample RTSP Syntax
Axis	root	Must be set	rtsp://10.11.22.103:554/mpeg4/media.amp rtsp://10.11.20.138:554/axis-media/media.amp
IQInvision	root	system	rtsp://10.11.22.110:554/PSIA/Streaming/channels/0
Panasonic	admin	12345	rtsp://10.11.20.112:554/MediaInput/mpeg4
Pelco	admin	blank	rtsp://10.11.23.114:554/stream1
Sony	admin	admin	rtsp://10.11.11.224:554/media/video1
Arecont Vision	admin	blank	rtsp://10.11.23.50:554/h264.sdp?res=half&x0=0&y0=0&x1=1920&y1=1200&qp=20&doublescan=0&bitrate=65535&ssn=20

Basler admin admin rtsp://<ip_address>/h264

Hikvision admin 12345 rtsp://<ip_address>

Honeywell administra 1234 rtsp://<ip_address>/mpeg4
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HTTP Streams

The NLSS HD Media Decoder can stream MJPEG encoded video via HTTP “Server Push”. This is a common mechanism for some versions of IP Cameras to stream video. The syntax is vendor specific. See vendor documentation for example syntax.

File Formats

The NLSS HD Media Decoder can store files on the local hard disk and display them on the attached monitor. The following file formats are supported in Version 2.0

File / Container	Extension	Video Codec	Audio Codec
MPEG4	MP4	H.264	AAC
MPEG4	MP4	MP4	AAC
MPEG4	MP4	WMV	AAC
Quicktime	MOV	H.264	AAC
Flash	FLV	H.264	AAC
Flash	FLV	H.264	MP3
Flash	F4V	H.264	AAC
Matroska	MKV	H.264	AAC
WMV	WMV	WMV	AAC

Video Displays

The NLSS HD Media Decoder has one HDMI output connection. It can drive an HDMI or DVI display. The DVI display requires an HDMI to DVI cable or connector. The following display formats are supported.

Display	Resolution	Aspect Ratio
HDMI	1080p (1920x1080)	16:9
DVI	SXGA (1280x1024)	5:4
DVI	XGA (1024x768)	4:3

Joystick, Keypads, Remote Control

The NLSS HD Media Decoder supports USB Joystick, for Pan, Tilt, Zoom (PTZ) control and USB keypads and a Remote Control for channel, view, and sequence selection.

Device	Vendor	Model
Remote Control	NLSS	DC-400-2 Remote
Joystick	Axis	T8311
Remote Control	CE Compass / Ortek	VRC-1100
Keypad	Connectland	CL-USB-NUMSPC
Keypad	Genovation	MicroPad 630

Performance

The NLSS HD Media Decoder supports multiple layouts for views. As more streams are added to the views, more processing power is required. Best performance is achieved with H.264 encoded video streams. The specifications for the view layouts are in the table below. The parameters apply to each stream in the view.

View Layout	Max Resolution	Max Framerate	Max Bitrate
1x1	1080p	30 fps	8 Mbps
1x2	1080p	15 fps	4 Mbps
2x2	1080p	10 fps	2 Mbps
3x3	D1	5 fps	500 Kbps
4x4	VGA	5 fps	500 Kbps