

JPEG 2000 4K60 4:4:4 & HDR Video Over IP Decoder with PoE+, KVM, AES67

NMX-DEC-N2424A (FGN2424A-SA), Stand Alone



Overview

Utilizing JPEG2000 encoding, the N2400 Series encoders and decoders deliver cinema quality video with sub-frame latency. These products support 4K60 4:4:4, HDMI 2.0, HDCP 2.2, Ultra-wide screen resolutions and HDR allowing end users to realize the full potential of their source and display devices. To preserve the security of the network, N2400 supports enterprise security features such as Active Directory integration and 802.1X support. Operating on standard 1 Gbps networks and requiring only POE+ power, the N2400 encoders and decoders provide the most scalable 4K60 4:4:4 solution.

Like other SVSI devices, N2400 Series encoders and decoders leverage the diverse control APIs, software, and web interfaces which, through years of field experience, have been optimized to provide a simple yet flexible solution.

Common Applications

4K60 video is popular in casinos, sporting arenas, museums and other venues where high-resolution large-scale video distribution is required. The N2400 Series is also perfect for lecture halls, university campus distribution, active learning spaces, or anywhere viewers with a discerning eye will be expecting the beauty of 4K60.

Features

- **4K60 4:4:4 Support** – The N2400 Series can be used to support today's 4K content without modifying the color space or reducing the frame rate.
- **High Dynamic Range (HDR) Support** – Support for HDR10
- **HDMI 2.0 and HDCP 2.2 Support** – By incorporating HDMI 2.0 and HDCP 2.2, the N2400 Series products are compatible with all the latest 4K sources and displays.
- **Advanced Security including Active Directory, 802.1x, SSL/TLS and HTTPS** – Satisfies enterprise network security requirements
- **Operates over Gigabit Ethernet** – Distribute video over cost effective Gigabit Ethernet switches using category cable already installed in a location. This also allows for greater switching scalability vs. a solution that depends on 10 GbE.
- **Sub-Frame Latency** – N2400 Series encoders and decoders are able to deliver cinema quality video with less than a single frame of latency.
- **PoE+ Powered** – The N2400 Series can operate using PoE+ power from the network switch, simplifying installation and reducing installation cost.
- **Native NetLinx** – Simplifies integration with AMX control to reduce cost of installation

Specifications

VIDEO	
Video Input	Network video over Ethernet via RJ45 port
Video Output	HDMI, DVI-D (through adapter)
Formats	HDMI, DVI-D (through adapter), HDCP content protection support
High Dynamic Range (HDR)	HDR10
Progressive Input Resolutions	HDMI and DVI (Progressive) Matched to inputs or scaled 1280x720@50Hz (720p50), 1280x720@59.94Hz (720p59.94), 1280x720@60Hz (720p60), 1280x800@60Hz, 1920x1080@50Hz (1080p50), 1920x1080@59.94Hz (1080p59.94), 1920x1080@60Hz (1080p60), 1920x1200@60Hz, 3840x2160p@30Hz (2160p30), 3440x1440@50Hz, 3440x1440@60Hz, 3840x1080@60Hz, 3840x2160p@60 Hz (2160p60), 4096x2160@30Hz, 4096x2160@60Hz

AUDIO	
Input Signal Types	Network PCM and AES-67 audio over Ethernet via RJ45
Output Signal Types	Embedded audio on DVI-D or HDMI (through adapter), 5-pin terminal Phoenix connector which provides user-selectable balanced/unbalanced stereo
HDMI Audio Formats	8ch PCM
Analog Audio Format	Stereo 2-channel
Digital-to-Analog Conversation	16-bit 48 kHz (matched to Encoder settings)

LATENCY	
Latency	8ms at 60 fps
Scaler	17ms at 60 fps
Note	Note: To calculate an end-to-end latency value, add the given Decoder latency (shown above) to your Encoder's latency (which is provided in the Encoder's Specifications sheet)

COMMUNICATIONS	
Ethernet	PO 10/100/1000 Mbps, auto-negotiating, auto-sensing, full/half duplex, DHCP, Auto IP, and Static IP P1 10/100/1000 Mbps, auto-negotiating, auto-sensing, full/half duplex, DHCP, Auto IP, and Static IP
HDMI	HDCP 2.2

PORTS	
+12V 3A	One 12 Volt DC power input
P0	8-wire RJ45 female 10/100/1000 Mbps 10/100/1000Base-T auto-sensing gigabit Ethernet switch port POE+ Powered Device support Provides network connection to the Encoders and Decoders

P1	<p>8-wire RJ45 female</p> <p>10/100/1000 Mbps 10/100/1000Base-T auto-sensing gigabit Ethernet switch port</p> <p>Provides network connection to the Encoders and Decoders</p>
IR	<p>2-pin terminal Phoenix connector</p> <p>Provides Infrared (IR) output only (33-60 kHz; typically, 39 kHz). Emitter may be necessary (not included)</p>
RS232	<p>3-pin terminal Phoenix connector</p> <p>Provides a serial control interface. Full duplex communication. Available terminal speed settings: 9600-115200 baud rate</p>
AUDIO	<p>5-pin terminal Phoenix connector</p> <p>Provides user-selectable balanced/unbalanced input. Dedicated audio input</p>
HDMI OUT	HDMI video output
USB connectors (front panel)	USB-B control input and two USB-A control inputs
IR IN (front panel)	<p>3-pin terminal Phoenix connector</p> <p>Provides Infrared (IR) input only (33-60 kHz; typically, 39 kHz). Receiver required (not included)</p>

CONTROLS AND INDICATORS – FRONT PANEL	
RESET Button	<p>Recessed pushbutton</p> <p>Press to initiate a 'warm restart' causing the processor to reset, but not lose power. A reset does NOT affect the current settings</p>
ID Button	<p>Recessed pushbutton</p> <p>Press to send a notification out on the network to identify the unit (the notification causes a pop-up dialog in N-Able and N-Command)</p> <p>Press and hold for 30 seconds to perform a factory reset of the unit.</p>
POWER LED	<p>On solid (green) when operating power is supplied (via PoE or local power supply)</p> <p>This activity is also shown by the PWR LED on the rear panel</p>
STATUS LED	<p>On flashing (green) when there is software activity</p> <p>This activity is also shown by the STAT LED on the rear panel</p>

CONTROLS AND INDICATORS – REAR PANEL	
PWR LED	Same as POWER LED described above
HDMI LED	On (green) when there is a connection to a valid video source
STAT LED	Same as STATUS LED described above
STRM LED	On (green) when the unit is streaming video

POWER SUPPLY	
Power Supply, External, Not Included	3.0 Amp @ 12 Volts DC; 100-240 Volts AC power supply; not included in shipment. NMX-ACC-N9312 (FGN9312)
Power over Ethernet (PoE+), External	Can be powered via a PoE+-capable switch or other equipment with a PoE+ source Conforms to IEEE 802.3at Type 2

ENVIRONMENTAL	
Temperature	32° to 104°F (0° to 40°C)
Humidity	10% to 90% RH (non-condensing)
Heat Dissipation	Up to ~102 BTU/hr

GENERAL	
Dimensions (HWD)	1.05" x 7.888" x 5" (2.67 cm x 20.04 cm x 12.7 cm)
Weight	1.54 lbs (0.68 kg)
Mounting Options	Stand alone, surface mount, wall mount, or rack mount Surface and wall mounting require (not included): •NMX-ACC-N9101 (FGN9101), Mounting Wings for SVSI N-Series Encoders and Decoders Rack mounting requires one of the following (not included): •NMX-ACC-N9102 (FGN9102), 1RU Rack Shelf for Two Side-by-Side for SVSI N-Series Encoders and Decoders
Regulatory Compliance	FCC, CE, UL and NTRL
Recommended Accessories	<ul style="list-style-type: none"> •NMX-ACC-N9312 (FGN9312), 12V external wall-wart supply with 2-pin Phoenix connector for SVSI N-Series. •NMX-ACC-N9101 (FGN9101), Mounting Wings for SVSI N-Series Encoders and Decoders •NMX-ACC-N9102 (FGN9102), 1RU Rack Shelf for Two Side-by-Side SVSI N-Series Encoders and Decoders

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