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JPEG 2000 Digital Cinema Grade Video over IP Decoder

NMX-DEC-N2221 (FGN2221-SA), Stand Alone

NMX-DEC-N2221-C (FGN2221-CD), Card



Overview

The AMX SVSI N2000 Series utilizes JPEG2000 compression for HD, cinema-grade video distribution on the LAN for applications when video quality is top priority. The NMX-DEC-N2221 Decoder is used to decode streams back to DVI or HDMI format for display on any monitor. Pair with the NMX-ENC-N2121 to encode and distribute sources of almost any format onto an existing IP network making that stream available to any endpoint in the facility. With the ability to direct any source stream to any display, large, low-cost switching and distribution systems are simple to deploy without proprietary cabling or dedicated switching hardware.

The NMX-DEC-N2221 includes Local Play, allowing users to upload and save 8 playlists that can contain up to 64 jpeg or PNG files. When a video stream is lost, the stored images will play, preventing blank displays.

Includes IR, serial, balanced audio, and two network ports (one POE). Digital video output only.

Common Applications

- The NMX-DEC-N2221 is the perfect solution for matrix switching and distribution of HD, cinema-grade quality video over LAN. Common applications include enterprise, house of worship, entertainment, and stadiums.

Features

- **Input and Output Scaling** – Video scaling at either input or output allows seamless switching from any source, at any resolution, to any display or projector, while preserving video fidelity.
- **Plug-n-Play** –Auto-detect technology reduces installation and programming time.

- **Power Over Ethernet (PoE)** – PoE eliminates the need for power supply.
- **Infrared (IR)** – Infrared emitter connection allows control of low-cost, IR-only display devices.
- **Onboard Control** – All N-Series encoders and decoders have on-board, built-in control capability via events that can trigger any number of TCP/UDP commands to other IP controllable devices.
- **Unlimited Scalability**
- **Two RJ45 Ports** – Decoder features two RJ45 network ports (one PoE).
- **Stand Alone or Card** – Available as a stand alone device, or card for use with NMX-ACC-N9206.

Specifications

VIDEO	
Digital Video Input	Network video over Ethernet via RJ45 port
Video Output	DVI-D, HDMI HDMI is supported through a passive adapter
Formats	DVI-D, HDMI (through adapter), Dual-Mode DisplayPort (DP++), HDCP content protection support, RGBHV, YPbPr HDMI and Dual-Mode DisplayPort (DP++) are supported through a passive adapter
Output Resolutions	Supports most common HD up to 1080p60. See website for all supported resolutions.

AUDIO	
Input Signal Types	Network video over Ethernet via RJ45
Output Signal Types	Embedded audio on DVI-D or HDMI (through adapter)
HDMI Audio Formats	Stereo 2-channel, 5.1 audio, 7.1 audio
Analog Audio Formats	Stereo 2-channel
Digital-To-Analog Conversion	16-bit 32 kHz, 44.1 kHz and 48 kHz

LATENCY	
Latency	25 ms
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	10/100/1000 Mbps, auto-negotiating, auto-sensing, full/half duplex, DHCP, Auto IP, and Static IP.
HDMI	HDCP, EDID management

PORTS	
+12V 2A	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 Provides network connection, network AV video, and power to the Encoders and Decoders
P1	8-wire RJ45 female 10/100/1000 Mbps 10/100/1000Base-T auto-sensing gigabit Ethernet switch port.

	Provides network connection
IR	2-pin terminal Phoenix connector. Provides Infrared (IR) output only (33-60 kHz; typically 39 kHz). Emitter may be necessary (not included)
RS232	3-pin terminal Phoenix connector which provides a serial control interface. Full duplex communication. Available terminal speed settings: 1200-115200 baud rate
AUDIO	5-pin terminal Phoenix connector which provides user-selectable balanced/unbalanced output. Dedicated audio output
DVI-D OUT	DVI-D female; HDMI/DVI digital video/audio output. Allows for video and embedded digital audio output.

CONTROLS AND INDICATORS – FRONT PANEL	
RESET Button	Recessed pushbutton Press to initiate a 'warm restart' causing the processor to reset, but not lose power. A reset does NOT affect the current settings
ID Button	Recessed pushbutton 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)
POWER LED	On solid (green) when operating power is supplied (via PoE or local power supply) This activity is also shown by the PWR LED on the rear panel
STATUS LED	On flashing (green) when there is software activity This activity is also shown by the STAT LED on the rear panel

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 display
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	2.0 Amp @ 12 Volts DC; 100-240 Volts AC power supply; Not included in shipment. NMX-ACC-N9312 (FGN9312)
Power over Ethernet (PoE)	Can be powered via a PoE switch or other equipment with a PoE source. Conforms to IEEE 802.3af Class 3 (802.3at Type 1).
Note	In order for the unit to receive Power over Ethernet (PoE), it must be connected to a switch or other equipment that has a PoE PSE (Power Sourcing Equipment) port. Warning: Do not run wiring that is connected to a PoE PSE port outside of the building where the PSE resides. It is for intra-building use only. PoE does not pass through the daisy chain (P1) port.

ENVIRONMENTAL	
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Temperature	32° to 104°F (0° to 40°C)
Humidity	10% to 90% RH (non-condensing)
Heat Dissipation	Up to ~44 BTU/hr

GENERAL	
Dimensions (HWD)	1.05" x 7.888" x 5" (2.67 cm x 20.04 cm x 12.7 cm)
Weight	1.5 lbs (0.68 kg)
Mounting Options	Stand alone, surface mount, wall mount, or rack mount Surface and wall mounting requires (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 •NMX-ACC-N9206 (FGN9206), 2RU Rack Mount Cage with Power for Six SVSI N-Series Card Units
Regulatory Compliance	FCC, CE, and NTRL
Recommended Accessories	•NMX-ACC-N9382 (FGN9382), 1RU Power Supply 16-Channel 12V for up to 16 SVSI N-Series Encoders and Decoders •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 •NMX-ACC-N9206 (FGN9206), 2RU Rack Mount Cage with Power for Six SVSI N-Series Card Units

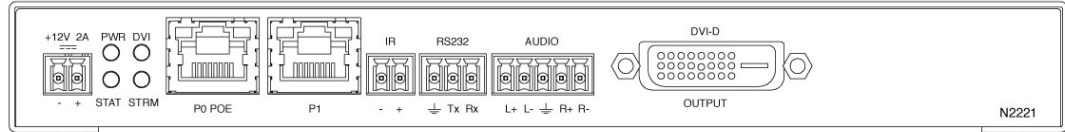
NMX-DEC-N2221 Front View



- 1) Device reset button
- 2) Device ID discovery button

- 3) Power/Status indicators

NMX-DEC-N2221 Rear View



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| 1) 12VDC Input (not needed with POE) | 5) Infrared (IR) emitter connection |
| 2) Status Indicators | 6) RS232 connection |
| 3) RJ-45 auto-sensing gigabit Ethernet switch port – POE (Power Over Ethernet) | 7) Analog Audio Input connection |
| 4) RJ-45 auto-sensing gigabit ethernet switch port | 8) Pass-through DVI-D connection |

About AMX by HARMAN

Founded in 1982 and acquired by HARMAN in 2014, AMX® is dedicated to providing AV solutions for an IT World. AMX solves the complexity of managing technology with reliable, consistent and scalable systems comprising control, video switching and distribution, digital signage and technology management. AMX systems are deployed worldwide in conference rooms, classrooms, network operation/command centers, homes, hotels, entertainment venues and broadcast facilities, among others. AMX is part of the HARMAN Professional Group, the only total audio, video, lighting, and control vendor in the professional AV market. HARMAN designs, manufactures and markets premier audio, video, infotainment and integrated control solutions for the automotive, consumer and professional markets. Revised 2.25.16. ©2016 Harman. All rights reserved. Specifications subject to change.

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