DATA SHEET

N2300 Series N2322 4K Decoder

NMX-DEC-N2322 (FGN2322-SA), Stand Alone

Overview

The NMX-ENC-N2312 Encoder and NMX-DEC-N2322 Decoder provide a flexible, feature-rich, and simple-to-deploy Digital Media Distribution and Switching solution which can be used in 4K applications with resolutions up to 4096x2160, with support for HDCP 2.2. This motion-based wavelet codec solution delivers video with nearly imperceptible latency at an incredibly low 200 Mb/s bandwidth allowing 4K distribution over standard gigabit Ethernet networks.

Any source can be sent to one or more displays by routing through layer 2 / layer 3 switches utilizing standard Cat5e cable. The NMX-DEC-N2322 includes standard features like output scaling, bi-directional serial, IR, embedded 7.1 audio, and KVM-over-IP extension.

Features

- **Design Flexibility** – Start as small as 1x1 and grow the system in increments of single sources and devices by simply adding additional encoders and decoders.
- **Power Over Ethernet (POE)** – eliminates requirement for local power supply and speeds installation. Units can still be powered locally from 12VDC allowing for easy rack-mountable, high-density installations
- **Infrared (IR)** – Emitter connection allows control of IR-only display devices
- **Fast Install** – With Phoenix connectors for Power, IR, RS232 serial, and analog audio interfaces
- **Balanced and Unbalanced Audio** – Embedded 7.1 digital audio or balanced/unbalanced analog audio
- **Multiple Connection Options** – RJ-45 and SFP network connectors and HDMI video connections
- **KVM** –Dual USB-A control for KVM applications
- **Native NetLinx** – NetLinx Studio can easily recognize the device

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Specifications

VIDEO	
Video Input	Network video over Ethernet via RJ45 port or fiber via 1G SFP port
Video Output	HDMI 2.0, DVI-D (through adapter)
Formats	HDMI 2.0, DVI-D (through adapter), HDCP 2.2 content protection support
Video Codec	Motion-based wavelet technology
Input Resolutions	Supports most common resolutions from HD up to 4096x2160 See the instruction manual for the NMX-ENC-N2312 Encoder for all supported resolutions
Output Resolutions	720p, 1080p, 4K30 or input resolution if scaler is disabled
Output Scaling	Note: there are no limitations when upscaling to 720p, 1080p, 4K30. A 4K30 signal can be downscaled to 1080p without issue. Scaling down to 720p from either 4K30 or 1080p is not supported in the product.
Color Space	4:2:0 4K30 4:2:2 – HD
LocalPlay/HostPlay	8 playlists
HostPlay	1 image/list
Note	Jumbo Frames Required
Video Wall Construction	Supported within the NMX-DEC-N2322, the N2300 Series is not compatible with SVSI Windowing Processors at this time
Network Video Recording	Not compatible with SVSI NVR at this time

AUDIO – SIGNAL TYPES	
Input	Network audio over Ethernet via RJ45
Output	Embedded audio on DVI-D or HDMI (through adapter), analog audio output

KEYBOARD AND MOUSE	
Keyboard & Mouse	Connect the Decoder to the keyboard and mouse, and an N2300 Series Encoder to the PC being controlled

AUDIO - FORMATS	
Input Signal Types	Network audio over Ethernet via RJ45
Output Signal Types	Embedded audio on HDMI or DVI-D (through adapter)
HDMI Audio Formats	8ch PCM
Analog Audio Format	Stereo 2-channel
Audio Breakaway	Supported

LATENCY	
Latency	17-ms at 60fps for 1920x1080 and lower resolutions 34-ms at 30 fps for 4K30 4K resolutions NOTE: This is the combined encode plus decode latency. Total latency from source to screen will also include any network latency and screen latency. Scaling adds one frame of latency (17ms at 60fps).

Switching	Up to 1.5s delay, not seamless

COMMUNICATIONS	
Ethernet	P0 10/100/1000 Mbps, auto-negotiating, auto-sensing, full/half duplex, DHCP, Auto IP, and Static IP P1 1 Gbps SFP port which accepts compatible fiber transceivers or direct attach cables (fiber or copper cabling)
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 (PoE power)
P1	1-Gbps SFP+ port (SFP+ fiber transceiver or direct attach cable not included) Provides network connection and networked AV video
IR OUT	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: 9600-115200 baud rate.
AUDIO	5-pin terminal Phoenix connector which provides user-selectable balanced/unbalanced output.
HDMI OUT	HDMI video 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 receiving video

POWER SUPPLY	
Power Supply, External, Optional	2.0 Amp @ 12 Volts DC; 100-240 Volts AC power supply; optional NMX-ACC-N9312 (FGN9312)
Power over Ethernet (PoE), External, Optional	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.

ENVIRONMENTAL	
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 5.5” (2.67 cm x 20.04 cm x 13.8 cm)
Weight	1.6 lbs (0.66 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 (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, and NTRL
Recommended Accessories	•NMX-ACC-N9312 (FGN9312), Power Supply 12V External •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

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 10.2.16. **©2016 Harman. All rights reserved. Specifications subject to change.**

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