

Minimal Proprietary Compression Video Over IP Encoder with KVM

NMX-ENC-N1133 (FGN1133-SA), Stand Alone

NMX-ENC-N1133-C (FGN1133-CD), Card



Overview

The new NMX-ENC-N1133 model features improved digital pixel reproduction and cut the already imperceptible latency in half. Packetized video streams not only remain visually lossless throughout distribution, they also arrive instantly. It has separate HDMI and VGA/RGB inputs, supports PoE and has a separate SFP port. The SFP fiber path allows visually lossless video to be routed on a fiber-only network and extend signals beyond the reach of category cable. Added USB connectivity will enable users to extend USB over IP for touch-enabled and KVM applications.

The N1000 Series Encoders and Decoders are an affordable local AV over IP switching solution that packetizes video into a minimally compressed IP format to create anywhere from a small 2×1 seamless presentation switcher up to a large 32×32 matrix switcher using off-the-shelf layer-3 network switches.

The ability to send IP Media for distribution using common managed network switches in any size and configuration makes N1000 solutions extremely flexible and easy to deploy.

Common Applications

- The NMX-ENC-N1133 is the perfect solution for any low-latency application and video matrix smaller than 32x32. Common applications include classrooms, conference rooms, performing arts, and sports bars.

Features

- **Output Scaling** – Video scaling at output allows seamless switching from any source, at any resolution, to any display or projector, while preserving video fidelity.
- **1 Frame Latency** – Same as HDBaseT.
- **Minimal Proprietary Compression (MPC)** – Visually lossless MPC algorithm applied to all resolutions.
- **Optional Compression** – Available option to disable all compression.
- **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.
- **Unmatched Flexibility** – Highly competitive pricing for matrices up to 32x32.
- **Separate Inputs** – Separate HDMI and VGA input connectors on the encoder.
- **SFP Fiber/RJ45 Ports** – Encoder features SFP fiber/RJ45 copper network ports with USB control inputs for KVM-over-IP keyboard and mouse operation.
- **Stand Alone or Card** – Available as a stand alone device, or card for use with NMX-ACC-N9206.

Specifications

| VIDEO | |
|-------------------------------|--|
| Digital Video Input | HDMI, DVI-D (through adapter), RGB/VGA |
| Analog Video Input | HD-15 VGA, Component Component is supported through a passive adapter |
| Video Output | Network video over Ethernet via RJ45 port or fiber via 1G SFP port, HDMI, DVI-D DVI-D is supported through a passive adapter |
| Formats | HDMI, DVI-D (through adapter), Dual-Mode DisplayPort (DP++), HDCP content protection support, RGBHV, YPbPr DVI-D and Dual-Mode DisplayPort (DP++) are supported through a passive adapter |
| Progressive Input Resolutions | Supports most common HD up to 1920x1200. See website for all supported resolutions. |
| Interlaced Input Resolutions | Supports 1080i60. See website for all supported resolutions. |
| Analog Input Resolutions | Supports most common HD up to 1920x1200. See website for all supported resolutions. |
| Note | Input resolutions supported @60Hz refresh rates are also supported @59.94Hz. |
| Analog-to-Digital Conversion | 8-bit 165 MHz per each of three color channels |
| Note | The N1133 Encoder does not accept Composite or S-Video (YC). |

| AUDIO | |
|------------------------------|--|
| Input Signal Types | Embedded audio on HDMI (DVI-D through adapter) or Analog Stereo (Balanced or Unbalanced) |
| Output Signal Types | Ethernet |
| HDMI Audio Formats | 8ch PCM |
| Analog Audio Formats | Stereo 2-channel |
| Analog-To-Digital Conversion | 16-bit 32 kHz, 44.1 kHz and 48 kHz |

| LATENCY | |
|---------|--|
| Latency | 10 ms at 60 fps |
| Note: | <ul style="list-style-type: none"> This is the combined encode plus decode latency. Total latency from source to screen will also include any network latency. Scaling adds one frame of latency (17ms at 60fps) |

| COMMUNICATIONS | |
|----------------|--|
| Ethernet | <p>P0 10/100/1000 Mbps, auto-negotiating, auto-sensing, full/half duplex, DHCP, Auto IP, and Static IP</p> <p>P1 1 Gbps port which accepts compatible fiber transceivers or direct attach cables (fiber or copper cabling)</p> |
| HDMI | HDCP, EDID management |

| PORTS | |
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| +12V 2A | One 12 Volt DC power input |
| P0 | <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, network AV video, and power to the Encoders and Decoders</p> |
| P1 | <p>SFP port (SFP fiber transceiver or direct attach cable not included) for MPC compressed networked AV video</p> <p>Provides network connection to the Encoders and Decoders</p> |
| 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 input. Dedicated audio input |
| HDMI IN | HDMI video input |
| VGA IN | DB15 analog input |
| USB connectors (front panel) | USB-B control input and two USB-A control inputs |

| 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</p> |

| | |
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| | 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 video source |
| STAT LED | Same as STATUS LED described above |
| STRM LED | On (green) when the unit is streaming video |

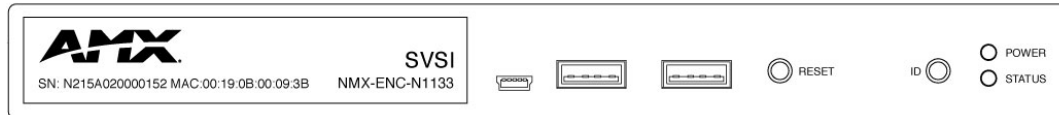
| POWER SUPPLY | |
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| Power Supply, External, Not Included | 2.0 Amp @ 12 Volts DC; 100-240 Volts AC power supply; not included in shipment. NMX-ACC-N9312 (FGN9312) |
| Power over Ethernet | Can be powered via a PoE switch or other equipment with a 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 | |
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| 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 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 |

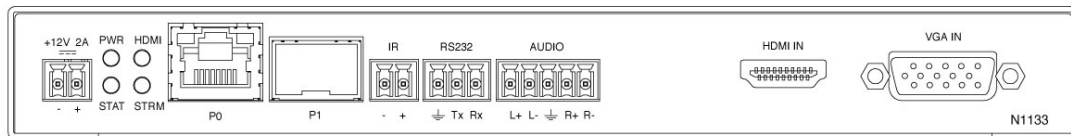
| | |
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| Recommended Accessories | <ul style="list-style-type: none"> •NMX-ACC-N9382 (FGN9382), 1RU Power Supply 16-Channel 12V for up to 16 SVSI N-Series Encoders and Decoders •NMX-ACC-N9101 (FGN9101), Mounting Wings for SVSI N-Series Encoders and 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 |
|-------------------------|--|

N1133 Encoder Front View



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| <ul style="list-style-type: none"> 1) USB-B Control Input 2) USB-A Control Input 3) USB-A Control Input | <ul style="list-style-type: none"> 4) Device reset button 5) Device ID discovery button 6) Power/Status indicators |
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NMX-ENC-N1133 Rear View



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| <ul style="list-style-type: none"> 1) 12VDC Input (not needed with POE) 2) Status Indicators 3) RJ-45 auto-sensing gigabit Ethernet switch port – POE (Power Over Ethernet) 4) SFP fiber connector | <ul style="list-style-type: none"> 5) Infrared (IR) emitter connection 6) RS232 connection 7) Analog Audio Input connection 8) HDMI Video In 9) DB-15 (analog) Input |
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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 3.21.16. ©2016 Harman. All rights reserved. Specifications subject to change.

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