

### Overview

The NMX-ENC H.264 encoder is an audio/video encoder which supports high-definition video and H.264 encoding and recording. The encoder can stream either unicast or multicast streams. Dual streaming is also supported (one unicast stream and one multicast stream, or two unicast streams. Two multicast streams are not supported.)

The NMX-ENC is available in two different versions: NMX-ENC-1100 (FG3201-01) and NMX-ENC-1105 (FG3201-02). The NMX-ENC-1105 has the same features as the NMX-ENC-1100 and adds SDI input and pass-thru ports on its rear panel.

FIG. 1 displays the NMX-ENC encoder.

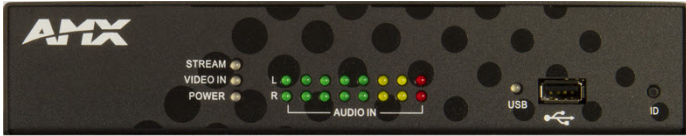


FIG. 1 NMX-ENC encoder

### Specifications

The following table lists the specifications for the encoder:

NMX-ENC ENCODER SPECIFICATIONS	
Power:	Maximum Consumption: 13W Typical Consumption: 10W Operating Voltage: 10VDC to 18VDC
Environmental:	Operating Temperature: 32° to 104° F (0° to 40° C) Storage Temperature: -4° to 158°F (-20° to 70°C) Operating Humidity: 5% to 85%, non-condensing
Dimensions:	1 5/8" x 8 3/4" x 5 1/8" (4.2cm x 22.16cm x 13.08cm) (HWD)
Weight:	NMX-ENC-1100: 2.25 lbs. (1.02kg) NMX-ENC-1105: 2.3 lbs. (1.04kg)
Certifications:	RoHS, FCC Part 15 Class B, CE, IEC60950, UL
Included Accessories:	1 Power Supply, 4.5A, 13.5VDC, 3.5mm retained Phoenix connector (FG423-46) 1 Connector, Phoenix3, F, BLACK 1 Connector, Phoenix4, F, TH, BLACK, 3.5mm

### Minimum Performance Specifications

A client PC playing back streams from the encoder should have the following minimum specifications:

- 2.4 GHz Core2 Duo
- 4 GB RAM

### Mounting the Encoder

You can mount the encoder in a rack by using an NMX-VRK V-Style Rack Shelf (FG3201-60). The encoder also has rubber feet you can attach to the bottom of the unit for table-top mounting. Consult the NMX-VRK V-Style Rack Shelf Quick Start Guide for further information on mounting the encoder.

### Installation

FIG. 2 displays the rear panel of the NMX-ENC-1105. Note that the NMX-ENC-1100 has the same features, but does not have SDI ports.

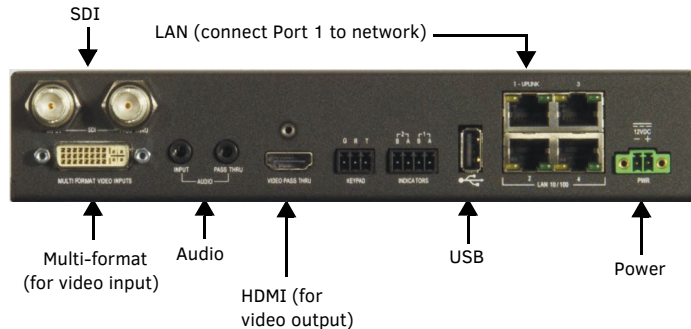


FIG. 2 NMX-ENC-1105 rear panel

### Step 1: Connecting the Encoder to a Video Output

There are several options for connecting audio and video sources to the encoder.

- The multi-format video input source can accept DVI Video sources directly with audio connected to corresponding audio input.
- You can connect HDMI, component video, composite video, S-Video, and RGB sources to DVI-I by using appropriate adapter cables. You can connect the audio associated with these sources to the appropriate audio jack on the rear panel of the encoder.
- Digital audio embedded in HDMI through the DVI connector can be multiplexed and used for encoding and pass through to monitor output.
- On the NMX-ENC-1105, the SDI input can receive video with 2 channel LPCM audio at 48kHz sampling frequency.

The following table lists the audio options for each video type:

AUDIO OPTIONS PER VIDEO TYPE	Digital Audio	Analog Audio (through Audio inputs)	No Audio
Multi-Format (DVI)	Only if embedded in an HDMI signal	✓	✓
SDI	✓	✓	✓

### Step 2: Connecting the Encoder to Your Network

Using Cat5 cable, connect LAN port 1 to your facility network.

**IMPORTANT:** You must have access to a DHCP server to initially configure the encoder.

**CAUTION:** It is possible to disable LAN ports 2-4 and leave only port 1 enabled. Since it is possible to turn off these ports, you should ALWAYS connect your main network artery to port 1.

**NOTE:** The Ethernet switch in the encoder is intended to be used as a workgroup extender switch for conveniently connecting devices such as PCs, touch panels, and other network-connected A/V equipment. It is not a smart switch, and as such other encoders or streaming devices should not be connected to the switch ports on the encoder. If multiple encoders are to be used in a location they should each have a dedicated facility network connection or a smart switch should be added that can have multiple encoders connected to it.

### Step 3: Applying Power to the Encoder

The encoder must be powered locally using the included power supply. Apply power by connecting the power supply to the PWR port.

### Retrieving the IP Address of the Encoder

You can retrieve the IP address and other configuration information for the encoder by inserting a USB drive into the encoder and pressing the ID pushbutton. The encoder creates and copies a text (.txt) file to the USB drive with a list of configuration information including the IP address of the encoder. Perform these steps to locate the IP address of the encoder:

1. Insert a USB drive into the USB port on the front panel of the encoder. The USB LED beside the port appears green once the USB drive is mounted.
2. Press the ID pushbutton. When the LED flashes green, the encoder is copying a .txt file to the USB drive. The encoder is finished transferring the file to the USB drive when the LED stops flashing.
3. Remove the USB drive from the encoder and insert it into a PC or any other device which can read the file.
4. On the PC, navigate to the USB drive. The filename contains the encoder's serial number, IP address, and IP type (DHCP or Static). You can open the file to view the MAC address, subnet mask, and gateway address.

**NOTE:** If the encoder is unable to receive the IP address at the time of retrieval, the filename will have "unavailable" listed in place of the IP address.

FIG. 3 displays an example of a configuration file. The filename contains the encoder's serial number, IP address, IP type, and a time stamp.

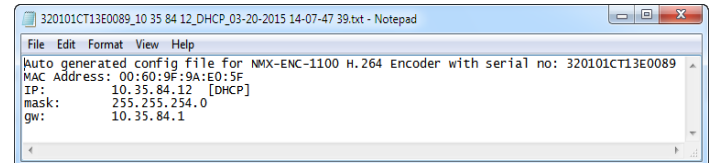


FIG. 3 Encoder configuration file

**NOTE:** Writing the configuration file to the USB drive can only occur once per drive insertion. If you need the encoder to copy the file another time, you must remove the USB drive and insert it again into the USB port on the front panel.

## Accessing the WebConsole

The encoder features an on-board WebConsole that allows you to configure the device and make various adjustments to audio/video settings. The WebConsole is accessed via a standard web browser on a PC that has network access to the encoder. The NMX-ENC supports Internet Explorer 9 or better, Firefox (21.0+), and Chrome (27+).

From any PC that has access to the LAN that the target encoder resides on:

1. Open a web browser and type the IP Address of the encoder in the Address Bar.
2. Press Enter to access WebConsole for the encoder. A security dialog opens.
3. Enter the user name and password for the encoder into their respective text boxes. The default user name is admin and the password is **1988**. The WebConsole page opens (FIG. 4).



FIG. 4 NMX-ENC Web Console

## Additional Documentation

For more information, consult the product page at [www.amx.com](http://www.amx.com) for data sheets and the *NMX-ENC H.264 Encoder Instruction Manual*.