

## NVA-400, NVA-100HD, NVA-240 Network Video Codec Family



Network Video Codec NVA-400

The NVA family of video encoders and decoders provides cutting edge video and audio compression/decompression in a variety of channel counts and formats.

The NVA family allows video compression and streaming for one (NVA-100HD) or four (NVA-400) channels of NTSC/PAL video or a single channel of High Definition video (NVA-100HD), as well as streaming over any 10/100/1000 Ethernet network.

These encoders and decoders incorporate industry-first features like real-time, full resolution, High Profile H.264 compression on each channel, High Definition 1080i HDMI video output (NVA-240) and interfaces to accept time synchronization and GPS position in industry standard formats such as IRIG B, Have Quick or NMEA-0183.

### **Ultimate Video Compression**

The NVA family utilizes H.264 High Profile compression on each channel. This is the latest industry-standard compression algorithm, used in Blu-Ray recordings, and provides vastly superior image quality to other algorithms at the same bit rate, or approximately a 2:1 reduction in bit rate for the same image quality when compared to the older MPEG2 algorithm.

For compatibility with telemetry recording systems, the NVA family has the optional capability to format compressed video data to IRIG 106 Chapter 10 format.

### **Easy Integration with Military systems**

The NVA family provides simple integration into military applications by allowing time synchronization from Have Quick Time Code, and ICD-GPS-153 serial interfaces to SAASM GPS receivers such as the DAGR or PLGR. GPS Position data and status from the GPS receiver is stored as meta data with each video frame.

### **Time Stamping of Data**

The NVA family includes interfaces to IRIG-B, Have Quick and GPS via NMEA 0183 to ensure each video frame is accurately time stamped.

### **Network Based Controls**

Each NVA product hosts a built-in web server and can be controlled and configured using standard web browser software from any network location. No additional software is required on the PC or other network host.

Multicasting allows multiple clients to view the same video without congesting the network. Remote upgrade of firmware is also supported through the web interface.

### **Output Display**

The built-in HDMI output on the decoder (NVA-240) allows a single HD, 6 full resolution (D1) or 24 CIF video images to be displayed on a single 1080i High Definition video monitor.

Encoded video/audio streams may also be viewed on any web browser.

### **Simple Installation**

Power over Ethernet (PoE) allows the NVA products to be powered via the same Ethernet cable from a suitable network switch or router, without the need for dedicated power wiring.

NVA products will automatically discover other NVA products on the same network, and present an easy to use interface to manage all connections.

### **USB Interface**

Video and audio can be recorded to, and played back from an optional removable USB device, such as a USB-HDD or USB Flash Drive.

The USB interface can also be used for connecting a keyboard and/ or mouse for input control

### FEATURES

- 4 Channels Full Rate, Full Resolution Video Compression/Decompression and Streaming
- High Definition Video
- H.264 High Profile Compression
- GPS, Have Quick and IRIG B Time Sync
- Gigabit Ethernet (10/100/1000)
- USB Storage
- Power over Ethernet (optional)
- IRIG 106 Ch10 Compliant (optional)

## NVA FAMILY SPECIFICATIONS

	NVA-400 Encoder	NVA-100HD Encoder	NVA-240 Decoder
<b>Audio/Video Inputs</b>			
No. of Video Channels	4	1	
Termination	75 Ω	75 Ω	
Video Connector	BNC	HDMI	
No. of Audio Channels	4	2	
Audio Connector	Terminal Block	HDMI	
<b>Compression</b>			
Compression Rate	120fps	30fps	
Compression Algorithm	H.264 High Profile, MJPEG	H.264 High Profile, MJPEG	
Resolution	Full D1 (720 x 525/625), CIF (360 x 240)	HD (1920 x 1080), Full D1, CIF	
Audio Compression	AAC	AAC	
<b>Audio/Video Outputs</b>			
Video Output	BNC	BNC	HDMI + BNC
Audio Output	3.5mm Audio Jack	3.5mm Audio Jack	HDMI + 3.5mm Audio Jack
<b>Decompression</b>			
No. of Channels Decoded			1 x High Definition, 6 x Full D1, or up to 24 CIF
Decode Algorithms			H.264 High Profile, MPEG2, MJPEG

	All Codecs
<b>I/O Interfaces</b>	
Ethernet	10/100/1000 BASE-T
Ethernet Protocols	TCP/IP, UDP, HTTP, SNMP, DHCP, NTP
RS485/422	1 ea
RS232	1 ea
USB 2.0	2 ea
Alarm Inputs	4 ea
PoE	802.3af compliant (Optional)
Auxiliary Power Input	DC 9-40V
<b>Environmental</b>	
Temperature	0 to +50 °C
Humidity	95% non condensing
Power Consumption	7.5W nominal
<b>Physical</b>	
Dimensions	6.2"W x 5.7" D x 1.2" H
Weight	Approx. 1 lb.
EMC Emission	EN 55022 FCC Ch 15 Subpart B
EMC Immunity	EN 55024

	All Encoders
<b>Time Synchronization</b>	
Network Time Protocol	NTP V3 (RFC-1305)
IRIG B	Modulated, 1-3Vpp, 600Ω
Have Quick Time Code	Per ICD-GPS-060
<b>GPS Receiver Interface</b>	
Electrical	RS232/485, 19200,N,8,1
Protocol (Selectable)	NMEA -0183 \$GGA (from SPS receivers) ICD-GPS-153 Message 3 (from PLGR or DAGR PPS receivers)

#### Ordering Information

027000001	H.264 VIDEO ENCODER 1 CH Model NVA-100
027000002	H.264 VIDEO DECODER 24 CH Model NVA-240
027000003	H.264 VIDEO ENCODER 4 CH Model NVA-400
027000004	H.264 VIDEO ENCODER 1 CH Model NVA-100HD

Specifications subject to change without notice.

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