

H.264 HD Encoder Blade

Visionary Solutions' AVN441 H.264 Encoder transforms live video sources into full-screen, full resolution, Internet Protocol Digital Video, compatible with multicast, webcast and video-on-demand protocols. This high quality H.264 video encoder is suitable for all applications requiring cost-effective, low bit rate, HD or SD video distribution over IP networks.

The AVN441 is a key component of Visionary Solutions' modular, end-to-end PacketV® IPTV ecosystem, which is the ideal solution for any organization looking to deliver and manage real-time and recorded video over virtually any network.

Features

▶ Modular Flexibility

The AVN441 features modular firmware architecture, which lowers the base price by allowing the user to purchase only those features they need at the moment, while maintaining the flexibility to upgrade in the future as requirements change. The list of optional add-on-modules currently include 720p, 1080i (with 1080p @24 support), 1080p @60, and Forward Error Correction (FEC).

▶ Superior Audio/Video Quality

H.264 (MPEG-4 Part 10/AVC) hardware compression and Visionary Solutions' optimized transmission technology provide a high or standard definition, full frame rate, IP video stream. The stream can be viewed by an unlimited number of clients on a LAN or WAN provided that bandwidth is available. Image resolutions are configurable based upon purchased modules. The base model includes 480i SD encoding, with Closed Captioning (CC) support. Optional modules allow FEC support and image resolutions to be configured up to 720p, 1080i (with 1080p @24 support) or full 1080p at 60 frames per second. The total bit rate can be configured from 5 to 20 Mbps for HD and 2 to 10 Mbps for SD. The audio compression is either AAC (128 to 512 kbps audio encoding, average bitrate) or MPEG-1 Layer 2 (64 to 384 kbps audio encoding) with up to 48 kHz sample rate.

▶ Forward Error Correction

For superior image quality and reliability in the most demanding network video environments, the AVN441, with optional FEC module, incorporates SMPTE-2022 Pro-MPEG FEC Code of Practice #3, Release 1 and 2. This allows FEC enabled receivers to monitor the stream and recover missing packets.

▶ Closed Captioning

The AVN441 allows Closed Captioning of SD signals using the Composite input. EIA-608 is supported.

▶ Video Inputs

The AVN441 includes three BNC connectors for component YPbPr, RGB, or Composite and one HDMI input (DVI-D with optional adaptor cable) for connecting video and audio source equipment.

▶ Audio Inputs

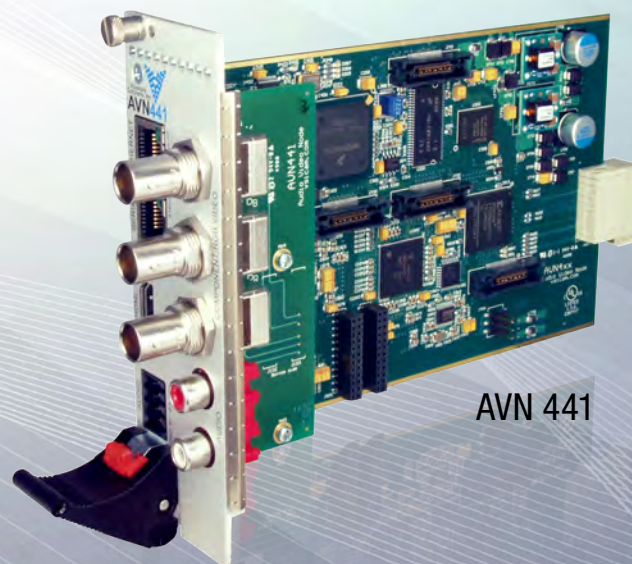
A terminal block connector provides audio inputs for Balanced and Unbalanced connections. This allows for easy onsite connections regardless of the cabling outputs of the audio source. There are also two RCA audio connectors (L/R) which support only unbalanced connections, and the HDMI input carries audio as well. The AVN441 features user control of audio parameters, including mute, pre-amp and volume.

▶ External Device Connections

The AVN441 includes a serial connection via an RJ-45 connector. This connector can be used as an RS-232 port (full-duplex, no hand shaking) or an RS-422 (full-duplex) port. These ports allow the AVN441 to interface with external devices such as terminal emulation equipment.

▶ Management & Configuration

The AVN441 can be managed and configured via a console menu, a web interface or the AVN Control Protocol API. Internet protocols such as TCP/IP and HTTP are also supported.



AVN 441



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The AVN441 is designed to be enclosed in the MPP200 or MMP1700 chassis. The MPP200 is a durable, single blade enclosure and the MMP1700 is a high density, rack mountable blade system.

Specifications

Input/Output

- Component YPbPr or RGB
- Composite
- 3 x BNC connectors
- RCA supported via adaptors
- HDMI or DVI-D with opt. adaptor cable
- Terminal block audio connector for Balanced and Un-Balanced Stereo
- RCA Stereo Audio
- RJ-45 Ethernet 10/100
- RJ-45 Serial RS-232C or RS-422

HD Video Encoding

- H.264 MPEG-4 AVC Compression
- High Profile at level 4 (HP@L4)
- 5Mbps to 20Mbps
- IGMP v1, v2, v3

SD Video Encoding

- H.264 MPEG-4 AVC Compression
- Main Profile at Level 3 (MP@L3)
- 2Mbps to 10Mbps
- IGMP v1, v2, v3

Closed Captioning (CC)

- Composite (SD) – EIA-608 only

Upgrade Modules

- Forward Error Correction (FEC)
- 720p
- 1080i (1080p @24 support)
- 1080p @60

Related Products

- Extended Product Warranty
- MPP1700
- MPP200
- PacketV® IPTV System
- PacketV® STB A140
- PacketV® STB H140
- PacketV® System Protection

Video Resolutions

- 1080p 60 – (requires 1080p60 module)
- 1080p 24 – (requires 1080i module)
- 1080i 59.94/60 – (requires 1080i module)
- 1080i 50 – (requires 1080i module)
- 720p 59.94/60 – (requires 720p module)
- 720p 50 – (requires 720p module)
- 576i 50
- 480i 59.94

Audio Encoding

- MPEG-1 Layer II stereo
- 64kbps to 384kbps
- MPEG-2 AAC stereo
- 128kbps to 512kbps (average bitrate)

Dimensions

- (W x D x H)
- 40 x 131 x 175 (1.6" x 5.2" x 6.9")

Weight

- 230g or .51 lb. (approximate)

Forward Error Correction (FEC)

- SMPTE-2022 Pro-MPEG FEC Code of Practice # 3, Release 1 and 2 – (requires FEC module)

Power Input

- DC Input 4.25 Watts
- MPP200 Chassis 100-240VAC 50/60Hz Adapter
- MPP1700 Chassis 100-240VAC 50/60Hz

Environmental

- Operating Temperature -10°C to 50°C (14°F to 122°F)

Compliance

- CE, UL Listed I.T.E E257717
- EMC: FCC Part 15 Class A or B [MPP200] Class B, EN55022 [MPP1700] Class A, EN55022 EN61000-3-2, EN61000-3-3, EN55024
- SAFETY: EN60950-1



AVN 441 with MPP200 Blade Enclosure