AVN422

h.264 high-definition encoder blade

OVERVIEW

Visionary Solutions' IPTV encoders can turn video from HDMI or DVI-D sources into full-screen, full resolution Internet Protocol digital video, compatible with multicast, webcast and video-on-demand protocols, in real time.

The AVN422 encodes high definition video in an h.264 stream (MPEG-4 Part 10/AVC) and is IGMP v3 multicast capable. It's used in a Media Processing Platform (MPP), a high density rack mount system. Plug a video source directly into the blade, plug into the network via the RJ-45 connection, and stream real-time high definition video over your LAN or WAN. The MPP with AVN422 blades is suitable for all applications requiring cost-effective, low bit rate, high definition video distribution over IP networks.

FEATURES

Modular Flexibility

The AVN422 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. 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.

Video Inputs

The AVN422 includes one HDMI input (DVI-D with optional adaptor cable) for connecting video and audio source equipment.

Forward Error Correction

For superior image quality and reliability in the most demanding network video environments, the AVN422, 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.

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. The HDMI input can carry audio as well.

External Device Connections

The AVN422 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 AVN422 to interface with external devices such as terminal emulation equipment.

Management & Configuration

of the device is accomplished by any of four methods: PackeTV™ Manager (2nd generation), console menus, a Web interface, or the AVN Control Protocol API. TCP/ IP, HTTP and other Internet-related protocols are supported.

The IPTV Media Processing Platform from Visionary Solutions is a high density rack mountable blade system. The MPP1700 platform, pictured at right, with dual redundant power scheme, will hold up to seventeen single slot encoder blades, or a combination of dual and single slot blades. The MPP200 has a single power source and can hold two single slot encoder blades or one dual slot blade. Each Media Processing Platform will incorporate a growing family of modules to support transport, switching, transcoding and monitoring of IPTV.

Visionary Solutions, Inc

THE COST PERFORMANCE LEADER IN PROFESSIONAL IPTV VSICAM.COM

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SPECIFICATIONS

Input/Output

- HDMI or DVI-D with optional adaptor cable
- Terminal block audio connector for Balanced and Un-Balanced Stereo
- 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

Forward Error Correction (FEC)

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

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

Dimensions

(W x D x H)
20 x 131 x 175 (.8" x 5.2" x 6.9")

Weight

- 140g - .31 lb. (approximate)

Power Input

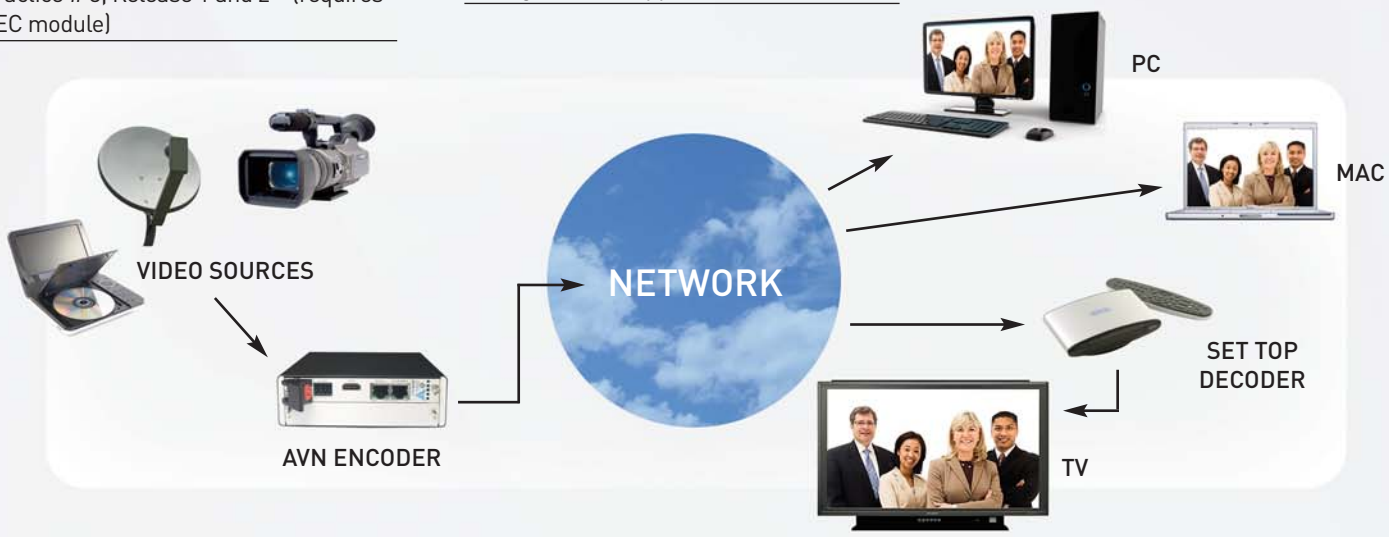
- DC Input 4.25 Watts
- MPP200 Chassis 100-240VAC 50/60Hz Adapter
- MPP1700 Chassis 100-240VAC 50/60Hz

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



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