Visionary Solutions, Inc.

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AVN441HD
H.264 High Definition Encoder Blade

Overview

Visionary Solutions' IPTV encoders can turn video from almost any source into full-screen, full resolution Internet Protocol digital video in real time. The AVN441HD encodes high definition video in an h.264 stream (MPEG-4Part10/AVC). 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 AVN441HD blades is suitable for all applications requiring cost-effective, low bit rate, high definition video distribution over IP networks.

Features

Superior Audio/Video Quality
h.264 (MPEG-4 Part 10/AVC) hardware compression and Visionary Solutions' optimized transmission technology provides a high definition video 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 to 720p or 1080i at 50 or 60 frames per second or 1080p at 24 frames per second. The video bit rate can be configured from 4 to 18 Mbps. The audio compression is either AAC (128 to 512 kbps audio encoding) or MPEG-1 Layer 2 (64 to 384 kbps audio encoding) with up to 48 kHz sample rate.

Video Inputs
The AVN441HD includes three BNC connectors for component YPbPr or RGB, and one HDMI input 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 AVN441HD features user control of audio parameters, including mute, pre-amp and volume.

External Device Connections
The AVN441HD 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 AVN441HD to interface with external devices such as terminal emulation equipment.

Management & Configuration
of the device is accomplished by any of four methods: PackeTV™ Configuration Utility, console menus, a Web interface, or the AVN Control Protocol API. TCP/ IP, HTTP and other Internet-related protocols are supported.

PackeTV™Configuration Utility
(included) enables quick and efficient setup and mass reconfiguration of key settings including bit rate, video resolution and multicast destination IP addresses.

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 eight AVN441HD high definition (HD) encoder blades or seventeen standard definition (SD) blades. The MPP200 has a single power source and can hold one HD or two SD blades. Each Media Processing Platform will incorporate a growing family of modules to support transport, switching, transcoding and monitoring of IPTV.
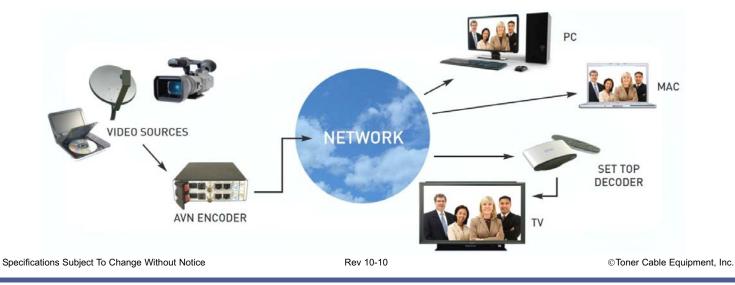
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Specifications

Input/Output

Component YPbPr or RGB	
3 x BNC connectors	
RCA supported via adaptors	
HDMI digital input with HDCP	
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	

Video Encoding

HD Video h.264 MPEG-4 AVC Compression	
High Profile at level 4 (HP@L4)	
5Mbps to 20Mbps	
SD Video h.264 MPEG-4 AVC Compression	
Main Profile at Level 3 (MP@L3)	
2Mbps to 20Mbps	

Video Resolutions

1080p 24	
1080i 59.94/60	
1080i 50	
720p 59.94/60	
720p 50	
576i 50	
480i 59.94	

Audio Encoding

MPEG-1 Layer II stereo	
128kbps to 384kbps	
MPEG-2 AAC stereo	
128kbps to 384kbps	

Dimensions

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

Weight

225g (approximate)	

Power Input

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

Environmental

Operating Temperature -10ºC to 50ºC (14ºF to 122ºF)	

Compliance

CE, UL Listed I.T.E. E257717	
EMC: EN55022 Class B (MPP200) Class A (MPP1700)	
Safety: EN60950, IEC60950	