



AFN-AVC

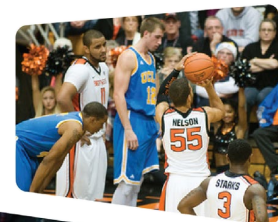
UHD (4K), At-Home Production & Dense AVC Encoding Solution



Adtec has thrived at the forefront of UHD (4K) AVC live contribution. Using synchronization technology we developed nearly a decade before, Adtec participated in the first live UHD (4K) contribution event in early 2014. Since then, we have enjoyed partnering with our customers to provide our UHD (4K) solution with repeated success. Now, we have advanced this technology to our new afiniti platform to provide you with a more cost-effective and space-efficient solution.

Our at-home production solutions enable operators to perform tasks from their "home" location. Adtec's dense encoder packages help lower operating expense by packing more services and transport options into one box. The at-home workflow packages can encode feeds from up to eight cameras, preserve frame accurate sync, and multiplex them into one transport stream for IP or ASI delivery.

The ability to expand as your needs change, coupled with the capability to upgrade to HEVC compression technology when required, make these contribution packages ideal for ever-changing markets.



Highlights:

- **Premium, High-Quality Video**
- **HEVC Upgrade Path**
- **Low End-to-End Latency**
- **On-Board Multiplexer**
- **Room for Expansion & Redundancy**

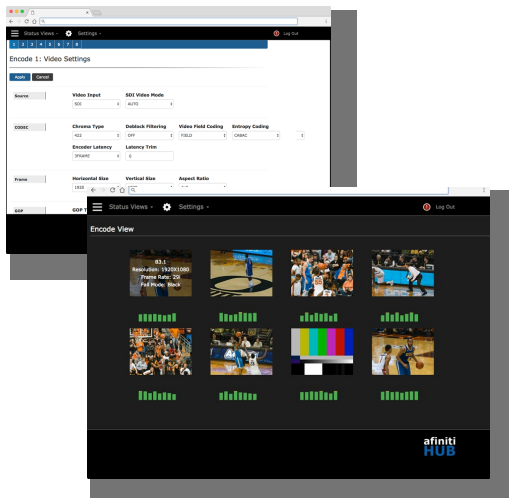


AFN-AVC

UHD (4K), At-Home Production & Dense AVC Encoding Solution

Employing an advanced interconnect system and modular design, afiniti provides a solution for today's customized operator workflows.

In an industry where space is a premium, power consumption is a concern and command and control must be intuitive, this flexible and reliable platform delivers!



Software Keys

All software keys are field upgradable.

Key	Description
AFN-VID-LAT	Software Option: 3,2,1 frame latency. Adtec Contribution IRD is required.
AFN-AUD-DD	Software Option: Dolby Digital (AC3) 2.0, 1.0, or 5.1 mode audio encode.
AFN-AUD-AAC	Software Option: AAC audio encode. Includes AAC-LC, HE-AAC (v1 and v2).

Ordering Information

At-Home Hardware Packages

Package	Description
AFN-AVC-2PK	Two Channel AVC Encoder Package: (1) AFN-1000 chassis with redundant power supplies (1) VEC0202 Dual Video Encoder Carrier <i>Input Options</i> (1) (SDI/CVBS or SDI/SFP) per encoder (1) AEC0101 Dual Audio Encoder Carrier (1) TMC0100 Transport Mux Carrier <i>Output Options</i> (Dual Ethernet or Quad ASI) <ul style="list-style-type: none"> SD/HD AVC 4:2:0 / 4:2:2 8-Bit Video Encoding Four audio pairs per video of MP1L2 Audio Encoding Passthrough Audio
AFN-AVC-4PK	Four Channel AVC Encoder Package: Same as above plus... (1) VEC0202 Dual Video Encoder Carrier
AFN-AVC-6PK	Six Channel AVC Encoder Package: Same as above plus... (1) VEC0202 Dual Video Encoder Carrier (1) AEC0101 Dual Audio Encoder Carrier
AFN-AVC-8PK	Eight Channel AVC Encoder Package: Same as above plus... (1) VEC0202 Dual Video Encoder Carrier

UHD (4K) Hardware Packages

Package	Description
AFN-AVC-1UHD-PK	Single UHD (4K) Encoder Package: (1) AFN-1000 chassis with redundant power supplies (2) VEC0202 Dual Video Encoder Carriers <i>Input Options</i> (1) (SDI/CVBS or SDI/SFP) per encoder (1) AEC0101 Dual Audio Encoder Carrier (1) TMC0100 Transport Mux Carrier <i>Output Options</i> (Dual Ethernet or Quad ASI) <ul style="list-style-type: none"> SD/HD AVC 4:2:0 / 4:2:2 8-Bit Video Encoding Four audio pairs per video of MP1L2 Audio Encoding Passthrough Audio
AFN-AVC-2UHD-PK	Dual UHD (4K) Encoder Package: Same as above plus... (2) VEC0202 Dual Video Encoder Carriers (1) AEC0101 Dual Audio Encoder Carrier



AFN-AVC

UHD (4K), At-Home Production & Dense AVC Encoding Solution

VIDEO ENCODE PROFILES

H.264 / AVC SD Profile:

(ITU-T H.264 ISO 14496-10)

NTSC 29.97 fps (480i59.94) - D1
PAL 25 fps (576i50) (Level 3.0 to 3.2)
4:2:0 Chroma: High Profile, (Level 3.0)
4:2:2 Chroma: High Profile, (Level 3.0)
Pre-Processing
Filters: Temporal & Spatial (Median)
Data rates: 0.7 - 20Mb/s

H.264 / AVC HD Profile:

(ITU-T H.264 ISO 14496-10)

1080p59.94/50 (Level 4.2)
1080i59.94/50, 720p59.94/50 (Level 4.1)
4:2:0 Chroma: High Profile, (Level 4.1)
4:2:2 Chroma: High Profile, (Level 4.1)
Pre-Processing
Filters: Spatial (Median)
Data Rates: 1.5 - 80Mb/s

Group of Pictures (GOP):

I, IP, IBP, IBBP

Entropy Coding:

CAVLC, CABAC

AUDIO PROCESSING PROFILES

Audio Encoding:

Mixed Mode Audio
MPEG 1 Layer 2 /48 Khz
(Stereo, Mono, Dual Mono)
Dolby Digital (AC-3)
AAC-LC
HE-AAC (v1/v2)

Passthrough Audio:

Dolby E 5.1/2.0/1.0
Dolby Digital (AC-3)
Linear PCM

INPUTS

SD-SDI / HD-SDI / 3G-SDI:

SD - SMPTE 259M-C - with embedded audio per SMPTE 272M A, B, and C.

HD - SMPTE 292M with embedded audio per SMPTE 299M. 3G-SDI Level A and Level B.

Connector: BNC (75 Ohm). Auto Detect SD/HD/3G.

SFP Optical:

SD-SDI, HD-SDI, and 3G-SDI (3G-SDI Level A and Level B)

Connector: Open SFP cage for optional SFP optical module.

Exceeds SMPTE 297-2006 specifications

Robust error free reception of signals from 50Mbps to 3Gbps
Supports SD-SDI, HD-SDI and 3G-SDI
Hot-pluggable
RoHS compliant
Sensitivity: -22dBm
Overload: 0dBm

CVBS (Composite):

SD NTSC or PAL D1

Connector: BNC (75 Ohm).

VBI / VANC PROCESSING

Waveform / Ancillary:

Closed Captioning, AFD, OP47, Teletext, VITC and WSS
CEA 608 -> 708 Up-Conversion

ENCRYPTION

BISS-1
BISS-E
AES 128/256



AFN-AVC

UHD (4K), At-Home Production & Dense AVC Encoding Solution

LATENCY

Normal
Low
Ultra Low

DVB-ASI OUTPUT

Asynchronous Serial Interface
IS013818-1 MPEG 2 Transport Stream per
EN 50083-9 (188 Byte Only)
Connector: 4 X BNC (75 Ohm)
Bouquet Management

IP OUTPUT

UDP, RTP (RFC 3550) encapsulated routes
with SMPTE 2022-1 FEC.

188 byte DVB packet size, 7 per IP packet

Output Rates: 1 - 150Mbps

MPEG 2 RTP v2 transport (RFC 3550)
MPEG 2 UDP transport

Output Rates: 1 - 50Mbps

RTP SMPTE 2022-1 FEC

Output Rates: 1 - 25Mbps

Zixi Feeder

Connector: 2 X RJ45 10/100/1000 GigE

PHYSICAL / ENVIRONMENTAL

Operating Temperature:

0°C to 50°C / 32°F to 122°F Ambient

Storage Temperature:

-40°C to 85°C / -40°F to 185°F Ambient

Non-condensing Relative Humidity:

Non-condensing Relative Humidity: 95%
Max.

Power:

Redundant Power Supplies
Input Voltage: 90VAC - 264 VAC
Startup Consumption: 400mA @ 120 V

Measurements: (H X W X D)

1.75" X 18.97" X 18.51"
44.45 mm X 481.84 X 470.15 mm

Weight:

Chassis Weight: 8.50 lbs./ 3.86kg
Carrier Weight Range:
8.75 oz. / .25 kgs to 12.5 oz. / .35 kgs.

Safety & Certification:

CE
RoHS

MANAGEMENT

Front Panel Control with Password Protection
Browser-Based Web Interface