



AFN-HEVC

HEVC / H.265 Encoder

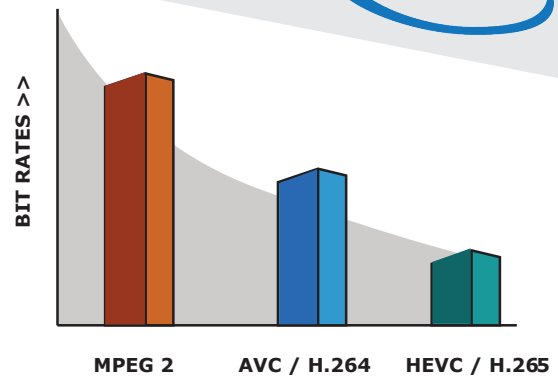


Adtec's hardware-based, power-efficient HEVC encoder has been designed specifically for premium quality video applications. Deployed on an advanced interconnect system with a modular design, the afiniti platform provides a solution for today's transitional workflows.

Our afiniti based packages offer UHD (4K) HEVC / H.265 contribution encoding via a single low-power video processor. Explore new workflow options with SD / HD downscaling, multi-channel encoding, flexible codec options, and super-low latency all with hardware-quality codec efficiency. 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!

Highlights:

- Premium Quality Video
- High-Efficiency Encoding
- UHD (4K) or Quad HD from a Single Carrier
- Low-Power Footprint
- Multi-Channel Solution
- Room for Expansion & Redundancy



HEVC / H.265 delivers significant bit rate reductions compared to existing protocols - up to a 50% bit rate improvement over AVC / H.264.

*Content and resolution dependent



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VIDEO ENCODE PROFILES

HEVC / H.265 Profile:

H.265 MPEG-H Main, Main10, Main 4:2:2 10

Level:
5.1/4.1/4.0/3.1/3.0

Bit Depth:
8bit, 10bit

Video formats:
2160p (4096/3840 x 2160), 1080p,
1080i, 720p, 576i, 480i

Frame Rates:
1080p: 60, 59.94, 50, 30, 29.97, 25, 24, 23.98
1080i: 30, 29.94, 25, 24, 23.98
720p: 60, 59.94, 50, 30, 29.97, 25, 24, 23.98
576i: 25
480i: 29.97

Group of Pictures (GOP):
ALL-I, ALL-P, IPP, IBP (1B), IBBP (2B),
IBBBP (3B), IBBBBBBP (7B)

Entropy Coding:
CAVLC, CABAC

AVC / H.264 Profile:

Level:
1 to 5.2

Chroma Sampling:
4:2:0/4:2:2

HD Format:
1080p59.94, 1080p50 1080i59.94,
720p59.94, 1080i50, 720p50

SD Format:
D1 NTSC 29.97 fps (480i59.94) and PAL
25 fps video (576i50)

Entropy Coding:
CAVLC, CABAC

Group of Pictures (GOP):
ALL-I, ALL-P, IPP, IBP (1B), IBBP (2B),
IBBBP (3B), IBBBBBBP (7B)

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

AUDIO PROCESSING PROFILES

Input:
SDI embedded

Standard:
MPEG-1 Layer2, MPEG-2/4 AAC-LC,
MPEG-4 HE-AACv1/V2, LPCM

Bit Depth:
24/20/16 bit

Bitrates:
MPEG-1 Layer 2: 64Kbps - 384 Kbps
MPEG-2/4 AAC-LC: 64Kbps - 640Kbps
MPEG-4 HE-AACv1: 32Kbps - 256Kbps
MPEG-4 HE-AACv2: 32Kbps - 48Kbps

ENCRYPTION

DVB Common Scrambling Algorithm Basic
Interoperable Scrambling System (BISS).
BISS-1
BISS-E
AES 128/256

LATENCY

Capable of Super-Low Delay (3/2/1 Frame)
*not in multi-channel mode

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

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:
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 mm X 470.15 mm

Weight:
Chassis Weight: 8.50 lbs/ 3.86 kgs
Carrier Weight Range:
8.75 oz / .25 kgs to 25 oz / .71 kgs.

Safety & Certification:
CE
RoHS

MANAGEMENT

Front Panel Control with Password Protection
Browser-Based Web Interface