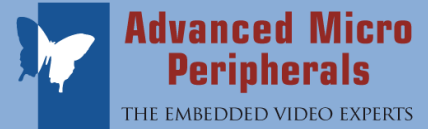


# HDAV2000KLV

HD H.264 Codec with STANAG 4609 KLV



The HDAV2000KLV is a High Definition video codec with support for extraction of STANAG 4609 KLV Metadata from HD-SDI sources. The HDAV2000KLV is built on established AMP ultra low latency, video and audio encoding technology. The HDAV2000KLV encodes video to the H.264/MPEG-4 AVC (Part 10) standard and supports extraction of STANAG 4609 KLV metadata from the HD-SDI input as per MISB 0605.3. The HDAV2000KLV also features 4 SD composite video inputs and a high performance audio controller with stereo input and outputs that allows audio to be captured from HD-SDI and Line inputs and synchronised with the captured video.



The HDAV2000KLV provides hardware decoding allowing previously recorded video and audio to be output via HD-SDI, and composite outputs. KLV metadata can also be output embedded in the HD-SDI output.

The HDAV2000KLV is a dual card, PCI-104 form factor board set for systems with a PCI-104 bus. The HDAV2000KLV is supported by comprehensive SDKs for Video Recording and Streaming that minimizes development risk and shorten time to market.

(Rev A.01)  
Subject to change without notification

**Advanced Micro Peripherals Ltd**  
Cambridge, CB6 2HY, England  
Tel (+44) 1353 659500  
Fax (+44) 1353 659600  
[sales@amp ltd.com](mailto:sales@amp ltd.com)  
<http://www.amp ltd.com>

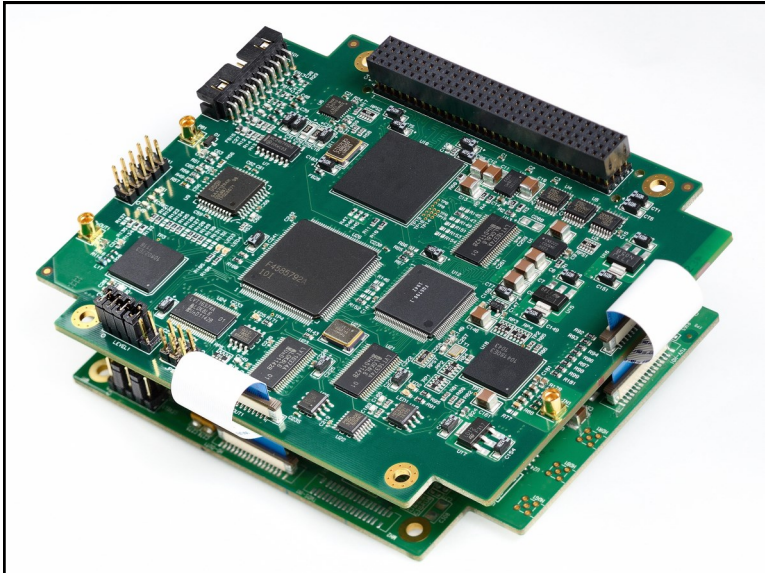
**Advanced Micro Peripherals Inc**  
New York, NY10016, USA  
Tel (+1) 212 951 7205  
Fax (+1) 212 951 7206  
[sales@amp-usa.com](mailto:sales@amp-usa.com)  
<http://www.amp-usa.com>

Video, Audio,  
and STANAG 4609  
KLV metadata  
capture from  
HD-SDI



# HDAV2000KLV

HD H.264 Codec with STANAG 4609 KLV



**HDAV2000KLV 2-Board Stack**

Ideal for -  
Remote Platform,  
Surveillance,  
Remote operated  
vehicles

## Applications

Remote moving platforms

Remotely guided vehicles

UAVs

Vehicle cameras

Remote video surveillance

Solid-state digital video recorder

Avionics

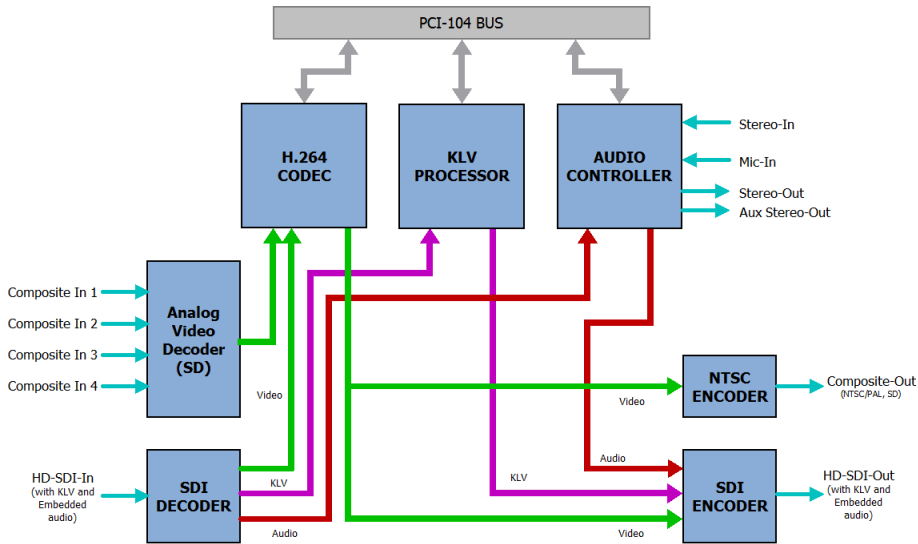
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Fax (+44) 1353 659600  
[sales@amp ltd.com](mailto:sales@amp ltd.com)  
<http://www.amp ltd.com>

**Advanced Micro Peripherals Inc**  
New York, NY10016, USA  
Tel (+1) 212 951 7205  
Fax (+1) 212 951 7206  
[sales@amp-usa.com](mailto:sales@amp-usa.com)  
<http://www.amp-usa.com>



# HDAV2000KLV

HD H.264 Codec with STANAG 4609 KLV



**HDAV2000KLV Block Diagram**

## Features

HD-SDI input at up to 1080i60 with KLV and embedded audio

STANAG 4609 KLV Capture from HD-SDI

HD-SDI output up to 1080i60 with KLV and embedded audio

4x Composite NTSC/PAL video inputs

1x Composite NTSC/PAL video output

PCI audio interface supporting:

1x Stereo output

1x Stereo input

1x Mic input

PCI-104 form factor

Software support for Windows, Linux

Single +5V operation

High Definition

Encode/Decode

KLV Extraction /

KLV Injection

**Digital Video Input**

HD-SDI with KLV metadata and embedded audio  
 Flexible capture resolution, 16x16 pixel granularity.  
 Standard resolutions supported include:  
 1080i60, 1080i50, 1080p30, 1080p25  
 720p60, 720i60, 720p50, 720i50  
 480p60, 576p50

**Analog Video Input**

4 Composite NTSC/PAL/RS-170 video input channels  
 Anti-aliasing filters on inputs  
 Supported video standards:  
 CCIR601-NTSC, CCIR-PAL,  
 NTSC-M, NTSC-N, NTSC-J, NTSC (4.43), RS-170  
 PAL-B/G/N, PAL-D, PAL-H, PAL-I, PAL-M, PAL-NC, PAL-60

**Video output ports**

HD-SDI;  
 - Interlaced and progressive resolutions up to 1080i60, 1080i50.  
 Composite;  
 - NTSC/PAL

**Video codec**

H.264 ISO-IEC 14496-10 baseline and Main Profile up to L4.2  
 Interlaced and progressive video codec support  
 Real-time multi stream H.264 Ultra Low latency encode/decode  
 Less than 40ms encode/decode latency  
 Simultaneous encoding/decoding at 1080i60/1080i50

**STANAG 4609 KLV**

Extraction of KLV metadata from HD-SDI as per MISB 0605.3  
 KLV metadata embedded in HD-SDI output

**Bit rate control**

Constant bit rate (CBR)  
 Variable bit rate (VBR)

**Configuration support per stream**

Frame rate  
 Resolution  
 Bit rate control  
 Key frame interval  
 Intra-refresh mode

**Video Input Adjustments (Analog)**

Contrast (or luma gain) adjustable from 0-200% of original  
 Saturation (or chroma gain) adjustable from 0-200% of original  
 Hue (or chroma phase) adjustable from -180° to +180°  
 Brightness (or luma level) can be adjusted from -25 to +25 IRE  
 Software adjustable Sharpness, Gamma and noise suppression

**Audio**

AC97 2.2 audio codec  
 16-bit resolution on each channel  
 Sampling rate up to 48KHz  
 Digital audio capture from HD-SDI

**Inputs**

Analog stereo line input  
 Microphone input

**Outputs**

Analog stereo line output.

**PCI-104 Bus Interface**

Compliant with PCI Rev 2.1  
 132 MBytes/sec bandwidth at 33.33 MHz bus speed  
 Single +5V supply  
 Jumper selectable PCI-104 stack level

**System Requirements**

x86 PC-Compatible PCI-104 Computer  
 2 Spare REQ/GNT on PCI-104 Bus  
 3.3V signalling PCI-104 bus

**Mechanical**

Standard 3.6 x 3.8in PCI-104 form factor  
 Weight: 146g

**Operational characteristics**

Operating temperature 0°C to 60°C  
 Extended temperature -40°C to +85°C (option)

**Software**

Drivers for Windows, Linux  
 Comprehensive video recording SDK  
 Sample video recording application in C/C++ source code

**Ordering Information**

HDAV2000KLV (0°C to 60°C)  
 HDAV2000KLV-Ext (-40°C to +85°C)

