# CONVERTERS FOR DESKTOP





## SPRING08





## AJA Video Systems—Converters for Desktop

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## **AJA Warranty Information**

All AJA Video Converters carry a 5-year warranty from the date of purchase against defects in material and workmanship. AJA Video, at its option, will repair or replace each defective product with a similar or better product. This warranty shall be limited to defects which were not caused by misuse, abuse, improper handling, tampering or attempts to repair by any unauthorized repair service. This warranty is limited solely to the above and only for the period set forth. The manufacturer will not be liable for any loss or damage incidental or consequential of any kind, whether based on warranty, contract or negligence arising in connection with the sale, use or repair of the product. The manufacturer's maximum liability shall not in any case exceed the sale price.

## **Power Supplies for D- and H-Series Converters**

#### DWP

A robust design, the DWP is a miniature high quality power supply for all of AJA's stand-alone products. Custom manufactured for AJA, the DWP is so small it does not cover the adjacent socket in power strips. With a 2x power over-rating and a molded, latching, circular connector with gold pins, the DWP meets the high reliability requirements of the professional video industry.

#### **Specifications**

100-240v, 50/60Hz Universal input 5 volt regulated output 10 watt capacity Circular, latching output connector with gold pins



## DWP-U

The DWP-U is an in-line universal input version which can accept a power cord anywhere in the world.

#### **Specifications**

100-240v, 50/60Hz Universal input 5 volt regulated output

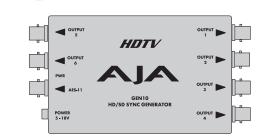


## GEN10 HD/SD Sync Generator

#### Features

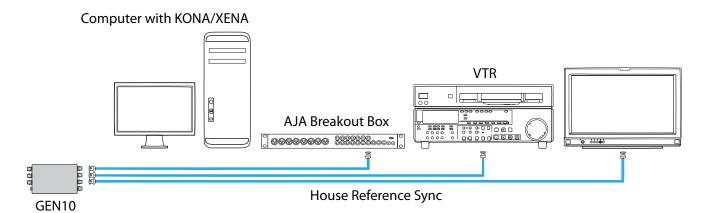
- HD Tri-level sync generation
- SD Color Black or Color Bars
- Two groups of independently switchable outputs allows simultaneous HD and SD sync generation
- AES-11 output switchable between silence and tone
  Multiple outputs can synchronize entire systems
- without requiring a Sync DA
- 5-18VDC Power
- External Dip Switch Configuration





The GEN10 is a cost effective and flexible SD/HD/AES sync generator. The GEN10 features 7 outputs including 2 groups of independently controlled SD/HD sync outputs and 1 AES-11 output. The SD outputs can be switched between Color Black or Color Bars. HD tri-level sync can be switched between 19 different HD formats including all that are in use today. The AES-11 output can be switched between SILENCE and TONE. All outputs are in sync with each-other and are sourced from an accurate master time base.

#### **Applications**



Using genlock helps properly synchronize various pieces of video equipment so that issues with sync, timing and phase do not occur. The GEN10 is an ideal way to synchronize a variety of post-production items since it has several outputs and these outputs can be configured for either HD or SD formats.

In this example, reference from the GEN10 is being routed to a capture card breakout box, a VTR and a video monitor in order to genlock all of the items.

## **Specifications**

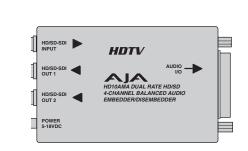
HD Sync:	Trilevel
SD Sync:	Color Black, 75% Color Bars
AES:	AES-11, 48KHz, Silent or 1KHz Tone (-20dBFS for NTSC, -18dBFS for PAL)
Accuracy:	3 ppm
Formats:	525i, 625i 720p23.98/24/25/29.97/30/60 1080i50/59.94/60 1080psF23.98/24/25/29.97/30 1080p23.98/24/25/29.97/30
User Controls:	(External Dipswitch)
Size:	5.8" x 3.1" x 1" (147 x 79 x 25 mm)
Power:	+5-18VDC, 2 watts Requires Power Supply

## HD10AMA HD/SD 4 Channel Analog Audio Embedder/Disembedder

#### **Features**

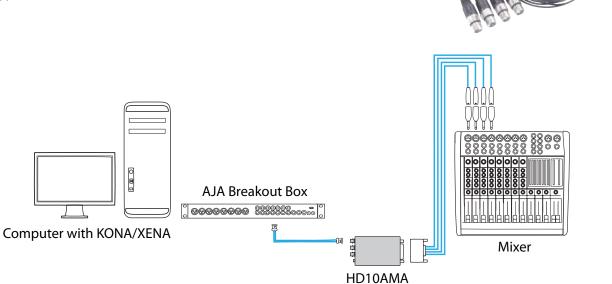
- Dual rate HD-SDI/SDI Embedder/Disembedder
- 4 Channel Balanced Analog Audio I/O
- Supplied XLR breakout cable
- HD-SDI/SDI input, 2 HD-SDI/SDI outputs
- Dipswitch configuration
- 5-18VDC Power





The HD10AMA is a dual rate 4 channel analog audio Embedder/Disembedder. The Disembedder is always functional providing 4 outputs. The Embedder is user selectable, on a channel pair basis, to either "pass" input audio or embed input audio from the breakout cable. Analog audio levels are selectable. The HD10AMA automatically detects and configures to the input video standard.

## **Applications**



In some cases, a source device may only provide embedded digital audio, but analog audio monitoring is desired. The HD10AMA can be employed to disembed digital audio and provide analog audio outputs.

In this example, embedded digital audio is being sent from a capture card breakout box to the HD10AMA and then routed via the HD10AMA breakout cable to the analog mixer for monitoring. The HD10AMA could also be used to route embedded audio to an analog VTR or audio recorder.

Note: For connections from the HD10AMA breakout cable to a VTR, no adapters are required. For connection to most anlaog mixers, XLR to 1/4" adapters are required. XLR inputs on most analog mixers are designed for mic level input, not line level input.

Specifications	8	Embedded Audio:	SMPTE 272M/299M, 24 bit, 48KHz synchronous	
Formats:	HD SMPTE 292/296M SD SMPTE 259M (Automatic Configuration)	User Controls:	(External Dipswitch) Embedder on/off, Ch pairs 1/2 - 3/4 Input group select 1-4 Output Group Select 1-4	
Video Input: Outputs:	HD-SDI or SDI BNC follows input, 2 x BNC	Size:	Output Group Select 1-4 Audio Level: Pro/Consumer 5.8" x 3.1" x 1" (147 x 79 x 25 mm)	
Audio Inputs:	4 x Balanced Analog Audio, XLR Outputs: 4 x Balanced Analog Audio, XLR Audio Levels (Full Scale Digital): +24dBu, +18dBu, +12dBu, +6dBu Audio Converters: 24 bit	Power:	+5-18VDC, 5 watts Requires Power Supply	



## HD10AM HD/SD 8 Channel AES Embedder/Disembedder

#### **Features**

- Dual rate HD-SDI/SDI Embedder/Disembedder
- 8 Channel AES I/O
- Supplied breakout cable for balanced AES XLR connectors
- HD-SDI/SDI input, 2 HD-SDI/SDI outputs
- Dipswitch configuration
- 5-18VDC Power

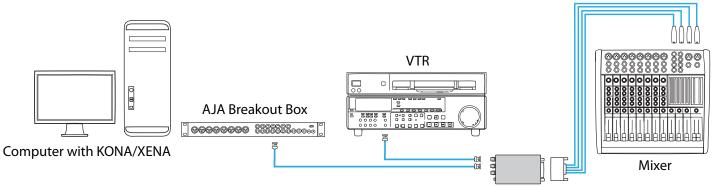
The HD10AM is a dual rate 8 channel AES audio Embedder/Disembedder. The Disembedder is always functional providing 4 AES outputs. The Embedder is user selectable, on a channel pair basis, to either "pass" SDI input audio or embed input AES audio from the breakout cable. AES inputs are sample rate converted to a 48KHz rate synchronous to the video input. The HD10AM automatically detects and configures to the input video standard.







## Applications



HD10AM

A digital mixer or some other piece of digital audio equipment might only output AES/EBU digital audio via XLR while a facility might have only SDI cable runs throughout. The HD10AM can embed (or disembed) AES digital audio into a SDI signal. In this example, AES audio from a digital mixer is being routed into the HD10AM and combined with the SDI video output from a VTR. The SDI signal with the audio embedded by the HD10AM is then routed to a capture card breakout box.

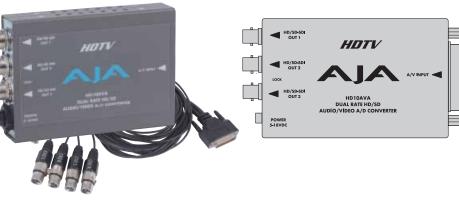
## **Specifications**

Formats:	HD SMPTE 292/296M SD SMPTE 259M (Automatic Configuration)	User Controls:	(External Dipswitch) Embedder on/off, Ch pairs 1/2 - 7/8 Input group select, 1/2, 3/4 Output Group Select, 1/2, 3/4
Video Input:	HD-SDI or SDI BNC		SRC Bypass
Video Outputs:	follows input, 2 x BNC	Size:	5.8" x 3.1" x 1" (147 x 79 x 25 mm)
Audio Inputs:	4 x AES 110 ohm XLR	Power:	+5-18VDC, 5 watts Requires Power Supply
Audio Outputs:	4 x AES 110 ohm XLR		
AES audio:	SMPTE 272M/299M, 24 bit, 48KHz synchronous		

## HD10AVA SD/HD Analog Composite or Component Video and 4 Ch Analog Audio to SD/HD-SDI w/Embedded Audio

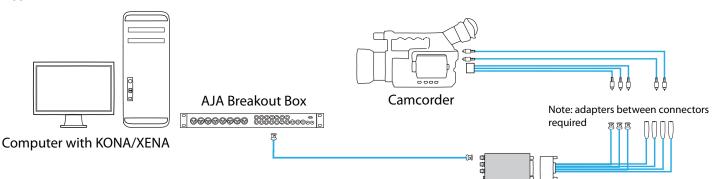
## Features

- High-Quality SD/HD Audio/Video A/D Converter
- SD Component, Composite or Y/C Video Input
- HD Analog Component Video Input
- Four Channel Balanced Analog Audio Input
- 3 SDI/HD-SDI w/embedded Audio Outputs
- 12 Bit Video, 24 Bit Audio A/Ds
- Automatic Multi-Standard
- External Dip Switch Configuration
- 5-18V Power



The HD10AVA is a miniature, high-quality, audio/video, HD/SD A/D converter. The HD10AVA automatically detects the video input format and embeds the audio inputs in the SDI/ HD-SDI outputs. The HD10AVA is useful for adding an SDI/HD-SDI audio/video output to tape decks or any professional video equipment with analog outputs. The HD10AVA is especially useful for adding HD-SDI outputs to most HDV cameras or decks by using the component outputs of such devices. The HD10AVA uses a breakout cable for audio/video inputs and provides 3 SDI-HD-SDI on BNCs.

## **Applications**



HD10AVA

Some SD and HD sources may only provide analog audio and video outputs. However, a SDI signal may be needed for connection to a VTR or capture card with digital input. The HD10AVA acts as an analog to digital converter for both audio and video sources and produces a SDI output.

In this example, analog audio and video is output from a prosumer HD camcorder and input to the HD10AVA. The HD10AVA produces an SDI output with embedded audio that is then output to a capture card breakout box.

Note: For connections to prosumer devices, the HD10AVA provides a dipswitch selection between consumer audio levels and professional audio levels. If the HD10AVA were connected to an analog VTR, professional audio level would be selected via a dipswitch setting on the converter.

Specifications		Video A/D:	12 bits
Formats:	1080i 50/59.94/60 Hz 1080psf 23.98/24/25 Hz	Audio A/D's:	24 Bits, 48Khz
	1035i 50/59.94/60 Hz 720p 50/59.94/60 Hz	Audio Levels:	+24, +18, +15, +12 dBu, Full Scale Digital
Video Inputs: Audio Inputs:	HD component YPbPr, (SMPTE-274), BNC SD component/composite/YC (S Video), BNC 4 Channel Balanced, XLR	User Controls:	(External Dipswitch) Component/Composite (SD) Composite/YC (SD) Pedestal Present (on/off) (SD) Audio Input Level Embed Audio on/off
Outputs:	SDI, HD-SDI, SMPTE-259/292/296, 3 x BNC		
		Size:	5.8" x 3.1" x 1" (147 x 79 x 25 mm)
		Power:	+5-18VDC, 5 watts, Requires Power Supply



## ADA4 4-Channel Bi-directional Audio A/D and D/A Converter

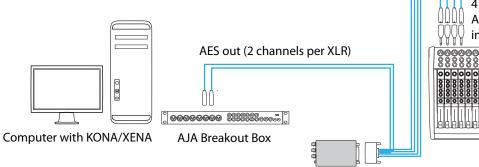
#### **Features**

- 4 Simultaneous A/D and D/A, or AES Synchronizer
- Full-time AES11 low jitter reference output
- Up to 4 channels of balanced analog to AES/EBU audio
- Up to 4 channels of AES/EBU to balanced analog audio
- Supplied XLR breakout cable
- AES11/Wordclock/Tri-level Sync/
- Color Black Reference Loop
- Adjustable Audio Levels
- Sample Rate Conversion Between 96KHz and 48KHz
- Dipswitch configuration
- 5-18VDC Power

The ADA4 is a 4 channel converter which can be configured as a 4 channel A/D, a 4 channel D/A, 2 channel A/D and 2 channel D/A, or an AES sychronizer. The ADA4 can accept a AES11, wordclock, or video sync/color black reference input for synchronization. Reference input and synchronization is automatic. Audio levels are configurable via dipswitch control.

## **Applications**

The ADA4 is a useful bi-directional audio converter. As an example, the ADA4 can be used to convert the digital AES/ EBU audio output from an AJA KONA or XENA to balanced analog audio that can then be routed to an analog mixer or VTR. Conversely, the ADA4 can be employed to convert analog audio from a VTR or mixer to digital AES/EBU.



ADA4



#### **Specifications**

Analog Audio I/O: AES Audio I/O: Analog Audio Levels:

Audio Converters:

User Controls:

Balanced, XLR , one channel per XLR connector Balanced 110 ohm, XLR , two channels per XLR connector +24dBu (SMPTE RP155), +18dBu (EBU R68), +12dBu (consumer +10dBv), +6dBu 24 bit, 48/96 KHz (External Dipswitch) Channel 1/2: A/D, D/A Channel 3/4: A/D, D/A Audio Level: Pro/Consumer Audio Level: High/Low

Reference Loop: 75 Ohm (unterminated). HD/SD Sync, AES-11, or Wordclock (48/96 KHz) Size: 5.8" x 3.1" x 1" (147 x 79 x 25 mm) Power: +5-18VDC, 3 watts Requires Power Supply







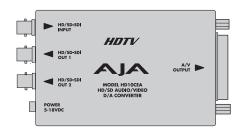
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#### Features

- Digital to Analog Audio and Video Converter
- SDI/HD-SDI with Embedded Audio Input
- SD Component or Composite Video Outputs (SD Input)
- HD Component Video Outputs (HD Input)
- 4 Channel Balanced Audio Output
- 2 Equalized, Loop-Thru SD/HD-SDI Outputs
- Selectable Audio Channel Pair/Group





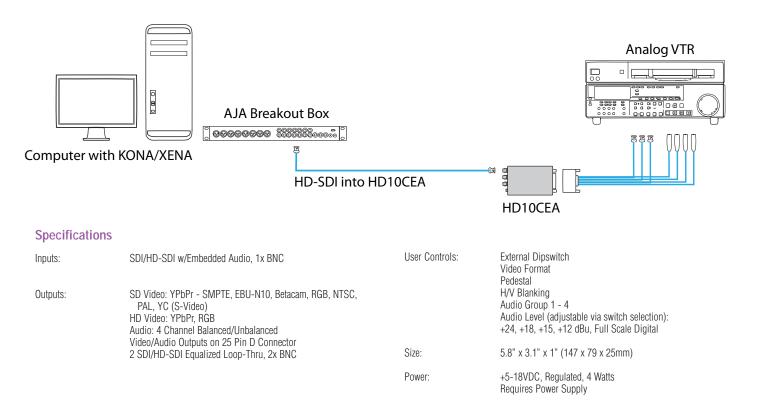
The HD10CEA converts SDI/HD-SDI video with embedded audio to analog video and 4 channel balanced analog audio. SD video outputs can be configured as YPbPr (Betacam or SMPTE/EBU-N10), RGB, composite or YC (S-Video). HD video outputs can be configured as YPbPr or RGB. The analog audio outputs can be wired in a balanced or unbalanced configuration. The 4 audio channels can be selected from group 1-4. Audio and video output connections are available on a 25 pin "D" subminiature connector (breakout cable supplied). All video/audio configuration is done by external dipswitch selection. This versatile, low-cost, miniature monitoring solution also outputs two loop-thru SDI/HD-SDI outputs.



## **Applications**

When connecting to older VTRs or analog monitors, the HD10CEA can be used to take a high-quality HD-SDI out of a KONA or XENA and convert the embedded audio to balanced or unbalanced analog audio and component video (YPbPr or RGB) for the devices.

Note: For connections to prosumer devices, the HD10CEA provides a dipswitch selection between consumer audio levels and professional audio levels.





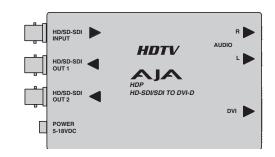
## HDP HD-SDI/SDI To DVI-D And Audio Converter

#### Features

- Converts HD-SDI/SDI to DVI-D for LCD/Plasma monitors
- Automatically adapts to most LCD monitors up to 1920 x 1200
- High quality scaling engine for proper display of 4:3 or 16:9 content
- Scaling is 1 to 1 for appropriate monitor configurations
- 2 channel audio output
- 2 HD-SDI/SDI looping outputs
- Flexible 5-18V power supply
- 5 year warranty

The HDP is a miniature HD-SDI/SDI to DVI-D converter for LCD or Plasma monitors. Using a very high quality scaling engine, the HDP will automatically size 4:3 or 16:9 inputs to many DVI-D monitors. For appropriate monitor configurations, scaling is automatically 1 to 1—for example, displaying 1920x1080 video on a WUXGA (1920x1200) monitor. The HDP will also automatically adapt the input frame rate for monitor compatibility. In addition, the HDP provides 2 channel RCA style audio monitoring and 2 looping outputs of the SDI inputs.





The HDP is designed for general monitoring, perfect for use in applications

such as: General post-production reference monitoring, Client monitoring,

much, much more! The HDP is not intended as a critical viewing device,

for applications such as color-correction, etc. We recommend professional/

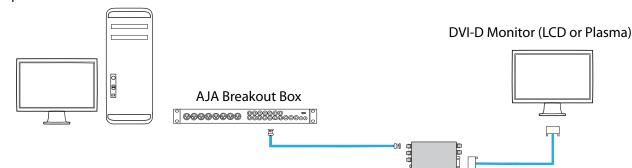
Presentation, Projection, Corporate displays, Kiosk applications ...and

broadcast grade monitors for such critical applications.

HDP

**Applications** 

## Computer with KONA/XENA

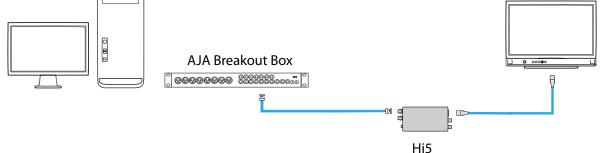


Many affordable monitors and projectors offer a DVI-D connector. However, most professional broadcast equipment does not come equipped with a DVI-D connector. The AJA HDP can convert SD and HD SDI signals to DVI-D to provide video monitoring on a variety of DVI-D equipped displays and projectors. Note: Video displays with DVI-D are often considered acceptable for general viewing, but not necessarily suitable for color correction purposes.

In this example, a SDI signal is being sent out of a capture card breakout box to the AJA HDP. The HDP is then connected to the monitor via DVI-D cable. Note: Via dip switch settings, the HDP can be configured to display pixel for pixel images or scale images to fit the display.

Specifications		Outputs:	DVI-D,
Inputs:	SMPTE-259/292/296 SDI/HD-SDI		Audio (2 channel RCA-style outputs), 2 Looping SDI outputs of the SDI inputs
Input Formats:	1080i, 1080p, 720p, 525i, 625i	Maximum DVI resolution:	1920x1200 @ 60Hz
		Power:	+5-18VDC, 5 watts
		Size:	5.8" x 2.4" x 1" (131 x 61 x 25mm)

## Hi5 HD-SDI/SDI to HDMI Video and Audio Converter **Features** SDI/HD-SDI to HDMI Full HDMI support including embedded audio Additional 2 Channel RCA jack audio output Equalized looping SDI/HD-SDI output No configuration necessary 40M HDMI cable included ■ 5 year warranty The Hi5 converts SDI or HD-SDI to HDMI for driving HDMI monitors. Embedded SDI/HD-SDI audio is supported in the HDMI output allowing a convenient single cable audio/video connection. The Hi5 provides 2 Channel RCA style audio outputs for separate audio monitoring if needed. The Hi5 also provides a looping SDI/HD-SDI output useful for connecting additional equipment, or for "daisy chaining" multiple monitors to the same SDI-HD-SDI source. -D MODEL HI5 POWER DI/SDI TO HDA L **Applications** Computer with KONA/XENA HDMI Monitor (LCD or Plasma)



Many HD monitors on the market now offer HDMI connectors to go along with their large sizes and affordable prices. Though some HDV devices on the market have HDMI outputs, most broadcast devices do not. The AJA Hi5 converts SDI video signals to HDMI so that a wide range of monitors equipped with HDMI connectors can be used for general viewing.

In this example, a SDI signal is being sent out of a capture card breakout box to the AJA Hi5 which is then connected to the monitor via an HDMI cable.

## Specifications

Inputs:	SMPTE-259/292/296 SDI/HD-SDI	Outputs:	HDMI with embedded audio Audio (2 channel RCA-style outputs),
Input Formats: 525i, 625i, 720p 50/59.94/60, 1080i 50/59.94/60, 1080p23.98, 1080p24, 1080p25, 1080p29.97, and 1080p30			1 equalized looping SDI/HD-SDI output
	1080p24, 1080p25, 1080p29.97,	Power:	+5VDC, 3 watts
		Size:	4.6" x 2.4" x 1" (117 x 61 x 25mm)



## HA5 HDMI to SDI/HD-SDI Video and Audio Converter

#### **Features**

NEW

- HDMI to SDI/HD-SDI
- Full HDMI support including embedded audio
- Equalized HDMI input supports long HDMI cables up to 40m
- PLL clock filtering for low jitter SDI/HD-SDI outputs
- Lock LED shows type of input source, SD (green) or HD (red)
- HDMI cable included
- 5 year warranty

The HA5 converts HDMI to SDI or HD-SDI. Up to eight channels of HDMI audio are embedded into the SDI/HD-SDI output allowing a convenient single cable audio/video connection. The HA5 provides two SDI/HD-SDI outputs and supports long HDMI cables on the input. The HA5 is useful for connecting HDMI cameras to SDI/HD-SDI equipment.

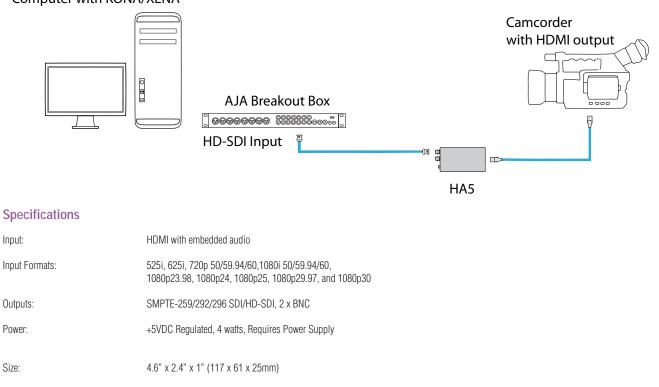




## **Applications**

The HA5 is ideal for taking the HDMI output from camcorders or decks having HDMI output and ingesting it to a KONA or XENA-equipped editing system via HD-SDI.

## Computer with KONA/XENA



Note: HDCP content not supported

Size:



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