X≡NA|LH[™] X≡NA|LS[™]



WORKFLOW THAT WORKS

Running on Windows XPTM, the new XENA line of video and audio I/O cards is designed for serious graphics and design professionals. Record, review, and print SD/HD video with unmatched software capabilities.





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XENA



CAPTURE MADE PERFECT

Designed for Windows XPTM, XENA alows you to capture perfect HD/SD data from a variety of sources (digital and analog SD and HD Decks, etc) into a format on disk that fits your post-production workflow. For example, if your whole post-production pipeline is based on a file-per-frame format such as DPX, then you can capture film/video data directly as sequential DPX files instead of having to write an AVI/QT file and then render to DPX files. File-per-frame workflows are no problem for XENA LH and LHe, with or without audio.

FLEXIBILITY

With XENA, you can record data directly from SD and HD decks, telecines, and film scanners into any of the following file formats: 10-bit DPX and Cineon, 8-bit TGA, TIFF, and BMP, 8/10-bit AVI and QuickTimeTM. Flexible capture options, including "crash" capture and in/out/duration logging, allow you to save to disk single clips with full timecode support in QuickTime and DPX. Got audio? Up to 8 audio tracks of 16/24/32bit embedded digital audio or 2-Ch. AES and Analog support as well on the XENA LS and LH cards. Audio files can be mono or stereo, QuickTime or WAV. Choose the right XENA to playback HD/SD or SD-only video and audio data from disk in any format you choose, including DPX, Cineon (LH/LHe only), TGA, TIFF, BMP, AVI, and QuickTime. Playback SD/HD material, at a variety of framerates, on a high-resolution wide-screen monitor or digital projector. XENA allows you to playback files from disk in all supported formats. Full control over the playback parameters is clearly laid out, including provisions for choosing a userspecified LUT (Look Up Table, on LH/LHe).

XENA SOFTWARE

XENA provides its own stand-alone powerful capture/playback application, AJA Machina™, that includes full VTR machine control. Access to any and all XENA supported file formats, video standards, and video conversions are all there, in a very cool and easy to use interface. These captured files can then be imported into virtually any software package that supports these file formats, such as 3D animation programs, audio editing programs and much more. With Machina, you can also accurately output to tape files exported from these same programs.

POWERFUL PLUG-INS

Not only does AJA's XENA provide powerful capture and playback features in Machina, but it integrates them into a variety of graphics/visual effects software applications to make operations even easier. Using plugins, sophisticated XENA features appear as if they were native to the software application user interfaces. Directly supported applications include:

Adobe After Effects

Adobe After Effects® Adobe PhotoShop® Autodesk Combustion® Eyeon Digital Fusion® As an example, in Adobe After Effects, there are three menu options listed under the file menu: AJA Capture, AJA Preview, and AJA Playback. These menu items each have an associated window dialog that allows you to follow your workflow from capturing media to a desired file format, previewing it from the timeline to see effects, and then playing it back from disk once you're done rendering. These modules are directly available and integrated into After Effects... no hard-to-find control panels, no setup windows to open and close.

Adobe Photoshop

AJA XENA Plug-ins



Autodesk Combustion



XENA LH SD HD Analog

XENA LH

The only card for Windows XP that provides both HD and SD analog and digital I/O. XENA LH offers a full-ride to HD with nocompromise 10-bit and 8-bit uncompressed video, 2-channel AES and 8-channel embedded audio, Analog Composite/ Component Video In/Out, 2-channel analog audio In/Out, 10-bit broadcast-quality hardware HD to SD down-conversion, and TBC on analog inputs. XENA LH bridges the analog and digital worlds by offering I/O for both.

Like the XENA LS, the XENA LH comes standard with a breakout cable and also works with the optional KL-Box for rackmounted I/O convenience. Supporting native 10-bit resolution, XENA LH provides optimum quality for SD and HD—the maximum allowed in SMPTE SDI standards. Using many user-selected formats—DPX, Cineon, TGA, TIFF, BMP, AVI, or QuickTime-XENA LH captures directly to disk. In addition to perfection in video, XENA LH offers all the audio support you'd ever want: multichannel audio and 16/24/32-bit AES/EBU digital audio at 48kHz for digital production. For ease of use, XENA LH also includes hardware sample-rate conversion on AES inputs—eliminating source synchronizing requirements.

As the only card available supporting HD/SD analog I/O, XENA LH is perfect for many diverse workflows, including analog component connections from HDV cameras which allows direct ingest of HDV-acquired material into uncompressed or any other supported file format. These 12-bit analog inputs and outputs, in addition to 10-bit digital I/O's, ensure that XENA LH can interface to almost any single-link digital or analog HD or SD video format you throw at it.

XENA LH also provides our incredible 10-bit hardware HD to SD down-conversion, which can be applied to any or all inputs or outputs. Digitize HD into space-efficient SD for offline work. Monitor HD files on an SD monitor. Make analog or digital SD tape masters from an HD project. Awesome workflow capabilities are yours with XENA LH.

XENA LH is available in two flavors; for PCI/PCI-X compatibility as the XENA LH. For 4-lane PCIe compatibility as the XENA LHe! Both cards are identical in features and video and audio connections, and use the same optional KL-Box breakout box. Choose the card that best suits your workstation!

KL-Box for XENA LH & LS (Optional)

Balanced Audio Out

Channels | & 2

Balanced Audio In

Channels | & 2

XENA LH FEATURES:

- 10-bit Uncompressed SD/HD
 Capture Card
- 12-bit HD Analog Component I/O
- 12-bit SD Analog Component or
- Composite/YC I/O

 10-bit Hardware HD to SD
- Downconversion
- Native support For DPX, Cineon, TGA,
- TIFF, BMP, AVI, and QuickTime Files • SDI or HD-SDI Input
- 2 Independent SDI/HD-SDI Outputs
- 2-Ch Balanced XLR AES and 2-Ch
- Balanced XLR Analog Audio I/O
- 8-Ch SDI Embedded Audio I/O
- HD/SD Genlock
- RS-422 Machine Control
- Cables Standard, KL-Box Breakout Optional
- AJA XENA software, including application plug-ins and AJA Machina
- 3-year warranty
- Available in PCIe as XENA LHe
- Available in PCI/PCI-X compatible as XENA LH

AFS/FBU Audio

In and Out



XENA LS

Serial

Digital

Serial

Digital

Out

The best solution for SD capture and playback, AJA-quality standard definition video capture and playback isn't just for the big guys. The affordably priced XENA LS is the perfect engine for capturing, playback, and printing video for visual effects/motion graphics. Now, with XENA LS, everyone can enjoy the features, rocksolid video/audio, and factory support that exemplify all AJA products.

Like the XENA LH, the LS supports 10-bit resolution SMPTE SDI, using your choice of many formats (TGA, TIFF, BMP, AVI, or QuickTime). XENA LS also has great audio I/O support: 2-channel balanced XLR analog, 2-channel balanced XLR AES, and multi-channel embedded SDI audio. XENA LS includes hardware sample-rate conversion on AES inputs—eliminating source synchronizing requirements. And the optional KL-Box for XENA LS provides all the standard features of the cable in an easy-to-use 1RU rackmount panel.

Composite/

Component

Video In

Composite/

Video Out

Reference Component

External

(loop)

RS422

Machine

Control

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Analog

Audio

Output

XENA LS FEATURES:

- 12-bit Component/Composite/S-video analog I/O
- SDI input, 2 independent SDI outputs
- AES I/O; sample rate conversion on input (2 Ch, XLR)
- Balanced analog audio I/O (2-Ch, XLR)
- 8-Ch SDI embedded audio support
- Broadcast-quality TBC with VHS support
- Genlock and RS-422 Machine Control
- AJA Support For TGA, TIFF, BMP, AVI, and QuickTime Files
- Supports all popular standard definition formats, in NTSC and PAL
- Cables Standard, KL-Box Breakout Optional
- AJA XENA software, including application plug-ins and AJA Machina
 3-year warranty

XENA LH Breakout Cables (Supplied)



XENA LS Breakout Cables (Supplied)





XENA LS Standard Breakout Cable XENA LS Installs in PCI Slot RS422 Machine Control to VTR (user-supplied 9-pin cable) 44-pin connector To XENA IS 6 BNCs (Analog Connections): Can be Configured for Component or Composite/YC Y/CVBS In BNC hlue red Pr/C In BNC Y/G/CVBS Out BNC Pb/B/Y Out BNC red Pr/R/C Out BNC **Reference Input BNC** SDI Input BNC SDI Output I BNC SDI Output 2 BNC Analog Audio Channel I Input Analog Audio Channel 2 Input (Analog Audio Channel I Output Analog Audio Channel 2 Output AES Input Channels I & 2 AES Output Channels | & 2

XENA LH and XENA LHe Specifications

XENA LH PCI and PCI-X compatible

XENA LHe

PCIe 4-lane compatible Look Up Tables Real-time primary LUT

Import/export text-based LUT files

File Import/Export

Import (capture) and export (playback) standard file formats: DPX, Cineon, TGA, TIFF, BMP, and AVI, QuickTime, WAVE.

Video Formats

SD: 525i 29.97 625i 25 HD: 720p Variable Frame Rate (23.976, 24, 29.97, and 30) 720p 50 720p 59.94 720p 60 1080i 25 1080i 29.97 1080i 30 1080p 23.976 1080psf 23.976 1080p 24 1080psf 24 1080p 25 1080psf 25 1080p 29.97 1080psf 29.97 1080p 30 1080psf 30

Video Input

Digital: HD-SDI/SDI, SMPTE-259/292/296 Analog: SD and HD Input, BNC HD: YPbPr. RGB

SD: YPbPr, RGB (component mode) Composite/YC (composite mode)

12-bit A/D

Video Output

SD and HD Output, BNC HD: YPbPr, RGB

SD: YPbPr, RGB (component mode) Composite/YC (composite mode) 12-bit D/A

Audio Input Digital:

2-channel 16/24/32-bit AES/EBU, 48KHz sample rate

Synchronous or Non-synchronous (Internal sample rate conversion) 16/24/32-bit SMPTE-259 SDI embedded

audio, 8-Ch, 48kHz synchronous

Analog:

2-channel balanced input +24dbu Full Scale Digital 16/24/32-bit A/D, 48 KHz sample rate +/- 0.2db 20 to 20 KHz Frequency Response

Audio Output

Digital: 2-channel 16/24/32-bit AES/EBU, 48KHz sample rate 16/24/32-bit AES/EBU, 48 KHz sample rate 16/24/32-bit SMPTE-259 SDI embedded audio, 8-Ch, 48 KHz synchronous Analog: 2-channel balanced output +24dbu Full Scale Digital 16/24/32-bit D/A, 48 KHz sample rate +/- 0.2db 20 to 20 KHz Frequency Response

Down-Conversion

Hardware 10-bit output, 16/24/32-bit internal processing Anamorphic: full-screen Letterbox: image is reduced with black top and bottom added to image area with the aspect ratio preserved Crop: image is cropped horizontally

Reference Input

Analog Color or HD Tri-level 1 BNC on standard breakout cable (75 ohm terminating) KL-Box (optional): 2 BNCs, passive loop

Machine Control

RS-422, Sony 9-pin protocol Connector provided on XENA LH/LHe breakout cable and on optional KL-Box.

XENA LS Specifications File Import/Export

Import (capture) and export (playback) standard file formats: TGA, TIFF, BMP, and AVI, OuickTime, WAVE.

Video Formats

SD: 525i 29.97 625i 25

Video Input

Digital: 8 or 10-bit SDI, SMPTE-259 Analog: SD: YPbPr, RGB (component mode) Composite/YC (composite mode) 12-bit A/D

Video Output

Digital: 8 or 10-bit SDI x2 BNC, SMPTE-259 Analog: SD: YPbPr, RGB (component mode) Composite/YC (composite mode) 12-bit A/D

Audio Input

Digital: 2-channel 16/24/32-bit AES/EBU, 48KHz sample rate Synchronous or Non-synchronous (Internal sample rate conversion) 16/24/32-bit SMPTE-259 SDI embedded audio, 6-Ch, 48kHz synchronous Analog: 2-channel balanced input +24dbu Full Scale Digital 16/24/32-bit A/D, 48 KHz sample rate +/- 0.2db 20 to 20 KHz Frequency Response

Audio Output

Digital: 2-channel 16/24/32-bit AES/EBU, 48KHz sample rate 16/24/32-bit SMPTE-259 SDI embedded audio, 6-Ch, 48 KHz synchronous Analog: 2-channel balanced output (XLR) +24dbu Full Scale Digital (0dbFS) 16/24/32-bit D/A, 48 KHz sample rate +/- 0.2db 20 to 20 KHz Frequency Response 2-channel unbalanced output (RCA-jack): requires KL-Box option

Reference Input

Analog Color Black 1 BNC on standard breakout cable (75 ohm

terminating) KL-Box (optional): 2 BNCs, passive loop

Machine Control

RS-422, Sony 9-pin protocol Connector provided on XENA LS breakout cable and on optional KL-Box.

Incredible 3 Year Warrantv

AJA Video warrants that XENA products will be free from defects in materials and workmanship for a period of three years from the date of purchase.

About AJA Video Systems, Inc.

Since 1993, AJA Video has been a leading manufacturer of high-guality and costeffective digital video interface, conversion and Desktop solutions supporting the professional broadcast and post-production markets.

With headquarters in Grass Valley, California, AJA maintains an extensive sales channel of dealers and systems integrators around the world. For further information, please see our website at www.aja.com



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