

DDR/HD™

Uncompressed (Lossless) HD Recorder Player with 1080i, 720p Support. Built with AJA Xena PCIe card and Microsoft Server 2003. Dual Core and Dual Processor, High Performance Motherboard with Gig/E, and Equipped with LSI Logic Advanced ESATA Storage Controller Managing 6-12 RAID Drives with .5 TB High Performance Drives. Comes with Very Friendly GUI with Sliding Viewer and Time Code Based Control and Provides Amazing Performance at a Reasonable Price.



Front



Back

Features

- New custom 4 RU rackmount workstation
- AJA XENA 2Ke bundle, card, AV I/O breakout box
- Xeon 64-bit workstation featuring single Intel Xeon Quad-Core X5550 Nehalem 2.66 GHz CPUs
- 4 GB RAM
- 1394A/B Firewire
- Gbit Ethernet I/O
- D: 2-8 TB Raid0 SATA II Internal Storage
- E: Dual Layer Blu-Ray 8X Burner Internal SATA Drive
- Keyboard & optical mouse
- Records and plays uncompressed capture footage
- XENA 2Ke card is AJA's top-of-the-line card for Windows XP/Vista, delivering uncompressed SD, HD & Dual Link HD & enabling customers to work with 2K frames in a flexible & future-safe architecture

Note: These are custom configured for each customer and are burned in and tested with high performance content over 24 hours.

Applications

- Post production
- Digital Signage
- Military

Overview

Up until recently recording two hours of uncompressed HD content was very expensive. Today with the availability of high speed computers, I/O cards, and large capacity hard drives, you can have this for reasonable prices.

HD-SDI is a digital uncompressed video format that is standardized as SMPTE 292M. It is used to create or originate content by cameras that use this standard. Television stations also use this standard as the “in house” standard and route HD-SDI all around their facilities.

The DDR/HD™ is an Uncompressed HD Digital Video Recorder Player built from off the shelf components.

We use either the Xena 2Ke or LHe HD-SDI I/O card. We typically use RAID 0 for the configuration for the typical DDR/HD systems, although we can use other RAIDs, including RAID 10.

We typically configure the DDR/HD systems with one to six internal drives. When more performance is called for we can use external RAID subsystems.



Main GUI

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Specifications – AJA XENA 2Ke Card

Card Format	PCIe 4-lane compatible
Video Formats	
SD:	525i: 29.97, 29.97 (Wide) 625i: 25, 25 (Wide) 480i: 29.97, 29.97 (Wide)
HD:	720p: 23.976, 24, 25, 29.97, 30, 50, 59.94, 60 1080i: 25, 29.97, 30 1080p: 23.98, 24, 25, 29.97, 30, 50, 59.94, 60 1080psf: 23.98, 24, 25, 29.97, 30
2K:	2048 x 1080p: 23.976, 24 2048 x 1080psf: 23.976, 24 2048 x 1556p: 14.98, 15
Video Input	HD-SDI/SDI, SMPTE-259/292/296, Dual-link HD 4:4:4, 2K HSDL
Video Output	Digital: HD/SD "SDI", SMPTE-259/292/296 Dual-link HD 4:4:4 2K HSDL Analog: SD and HD Output, 12-bits, BNC HD: YPbPr, RGB SD: YPbPr, RGB, Composite/YC 12-bit D/A
Audio Input	16/24/32-bit 48 KHz synchronous 16-channel SDI/HD-SDI embedded audio or 48/96 KHz 8 channel AES audio; sample rate conversion on AES inputs (no source synchronization required)
Up-Conversion	Hardware 10-bit Anamorphic: (full-screen) Pillar box 4:3: results in a 4:3 image in center of screen with black sidebars Zoom 14:9: results in a 4:3 image zoomed slightly to fill a 14:9 image with black sidebars Zoom Letterbox: zooms a 16:9 Letterbox source to full screen Zoom Wide: combines zoom and horizontal stretch to fill a 16:9 screen
Down-Conversion	Hardware 10-bit Anamorphic: full-screen Letterbox: 16:9 with black top and bottom Crop: Image is cropped for full screen image
Cross-Conversion	Hardware 10-bit 1080i to 720p, 720p to 1080i SD to SD Aspect Ratio Conversion 16:9 to 4:3 Letterbox or Horizontal Crop 4:3 to 16:9 Pillarbox or Vertical Crop
Reference Input	Color Black or Tri-level sync (Looping/non-terminating on K3-Box; terminated on supplied breakout cable)
Machine Control	RS-422, Sony 9-pin protocol

Specifications – System

Warranties	6 Month system warranty with tech support 3 year AJA card International Warranty 3 year Seagate Direct Warranty on 2-8 TB hard drives panel
Power	650W
Dimensions	Rackmountable 3RU unit – 26"(D)x16.9"(W)x 5.2"(H) 132 mm Height x 430 mm Width x 660 mm Depth
Weight	44 lbs. (20 Kg.)
Conformity	UL, CSA, RoHS, CE Mark

Ordering Information

DDR/HD/X/XXX/Xena

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Specifications – AJA XENA LHe Card

Card Format	PCIe 4-lane compatible
Look Up Tables	Real-time primary LUT or Import/export text-based LUT
File Import/Export	Import (capture) and export (playback) Formats: DPX, Cineon, TGA TIFF, BMP, QuickTime, AVI
Video Formats	
SD:	525i: 29.97 625i: 25
HD:	720p: 23.976, 24, 25, 29.97, 30, 50, 59.94, 60 1080i: 25, 29.97, 30 1080p: 23.976, 24, 25, 29.97, 30, 50, 59.94, 60 1080psf: 23.976, 24, 25, 29.97, 30
2K:	2048 x 1080p: 23.976, 24 2048 x 1080psf: 23.976, 24 2048 x 1556p: 14.98, 15
Video Input	Digital: 3G/HD/SD SDI, SMPTE-259/292/296 HD-SDI 1.5Gb and 3Gb HDMI v1.3, 30/36 bits/pixel, RGB or YUV, 2.25Gbs, SD, HD, 1080p50/60 Analog: SD and HD Output, BNC HD: YPbPr, RGB SD: YPbPr, RGB, Composite/YC 12-bit A/D
Video Output	3G/HD/SD SDI, SMPTE-259/292/296 HD: YPbPr, RGB SD: YPbPr, RGB, Composite/YC 12-bit D/A HD-SDI 1.5Gb and 3Gb HDMI v1.3 (see HDMI Input)
Audio Input	Digital: 2-channel 16/24/32-bit AES/EBU, 48 kHz sample-rate Synchronous or Nonsynchronous (Internal sample-rate conversion) 16/24/32-bit SMPTE-259 SDI embedded audio, 8-channel, 48 kHz synchronous Analog: 2-channel balanced input +24 dbu Full Scale Digital 16/24/32-bit A/D, 48 kHz sample rate +/- 0.2db 20 to 20 kHz Frequency Response
Up-Conversion	Hardware 10-bit Anamorphic: (full-screen) Pillar box 4:3: centers 4:3 image, with black sidebars Zoom 14:9: slightly zooms 4:3 image to fill a 14:9 image with black sidebars Zoom Letterbox: zooms 16:9 Letterbox source to full screen Zoom Wide: combines zoom and horizontal stretch, 16:9
Down-Conversion	Hardware 10-bit, 16/24/32-bit internal processing Anamorphic: full-screen Letterbox: 16:9 with black top and bottom Crop: image is cropped horizontally
Cross-Conversion	Hardware 10-bit 1080i to 720p, 720p to 1080i SD to SD Aspect Ratio Conversion 16:9 to 4:3 Letterbox or Horizontal Crop 4:3 to 16:9 Pillarbox or Vertical Crop
Reference Input	Color Black or Tri-level sync (Looping/non-terminating on K3-Box; terminated on supplied breakout cable) BNC assignable as LTC input or Reference Input
Machine Control	RS-422, Sony 9-pin protocol Connector provided on XENA LH/LHe breakout cable and on optional KL-Box



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