

EDIT

# *ioXT*

Harness the power of Thunderbolt™



Because it matters.

**AJA**®  
VIDEO SYSTEMS

# Io XT

Professional Thunderbolt I/O. Ready to Go.

## Desktop-level Power and Portability, —Without Compromise

Desktop-level power wherever you choose to work is now possible with AJA's new Io XT, with Thunderbolt dual-port "daisy-chain" connectivity.

Apple's newest generation of computers feature powerful Thunderbolt interfaces, offering a mind-blowing 10Gbps available bandwidth—and AJA's Io XT is the ideal portable companion for lightning-fast video capture and playback for professional post-production and on set applications.

Designed for today's workflows, Io XT provides complete compatibility with the most popular NLE programs, the newest codecs, video formats, stereoscopic 3D workflows, and more.

## Single Cable Thunderbolt Connectivity

Io XT connects to your Mac with a single Thunderbolt cable and provides a second Thunderbolt connector for daisy-chaining other Thunderbolt-enabled devices, such as storage, making it perfect for on set, or in the edit suite.

Compact, portable and powerful, it's loaded with high-end features including 3G/Dual-link/HD/SD-SDI, Component Analog, and HDMI connectivity. AJA's industry-proven OS X software and drivers connect the hardware to extensive codec and media support.

Pair Io XT with a MacBook Pro and Thunderbolt-based storage solution and you've got a no-compromise, fast editing system —portable enough to fit in a backpack.

## AJA Quality Conversion

Io XT features full 10-bit, broadcast-quality, motion-adaptive SD to HD up-conversion, HD to HD cross-conversion, HD to SD down-conversion, and automatic HD/SD 12-bit component analog output. Since all conversion functionality on the Io XT is hardware-based, it's available all the time on ingest or playback.

Uniquely, the Io XT can cross-convert 720p 23.98 to 1080PsF 23.98. Cross-conversion is particularly valuable in today's multi-format HD post environment where producing pristine 720p or 1080i signals at-will helps streamline dailies and deliverables.



## Features

- (2) Thunderbolt ports (supports multiple Thunderbolt-enabled device "daisy-chaining")
- (2) 3G/HD/SD-SDI inputs and outputs
- Single link SDI 4:2:2 support
- Dual-link SDI 4:4:4 support
- HDMI input and output (with support for HDMI 1.4a 3D displays)
- Analog component/composite HD/SD output, 10-bit
- Video Up, Down, and Cross conversion (hardware-based, 10-bit)
- 8-channel embedded SDI audio i/o
- 8-channel (4 pairs) balanced analog audio output (using a DB-25 type cable)
- Front panel LED VU meters
- Headphone output w/level control
- Reference In/LTC In (selectable)
- LTC output
- RS-422
- 4-pin XLR Power (AC adapter included)
- AJA Technical Support and International Warranty included
- Designed to be reliable, tough, and portable



### Connectivity

For SDI digital video, Io XT features two 3G/HD/SD-SDI inputs and two outputs, plus HDMI 1.3 input and HDMI 1.4a output—including support for 3D. Also included are component/composite output, LTC or Reference input, LTC output, 8 channels of embedded digital audio I/O and 8 channels of analog audio output.

For professional machine control, Io XT has a 9-pin RS422 connector. If you're using a Digital Betacam, DVCPRO50, HDCAM, DVCPRO HD, D5, or HDCAM SR VTR—or any other professional device—you'll have the proper connections.

### Dual link and 4:4:4 HD support

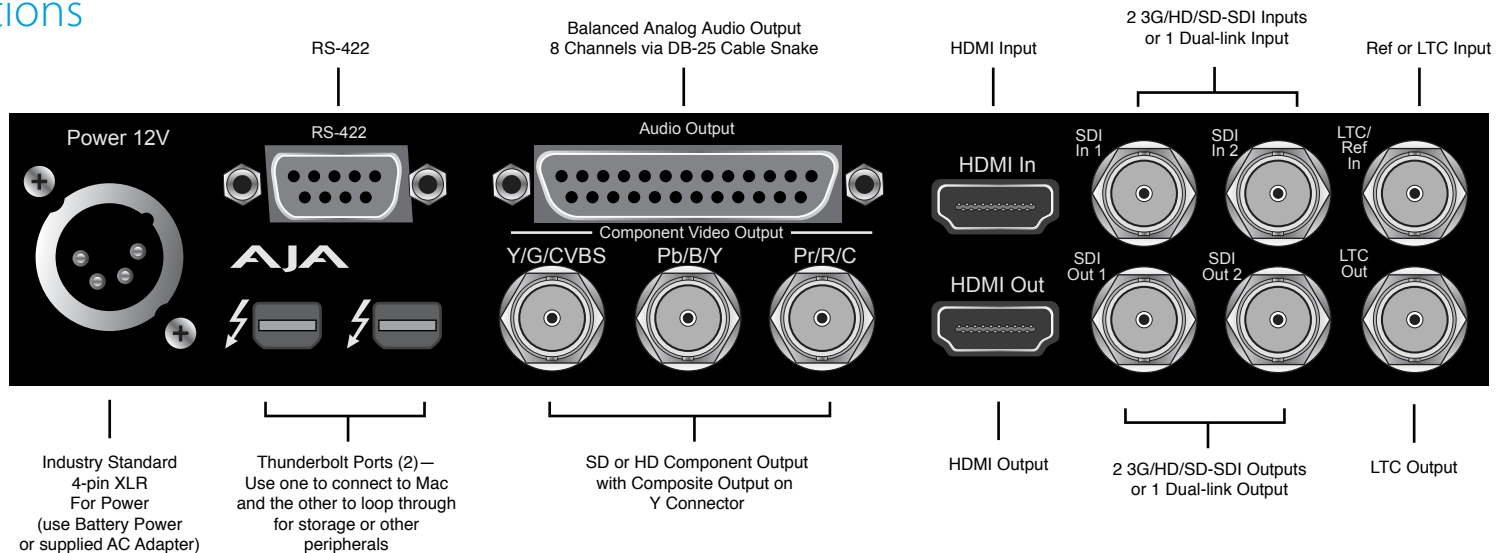
Io XT supports single link 3G 4:4:4 and dual link 4:4:4 HD-SDI, with full bandwidth 4:4:4 RGB at 10-bits for 1080i, 1080p, 1080PsF and 720p formats. Io XT can even convert between 4:4:4 and 4:2:2 formats for single link HD-SDI monitoring and output.

### Powerful Software

Io XT drivers are optimized for use on OS X, with applications and advanced AJA hardware capabilities controlled easily at-a-glance in the application you're using. AJA software integrates within the native environment where used, and includes powerful standalone capability with the AJA Control Room software.

AJA Control Room provides a unified, all-encompassing graphically rich and intuitive software application for controlling selected AJA and non-AJA equipment to enable configuration, video and audio capture, conversion, playback, and output. It eliminates the multiple applications other competitors require and replaces it with one comprehensive environment that does it all. AJA Control Room supports a variety of video, still image and audio file types.

## Connections



# Specifications

## Video Inputs

Dual-rate (SD or HD)  
3G SD and HD-SDI, SMPTE-259/292/296/424, 10-bits  
Single Link 4:2:2 or 4:4:4 (3G)  
Dual-link HD 4:4:4  
HDMI 1.3a  
1D LUT Support (Mac and PC)

## Video Formats

525i 29.97  
625i 25  
720P 23.98  
720p 25  
720P 50  
720P 59.94  
720P 60  
1080i 25  
1080i 29.97  
1080i 30  
1080PsF 23.98  
1080PsF 24  
1080PsF 25  
1080PsF 29.97  
1080PsF 30  
1080p 23.98  
1080P 24  
1080P 25  
1080P 29.97  
1080P 30  
1080P 50  
1080P 59.94  
1080P 60

## Video Output

**Digital:**  
3G SD and HD-SDI, SMPTE-259/292/296/424  
Dual-link HD 4:4:4  
HDMI v1.4, 30/36 bits/pixel, RGB or YUV, 2.25Gbps

### Analog:

SD and HD Output, 12-bits, BNC  
HD: YPbPr, RGB  
SD: YPbPr, RGB (component mode) or Composite + Y/C (composite mode with simultaneous Y/C)

## Audio

24-bit SDI embedded audio, 8 channel, 48kHz  
8 channel 24-bit balanced analog audio output  
(via DB-25 breakout cable)

## 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 side bars

**Zoom Letterbox:** results in image zoomed to fill full screen

**Zoom Wide:** results in a combination of zoom and horizontal stretch to fill a 16:9 screen; this setting can introduce a small aspect ratio change

## Down-Conversion

Hardware 10-bit

**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 to fit new screen size

## Cross-Conversion

Hardware 10-bit  
1080i to 720P  
720P to 1080i  
720P to 1080PsF

## SD to SD Aspect Ratio Conversion

**Letterbox:** This transforms SD anamorphic material to a letterboxed image.

**H Crop:** Will produce a horizontally stretched effect on the image; transforms anamorphic SD to full frame

**SD Pillarbox:** Will produce an image in the center of the screen with black borders on the left and right sides and an anamorphized image in the center

**V Crop:** Will transform SD letterbox material to an anamorphic image.

## Reference Input or LTC Input

1 BNC assignable to Reference Video or LTC Input  
Reference: Analog Color Black (1V) or Composite Sync (2 or 4V)

## LTC

Output, 1 BNC

## Machine Control

RS-422, Sony 9-pin protocol

### Incredible 3 Year Warranty

AJA Video warrants that KONA 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 video interface and conversion solutions, bringing high-quality, cost-effective digital video products to the professional broadcast and post-production markets. AJA offers the Io and KONA desktop video products, Ki Pro family of recorders, miniature stand-alone converters, and a complete line of rack mount interface and conversion cards and frames. With a headquarters and design center located in Grass Valley, California, AJA Video offers its products through an extensive sales channel of dealers and systems integrators around the world. For further information, please see our website at [www.aja.com](http://www.aja.com)



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Because it matters.