



# TruZoom™ and Corvid Ultra

4K/UHD Region of Interest selection, Live Scaling and Recording



Because it matters.™

# Corvid Ultra



Starting at \$7,995 US MSRP\*

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AJA's Corvid Ultra brings together a vast array of processing power for high data rate workflows such as 4K, high frame rate (HFR) and stereoscopic 3D.

## Maximum Performance

**Corvid Ultra is the ultimate high performance I/O and processing engine.**

4K workflows require lots of bandwidth and processing power. Corvid Ultra has the capability to work with high frame rate material at 48p or 60p, full resolution 4K or stereoscopic files and onboard Debayering support for RAW workflows.

### TruScale™

AJA's TruScale™ technology enables high-quality, arbitrary image scaling. Typical scaling technology is focused on adapting from one specific resolution to another. Advanced AJA technology allows TruScale to take any size Region of Interest, from the smallest web video to 4K resolution images, and scale it to any other resolution while still maintaining the highest possible quality. The TruScale hardware is factory-installed in Corvid Ultra and integrates with TruZoom to deliver outstanding images at any resolution.

### Key Features

- Extensive I/O: 3G SDI, 4K HDMI output, embedded and AES audio (2-channel analog audio monitoring)
- Supports video formats from SD through to 4K at up to 60 frames per second
- Color depth up to 16-bit half float RGBA with full color space conversion - Powerful, onboard Debayering for RAW workflows
- High-quality AJA TruScale™ means incredible quality at any resolution
- Two 4K-capable expansion slots for additional I/O or processing
- Fast 8x PCIe 2.0 host connection provides 2500+ MB/s in each direction - 2RU form factor



Corvid Ultra - rear panel

*Shown with optional TruScale™ card installed*



## TruZoom™ Software Application

4K/UHD Region of Interest selection, Live Scaling and Recording.

AJA's new TruZoom application and Corvid Ultra hardware come together in a revolutionary system for unparalleled real-time 4K recording, scaling, playback, and high-quality Region of Interest selection with AJA TruScale image processing and complete timeline-based keyframe control.



### Recording

Input and record 4K/UHD, 1080p, 720p or 1080i as well as Canon C500 RAW data, all at up to 60 frames per second. Save the incoming signal as uncompressed DPX files or, in the case of the C500, native Canon RAW format.



### Live Scaling

Select and isolate any Region of Interest from the incoming signal using joystick or mouse control and AJA's TruScale™ arbitrary scaling hardware transforms that region to HD resolution at the highest possible quality level for spectacular looking images. Create virtual camera presets for quick recall of common regions for fast interaction in live environments.

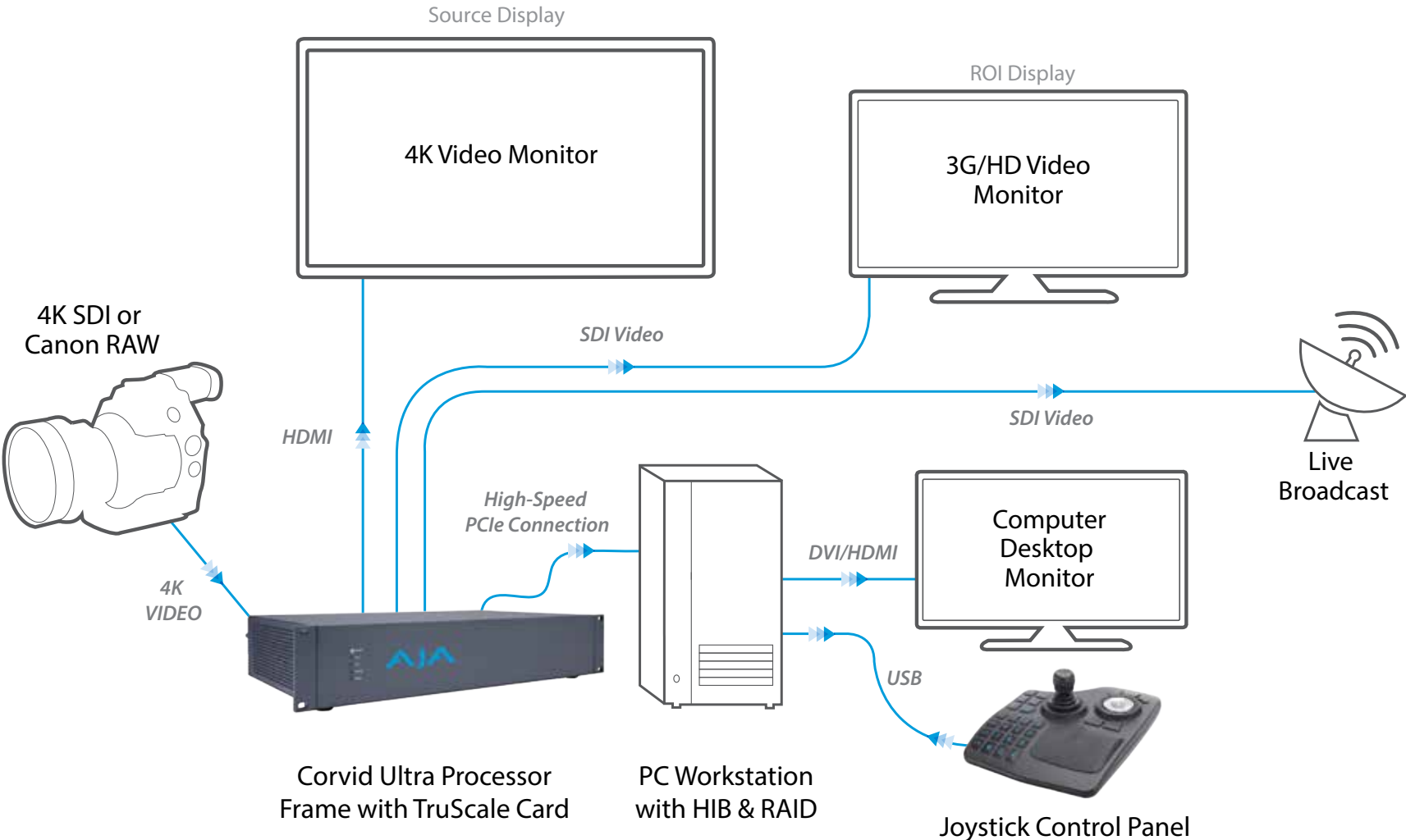


### Playback

TruZoom's interactive timeline lets you create keyframe—based timeline effects for Region of Interest and programmable variable speed playback and hold. Output the results via the professional SDI connections at 4K/UHD, 1080p, 720p or 1080i as well as HDMI output up to 4K resolution and 30fps.



# TruZoom™



# Corvid Ultra

## Connections

**16-channel AES/EBU audio In/Out**  
Capture and output a full 16 channels of AES digital audio for easy integration into your facility.

**Dual expansion bays**  
Extend the performance capabilities of Corvid Ultra to suit your needs. Accepts optional TruScale cards for hardware-based arbitrary scaling



**Analog Audio Monitors**  
Quickly monitor audio channels without the need for additional digital audio equipment.

**Reference and LTC In/Out loops**  
Lock Corvid Ultra to a standard reference signal and feed LTC timecode in and out for synchronizing with external timecode signals.

**3G/HD/SDI Inputs and Outputs**  
Input and output HD, 2K and 4K video or multiple streams simultaneously.

**High-speed PCIe Gen. II host computer connection**  
Move data between Corvid Ultra and the host computer at maximum speed for ultimate performance.

**RS-422**  
RS-422 remote control via 9-pin DB9 connector.

**HDMI output**  
HDMI 1.4 output capable of HD and 4K display.



High-speed PCIe Gen II host computer connection

[Click here](#)

For full product specifications visit [www.aja.com/en/products/developer/corvid-ultra/#techspecs](http://www.aja.com/en/products/developer/corvid-ultra/#techspecs)

# Corvid Ultra

## Tech Specs

### Video Formats

- SD:
- 525i 29.97
  - 625i 25
- HD:
- 720p 50, 59.94, 60
  - 1080i 25, 29.97, 30
  - 1080PsF 23.98, 24, 25, 29.97, 30
  - 1080p 23.98, 24, 25, 29.97, 30, 50, 59.94, 60
- 2K:
- 2048 x 1080P 23.98, 24, 25, 29.97, 30, 50 and 60
  - 2048 x 1080PsF 23.98, 24
  - 2048 x 1556PsF 23.98, 24, 25
- 4K:
- 3840x2160P 23.98, 24, 25, 29.97, 30, 48, 50, 59.94, 60
  - 3840x2160PsF 23.98, 24
  - 4096x2160P 23.98, 24, 25, 29.97, 30, 50, 59.94, 60
  - 4096x2160 PsF 23.98, 24

### Pixel Formats

- 8-bit:
- YCbCr 4:2:2
  - RGB
  - RGBA
- 10-bit:
- YCbCr 4:2:2
  - RGB
  - RGBA
- 12-bit:
- YCbCr 4:2:2
  - RGB
  - RGBA
  - XYZ
  - XYZA
- 16-bit:
- RGB
  - RGBA
- 16-bit Half Float:
- RGB
  - RGBA

### Video Inputs

- 3G/SD/HD SDI, SMPTE-259/292/296/424, 8- or 10-bits
- Single Link 4:2:2 or 4:4:4 (1 x BNC)
- Dual Link HD 4:4:4 (2 x BNC)
- 2K HSDL (High Speed Data Link) 4:4:4, (2 x BNC)
- 4K/UHD 4:4:4 (4 x BNC)
- Cannon C500 RAW data

### Video Outputs

- 3G/SD/HD SDI, SMPTE-259/292/296/424, 8- or 10-bits
- Single Link 4:2:2 or 4:4:4 (1 x BNC)
- Dual Link HD 4:4:4 (2 x BNC)
- 2K HSDL (High Speed Data Link) 4:4:4, (2 x BNC)
- 4K/UHD 4:4:4 (4 x BNC)
- HDMI v1.4, 30/36 bits/pixel, RGB or YUV, 2.25Gbps, SD, HD, 1080p-50/60, 4K, 2K stereoscopic (full-size HDMI)

### Audio Inputs

- Digital:
- 16-channel 24-bit SDI embedded, 48kHz synchronous
  - 16-channel 24-bit AES/EBU, 48kHz synchronous (8 x BNC)

### Audio Outputs

- Digital:
- 16-channel 24-bit SDI embedded, 48kHz synchronous
  - 16-channel 24-bit AES/EBU, 48kHz synchronous (8 x BNC)
- Analog:
- 2-channel unbalanced output (2 x RCA)

### Reference

- Analog Reference Input (BNC)
- Analog Reference Output, loop through (BNC)

### Timecode

- LTC timecode input and output (via 1 x BNC each)

### Machine Control

- RS-422, Sony 9-pin protocol
- 9-pin D-connector pinout is as follows:

1	GND
2	RX-
3	TX+
4	GND
5	No Connection
6	GND
7	RX+
8	TX-
9	GND
Shell	GND

### Host Connection

- 8-lane PCIe 2.0
- 3-meter interconnect cable
- 2500+ MB/sec (bi-directional)

### Expansion Slots

- 2 4K-capable expansion slots
- Accepts AJA TruScale™ option card

### Processing

- 4 Capture frame stores
- 4 Playback frame stores
- 4 Color Space Converters (high precision)
- 4 Mixer Keys
- 4 1D LUTs (12-bit)
- 4 3D LUTs (17x17x17, 12-bit)
- 4 Debayering Widgets
- 1 up/down/cross converter

### Arbitrary Scaling

- High-quality scaling from one resolution and aspect ratio to any other
- Not limited to standard formats
- TruScale hardware option card for real time performance
- Keyframeable control for animated pan and scan

### Physical Dimensions

- Width: 17.25" (43.8cm) compatible with standard 19" racks)
- Height: 3.375" (8.57cm), 2 rack units (2 RU)
- Depth: 11.625" (29.5cm), including connectors

[Click here](#)



For full product specifications visit [www.aja.com/en/products/developer/corvid-ultra/#techspecs](http://www.aja.com/en/products/developer/corvid-ultra/#techspecs)

### **Incredible 3-year warranty**

AJA Video warrants that OEM 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 standalone 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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