Ki Pro® | ULTRA

4K/UltraHD and 2K/HD Recorder and Player

ProRes
Avid DNxHD® MXF

AJA®
VIDEO SYSTEMS

Ki Pro® | ULTRA

4K/UltraHD and 2K/HD Recorder and Player

Supports the latest technologies and workflows, including up to 4K 60p with 16-Channels of audio.

Ki Pro Ultra is a next generation 4K/UltraHD/2K/HD capable file based video recorder and player with broad support for video formats and frame rates (up to 4K 60p) and flexible input and output connectivity, including 3G-SDI, fiber and HDMI.

$2,995 US MSRP*

[Find a Reseller]

Ki Pro Ultra is a 4K/UltraHD/2K/HD file based video recorder and player, supporting the latest connectivity and large raster high framerate workflows, including 4K 60p.

3G-SDI, fiber and HDMI digital video connectivity and a wealth of analog and digital audio connectivity answers any project's demand for efficient, powerful and flexible workflows.

Designed to be either portable or rackmountable with half rack wide 2RU high dimensions, it's well suited for use in studio/truck environments in addition to on-set and even digital signage applications. The Ki Pro Ultra answers the growing demand for 4K and UltraHD capable recorder products with full support for current HD projects.

Ki Pro Ultra enables manageable large raster workflows with the efficiencies of Apple ProRes® or Avid DNxHD® with full MXF support for a broad range

of video formats and frame rates recorded directly to AJA's proven and reliable Pak Media, offering the lowest cost per GB available today.

Next generation pristine UltraHD 60p and 4K 60p recording in Apple ProRes HQ is offered utilizing AJA Pak1000 SSD media, complete with full rollover capabilities from drive to drive. This ensures long recording times for the most demanding projects.

Smooth slow motion playback can be obtained easily with full control via the RS-422 serial connection or through the simple and intuitive on unit menu system and through the Ki Pro Ultra's web interface.

Menus and images are beautifully rendered on a new high resolution LCD display enabling detailed playback and monitoring in all environments.

10-bit, Full Raster Recording

Big on quality - but not on file size.

ProRes Avid DNxHD® MXF

Ki Pro Ultra records to five quality levels of Apple ProRes including Apple ProRes 4444 or to Avid DNxHD with full MXF support for Avid workflows and more. This lets you choose the balance of image fidelity and file size that's right for each individual production as well as recording directly to native file formats that are understood by most major editing systems.

Next generation UltraHD 60p and 4K 60p recording is attainable all the way up to Apple ProRes HQ when using AJA Pak1000 SSD media.

By utilizing Apple ProRes or Avid DNxHD, your project will have the best image quality available, with manageable and affordable file sizes.

Reliable Storage Media

Ki Protect Ki Pro Ultra captures directly to AJA Pak SSD Media. Pak1000 is the perfect companion for Ki Pro Ultra offering 1TB of fast SSD media for up to 4K recording at 60p in ProRes HQ. Pak512 and Pak256 media is ideal for lower frame rate projects.

The twin media slots on the Ki Pro Ultra allow fast media changes and rollover recording; recording starts on one media module and continues onto the second module once the first is full.

Ki Protect provides peace of mind, ensuring that in the event of power loss or accidental media removal during recording, frames already recorded are preserved and recoverable.

Employ the optional Pak Dock which features USB 3.0 and Thunderbolt™ connectors for lightning fast data transfers to your workstation of choice.

Record to External Storage

Pak-Adapt-eSATA (sold separately) is a Pak Media sized adapter with an eSATA connector that allows the user to attach a qualified RAID or single volume storage via an eSATA cable so that it may be used as a recordable drive. eSATA connectivity provides the bandwidth needed for 4K 422 HQ at up to 30fps.

You can even connect two Pak-Adapt-eSATAs to the Ki Pro Ultra for more flexibility in the field. To find out more about using qualified external storage with Ki Pro Ultra and Pak-Adapt-eSATA, please visit our website.

Familiar Controls and Operation

Anyone familiar with the operation of a tape deck will feel immediately comfortable when working with Ki Pro Ultra. Just like a traditional tape deck, Ki Pro Ultra features straightforward and dedicated transport buttons - record, play, stop, rewind, fast forward - making the device easy to operate with minimal training time. The current status of the system and key configuration information is clearly displayed on the beautiful built-in high resolution LCD screen. Additional operational information can be found in the STATUS menu which can be accessed even when recording or playing back.

The Ki Pro Ultra operating system offers users a logical menu structure that is easy to navigate with menu parameters presented in clear and understandable language.

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exFAT and HFS+ Support

Ki Pro Ultra allows you to use the file system that suits your needs. Full flexibility is provided to format your recording media as either exFAT or HFS+ within Ki Pro Ultra itself or from your desktop computer. Work seamlessly with Avid ProRes files or Avid DNxHD files on the OS that suits your workflow.

16-Channel Audio Support

Ki Pro Ultra provides full 16-Channel audio support embedded over SDI or Fiber. Flexible routing options mean that 8-Channel only outputs like HDMI, Analog and Digital carry options for selecting the 8-Channel group required. Monitoring via the headphone jack on the front of the unit is split into easy 2-Channel groupings for on-set checks.

Closed Caption Support

If you need to record or playout video with Closed Captioning embedded, Ki Pro Ultra is fully compatible with your needs.

Ki Pro Ultra recognizes CEA-708 within incoming SDI Inputs and encodes the Closed Captioning to your Apple ProRes recorded file. Upon playback, you can utilize the Closed Captioning within a recorded file over Ki Pro Ultra's 4 x 3G-SDI outputs.

RS-422 Control

RS-422 control allows Ki Pro Ultra to integrate easily with supported editing systems and external controllers allowing it to fulfill several of the functions of a traditional VTR. Supported NLEs can even perform assemble edits directly to the Ki Pro Ultra.

Fiber Connectivity

Ki Pro Ultra's fully integrated fiber inputs and outputs mean that it can be incorporated directly into a dedicated fiber network alongside many other fiber products. Fiber allows outgoing and incoming video signals to be transmitted as far as 10km away.

Professional Connections

The video and audio connections on the rear panel of the Ki Pro Ultra offer next generation connectivity with 3G-SDI, fiber and HDMI inputs and outputs, AES and analog XLR balanced audio, LTC, RS-422 and LAN, plus headphone jack and unbalanced RCA analog audio out.

4K and HD Monitoring

Ki Pro Ultra provides full resolution outputs for 4K, UltraHD and HD over 3G-SDI, fiber and HDMI, including the latest affordable UltraHD monitors using HDMI for on-set quality checks. An additional dedicated 2K and HD-SDI monitor output can be fed to any affordable and existing HD-SDI display.
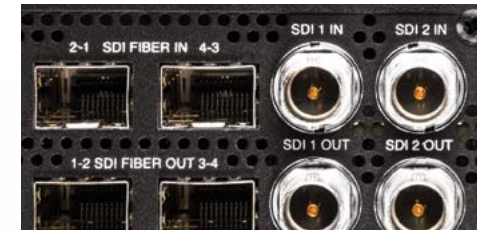
Two Sample Interleave IO

Ki Pro Ultra supports both Square Division Quad Split format and Two Sample Interleave giving a wide number of options to both record and playback 4K and UltraHD. Set up is easy, with Ki Pro Ultra sensing the format being delivered in its "Follow Input" mode. Ki Pro Ultra also allows you to select separate quad modes for both in and out, giving an additional conversion feature for when you need it.

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Interface

Pak Media Slots x2

High Resolution Display
Video Sources and Menu Overlay

Display, Configuration and
Menu Access Buttons

Robust
Selection Knob

Media Slot Selector

VTR Style Transport Buttons

Power On/Off

Headphone
Volume

Headphone
Output

Click here | For full product specifications visit www.aja.com/en/products/ki-pro-ultra/#techspecs

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High Quality LCD, Intuitive UI
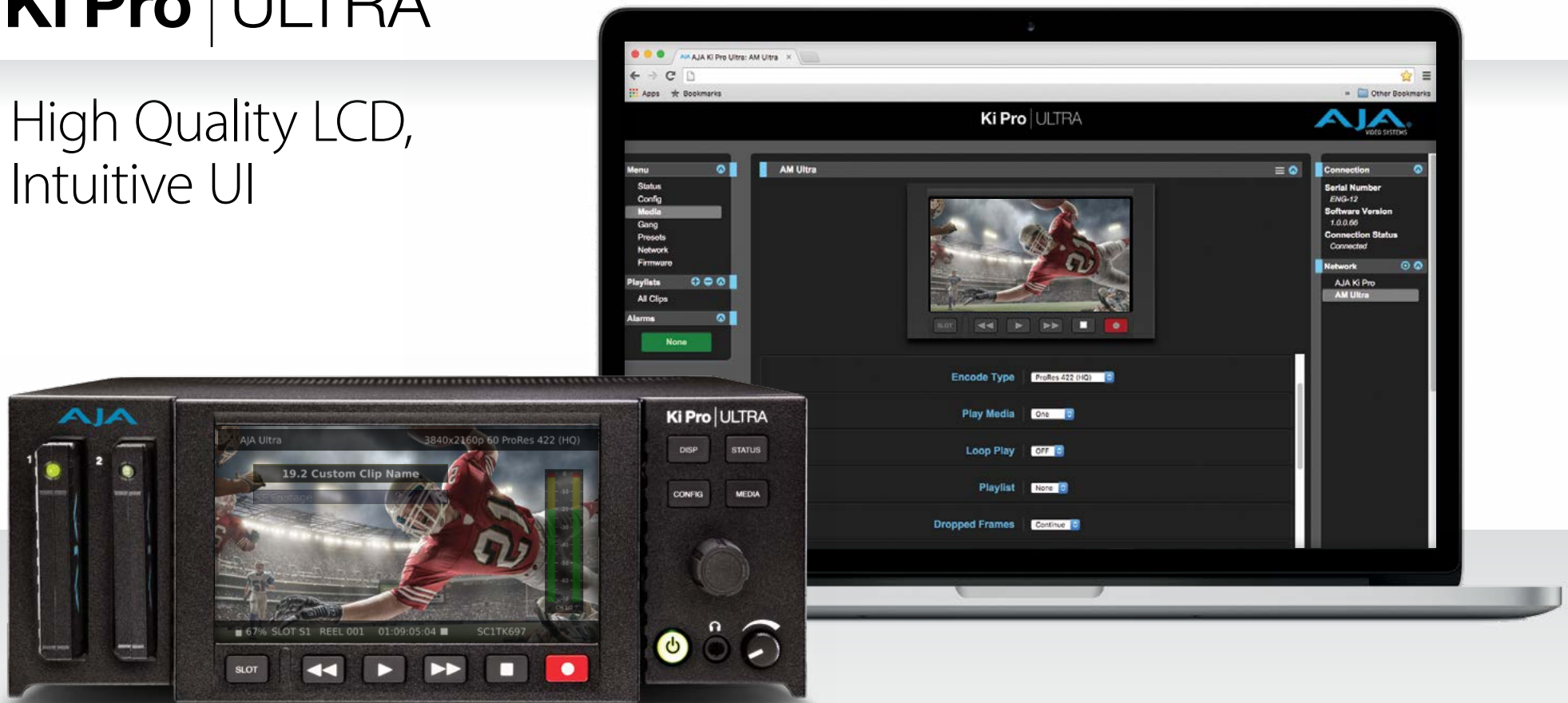
Interface with Ki Pro Ultra

Ki Pro Ultra features a beautiful high resolution HD display for pristine monitoring of your material, and serves as your interface to Ki Pro's familiar and intuitive menu system. The detailed overlay UI includes on-screen keyboard functionality and a clear view of the powerful yet simple to operate UI, all pristinely presented on the 4.8" 720p LCD display.

When remote from Ki Pro Ultra, utilize the fast LAN connectivity and access the internal web server UI from any web browser on any OS. Ki Pro Ultra's web interface allows firmware uploading, configuration of all settings, the ability to save presets and a simple pane for configuring gang recording when utilizing multiple units on a shoot.
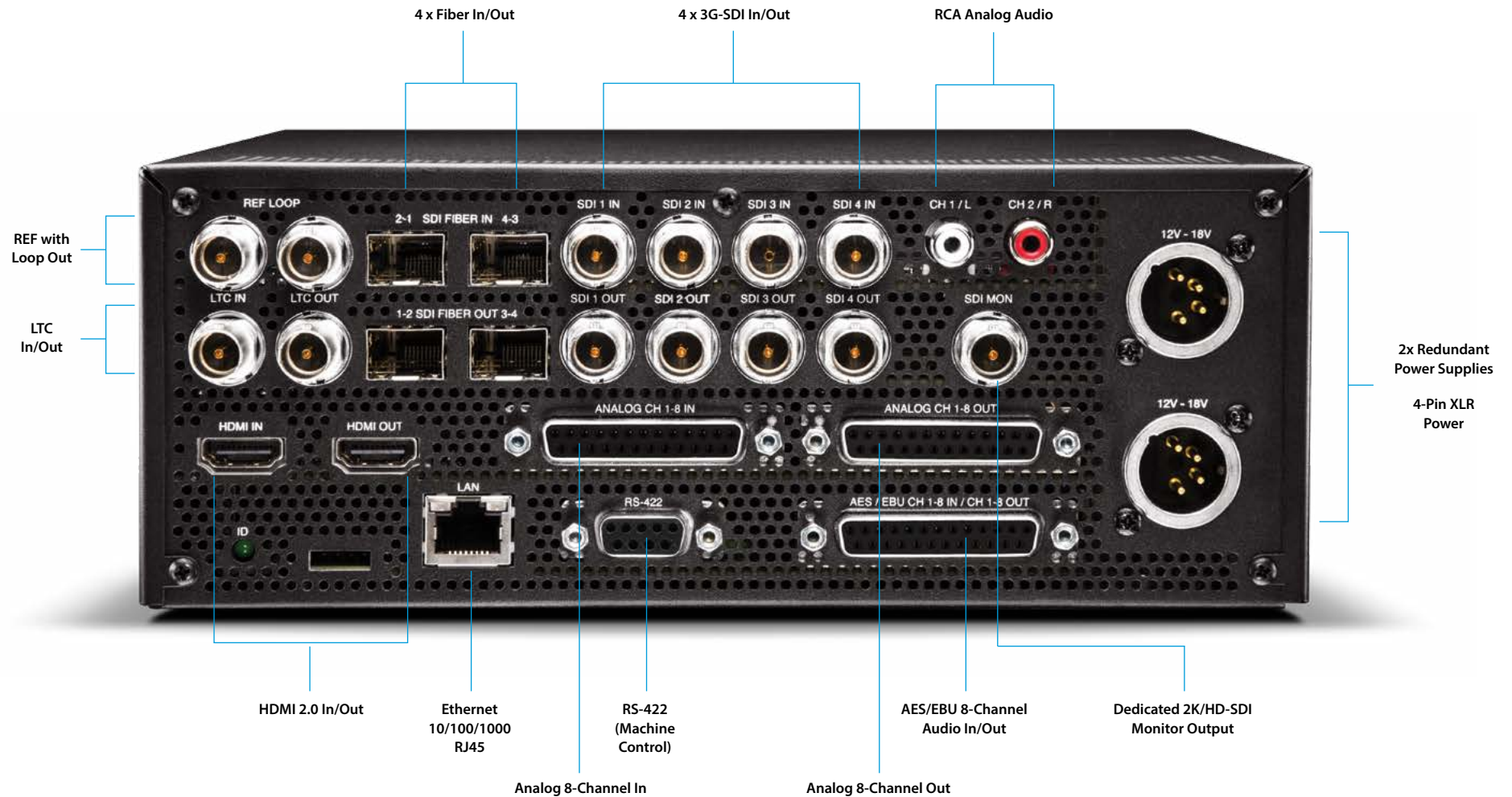
Choice, at your fingertips.

A rotary selection knob allows for quick and accurate adjustment of all configuration and settings options. Switch confidently between Status, Configuration and Media grouped settings with a touch of the clearly labeled buttons, and rotate the selection knob to choose the menu item for the parameter you wish to affect. The robust selection knob imparts confidence during selection through clear mechanical feedback. Then, once you found the setting you desire from a list within any menu item, simply click the rotary dial to set your preferred option.

To preserve your choices, Ki Pro Ultra offers the ability to save and reload presets, ensuring consistency throughout a project.

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Connections
(rear panel)

4 x Fiber In/Out

4 x 3G-SDI In/Out

RCA Analog Audio

REF with Loop Out

LTC In/Out

2x Redundant Power Supplies

4-Pin XLR Power

HDMI 2.0 In/Out

Ethernet 10/100/1000 RJ45

RS-422 (Machine Control)

AES/EBU 8-Channel Audio In/Out

Dedicated 2K/HD-SDI Monitor Output

Analog 8-Channel In

Analog 8-Channel Out

REF LOOP
2-1 SDI FIBER IN 4-3
SDI 1 IN   SDI 2 IN   SDI 3 IN   SDI 4 IN   CH 1 / L   CH 2 / R   12V – 18V
LTC IN   LTC OUT   1-2 SDI FIBER OUT 3-4   SDI 1 OUT   SDI 2 OUT   SDI 3 OUT   SDI 4 OUT   SDI MON
HDMI IN   HDMI OUT   ANALOG CH 1-8 IN   ANALOG CH 1-8 OUT   12V – 18V
LAN   RS-422   AES / EBU CH 1-8 IN / CH 1-8 OUT
ID

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Workflow

Fiber Input
up to 4K 60p
2 x Duplex Fiber (LC) Connections

SDI Input
up to 4K 60p
4 x 3G-SDI Connections

HDMI Input
up to 4K 60p
1 x HDMI 2.0 Compatible

Analog Audio

AES/EBU Audio

Jog Shuttle Control
RS-422

Web UI
Ethernet

Down-Converted HD from 4K
1 x HD-SDI

Fiber Output
up to 4K 60p
2 x Duplex Fiber (LC) Connections

SDI Output
up to 4K 60p
4 x 3G-SDI Connections

HDMI Output
up to 4K 60p
1 x HDMI 2.0 Compatible

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Accessories

Pak Media

Pak Media is a high capacity solid state drive encased in a protective housing with rugged connection engineered to handle the rigors of repeated use in the field. Available in 1TB, 512GB and 256GB capacities.

Pak Dock

External Pak Dock with Thunderbolt and USB 3.0 connections for fast transfer of media to a host computer.

Pak-Adapt-eSATA

Pak-Adapt-eSATA is a Pak Media sized adapter with an eSATA connector that allows the user to attach a qualified RAID or single volume storage via an eSATA cable so that it may be used as a recordable drive.

Pak-Adapt-CFast

Pak-Adapt-CFast enables the use of qualified CFast cards in Ki Pro Ultra for recording and playback.
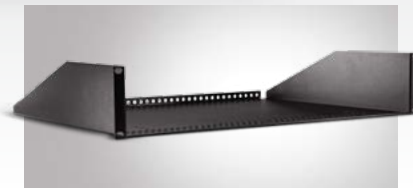
KPU-Shelf

Ki Pro Ultra features a small footprint for desk top use or can be mounted side by side using the additional KPU-Shelf for rackmount applications.

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Tech Specs

Video Formats

- (4K) 4096 x 2160p 23.98, 24, 25, 29.97, 30, 50, 59.94, 60
- (4K) 4096 x 2160PsF 23.98, 24, 25, 29.97*
- (UltraHD) 3840 x 2160p 23.98, 24, 25, 29.97, 30, 50, 59.94, 60
- (UltraHD) 3840 x 2160PsF 23.98, 24, 25, 29.97*
- (2K) 2048 x 1080p 23.98, 24, 25, 29.97, 30, 50, 59.94, 60
- (HD) 1080p 23.98, 24, 25, 29.97, 30, 50, 59.94, 60
- (HD) 1080i 25, 29.97, 30
- (HD) 1080PsF 23.98, 24, 25**, 29.97**
- (HD) 720p 50, 59.94, 60

Only 4 x 1.5G-SDI, 10-bit 4:2:2 YCbCr, Square Division
*** 25 and 29.97 requires Record Type>PsF selection*

Codec Support

- Apple ProRes 4444, 4K/UltraHD/2K/HD up to 30 fps
- Apple ProRes 422 (HQ)
- Apple ProRes 422
- Apple ProRes 422 (LT)
- Apple ProRes 422 (Proxy)
- Avid DNxHD HQX (220x)*
- Avid DNxHD SQ (145)*
- Avid DNxHD LB (36)**
  - (HD) 1080p 23.98, 24, 25, 29.97, 50, 59.94
  - (HD) 1080i 25, 29.97
  - (HD) 1080PsF 23.98, 24, 25, 29.97
  - (HD) 720p 50, 59.94

Avid DNxHD only supported for 1080 and 720 resolutions
*** Avid DNxHD 36 only supported for 1080p*

Codec Container

- Apple ProRes .MOV
- AVID DNX MXF or .MOV

Removable Storage

- 2 x slots, AJA Pak SSD media Pak256, Pak512, Pak1000*
- Pak-Adapt-eSATA**, Pak-Adapt-CFast**

4K/UltraHD 50, 59.94, 60 ProRes 422 (HQ) recording requires genuine AJA Pak1000 media
*** Only with AJA qualified media*

Video Input Digital

- 4x 3G-SDI, SMPTE-292/296/424, 10-bit (12-bit input supported)
- 4x Fiber LC*, 3G-SDI, SMPTE-297, 10-bit
- 4K/UltraHD 4:2:2 or 4:4:4 (4 x BNC or Fiber LC*)
- Dual Link 4:2:2, 4:4:4 (2 x BNC or Fiber LC*)
- Single Link 4:2:2, 4:4:4 (1 x BNC or Fiber LC*)
- 1x HDMI standard type A connector
- HDMI v2.0 Compatible YCbCr, 4:2:0 only at 4K/UltraHD 50, 59.94, 60
- HDMI v1.4b, RGB or YCbCr

Optional SFP Modules

Video Output Digital

- 4 x 3G-SDI, SMPTE-292/296/424, 10-bit
- 4x Fiber LC* 3G-SDI, SMPTE-297, 10-bit
- 4K/UltraHD 4:2:2 or 4:4:4 (4 x BNC or Fiber LC*)
- Dual Link 4:2:2 or 4:4:4 (2 x BNC or Fiber LC*)
- Single Link 4:2:2 or 4:4:4 (1 x BNC or Fiber LC*)
- 1x HDMI standard type A connector
- HDMI v2.0 Compatible YCbCr, 4:2:0 only at 4K/UltraHD 50, 59.94, 60
- HDMI v1.4b, RGB or YCbCr

Optional SFP Modules

Audio Input Digital

- 16-Channel, 24-bit SDI/Fiber embedded audio, 48 kHz sample rate, synchronous
- 8-Channel, 24-bit HDMI embedded audio, 48 kHz sample rate, synchronous
- 8-Channel, AES/EBU via (1/2 x DB-25 TASCAM pinout)

Audio Input Analog

- 8-Channel, 24-bit A/D analog audio, 48 kHz sample rate (1 x DB-25 TASCAM Pinout)
- +24dBu full scale digital
- +/- 0.2dB 20 Hz to 20 kHz frequency response

Audio Output Digital

- 16-Channel, 24-bit SDI/Fiber embedded audio, 48 kHz sample rate, synchronous
- 8-Channel, 24-bit HDMI embedded audio, 48 kHz sample rate, synchronous
- 8-Channel, AES/EBU via (1/2 x DB-25 TASCAM pinout)

Audio Output Analog

- Stereo unbalanced headphone jack (1 x 3.5mm jack) with volume control
- 8-Channel, 24-bit D/A analog audio, 48 kHz sample rate (1 x DB-25 TASCAM pinout)
- 2-Channel unbalanced 2 x RCA connectors

Timecode

- SDI RP188/SMPTE 12M via SDI BNC
- LTC input (1 x BNC)
- LTC output (1 x BNC)

Reference Input

- External, 2 x BNC
- Looping, nonterminating
- Blackburst or tri-level sync

Network Interface

- 10/100/1000 Ethernet (RJ-45)
- Embedded web server for remote control via REST
- Video Confidence Monitor via Web Interface
- Clip upload/download via Web Interface in DATA-LAN mode
- Configuration and Transport Control via WEB Interface

Machine Control

- RS-422, 1 x DE-9 female connector, Sony 9-pin protocol
- 9-pin D-connector pinout is as follows:

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

User Interface

- Rotary selector knob
- Dedicated, backlit transport controls and menu buttons
- Large 1280 x 720 TFT LCD display with Video Monitor and Menu/Status Overlays

Closed Captioning Support

- CEA-708, CEA-608

File System Support

- HFS+, exFAT

Size

- 8.64" x 9.34" x 3.31" (219.46mm x 237.24mm x 84.08mm)

Weight

- 5.6 lbs (2.6 kg)

Power

- Dual, redundant, 5.4A max, 35W-60W typical-65W Max
- 100-240 VAC 50/60 Hz (adapter)
- 12-18Vdc 4-pin XLR (chassis)

Environment

- Safe Operating Temperature: 0 to 40 degrees C (32 to 104 degrees F)
- Safe Storage Temperature (Power OFF): -40 to 60 degrees C (-40 to 140 degrees F)
- Operating Relative Humidity: 10-90% noncondensing
- Operating Altitude: <3,000 meters (<10,000 feet)

Three Year Warranty

AJA Video warrants that Ki Pro Ultra 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 postproduction markets. AJA products are designed and manufactured at our facilities in Grass Valley, California, and sold through an extensive sales channel of resellers and systems integrators around the world. For further information, please see our website at **www.aja.com**

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