Ki Pro® | ULTRA Plus

Multi-Channel HD Recorder
4K/UltraHD/2K/HD Recorder and Player

HDR **ProRes** Avid DNxHD® MXF

AJA
VIDEO SYSTEMS®

Ki Pro® | ULTRA Plus

Ki Pro Ultra Plus offers 4K/UltraHD/2K/HD recording and playback up to 4:4:4 60p, or up to 4-Channels of simultaneous HD recording with broad video format support and flexible input output connectivity, including HDMI 2.0 with HDR output and fiber.

$3,995 US MSRP*

Find a Reseller

Multi-Channel HD Recorder
4K/UltraHD/2K/HD Recorder and Player

Supports the latest technologies and workflows, including up to 4K 60p with HDMI 2.0 support and HDR playback.

Ki Pro Ultra Plus is a multi-channel Apple ProRes recorder offering up to 4-Channels of simultaneous HD recording, or in Single-Channel mode a 4K/UltraHD/2K/HD Apple ProRes® or Avid DNxHD® MXF recorder and player. Ki Pro Ultra Plus supports the latest connectivity, as well as large raster high frame rate workflows, including 4K 60p.

3G-SDI, fiber and full HDMI 2.0 digital video connectivity including HDR 10 and HLG playback support 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 Plus is designed to meet the growing demand for 4K and UltraHD capable recorder products with full support for current HD projects.

Ki Pro Ultra Plus enables manageable large raster workflows with the

efficiencies of Apple ProRes, supporting 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 4K/UltraHD 50/60p recording in Apple ProRes HQ is offered utilizing AJA Pak 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 Plus' web interface.

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

Ki Pro Ultra Plus, the ultimate next generation digital recorder and player.

4K, 12-bit Full Raster Workflows

Next generation 4K/UltraHD 50/60p recording and playback are attainable all the way up to Apple ProRes HQ when using AJA Pak1000 SSD media with Ki Pro Ultra Plus. 4K/UltraHD is supported through 4x 3G-SDI, HDMI 2.0 or optional Fiber inputs and outputs.

Ki Pro Ultra Plus not only supports true 4K at 4096 x 2160p for digital cinema and high quality UltraHD for broadcast production, it also offers the color depth to match with ProRes 4444 (XQ).

Any shoot or project benefits from the fabulously rich colors and smooth gradations across the luminance and chroma range that 12-bit makes possible with full 4:4:4 support.

VFX work benefits from Ki Pro Ultra Plus' 12-bit support on 4x 3G-SDI input to captured Apple ProRes 444 files, resulting in clean green screen plates across the 4K/UltraHD/2K/HD raster landscape for easy and detailed postproduction manipulation. With full HDMI 2.0, you can monitor it all from 4:2:2 YCbCr to full 4:4:4 RGB in 12-bit.
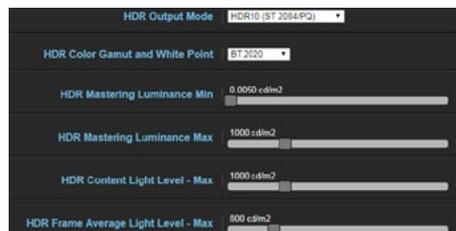
HDR Playout

Ki Pro Ultra Plus with HDMI 2.0 support enables playout of your HDR (High Dynamic Range) and WGC (Wide Color Gamut) materials to HDR capable HDMI displays as well as professional SDI HDR capable monitors. A simple menu setting allows the selection of the correct EOTF (Electric-Optical Transfer Function) for the video at hand, whether encoded as PQ based HDR 10 or HLG.

Static HDR metadata for infoframe data is transmitted to the HDR HDMI capable display by selecting the appropriate HDR methodology in menu item 1.69 letting the display know that it is receiving HDR encoded material and this allows the display to correctly map color and luminance information appropriately.

Your footage comes to life with a range of greens, yellows and golds which the extended color gamut of BT.2020 excels at compared to SDR video and specular highlights and a wider range of blacks brings water, night scenes and shadows to life.

Multi-Channel HD Recording

Record 1, 2, 3 or 4-Channels of beautiful HD up to 1080p 50/60 in Apple ProRes simultaneously with Ki Pro Ultra Plus.

Multi-channel recording with Ki Pro Ultra Plus provides individual, discrete recordings for each input that are timecode accurate and ready to be imported directly into a multi-channel editing sequence. No additional conversion or software is required, just drag and drop the files directly from the Pak media into your edit.

Ki Pro Ultra Plus even allows independent profile support per channel in Multi-Channel mode; for example, select high resolution Apple ProRes HQ for high quality finishing and use a second input to record Apple ProRes (Proxy) for an efficient editing pipeline.

Starting with Input 1, add channels as needed in order when utilizing like raster size and frame rate, and record your HD Apple ProRes files on the same AJA Pak media. Ki Pro Ultra Plus even allows rollover to a second Pak drive for hours of uninterrupted multi-channel recording.

Reliable Storage Media

Ki Pro Ultra Plus captures directly to AJA Pak SSD Media.

Pak1000 is the perfect companion for Ki Pro Ultra Plus offering 1TB of fast SSD media for up to 4K recording at 60p in ProRes HQ and offers the longest run times for multi-channel HD capture.

Losing one or several feeds during a multi-channel shoot can cause major sync issues during the editing process that can be lengthy to resolve, if they can be resolved at all. But Ki Pro Ultra Plus is designed so that as soon as a loss in signal is detected on any of the inputs, a color bars frame with the legend "Loss Of Signal" is recorded until the input is restored or the shoot ends. This way, all multi-channel clips have the same time code duration and will align perfectly within any NLE. The editor just simply cuts away from any recording that lost signal, to insert frames, or adjust audio to compensate. This function works with each input to Ki Pro Ultra Plus and will even function in Rollover mode, meaning that a loss of signal that spans separate media will pose no issues in editing, the time code of each file recorded being equal.

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HDMI 2.0: One Cable, Multiple Formats

Full HDMI 2.0 support on Ki Pro Ultra Plus offers deep color support all the way up to 4:4:4 12-bit RGB, perfect for rich color capture from affordable HDMI cameras and beautiful playback on the latest HDMI 2.0 displays.

A single cable can affordably transport both UltraHD or HD video and clean 24-bit 48hz 8-Channel audio to or from common HDMI 2.0 devices for a simple setup; perfect for editors, ProAV, independent producers and anyone seeking to utilize the latest affordable monitoring.

Professional Connections

The video and audio connections on the rear panel of the Ki Pro Ultra Plus offer next generation connectivity with 3G-SDI, HDMI 2.0 and fully integrated fiber* inputs and outputs. Fiber allows direct incorporation into dedicated fiber networks for transmission and reception as far as 10km. AES and analog XLR balanced audio, LTC, RS-422 and LAN, plus headphone jack and unbalanced RCA analog audio out all included.
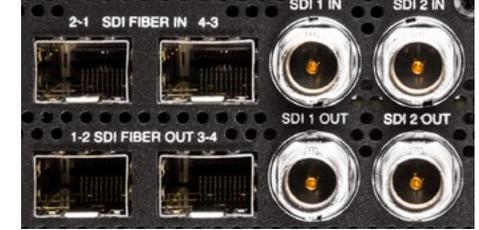

4K and HD Monitoring

Ki Pro Ultra Plus 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 Plus 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 Plus sensing the format being delivered in its "Follow Input" mode. Ki Pro Ultra Plus also allows you to select separate quad modes for both in and out, giving an additional conversion feature for when you need it.

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 Plus for more flexibility in the field. To find out more about using qualified external storage with Ki Pro Ultra Plus and Pak-Adapt-eSATA, please visit our website.

exFAT and HFS+ Support

Ki Pro Ultra Plus 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 Plus itself or from your desktop computer. Work seamlessly with Avid ProRes files or Avid DNxHD files on the OS that suits your workflow.

SFP modules not included

Closed Captioning Support

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

Ki Pro Ultra Plus 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 Plus' 4 x 3G-SDI outputs.

RS-422 Control

RS-422 control allows Ki Pro Ultra Plus 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 Plus.

Multiple Ki Pro Ultra Plus units can synchronously playback or record using RS-422 as well.

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Interface

Pak Media Slots x2

High Resolution HD Display
Video Sources and Menu Overlay

Display, Configuration and
Menu Access Buttons

AJA Ki Pro Ultra Plus   1920x1080p 60 ProRes

67% SLOT S1   REEL 001   01:09:05:04 ■   SC1TK697

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DISP   STATUS

CONFIG   MEDIA

Rotary
Selection Knob

SLOT

Media Slot Selector

VTR Style Transport Buttons

Power On/Off

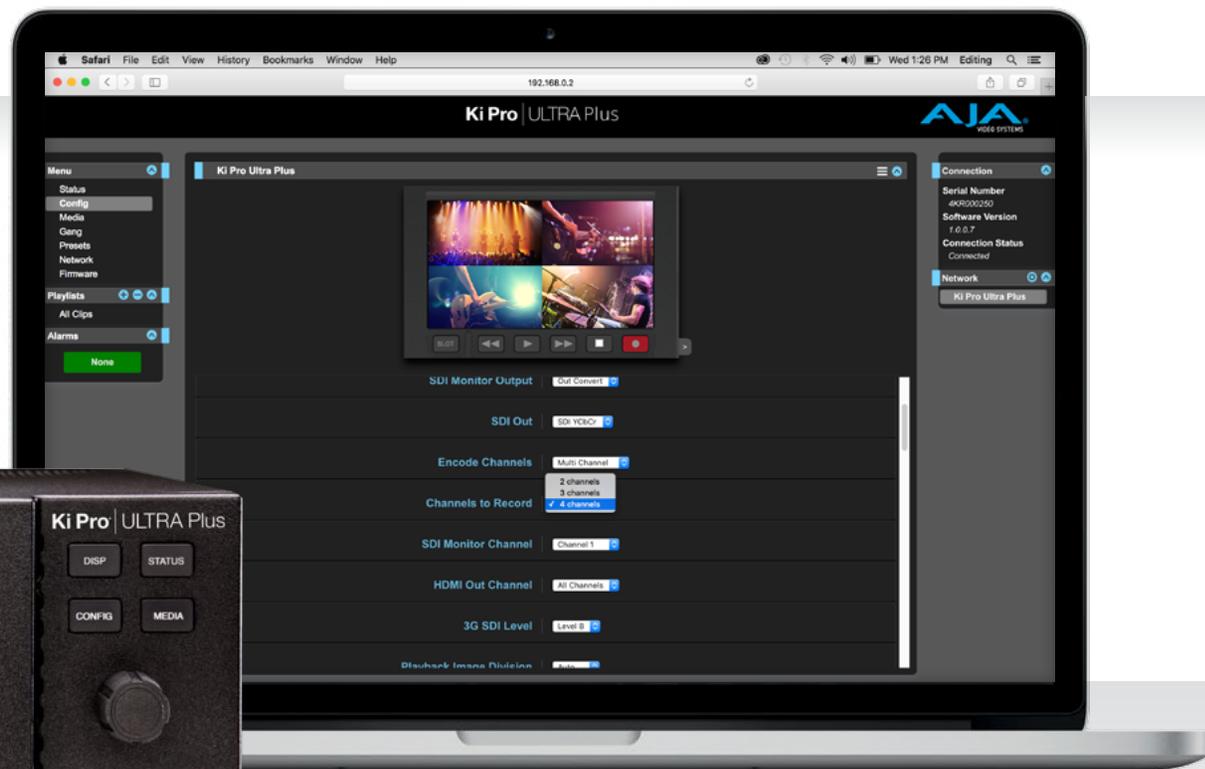**Headphone**
Volume

Headphone
Output

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

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High Quality LCD, Intuitive UI

Interface with Ki Pro Ultra Plus

Ki Pro Ultra Plus 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.
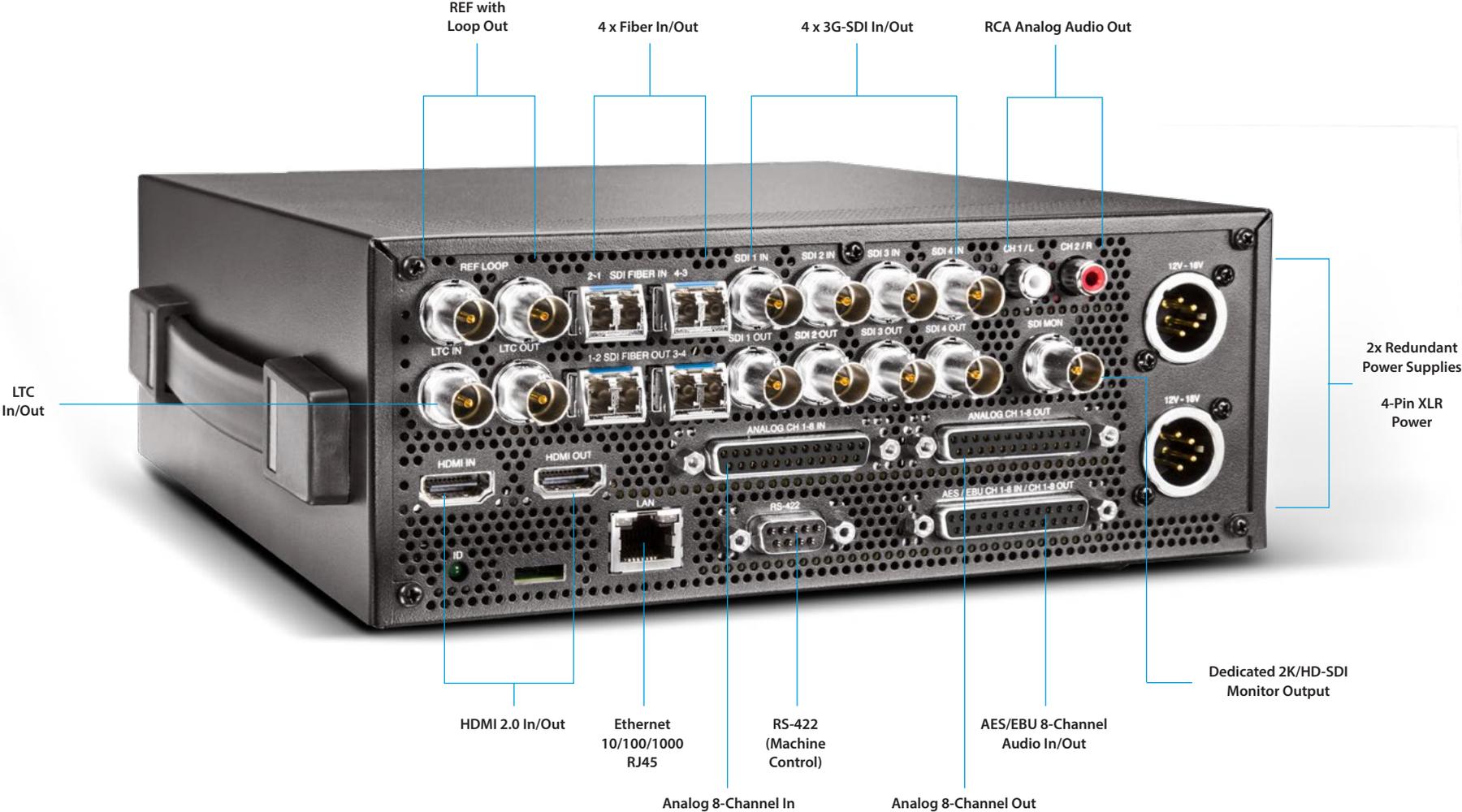
When remote from Ki Pro Ultra Plus, utilize the fast LAN connectivity and access the internal web server UI from any web browser on any OS. Ki Pro Ultra Plus' web interface allows firmware uploading, configuration of all settings, the ability to save presets and a simple pane for configuring gang recording 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 Plus offers the ability to save and reload presets, ensuring consistency throughout a project.

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Connections

REF with
Loop Out

4 x Fiber In/Out

4 x 3G-SDI In/Out

RCA Analog Audio Out

LTC
In/Out

2x Redundant
Power Supplies

4-Pin XLR
Power

Dedicated 2K/HD-SDI
Monitor Output

HDMI 2.0 In/Out

Ethernet
10/100/1000
RJ45

RS-422
(Machine
Control)

AES/EBU 8-Channel
Audio In/Out

Analog 8-Channel In

Analog 8-Channel Out

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Workflow

Fiber Input
up to 4K 60p

2 x Duplex Fiber (LC) Connections
for 4K or 4x HD 60p

SDI Input
up to 4K 60p

4 x 3G-SDI Connections
for 4K or 4x HD 60p

HDMI Input
up to 4K 60p

1 x HDMI 2.0

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

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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.
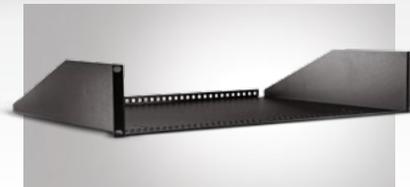
Pak-Adapt-eSATA

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 Plus for recording and playback.

KPU-Shelf

Ki Pro Ultra Plus 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

Single Channel Mode:
- (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

Multi-Channel Mode:
- (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

Single Channel Mode:
- Apple ProRes 4444 XQ up to 2K/60 fps,
- Apple ProRes 4444, 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)**

Multi-Channel Mode:
- Apple ProRes 4444, up to 30 fps
- Apple ProRes 422 (HQ)
- Apple ProRes 422
- Apple ProRes 422 (LT)
- Apple ProRes 422 (Proxy)

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*

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
  - 4:4:4 RGB 10/12-bit (deep color)
  - 4:2:2 YCbCr 8/10/12-bit
  - 4:2:0 YCbCr 8-bit

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
  - 4:4:4 RGB 10/12-bit (deep color)
  - 4:2:2 YCbCr 8/10/12-bit
  - 4:2:0 YCbCr 8-bit
- HDR Infoframe generation as defined in CTA-861.3 and HDMI v2.0a

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)
- +24 dBu full scale digital
- +/- 0.2 dB 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

Recording Mode

- Multi-channel HD Apple ProRes recording (Pak1000/Pak512 R1/Pak256 R1 only)
- Single channel 4K/UltraHD/2K/HD recording

Playback Mode

- One channel of 4K/UltraHD/2K/HD at a time

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

1	GND	6	GND
2	TX-	7	TX+
3	RX+	8	RX-
4	GND	9	GND
5	No Connection	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 (w x d x h)

- 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 Plus 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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