

# AJA Ki Pro Rack File Based 1RU Recorder and Player

## Video Input

- 525i 29.97
- 625i 25
- 720P 23.98, 25, 29.97, 50, 59.94, 60 (Note: 720p 23.98 (24), 720p 25 and 720p 29.97 require a valid camera source and the use of the Record Type>VFR selection)
- 1080i 25, 29.97, 30
- 1080PsF 23.98, 24, 25\*, 29.97\* (Note: 25 and 29.97 require a valid camera source and the use of the Record Type>PsF selection)
- 1080p 23.98, 24, 25, 29.97

## Codec Support

- Apple ProRes 422
- Apple ProRes 422 (HQ)
- Apple ProRes 422 (LT)
- Apple ProRes 422 (Proxy)
- Avid DNxHD 220x
- Avid DNxHD 145
- Avid DNxHD 36 (Note: Avid DNxHD 36 only provides support for the 1080p format)

## Removable Storage

- AJA Ki Stor modules - 2 slots

## Video Input Digital

- SD/HD SDI, SMPTE-259/292/296, 10-bit
- Single Link 4:2:2 (2 x BNC, input selection in software)
- HDMI v1.3

## Video Input Analog

- SD/HD Component (3 x BNC)
- SMPTE/EBU N10, Betacam 525 line, Betacam 525J
- 12-bit A/D, 2x oversampling
- +/- .25 dB to 5.5 MHz Y Frequency Response
- +/- .25 dB to 2.5 MHz C Frequency Response
- .5% 2T pulse response
- <2 ns Y/C delay inequity  
or
- Composite (1 x BNC – CVBS on Y)

## Video Output Digital

- SD/HD SDI, SMPTE-259/292/296, 10-bit
  - Single link 4:2:2 (1 x BNC)
  - HDMI v1.3
- Note: HDMI requires 1080i, 720p or 1080p to be active; HDMI does not provide support for PsF

## Video Output Analog

- Component (3 x BNC)
- NTSC, NTSCJ, PAL
- HD: YPbPr, RGB
- SD: YPbPr, RGB (component mode)
- SMPTE/EBU N10, Betacam 525 line, Betacam 525J, RGB
- 12-bit D/A, 8x oversampling
- +/- .2 dB to 5.5 MHz Y Frequency Response
- +/- .2 dB to 2.5 MHz C Frequency Response
- .5% 2T pulse response
- <1 ns Y/C delay inequity  
or
- Composite (1 x BNC – CVBS on Y)
- +/- .2 dB to 5.0 MHz Y Frequency Response
- +/- .2 dB to 1 MHz C Frequency Response
- <1% Diff Phase
- <1% Diff Gain

## Audio Input Digital

- 8-channel, 24-bit SMPTE-259 SDI embedded audio, 48kHz sample rate, Synchronous
- 2-channel, 24-bit HDMI embedded audio, 48kHz sample rate, Synchronous
- 8-channel, 24-bit AES/EBU audio, 48KHz sample rate, Synchronous or Non-synchronous, Internal sample rate conversion (4 x BNC)

**Audio Input Analog**

- 2-channel, 24-bit A/D analog audio, 48kHz sample rate, balanced (2 x XLR)
- +24dbu Full Scale Digital
- +/- 0.2db 20 to 20kHz Frequency Response (Note: Line or Mic selection via CONFIG menu parameters)

**Audio Output Digital**

- 8-channel, 24-bit SMPTE-259 SDI embedded audio, 48kHz sample rate, Synchronous
- 8-channel, 24-bit HDMI embedded audio, 48kHz sample rate, Synchronous
- 8-channel, 24-bit AES/EBU audio, Synchronous or Non-synchronous, Internal sample rate conversion (4 x BNC)

**Audio Output Analog**

- 2-channel, 24-bit D/A analog audio, 48kHz sample rate, balanced (2 x XLR)
- +24dbu Full Scale Digital (0dbFS)
- +/- 0.2db 20 to 20kHz Frequency Response
- Stereo unbalanced headphone (1 x 3.5mm mini jack)

**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

**Timecode**

- SDI RP188/SMPTE 12M via SDI BNC
- HDMI (when used with compatible cameras)
- LTC Input (1 x BNC)
- LTC output (1x BNC) (Note: active during playback not during record or EE)

**Reference Input**

- Analog Color Black (1V) or Composite Sync (2 or 4V)
- Looping, non-terminating

**Network Interface**

- 10/100/1000 Ethernet (RJ-45)
- Embedded web server for remote control

**User Interface**

- 2 x 20 character display, with dedicated buttons

**Machine Control**

- RS-422, Sony 9-pin protocol (via DB-25 breakout cable or optional KLHi-Box)
- 9-pin D-connector pinout is as follows:

1	GND
2	RX-
3	TX+

4	GND
5	No Collection
6	GND
7	RX+
8	TX-
9	GND
Shell	GND

**Physical**

- Width: 19" (48.26cm)
- Depth: 12.5" (37.74cm) front panel to the back of the deepest connector
- Height: 1.75" (4.45cm)
- Power: 100-240 VAC 50/60Hz (Dual, redundant power supplies), 40W typical; 10A Max
- Weight: 7.28 lb (3.30215 kg)