



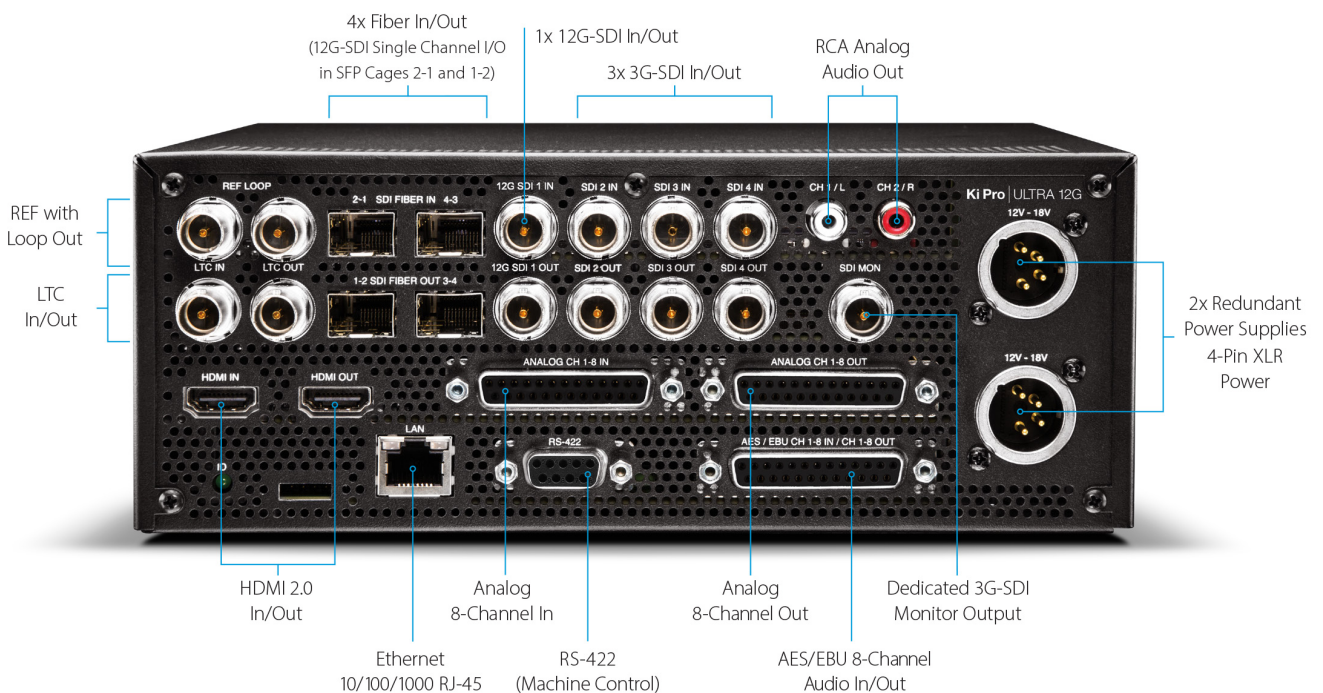
# Ki Pro Ultra 12G

Ki Pro Ultra 12G offers 12G-SDI single cable simplicity for large rasters and HDMI 2.0 digital video connectivity with HDR support for recording and playback, plus a wealth of analog and digital audio connectivity answers any project’s demand for efficient, powerful and flexible workflows.

In Single-Channel mode you can record and playback 4K/UltraHD/2K/HD Apple ProRes or Avid DNxHR® up to 50/60p. For distance and remote needs, Fiber SFP+ options, including 12G are available.

Ki Pro Ultra 12G is also a multi-channel Apple ProRes® recorder offering up to 4-Channels of simultaneous HD recording, with Multi-Matrix monitoring of all incoming signals. Designed to be either portable or rackmountable with half rack wide, 2RU high dimensions, Ki Pro Ultra 12G is well suited for use in any environment.

<https://www.aja.com/products/ki-pro-ultra-12g>



## 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 4x 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)\*\*
  - Avid DNxHR HQX up to 4K/30 fps
  - Avid DNxHR SQ up to 4K/30 fps
  - Avid DNxHR LB up to 4K/30 fps
- 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

- 2x slots, AJA SSD media Pak 2000, Pak 1000, Pak 512, Pak 256

## File System Support

- HFS+, exFAT

## Video Input Digital

- 1x 12G-SDI, SMPTE-292/372/424/2081/2082
- 3x 3G-SDI, SMPTE-292/372/424
- 1x Fiber or HD-BNC 12G-SDI, SMPTE-297 (optional SFP modules)
- 3x Fiber or HD-BNC, 3G-SDI, SMPTE-297 (optional SFP modules)
- 4K/UltraHD 4:2:2 10bit & 4:4:4 10/12bit (BNC or Fiber)
- Dual Link 4:2:2 10bit & 4:4:4 10/12bit (BNC or Fiber)
- Single Link 4:2:2 10bit & 4:4:4 10/12bit (BNC or Fiber)

- 1x HDMI standard type A connector
- HDMI v2.0
  - 4:4:4 RGB 8/10/12-bit (deep color)
  - 4:2:2 YCbCr 8/10/12-bit
  - 4:2:0 YCbCr 8-bit

## Video Output Digital

- 1x 12G-SDI, SMPTE-292/372/424/2081/2082
- 3x 3G-SDI, SMPTE-292/372/424
- 1x Fiber or HD-BNC 12G-SDI, SMPTE-297 (optional SFP modules)
- 3x Fiber or HD-BNC, 3G-SDI, SMPTE-297 (optional SFP modules)
- 4K/UltraHD 4:2:2 10bit & 4:4:4 10/12bit (BNC or Fiber)
- Dual Link 4:2:2 10bit & 4:4:4 10/12bit (BNC or Fiber)
- Single Link 4:2:2 10bit & 4:4:4 10/12bit (BNC or Fiber)
- 1x HDMI standard type A connector
- HDMI v2.0
  - 4:4:4 RGB 8/10/12-bit (deep color)
  - 4:2:2 YCbCr 8/10/12-bit
  - 4:2:0 YCbCr 8-bit

## 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 (1x DB-25 TASCAM pinout)

## Audio Input Analog

- 8-channel, mappable, 24-bit A/D analog audio, 48 kHz sample rate (1x 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 (1x DB-25 TASCAM pinout)

## Audio Output Analog

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

## Recording Mode

- Multi-channel HD Apple ProRes recording (Pak 2000, Pak 1000, Pak 512 (R1 and above), Pak 256 (R1 and above))
- 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 (1x BNC)
- LTC output (1x BNC)
- TC Super Out

## Reference Input

- External, 2x BNC
- Looping, nonterminating
- Blackburst or tri-level sync
  - 720p 59.94
  - 720p 50
  - 1080i 59.94
  - 1080i 50
  - 1080p 23.98
  - 1080PsF 23.98
  - 1080p 24
  - 1080PsF 24
  - 1080p 25
  - 1080PsF 25
  - 1080p 29.97
  - 1080PsF 29.97
- (SD) Analog composite
  - 525i 59.94
  - 625i 50

## Network Interface

- 1x LAN connector (RJ-45 connector, 10/100/1000)
- Embedded web server for remote control
- Configuration and Transport Control via Web Interface
- Video Confidence Monitor via Web Interface
- Clip upload/download via Web Interface in DATA-LAN mode
- Remote control via REST

## Machine Control

- RS-422, 1x DB-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 1280x720 TFT LCD display with Video Monitor and Menu/Status Overlays

## Closed Captioning Support

- CEA-708, CEA-608

## Size (w x d x h)

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

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