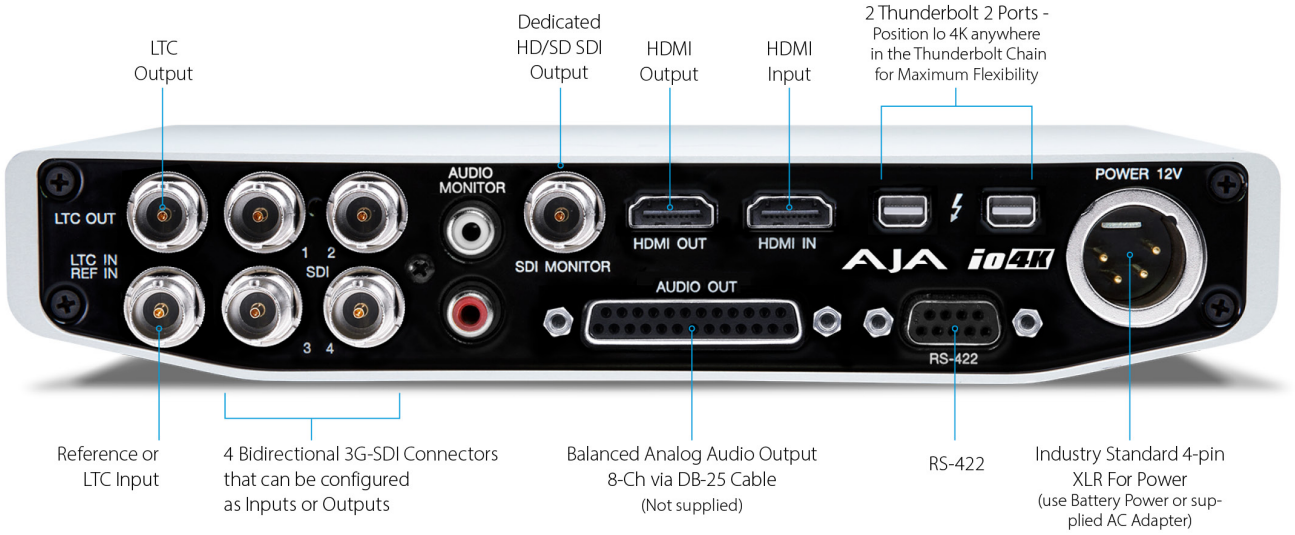
Io 4K

Io 4K is the next evolution of capture and output hardware offering a full set of professional video and audio connectivity with support for the latest 4K and UltraHD devices and High Frame Rate workflows. The power of Thunderbolt 2 enables Io 4K to handle a wide range of formats from SD to HD, UltraHD and full 4K over both 3G-SDI and HDMI and support 4K frame rates up to 60p, plus HDR 10 and HLG support over HDMI for emerging HDR workflows.

$ US MSRP

https://static.aja.com/products/io-4k



Video Formats

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

- (HD) 1080p 23.98, 24, 25, 29.97, 30, 50, 59.94, 60
- (HD) 720p 50, 59.94, 60
- (SD) 625i 50
- (SD) 525i 59.94

Note: High Frame Rate support is dependent on Thunderbolt speed. Not all systems will support all frame rates. Also HDMI I/O is limited to 4K/UltraHD p30 maximum.

Video Input Digital

- 3G-SDI, SMPTE 425
  - RGB 4:4:4 12-bit*, YCbCr 4:2:2 10-bit
- 1.5G-SDI, SMPTE 292M
  - Single Link HD-SDI YCbCr 4:2:2 10-bit
  - Dual Link RGB 4:4:4 12-bit*, Dual Link YCbCr 4:2:2 10-bit
- 270 Mbps SDI, SMPTE 259M-C
  - YCbCr 4:2:2 10-bit, 8-bit

*Bit depth support is application dependent. Check with your software manufacturer for compatibility.

Video Output Digital

- 3G-SDI, SMPTE 425
  - RGB 4:4:4 12-bit*, YCbCr 4:2:2 10-bit
  - 2K HSDL (High Speed Data Link) 4:4:4 (2x BNC)
- 1.5G-SDI, SMPTE 292M
  - Single Link HD-SDI YCbCr 4:2:2 10-bit
  - Dual Link RGB 4:4:4 12-bit*, Dual Link YCbCr 4:2:2 10-bit
- 270 Mbps SDI, SMPTE 259M-C
  - YCbCr 4:2:2 10-bit, 8-bit
- HDMI v1.4b
  - 30/36-bits/pixel, RGB or YUV, 2.25 Gbps
  - 2K, HD, and SD, UltraHD with HFR support up to 60p 4:2:0

*Bit depth support is application dependent. Check with your software manufacturer for compatibility.

HDR

- SDI: VPID signaling for SDR/HDR Transfer Characteristics, Colorimetry and Luminance
- HDMI: HDR10 Support - HDR Infoframe metadata, compatible with HDMI 2.0a/CTA-861.3
- HDMI: HLG Support - compatible with HDMI 2.0b/CTA-861-G

Note: HDR support is application dependent. Check with your software manufacturer for compatibility.

Audio Inputs Digital

- 16-channel, 16 and 24-bit SDI embedded audio, 48 kHz sample rate, synchronous
- 8-channel, 16 and 24-bit HDMI embedded audio, 48 kHz sample rate, synchronous

Audio Outputs Digital

- 16-channel, 16 and 24-bit SDI embedded audio, 48 kHz sample rate, synchronous
- 8-channel, 16 and 24-bit HDMI embedded audio, 48 kHz sample rate, synchronous

Audio Outputs Analog

- 8-channel, 16 and 24-bit D/A analog audio, 48 kHz sample rate, balanced, using industry standard 8 x XLR on DB-25 breakout cable (Breakout cable not included)
- +24 dBu full scale digital (0 dBFS)
- +/- 0.2 dB 20 to 20 kHz frequency response

Downstream Keyer

- Supports graphics up to 2K/HD with alpha channel over video, matte or framebuffer, or framebuffer content over incoming video or matte

Down-Conversion

- Real time, dedicated 4K down-conversion output (1x BNC)
- 4K to 2K down-conversion
- UltraHD to HD down-conversion

Reference and LTC I/O

- 1x BNC LTC output
- 1x BNC assignable to Reference video or LTC input

Reference

- Analog Color Black (1V) or Composite Sync (2 or 4V)
- Nonterminating

Electrical Interface

- Thunderbolt 2 (2x)

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

Size (w x d x h)

- 8.74" x 7.09" x 1.65" (222.0 x 180.09 x 41.91 mm)

Weight

- 3.1 lbs (1.5 kg)

Power

- 10-20V, 23W typical, 28W max

Environment

- Safe Operating Temperature Range: 0 to 35 C (32 to 95 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)