



# 4K2HD

AJA's 4K2HD down-converts professional SDI 4K/UltraHD signals to HD resolution using AJA's high quality scaling for cost effective monitoring and conversion. 4K2HD's HD-SDI and HDMI outputs are both live all the time, producing fantastic looking HD images for on-set monitoring or direct-to-air broadcast. The 4K2HD supports automatic or configurable HDR metadata generation for the SDI output VPID and HDMI output HDR infoframe.

**\$909 US MSRP**

4K2HD supports high frame rate (HFR) 4K inputs at 50 and 60fps and gets converted to HD outputs at 50 and 60fps for accurate viewing. 4K2HD's configuration options can extract an HD resolution image from the 4K input to provide a one-to-one pixel image for 4K focus checks on HD displays. Configuration can be set remotely via AJA Mini-Config software control over USB.

<https://www.aja.com/products/4k2hd>

## Video Formats

- (4K) 4096 x 2160p
- (4K) 4096 x 2160PsF
- (UltraHD) 3840 x 2160p
- (UltraHD) 3840 x 2160PsF
- (2K) 2048 x 1080p
- (2K) 2048 x 1080PsF
- (HD) 1920 x 1080p
- (HD) 1920 x 1080PsF
- (HD) 1920 x 1080i
- (HD) 1280 x 720p
- (SD) 720 x 576i
- (SD) 720 x 480i

**Note:** Raster and Frame Rate dependent, please see 4K2HD Video Formats in Documents and Manual.

## Video Input Digital

- 4x 3G-SDI BNC, SMPTE-259/292/424
  - YCbCr 4:2:2/4:4:4
  - RGB 4:4:4, SMPTE or Full level
  - 10 or 12-bit
  - Two Sample Interleave (2SI) or Square Division (Quadrant) input mapping
- 4x 3 Gb SDI (Level A or B Dual Link)
  - (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, 30
  - (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, 30
- 4x 1.5 Gb SDI
  - (4K) 4096 x 2160p 23.98, 24, 25, 29.97, 30
  - (4K) 4096 x 2160PsF 23.98, 24, 25, 29.97, 30
  - (UltraHD) 3840 x 2160p 23.98, 24, 25, 29.97, 30

- (UltraHD) 3840 x 2160PsF 23.98, 24, 25, 29.97, 30
- 2x 3 Gb SDI (Level B Dual Stream)
  - (4K) 4096 x 2160p 23.98, 24, 25, 29.97, 30
  - (4K) 4096 x 2160PsF 23.98, 24, 25, 29.97, 30
  - (UltraHD) 3840 x 2160p 23.98, 24, 25, 29.97, 30
  - (UltraHD) 3840 x 2160PsF 23.98, 24, 25, 29.97, 30
- 1x 3 Gb SDI (Level A or B Dual Link)
  - (2K) 2048 x 1080p 23.98, 24, 25, 29.97, 30, 50, 59.94, 60
  - (2K) 2048 x 1080PsF 23.98, 24, 25, 29.97, 30
  - (HD) 1920 x 1080p 23.98, 24, 25, 29.97, 30, 50, 59.94, 60
  - (HD) 1920 x 1080PsF 23.98, 24, 25, 29.97, 30
  - (HD) 1920 x 1080i 50, 59.94, 60
  - (HD) 1280 x 720p\*\* 50, 59.94, 60
- 2x 1.5 Gb SDI (Dual Link HD-SDI), SMPTE-372
  - (2K) 2048 x 1080p 23.98, 24, 25, 29.97, 30, 50, 59.94, 60
  - (HD) 1920 x 1080p 23.98, 24, 25, 29.97, 30, 50, 59.94, 60
- 1x 1.5 Gb SDI
  - (2K) 2048 x 1080p 23.98, 24, 25, 29.97, 30
  - (2K) 2048 x 1080PsF 23.98, 24, 25, 29.97, 30
  - (HD) 1920 x 1080p 23.98, 24, 25, 29.97, 30
  - (HD) 1920 x 1080PsF 23.98, 24, 25, 29.97, 30
  - (HD) 1920 x 1080i 50, 59.94, 60
  - (HD) 1280 x 720p 50, 59.94, 60
- 1x 270 Mb SDI
  - (SD) 625i 50
  - (SD) 525i 59.94

\*PsF is Level B Dual Link

\*\*1280 x 720p is Level A Only

## Video Output Digital

- 1x 3G-SDI BNC, SMPTE-259/292/424
  - Color space and sampling match input signal
  - HDR VPID pass-through or override for Colorimetry and Transfer

#### Characteristic

- 1x 3 Gb SDI (Level A or B Dual Link)
  - (2K) 2048 x 1080p 23.98, 24, 25, 29.97, 30, 50, 59.94, 60
  - (2K) 2048 x 1080PsF 23.98, 24, 25, 29.97, 30
  - (HD) 1920 x 1080p 23.98, 24, 25, 29.97, 30, 50, 59.94, 60
  - (HD) 1920 x 1080PsF 23.98, 24, 25, 29.97, 30
  - (HD) 1920 x 1080i 50, 59.94, 60
  - (HD) 1280 x 720p\* 50, 59.94, 60
- 1x 1.5 Gb SDI
  - (2K) 2048 x 1080p 23.98, 24, 25, 29.97, 30
  - (2K) 2048 x 1080PsF 23.98, 24, 25, 29.97, 30
  - (HD) 1920 x 1080p 23.98, 24, 25, 29.97, 30
  - (HD) 1920 x 1080PsF 23.98, 24, 25, 29.97, 30
  - (HD) 1920 x 1080i 50, 59.94, 60
  - (HD) 1280 x 720p 50, 59.94, 60
- 1x 270 Mb SDI
  - (SD) 625i 50
  - (SD) 525i 59.94
- 1x HDMI Type A connector, HDMI v1.4
  - YCbCr 4:2:2/4:4:4
  - RGB 4:4:4, SMPTE or Full level
  - 8 or 10-bit (4:4:4 limited to 8 bit)
  - HDR infotone generation with pass-through or override for Colorimetry and Transfer Characteristic
  - (2K) 2048 x 1080p 23.98, 24, 25, 29.97, 30, 50, 59.94, 60
  - (HD) 1920 x 1080p 23.98, 24, 25, 29.97, 30, 50, 59.94, 60
  - (HD) 1920 x 1080i 50, 59.94, 60
  - (HD) 1280 x 720p 50, 59.94, 60
  - (SD) 720 x 576i 50
  - (SD) 720 x 480i 59.94

\*1280 x 720p is Level A Only

## Audio Input Digital

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- SDI embedded audio, 24-bit, 16-channel

## Audio Output Digital

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- SDI embedded audio, 24-bit, 8-channel
- HDMI embedded audio, 24-bit, 8-channel

## User Interface

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- USB port used with supplied cable and Mini-Config software application to configure device via Mac or Windows

## Size (w x d x h)

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- 5.76" x 4.02" x 0.90" (146.31 x 102.11 x 22.86 mm)

## Weight

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- 0.6 lb (0.3 kg)

## Power

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- 5-20VDC regulated, 11 watts, power supply required, included with purchase
- AC Adapter: 100-240VAC, 50/60 Hz, universal input power

## Environment

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- 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)