



# HA5-4K

AJA's HA5-4K Mini-Converter provides high-quality conversion of HDMI to 4K SDI with 4 x 3G SDI outputs. HA5-4K allows conversion of HDMI video from DSLRs, mirrorless cameras, action cameras, or prosumer 4K video cameras to 4K SDI for use in professional workflows. HA5-4K is also capable of analyzing HDR inframe data coming in over HDMI when used with AJA Mini-Config software.

**\$835 US MSRP**

<https://www.aja.com/products/ha5-4k>

## Video Formats

- (4K) 4096x2160p
- (UltraHD) 3840x2160p
- (2K) 2048x1080p
- (HD) 1920x1080p
- (HD) 1920x1080i
- (HD) 1280x720p
- (SD) 720x576p
- (SD) 720x576i
- (SD) 720x480p
- (SD) 720x480i

**Note:** Raster and Frame Rate Dependent, please see HA5-4K Video Formats in the Download / Documents section of the website product page.

## Video Input Digital

- 1x HDMI Type A connector, HDMI v2.0b
  - HDR Inframe decoder as defined in CTA-861.3 and HDMI v2.0b
  - HDR VPID generation with pass-through or override for Colorimetry and Transfer Characteristic
  - YCbCr 4:2:2/4:4:4/4:2:0
  - RGB 4:4:4, SMPTE or Full level
  - 24, 30, or 36 Bits Per Pixel (HFR 4K/UltraHD 4:4:4 limited to 24 BPP)
  - (4K) 4096x2160p 23.98, 24, 25, 29.97, 30, 47.95, 48, 50, 59.94, 60
  - (UltraHD) 3840x2160p 23.98, 24, 25, 29.97, 30, 50, 59.94, 60
  - (2K) 2048x1080p 23.98, 24, 25, 29.97, 30, 47.95, 48, 50, 59.94, 60
  - (HD) 1920x1080p 23.98, 24, 25, 29.97, 30, 50, 59.94, 60
  - (HD) 1920x1080i 50, 59.94, 60
  - (HD) 1280x720p 50, 59.94, 60
  - (SD) 720x576p 50
  - (SD) 720x576i 50
  - (SD) 720x480p 59.94
  - (SD) 720x480i 59.94

## HDCP Decryption

- Not supported. By definition, SDI outputs are unencrypted.

## Video Output 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-bit
  - Two Sample Interleave (2SI) or Square Division (Quadrant) pixel mapping
- 4x 3 Gb SDI (Level A or B Dual Link)
  - (4K) 4096x2160p 23.98, 24, 25, 29.97, 30, 47.95, 48, 50, 59.94, 60
  - (UltraHD) 3840x2160p 23.98, 24, 25, 29.97, 30, 50, 59.94, 60
- 4x 1.5 Gb SDI
  - (4K) 4096x2160p 23.98, 24, 25, 29.97, 30
  - (UltraHD) 3840x2160p 23.98, 24, 25, 29.97, 30
- 2x 3 Gb SDI (Level B Dual Stream)
  - (4K) 4096x2160p 23.98, 24, 25, 29.97, 30
  - (UltraHD) 3840x2160p 23.98, 24, 25, 29.97, 30
- 2x 1.5 Gb SDI (Dual Link HD-SDI), SMPTE-372
  - (HD) 1920x1080p 50, 59.94, 60
- 1x 3 Gb SDI (Level A or B Dual Link)
  - (2K) 2048x1080p 23.98, 24, 25, 29.97, 30, 47.95, 48, 50, 59.94, 60
  - (2K) 2048x1080PsF 23.98, 24, 25, 29.97, 30
  - (HD) 1920x1080p 23.98, 24, 25, 29.97, 30, 50, 59.94, 60
  - (HD) 1920x1080PsF 23.98, 24, 25, 29.97, 30
  - (HD) 1920x1080i 50, 59.94, 60
  - (HD) 1280x720p\*\* 50, 59.94, 60
- 1x 1.5 Gb SDI
  - (2K) 2048x1080p 23.98, 24, 25, 29.97, 30
  - (2K) 2048x1080PsF 23.98, 24, 25, 29.97, 30
  - (HD) 1920x1080p 23.98, 24, 25, 29.97, 30
  - (HD) 1920x1080PsF 23.98, 24, 25, 29.97, 30
  - (HD) 1920x1080i 50, 59.94, 60
  - (HD) 1280x720p 50, 59.94, 60
- 1x 270 Mb SDI
  - (SD) 625i 50
  - (SD) 525i 59.94

\*PsF is Level B Dual Link

\*\*1280x720p is Level A Only

## Audio Pass-Through Formats

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- PCM
- Dolby Digital (AC-3)
- Dolby Digital Plus (E-AC-3), including Atmos Immersive Sound (JOC)

## Audio Input Digital

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

## Audio Output Digital

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- SDI embedded audio, 24-bit (SD limited to 20-bit), 16-channel

## User Interface

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- USB port used with supplied cable and Mini-Config software application to configure the 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, 10 watts, power supply required, included with purchase
- AC Adapter: 100-240VAC, 50/60 Hz, universal input

## 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)

\*HA5-4K uses approximately 10 watts of power and convection cooling. It will be warm to the touch, which is normal. When installing the unit, mount in a location where it has access to air for proper cooling. Do not stack the HA5-4K with other Mini-Converters.