KONA IP

KONA IP brings all of the expertise, power, quality and reliability behind the KONA product line, to the world of Video over IP for 4K/UltraHD and 2K/HD workflows.

$2,495 US MSRP

KONA IP offers a tremendously flexible video and audio I/O platform with support for up to 4K/UltraHD with SMPTE ST 2110, support for up to 2K/HD with 2022-6, the ability to take advantage of 2022-7 redundancy for high availability architectures, and an option for compressed TR-01 JPEG 2000 workflows, KONA IP ensures you have all the tools you need to succeed as the prevalence of video over IP increases.

On the desktop, KONA IP seamlessly supports Apple® FCPX, Adobe® Premiere® Pro CC, Avid® Media Composer®, AJA Control Room and other leading editorial, effects and production tools. For creative users the experience of using favored applications remains unchanged, with some differences only in setting up for capture or output with the same AJA Control Panel creative users are used to.

For developers, the same AJA SDK used for SDI and HDMI devices is also used for KONA IP, meaning zero delay in writing applications and creating systems with this powerful PCIe capture and output card.

And for any critical/enterprise scale media production installations, the additional peace of mind that comes with a 3 year warranty, advance replacement and support via phone is standard with all KONA cards.

https://www.aja.com/products/kona-ip

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

*SMPTE ST 2110 only
**2SI over IP via ST 2110-23

Note: High Frame Rate capabilities are dependent on host system attributes. Not all systems and configurations will support all frame rates.

Media Transport Interfaces

- SMPTE ST 2110 (-10, -20, -21, -23, -30, -40), 2022-6, 2022-7
  - 2x SFP+ Cages - SFPs not included
- Recommended 10GigE SFP+ modules:
  - Arista Networks SFP-10G-SR Compatible 10GBASE-SR
  - Fiberstore SFP-10GSR-85 10G SFP+ 850nm

- ○ Finisar FTLX1471D3BCL (for single mode 1310nm)
- ○ Mellanox MFM1T02A-SR 850nm 10G
- TR-01 compliant JPEG 2000 Workflows*
  - ○ 1x SFP+ Cage - SFP not included
- Recommended 1 GigE SFP modules:
  - ○ Aruba Networks SFP-TX Compatible 1000Base-T SFP Copper RJ-45 100m Transceiver - NETCNA
  - ○ 10Gtek Cisco Compatible GLC-T/ SFP-GE-T Gigabit RJ-45 Copper SFP Transceiver Module, 1000Base-T
  - ○ Fiberstore SFP-GB-GE-T

*Optional Purchase

Video Input IP

- SMPTE ST 2110, 2022-6, 2022-7
  - ○ Single channel* input available when using ST 2110 or ST 2022-6 to receive 2K/HD
  - ○ 4-channels input available when using ST 2110-23 to receive 4K/HD
  - ○ ANC support
  - ○ Rx support for Narrow, Gapped or Linear Modes**
- TR-01 compliant JPEG 2000*** encoded within an MPEG-2 transport stream
  - ○ HD video over 1 GigE
  - ○ Single channel* output

*Capture and simultaneous monitoring is supported up to 2K/HD
**SMPTE ST 2110 only
***Optional Purchase

Video Output IP

- SMPTE ST 2110, 2022-6, 2022-7
  - ○ Single channel* output available when using ST 2110 or ST 2022-6 to transmit 2K/HD
  - ○ 4-Channels output available when using ST 2110-23 to transmit 4K/HD
  - ○ ANC support
  - ○ Tx support for Narrow, Gapped Mode**
- TR-01 compliant JPEG 2000*** encoded within an MPEG-2 transport stream
  - ○ HD video over 1 GigE
  - ○ Single channel* output

*Capture and simultaneous monitoring is supported up to 2K/HD
**SMPTE ST 2110 only
***Optional Purchase

Video Output Digital

- HDMI v1.4b
  - ○ 30/36-bits/pixel, RGB or YUV, 2.25 Gbps
  - ○ 4K/UltraHD, 2K/HD and SD
  - ○ 2K/HD downsample available when working with 4K/UltraHD via ST 2110-23
  - ○ HDR10 Support* - HDR Inoframe metadata, in accordance with HDMI 2.0a/CTA-861.3
  - ○ HLG Support* - in accordance with HDMI 2.0b/CTA-861-G

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

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

Audio Input IP

- Up to 16-channel embedded audio, 24-bit per channel, 48 kHz synchronous

Audio Output IP

- Up to 16-channel embedded audio, 24-bit per channel, 48 kHz synchronous

Audio Output Digital

- 8-channel HDMI embedded audio, 48 kHz sample rate, synchronous

Downstream Keyer

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

Reference and LTC I/O

- 1x BNC assignable to reference video or LTC input

Reference

- Analog Color Black (1V) or Composite Sync (2 or 4V) or HD Tri-Level Sync (1V)
- Reference input is terminated into 75 ohms when Genlock is set to Ref In
- Applicable in SMPTE ST 2022-6/7 environments

Discovery, Registration and Control

- NMOS Tx/Rx support for SMPTE ST 2110 according to standards IS-04 v1.2 and IS-05 v1.0
- Applicable in SMPTE ST 2110 environments

IP Clock

- PTP support compliant with PTP PTPv2 / IEEE 1588-2008
- Applicable in SMPTE ST 2110 environments

Electrical Interface

- 8-lane PCIe 2.0

Size (w x d x h)

- 0.75" x 8.25" x 5.0" (19.05 x 209.55 x 127.00 mm)

Weight

- 0.7 lb (0.4 kg)

Power

- 25W typical, 27W maximum

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)