

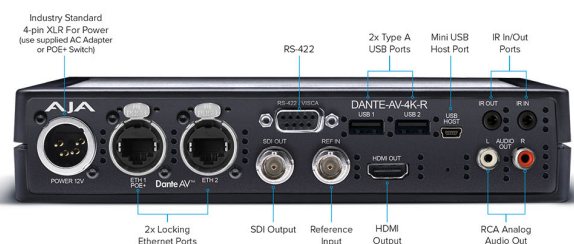
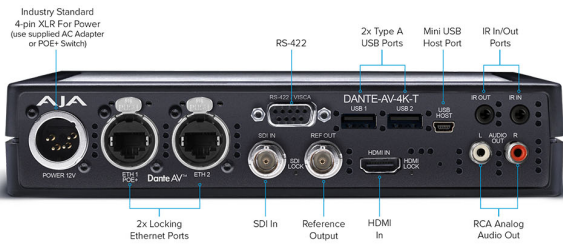


# Dante AV 4K

The AJA Dante AV 4K-T and Dante AV 4K-R utilize the revolutionary new Dante AV Ultra solution for standard 1 GigE networks, to easily add networked video to the industry leading Dante audio-over-IP platform. The Dante 4K-T transmitter will convert up to 4K/UltraHD 12G-SDI and HDMI 2.0 to Dante AV Ultra signals, and the Dante 4K-R receiver will convert Dante AV Ultra signals up to 4K/UltraHD 12G-SDI and HDMI 2.0. Dante AV provides ease-of-use, seamless multi-vendor interoperability, and integrated control experience that customers have come to expect from AJA Video and Dante by Audinate.

**\$2495 US MSRP**

<https://www.aja.com/products/dante-av-ultra>



## Video Formats

- (4K) 4096x2160p
- (UltraHD) 3840x2160p
- (2K) 2048x1080p
- (HD) 1920x1080p
- (HD) 1280x720p

- (SXGA) 1280x1024
- (XGA) 1024x768
- (SVGA) 800x600
- (VGA) 640x480

**Note:** VESA Formats are always RGB 4:4:4 60 8-bit

## VESA Formats

- (WUXGA) 1920x1200
- (UXGA) 1600x1200

## Discovery, Registration, and Control

- Dante Controller Software from Audinate (Windows or Mac)
- Dante Ecosystem Friendly: Compatible with existing Dante-enabled products

## Media Transport Interfaces

- Network Interface: Standard 1 GigE Ethernet
- Audio Flow: Audio Flow x 8 Flows / 8-channels per Flow (unicast or multicast)
- Video Flow: Video Flow x 1 Flow / 1-channel per Flow (unicast or multicast)
- Timestamp: Hardware timestamping, supporting sample accurate playback

## Video Input Digital (4K-T)

- 1x 12G-SDI BNC, SMPTE 292 (1.5Gb/s), 424, 425-A(3Gb/s), 2081, 2082, 352 SDI Metadata Supported
  - YCbCr 4:2:2
  - 10-bit
  - Two Sample Interleave (2SI) 4K/UltraHD source mapping
- 1x 12G SDI
  - (4K) 4096x2160p 50, 59.94, 60
  - (UltraHD) 3840x2160p 50, 59.94, 60
- 1x 6G SDI
  - (4K) 4096x2160p 23.98, 24, 25, 29.97, 30
  - (UltraHD) 3840x2160p 23.98, 24, 25, 29.97, 30
- 1x 3G-SDI (Level A)
  - (2K) 2048x1080p 50, 59.94, 60
  - (HD) 1920x1080p 50, 59.94, 60
- 1x 1.5G-SDI
  - (2K) 2048x1080p 23.98, 24, 25, 29.97, 30
  - (HD) 1280x720p 50, 59.94, 60
- 1x HDMI Type A connector, HDMI v2.0
  - YCbCr 4:4:4, 4:2:2
  - RGB 4:4:4, SMPTE, or Full RGB
  - 8, 10, 12-bit (4K/UltraHD 4:4:4 limited to 8-bit)
  - (4K) 4096x2160p 23.98, 24, 25, 29.97, 30, 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, 50, 59.94, 60
  - (HD) 1920x1080p 23.98, 24, 25, 29.97, 30, 50, 59.94, 60
  - (HD) 1280x720p 50, 59.94, 60
  - (WUXGA) 1920x1200
  - (UXGA) 1600x1200
  - (SXGA) 1280x1024
  - (XGA) 1024x768
  - (SVGA) 800x600
  - (VGA) 640x480

**Note:** VESA Formats are always RGB 4:4:4 60 8-bit

## Video Output Digital (4K-R)

- 1x 12G-SDI BNC, SMPTE 292 (1.5Gb/s), 424, 425-A(3Gb/s), 2081, 2082, 352 SDI Metadata Supported
  - YCbCr 4:2:2
  - 10-bit
  - Two Sample Interleave (2SI) 4K/UltraHD source mapping
- 1x 12G SDI
  - (4K) 4096x2160p 50, 59.94, 60
  - (UltraHD) 3840x2160p 50, 59.94, 60
- 1x 6G SDI
  - (4K) 4096x2160p 23.98, 24, 25, 29.97, 30
  - (UltraHD) 3840x2160p 23.98, 24, 25, 29.97, 30
- 1x 3G-SDI (Level A)
  - (HD) 1920x1080p 50, 59.94, 60
- 1x 1.5G-SDI
  - (HD) 1920x1080p 23.98, 24, 25, 29.97, 30
  - (HD) 1280x720p 50, 59.94, 60

- 1x HDMI Type A connector, HDMI v2.0\*
  - YCbCr 4:4:4, 4:2:2, SMPTE, or Full RGB
  - 8, 10, 12-bit (4K/UltraHD 4:4:4 limited to 8-bit)
  - (4K) 4096x2160p 23.98, 24, 25, 29.97, 30, 50, 59.94, 60
  - (UltraHD) 3840x2160p 23.98, 24, 25, 29.97, 30, 50, 59.94, 60
  - (HD) 1920x1080p 23.98, 24, 25, 29.97, 30, 50, 59.94, 60
  - (HD) 1280x720p 50, 59.94, 60
  - (WUXGA) 1920x1200
  - (UXGA) 1600x1200
  - (SXGA) 1280x1024
  - (XGA) 1024x768
  - (SVGA) 800x600
  - (VGA) 640x480

### Notes:

1. VESA Formats are always RGB 4:4:4 60 8-bit
  2. Only one input can be used at a time. Unit will auto-detect source, or user can select input in software if both SDI & HDMI inputs are connected.
- \*If a connected monitor doesn't support HDMI protocol, the unit automatically switches to DVI protocol (which does not pass audio).

## Audio Input Digital (4K-T) & Audio Output Digital (4K-R)

- SDI embedded audio, 24-bit, 8-channel, 48 kHz PCM24
- HDMI embedded audio, 24-bit, 8-channel, 48 kHz PCM24

## Audio Output Analog

- 2x RCA analog audio
  - Levels at -10 dBu (nominal)

## IP Video Input (4K-R) & IP Video Output (4K-T)

- Dante AV Ultra
  - Single video channel

## IP Audio Input (4K-R) & IP Audio Output (4K-T)

- Dante Audio
  - Up to 8-channel audio, 24-bit per channel, 48 kHz PCM24
  - High quality, low jitter with onboard clock generator for audio
  - SRC Conversion Range: 1:8 to 8:1
  - ASRC Latency: 80 samples (1.6ms 48 kHz)

## Reference

- 1x BNC
  - (4K-T) Reference Out connector (For future use)
  - (4K-R) Reference Input connector (For future use)

## Codec

- Video Codec: Optimized implementation of JPEG 2000 codec in FPGA, Licensed By IntoPIX; Dante API management interface
- Video Resolutions and Color Depth:
  - SDI: Up to 4096x2160 60p; YCbCr 4:2:2 10-bit
  - HDMI: Up to 4096x2160 60p; RGB 4:4:4 8-bit, YCbCr 4:4:4 8-bit, YCbCr 4:2:2 8, 10, 12-bit
- Audio Formats: Dante Audio over IP
- Bit Rates: Up to 700 Mbps
- Video Streaming: Unicast or Multicast
- Copy Protection: HDCP 2.2, HDCP 2.3 for network
- Latency: 0.5 frame (e.g., 2160p 60 Hz latency is < 8 ms between

encoder and decoder), overall latency may increase depending on network configurations

- Bandwidth 1: 4Kp60 10-bit 4:2:2; 500-600Mbps, results may vary depending on network configuration and management settings
- Bandwidth 2: 1080p60 10-bit 4:2:2; 150-250Mbps, results may vary depending on network configuration and management settings

## Hardware Interface

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- 1x Neutrik etherCon RJ45 Connector – 1 GigE (Dante AV & POE+)
- 1x Neutrik etherCon RJ45 Connector – 1 GigE (For future use)
- 1x DB-9 RS-422/ VISCA Serial Port
- 2x USB 2.0 Type A Connector
- 1x USB 2.0 Mini-B Host connector
- 3.5mm IR Tx jack for IR over IP
- 3.5mm IR Rx jack for IR over IP
- Front LED Indicators: Power, Codec, System, Status, Sync, & HDCP

## Size (W x D x H)

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

## Weight

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- 3.1 lbs (1.5 kg)

## Power

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- 30 Watts Maximum; 12V DC IN has priority over Ethernet 1 POE+. Ethernet 1 POE+ will become active a fraction of a second after 12V DC IN is disconnected.

## 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)