

AJA Dante AV 4K-T and 4K-R Release Notes - v.1.1

Firmware Dante AV 4K-T and 4K-R

Introduction

AJA Dante AV 4K-T and Dante AV 4K-R facilitates the highest quality conversion between 12G-SDI/HDMI 2.0 up to 4K/UltraHD to and from Dante AV IP video streams utilizing the Dante AV Ultra JPEG 2000 codec. For detailed installation and configuration instructions please refer to the AJA website for the latest version of your Dante AV 4K-T and Dante AV 4K-R manual. AJA Dante AV 4K-T and 4K-R v.1.1 firmware update includes new software and hardware capabilities as well as other maintenance items. We recommend all users to update to this latest firmware version.

Be sure to consult the Installation and Operation Guide (user manual) for detailed information about features and configuration guidelines. The most current documentation can always be found on the [DANTE AV 4K-T and 4K-R Support Page](#).

Features, Updates and Improvements in v.1.1

- Support added for Audinate Dante Domain Manager.
- Support added for some HDR workflows.
- Support added for Ref-In (4K-R/Broadcast only) from external sync devices like the AJA GEN10.
- Support added for the second locking ethernet port, Eth2.
- Support added for 3G Level B 4:2:2 10-bit high frame rates.
- Cropping and scale resizing added to 4K-R which allows 4K to be cropped to UHD, 2K cropped to HD, and UHD to be downscaled to HD.
- Validation of some 4x4 workflows (4K and 8K) where four 4K-Ts can be sent to four 4K-Rs and all four outputs are confirmed to be in time and in sync.
- Resolves an issue where Dante AV 4K-R units pre-subscribed to UHD 24, 25, 29.97 on power-up may output bad video on some monitors. Changing the signal to HD and then back to the desired UHD source will resolve the issue.
- Resolves an issue where USB HID devices were not being detected at boot time which required them to be unplugged and replugged in to work.
- Resolves an issue where aliasing appears in HDMI output using low frame rate UHD and 4K sources.
- Resolves an issue where HDMI HDCP detection failed to be consistent with some devices.

- Resolves an issue where changing the subscription between one 4K-R unit and one 4K-T unit to another 4K-T unit, with matching signal formats, can cause the clock to drift which can corrupt the output.

Features, Updates and Improvements in Previous Releases

Version v1.0

- Transport up to 4K/UltraHD 60p 12G-SDI and HDMI video output with ultra-low latency and visually lossless quality for IMAG and a wide range of applications.
- Achieve visually stunning Dante AV Ultra video using a network-efficient, high-quality JPEG 2000 codec.
- Leverage more cost-efficient switches and existing network infrastructure via Dante AV compatibility with 1 GigE networks.
- Ensure fully time-aligned and separately routable audio and video streams.
- Compatibility with over 3500 existing Dante-enabled audio products.
- Unify audio and video control using Audinate Dante Controller on Windows and macOS.
- Access fully validated implementation of HDCP 2.2 over IP.
- Easily control remote devices via USB HID, serial, and Infrared transport and control (IR) over IP.
- Use POE+ (25W 802.3at PoE+) or DC power (12V 4a) pack.
- 12G-SDI and HDMI input (4K-T) and 12G-SDI and HDMI output (4K-R).
- KVM USB and IR ports for extensive KVM capabilities.
- Analog RCA audio monitor outputs.
- Harness an extensive range of connectivity, including:
 - 1x Neutrik etherCon RJ45 Connector – 1 GigE (Dante AV and POE+)
 - 1x Neutrik etherCon RJ45 Connector – 1 GigE (For future use)*
 - 1x 12G-SDI input (4K-T) or 1 x 12G-SDI output (4K-R): SDI: YCbCr 4:2:2 10-bit only
 - 1x HDMI 2.0 input (4K-T) or 1 x HDMI 2.0 output (4K-R) : HDMI: RGB, YCbCr, 4:4:4, 4:2:2, 8-bit, 10-bit and 12-bit
 - 8-channel embedded audio support, from SDI or HDMI input/output
 - BNC Ref output (4K-T) or BNC Ref input (4K-R) (For future use)
 - Power: 12VDC and POE (+) on Primary Ethernet port
 - 1x DB-9 RS-422/ VISCA Serial Port
 - 2x USB 2.0 Type A Connector
 - 1x USB-Mini Host connector
 - Front LED Indicators: Power, Codec, System, Status, Sync and HDCP
 - 3.5mm IR Tx and Rx jack for IR over IP
 - Complete EDID support
 - HDCP on board processing**
- AJA's 5-year warranty and world-class support.

** Secondary port should never be connected to the primary switch **SDI does not have output when the source video is HDCP content protected.*

Known Issues & Limitations

1. Compression settings are default at 250 Mbps. For multicast workflows, please set between 200-250 Mbps for HD and 350-500 Mbps for 4K/UHD for optimal performance. A managed switch with IGMP Snooping engaged can handle the recommended compression settings for every connection port on the switch. An unmanaged switch can only support a total of one gigabit per second worth of traffic across the entire switch. For complex system designs involving multiple switches, please contact your system integrator or IT specialist for advanced set-up preferences.
2. The Video Codestream Status will display how the signal will be changed by the JPEG 2000 codec. This may or may not match the exact bit depth or color subsampling that is output from the Transmitter's or Receiver's Codestream Status or Video Input or Output Status due to the expected behavior of the codec being applied to the passing of the video signal.
3. The “Force HDMI Input Format” can be used to match the resolution and frame rate of the input device to what you would like sent to the output device if the default “Auto” option is not successful. It is not intended to be used to convert the input device to a different resolution and frame rate.
4. Not all VESA formats are supported. Please see [Tech Specs](#) for a supported format list.
5. Dante AV Ultra, Dante AV-H, and Dante AV-A signals are not compatible with each other.
6. BNC Ref output (4K-T) currently not supported.
7. Dual Link SDI is not supported.

Technical Support

AJA Technical Support is free and available to help you answer questions or resolve issues with any of your AJA products.

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