



AV for the most demanding applications

Dante AV Ultra is an FPGA based solution that enables manufacturers to add networked video and audio to the industry-leading Dante platform.



Visually lossless up to 4Kp60 4:4:4 HDR video



True AV Synchronization



Subframe video latency



Fast, seamless switching between video sources



Video wall and Multiview capabilities

AV Ultra stands out as a pinnacle of AV-over-IP performance, ensuring optimal encoding for any graphical content while maintaining a visually lossless quality for both video and moving images. Capable of delivering resolutions up to 4Kp60 4:4:4 over 1GbE with sub frame latency, it guarantees a seamless and crisp viewing experience. Instant, smooth switching between sources, even of different resolutions or refresh rates, allows the network to act as a video switcher. Additionally, its true AV synchronization capabilities leverage PTP clock, ensuring precise timing, while also offering the flexibility to use Genlock to sync external sources and displays. Dante AV Ultra is a future-proofed solution tailored to meet evolving AV demands.



Applications

Dante AV Ultra is ideally suited for any real time or live interactive application where tight audio and video sync is required such as broadcast productions and live events.



HDMI AV encoders & decoders



SDI AV encoders & decoders



Cameras



SDM interface cards

Part of the Dante Family

Dante AV Ultra supports all the features that make Dante the world leader in networked media, and more: auto discovery of devices, label-based one-click routing of signals, and true plug-and-play operation. Enhanced security, user access control, and monitoring across multiple subnets is available with Dante Domain Manager or Dante Director. With thousands of Dante-enabled products available, Dante AV Ultra provides instant connectivity to the largest and most vibrant AV-over-IP platform.

Unprecedented Flexibility

Unlike traditional point-to-point technologies constrained by physical connections, networked AV offers unparalleled flexibility. AV-over-IP facilitates endless connections without requiring video distribution amplifiers and eliminates cable distance limitations. Additionally, Dante AV Ultra uniquely

separates video, audio, and ancillary channel streams, enabling independent routing to various Dante endpoints. This versatility removes the need for demuxing equipment streamlining operations and reducing costs.

Off the Shelf Solution

The Dante AV single chip solution harnesses the power of the Xilinx Zynq 7030 FPGA, allowing the creation of the highest quality Pro AV HDMI encoder and decoder endpoints or SDM interface cards. It features a single video channel capable of handling up to 4Kp60 4:4:4 HDR video, utilizing the Colibri codec and 8 unidirectional channels of Dante audio. Additionally, users benefit from USB HID, IR, and serial ancillary channels routable in Dante Controller. Further enhancing its utility, Dante AV Ultra supports features like video wall, basic multiview, and HDCP through an external IC, ensuring a robust and adaptable AV solution.

Specifications

Hardware

Xilinx ZYNQ 7030 FPGA

Video Codec

Colibri

Resolution Support

Up to 4Kp60 4:4:4

HDR10 & HLG

Video Latency

Sub frame

HDCP 1.x/2.x (with external IC) supported

Audio

8 unidirectional audio channels

Ancillary Channels

USB HID, Serial, IR

Network

Standard 1 Gbps