



Introducing Dante AV™

DANTE AUDIO AND VIDEO, TOGETHER AT LAST

Dante AV is a revolutionary new AV solution for standard 1 Gbps networks that allows manufacturers to add networked video to the industry-leading Dante audio-over-IP platform. It provides the ease-of-use, seamless multi-vendor interoperability, and integrated control experience that customers have come to expect from Dante.

Unprecedented Flexibility for Audio and Video

With Dante AV, audio and video channels are individually routable using familiar Dante Controller software, with no need for breakouts or matrix switches. Easily send audio channels to any of the 1600+ Dante-enabled products currently available while sending video to any number of Dante AV-enabled screens.

Audio and Video, Together at Last

Dante AV delivers Dante's sub-microsecond synchronization to video and audio, making time-alignment problems a thing of the past. A single network clock keeps the entire system in sync regardless of the number of endpoints, transporting audio and video with low, deterministic latency.

Built for Fast Time to Market

Dante AV includes two elements: The **Dante AV Module** which delivers Dante networking for up to 8 audio channels (transmit or receive) and 1 video channel (transmit or receive) plus a HDCP network encryption support, and the **Dante AV Product Design Suite**, which is a feature complete product design utilizing the Dante AV Module. It includes documentation, schematics and software for a JPEG2000 codec implementation, management software, and serial/USB/IR support over IP. The Dante AV Product Design Suite can be quickly customized and enhanced by manufacturers, reducing risk, cost of development, and time to market while allowing for competitive differentiation.

Bring Your Own Codec

Want to use your own design? The **Dante AV Module** is codec-agnostic, allowing manufacturers to utilize the 1 Gbps codec of their choice while getting all the benefits of the Dante's easy-to-use software and API for unified control of both audio and video. The Dante AV Module provides complete interoperability with Dante audio devices no matter what video codec is used.



FEATURES

- ▶ Complete turnkey solution for AV-over-IP products with the Dante AV Module and Dante AV Product Design Suite
- ▶ Audio and video streams completely time aligned and separately routable
- ▶ Instant compatibility with over 1600 existing Dante-enabled audio products
- ▶ Unified control of audio and video using familiar tools - Dante Controller and Dante Domain Manager
- ▶ Works with already installed, cost-effective 1Gbps network gear - no need to replace network infrastructure
- ▶ Dante AV Product Design Suite utilizes visually lossless, network-efficient JPEG2000 codec
- ▶ Dante AV Module is codec-agnostic, works with any 1 Gbps video codec
- ▶ Fully validated implementation of HDCP 2.2 over IP
- ▶ Complete Dante control API for integration with manufacturers' tools and user interfaces
- ▶ USB HID, serial, and IR over IP for easy control of remote devices

BENEFITS

- ▶ Rapid time-to-market with turnkey solution
- ▶ Solve problems of audio-video synchronization
- ▶ Easily route audio and video content to different endpoints
- ▶ Works on networks already installed today
- ▶ Eliminate problems of obtaining HDCP validation for products
- ▶ Easy interoperability between devices from different vendors
- ▶ Integrate Dante control into your own products, or use free Dante Controller



Dante AV™

DANTE AUDIO AND VIDEO, TOGETHER AT LAST

Build Powerful Products for Your Customers

The **Dante AV Module** and the **Dante AV Product Design Suite** allow manufacturers to create new AV-over-IP products quickly and reliably, leveraging the largest installed base of audio-over-IP products in the world. Dante's legendary ease-of-use and trusted control gives your customers the unified control of audio and video they have been waiting for with the flexibility they demand.

SPECIFICATIONS

DANTE AV MODULE

Hardware

- ▶ High performance, low cost Dante hardware implementation
- ▶ Codec agnostic
- ▶ Upgradeable over network
- ▶ Perfect audio and video synchronization
- ▶ 50 x 50 mm, 156 pin castellated module

Network

- ▶ Standard 1Gbps Ethernet
- ▶ Standard RGMII interface for Ethernet PHY or switch chip

Video Interface

- ▶ 1 channel 32-bit high speed parallel video interface
- ▶ Support for transmission or reception of video
- ▶ Built-in HDCP 2.3 encryption/decryption support

Audio

- ▶ 8 channels of Dante audio (transmit or receive)
- ▶ High-quality, low jitter on-board Silicon Labs clock generator
- ▶ 44.1, 48, 88.2, and 96 kHz sample rates (48 kHz only for HDCP content)
- ▶ TDM, I2S digital audio formats

Control

- ▶ Two UARTs
- ▶ Six GPIO pins
- ▶ I²C master interface
- ▶ SPI master and slave (with packet bridging support)

DANTE AV PRODUCT DESIGN SUITE

Hardware Design

- ▶ Complete set of manufacturing ready schematics with BOM
- ▶ Design supports both encode and decode functions
- ▶ Pre-scanned for regulatory and safety compliance

FPGA and Codec

- ▶ Optimized implementation of JPEG2000 codec in FPGA
- ▶ Up to 4K60 video encoding and decoding

Software Support

- ▶ Full Dante API support
- ▶ Support for HDMI management
- ▶ Support for fully validated HDCP management
- ▶ EDID management
- ▶ Serial/IR/USB HID/CEC over IP support



APPLICATIONS

- ▶ Create systems for multi-screen environments such as sports bars and corporate lobbies
- ▶ Deliver perfect lip-sync when doing live presentations with video, broadcast
- ▶ Deploy and manage video walls easily and at lower cost
- ▶ Simplify installation and use of conference rooms that combine video and audio media
- ▶ Install secure AV systems that are easy to use for volunteer-driven customers such as houses of worship and schools.

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