



# DANTE-12GAM

The DANTE-12GAM is a high-performance Audio over IP (AoIP) Converter, embedding and disembedding SDI audio to a Dante network and back to SDI from Dante audio. The DANTE-12GAM is a Dante audio embedder/disembedder equipped with 12G-SDI input and output and dual etherCON GigE ports, capable of simultaneously embedding and disembedding up to 16\* channels of audio in and out for a total of 32\* audio channels in a compact device.

**\$2295 Single Channel, \$2995 Dual Channel US MSRP**

\*up to 64 channels of audio with the dual channel option/upgrade.

<https://www.aja.com/products/dante-12gam>



## Video Formats

- (4K) 4096x2160p 23.98, 24, 25, 29.97, 30, 47.95, 48, 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, 47.95, 48, 50, 59.94, 60
- (2K) 2048x1080PsF 23.98, 24, 25, 29.97, 30
- (HD) 1920x1080p 23.98, 24, 25, 29.97, 30, 50, 59.94, 60
- (HD) 1920x1080PsF 23.98, 24, 25, 29.97, 30

- (HD) 1920x1080i 50, 59.94, 60
- (HD) 1280x720p 50, 59.94, 60
- RGB and YCbCr, 4:4:4/4:2:2, 10 or 12-bit

**Note:** Raster and frame rate dependent; please refer to DANTE-12GAM Video Formats in the Documents.

## Video Input Digital

- 1-channel independent 12G-SDI BNC connectors, SMPTE 292/424/2081/2082
  - Single Link HD/2K/UltraHD/4K

## Video Output Digital

- 1-channel independent 12G-SDI BNC connectors, SMPTE 292/424/2081/2082
  - Single Link HD/2K/UltraHD/4K

## Video Optical SFP Input/Output (DANTE-12GAM-TR-LC)

- 1x FiberLC-TR-12G Dual LC 12G Fiber Transceiver SFP, SMPTE 297/292/424/2081/2082
  - Wavelength: Rx 1260 nm (min), 1620 nm (max)
  - Optical Sensitivity: -10 dBm (min 12 Gbps), -14 dBm (min 3 Gbps)
  - Overload Power: -2 dBm (min)

## Video Electrical SFP Input/Output (DANTE-12GAM-TR-BNC)

- 1x BNC-TR-12G Dual BNC 12G Coax Transceiver SFP, SMPTE 292/424/2081/2082

## Internal Signal Generator

- 2x independent internal video signal generators

## Cable Equalization

(Belden 1694A coax)

- 12 Gbps, 60m
- 6 Gbps, 120m
- 3 Gbps, 180m
- 1.5 Gbps, 200m

## Video Path Delay

- Video Latency, time measured between video input and video output connector:
  - 12G = 3.2 µsec
  - 6G = 3.2 µsec
  - 3G level B Dual Link = 6.3 µsec
  - 3G level A = 3.2 µsec
  - HD (1.5 Gb) = 6.3 µsec

## Digital Audio Input/Output

- SDI: 1x independent 12G-SDI BNC connectors, 16 embedded channels each
- DANTE: 1x primary Nuetrik etherCON RJ-45 Connector and 1x secondary Nuetrik etherCon RJ-45 Connector, Up to 32-channels
- Video Optical (TR-LC Option): 1x independent 12G-SDI Fiber LC SFP connector, 16 embedded channels each
- Video Electrical (TR-BNC Option): 1x independent 12G-SDI BNC SFP connector, 16 embedded channels each

## SDI Embedded Audio

- SMPTE 299M (12G/6G/3G/1.5G): 24-bit, 48 kHz synchronous
- SMPTE 272M (SD): 20-bit, 48 kHz synchronous
- Incoming embedded audio can be passed, removed, or overridden
- 4 groups: (16-channels) of audio supported per SDI path

**Note:** 2048x1080p/PsF 29.97 and 30 formats support a maximum of 8-channels embedded audio.

## Dante Audio

- Sample Rates: 44.1kHz, 48kHz, 88.2kHz, 96kHz
- Encoding: PCM 16, PCM 24, PCM 32

## Audio Latency

- Embed Path: 1500 µsec
- Disembed Path: 1410 µsec

## Network Interface

- 2x Nuetrik etherCON RJ-45, 100/1000 Ethernet
- Rest Interface

## User Interface

- Onboard LCD display with buttons for enter, back, up, and down operation
- AJA webUI
- DANTE Controller, Dante Domain Manager & Network Management Applications
- USB-C port for initial Static IP configuration using AJA eMini-Setup

## Size (w x d x h)

- 5.0" x 8.09" x 1.65" (127 x 205.49 x 41.81 mm)

## Power

- Enclosure: 10-18VDC regulated, 4-pin mini-XLR, 16W typical 3G-SDI, 21W typical 12G-SDI, 25W max
- IEEE 802.3at Class 4, Type 2 (25.5, Max) PoE+ on Primary Ethernet port
- AC Adapter included: 100-240VAC, 50/60 Hz, universal input, 60W

## 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)