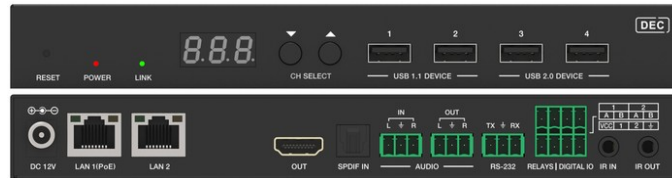


4K60 JPEG2000 AV over IP Decoder — Dante Dual LAN with Endpoint Control

Isolate Dante AV-A Audio on LAN 2 Away from JPEG2000 Video on LAN 1 (PoE) — USB KVM, IR & RS-232, 9x9 Video Wall over Standard 1G

MPN: AVO-IPJP2KD-DEC



Terminates a visually lossless 4K60 4:4:4 JPEG2000 stream at any display over the standard 1G copper network you already run. The decoder is a compact metal endpoint (8.03" × 5.35" × 1.00" / 204 × 136 × 25.5 mm) that draws 7.8 W maximum and powers directly over PoE from the switch, so no local supply is needed at the panel. It is the right choice for boardrooms, video walls, courtrooms, and signage arrays where 4:4:4 image fidelity, isolated audio, and switch-agnostic 1G deployment matter more than the cost and complexity of a 10G SDVoE fabric.

Built-in dual copper LAN carries the JPEG2000 video on LAN 1 (PoE) and, in the default LAN Mode 2, isolates the Dante AV-A audio stream on LAN 2 so multicast video never contends with the audio flow. It scales from point-to-point to video matrix and video walls up to 9×9 with intelligent class management, embeds or de-embeds analog and Dante audio, and carries USB 2.0 KVM, IR, RS-232, two relays, and two digital I/O to drive local displays, projectors, and shutters without a separate control processor. An MJPEG substream previews any endpoint on a laptop or tablet in real time. Dante AV-A is license-activated, and the matching Dante Dual-LAN encoder is sold separately.

1 PRODUCT OVERVIEW

DESIGNED FOR

For the boardrooms, huddle spaces, and lecture theatres where 4K content needs to join an existing Dante audio backbone; for the control rooms, retail flagships, and sportsbook or QSR menu arrays driving multi-display walls on standard 1G copper; and for the courtrooms and medical viewing rooms where full-chroma 4:4:4 rendering of documents, evidence, and imagery leaves no margin for compression artifacts.

THE CHALLENGE

Distributing 4K60 4:4:4 to many displays has meant a hard trade-off: uncompressed transport delivers pristine images but forces 10G switching and optics at every port, while low-bitrate H.264/H.265 rides cheap 1G networks but falls apart on fine text, CAD, and medical detail. Add Dante audio to that video-over-IP job and a single network port leaves the audio flow contending with video multicast — and the display still needs its own control processor drop for screens, shutters, and KVM peripherals.

THE KANEXPRO ADVANTAGE

- Delivers visually lossless 4K60 4:4:4 JPEG2000 over standard managed 1G copper switches, avoiding the per-port cost of a 10G SDVoE fabric.
- Default LAN Mode 2 physically isolates the Dante AV-A audio stream on LAN 2 while JPEG2000 video runs on LAN 1 (PoE), so audio never contends with video multicast — separation a single-NIC decoder cannot provide.
- Carries the full endpoint control payload in the decoder itself: two relays, two digital I/O, IR in and out, RS-232, and USB 2.0 KVM, removing the need for a separate control drop at each display.
- Powers as a PoE device at 7.8 W maximum, so no local supply is required where the switch delivers PoE.
- Scales from point-to-point to matrix and video walls up to 9×9 with intelligent class management, plus an MJPEG substream for real-time preview.

2 PRODUCT POSITIONING

The AVO-IPJP2KD-DEC is the 1G JPEG2000 AV-over-IP decoder for integrators who need visually lossless 4K60 4:4:4 video with isolated Dante audio and full endpoint control — without the cost and 10G switching burden of SDVoE.

3 SALES ANALYSIS

CHANNEL FIT

two-step distribution (distributor → integrator). Strong e-tail attach as a replacement/spare SKU. Best sold as part of an encoder+decoder+switch system quote, not standalone.

DEAL SIZE & SALES CYCLE

rarely a single unit. Typical attach is 4–24 decoders per project (\$3.5K–\$24K in decoders alone at the recommended band), plus matching encoders and switching — projects commonly \$15K–\$75K.

COMMON OBJECTIONS

(1) "Why JPEG2000 and not SDVoE?" — answer with 1G switch economics and 4:4:4 fidelity; (2) "Is the Dante real or marketing?" — it is Dante AV-A, license-activated, isolated on LAN 2; (3) "How does it fit an existing switch?" — standard managed 1G, PoE-PD, no 10G required; (4) OEM/brand-trust questions on a newer line.

TOP USE CASES TO CLOSE

- 1 boardroom/huddle-space refresh where the client already runs a Dante audio backbone and wants video to join the same infrastructure without contention
- 2 multi-display video wall (up to 9×9) on 1G copper where SDVoE 10G is over-budget.

4 APPLICATIONS



Corporate boardroom on a Dante backbone

A firm running Dante for its conferencing audio adds 4K60 4:4:4 video distribution across meeting spaces. The decoder terminates JPEG2000 video at each display over LAN 1 (PoE) while pulling the Dante AV-A audio feed on LAN 2, so video multicast traffic never contends with the audio flow. No AVR or separate audio matrix is required at the room.



Multi-display video wall on 1G copper

A control room or retail flagship needs a 3×3 or larger wall without a 10G build-out. Using the decoder's intelligent video-wall class management (up to 9×9), each panel is driven from a JPEG2000 stream on standard managed 1G switching, keeping switch cost proportional to the job rather than paying an SDVoE 10G premium per port.



Courtroom evidence display with local control

Evidence and witness monitors require full-chroma 4:4:4 rendering of documents and fine text where H.265 artifacts would be unacceptable. The decoder's on-board relays and digital I/O drive local privacy shutters, screen drops, or annotation-monitor switching directly, without a separate control processor at each position.



Medical imaging viewing room (non-diagnostic)

Departmental viewing displays show 4K60 4:4:4 imagery with visually lossless JPEG2000 fidelity and sub-frame latency. PoE-PD powering (7.8 W max) simplifies rack and wall installs where local outlets are scarce, and the metal enclosure suits fixed-install reliability requirements.



Higher-ed lecture capture and overflow

A lecture theatre distributes 4K content to overflow rooms and confidence monitors over the campus 1G network. The MJPEG substream lets AV staff preview any decoder's output on a laptop or tablet for real-time monitoring, while USB 2.0 device ports carry a shared HID/KVM peripheral to the podium display.



Hospitality and QSR menu / signage arrays

A sportsbook or quick-service chain feeds many synchronized displays with 4K signage on existing managed switches. Unicast and multicast support, PoE powering, and RS-232/IR control of the panels from the decoder reduce the endpoint parts count per screen and simplify roll-out across sites.

5 WHO THIS IS FOR

Corporate AV

Higher-ed

Courtroom/government

Medical viewing

Hospitality and retail signage

House of worship

Control rooms

Ideal User

the **AV systems integrator / design-build lead** spec'ing a distributed 4K system on a 1G network, who has already chosen JPEG2000 over SDVoE for cost and over H.265 for image fidelity, and who needs Dante audio to coexist cleanly with video.

Project Types

corporate AV, higher-ed, courtroom/government, medical viewing, hospitality and retail signage, house of worship, control rooms.

Typical Buyer

technical buyer (integrator principal or lead engineer) with budget authority up to mid-five-figures per room; values spec-accuracy, Dante interoperability, and switch-agnostic deployment over brand prestige.

6 KANEXPRO PRODUCT COMPARISON

MODEL	BEST FOR	KEY CAPABILITY	HOW IT DIFFERS
AVO-IPJP2K-DEC	— the other full-featured decoder — differentiates on copper + fiber in one box, single LAN (\$699.95)	4K60 4:4:4 JPEG2000 AV over IP Decoder — Copper + Fiber In One Box	This MPN (AVO-IPJP2KD-DEC) instead offers dual copper LAN for video/Dante isolation, no fiber . The choice for the integrator is: <i>fiber reach</i> (the -DEC) vs <i>dual-LAN audio isolation</i> (this -D DEC).
AVO-IPJP2KS-DEC	\$499.95, Slim	4K60 4:4:4 JPEG2000 AV over IP Decoder	This unit sits above it as the Dante Dual-LAN premium decoder tier .

7 FREQUENTLY ASKED QUESTIONS

Q: Why choose JPEG2000 over SDVoE for a 4K60 4:4:4 job?

JPEG2000 delivers visually lossless 4K60 4:4:4 on standard managed 1G copper switches. SDVoE is uncompressed but requires 10G switching at every port, which raises switch and optics cost sharply. For most distributed installs, JPEG2000 gives full-chroma image quality at a fraction of the network cost.

Q: Is the Dante support real, or is audio just passed through HDMI?

It is Dante AV-A, activated by license. When enabled, the default LAN Mode 2 carries the Dante audio stream on the second LAN port, physically separated from the JPEG2000 video on LAN 1. Analog and Dante audio can be embedded or de-embedded at the decoder.

Q: Will it run on the switches we already have?

It is designed for standard 1G managed switches supporting multicast, with PoE. The decoder is a PoE powered device, so where the switch supplies PoE no local power supply is needed; a 12V/2.5A locking adapter is also included.

Q: What's the difference between this and your copper-plus-fiber decoder?

The copper+fiber decoder (AVO-IPJP2K-DEC) trades on fiber reach with a single LAN. This unit trades on dual copper LAN, letting you isolate Dante audio from video traffic on separate ports. Choose fiber reach or dual-LAN audio isolation based on the job.

Q: How many displays can a video wall support?

The system supports video walls up to 9x9 with intelligent class management, alongside point-to-point and matrix modes. Panels are driven from JPEG2000 streams over the 1G network.

Q: What local control does the decoder provide at the display?

Two relay ports, two digital I/O ports, IR in and out, RS-232, and USB 2.0 device ports for KVM peripherals — enough to trigger screens, projectors, and shutters and to carry HID/USB at the endpoint without a separate control drop.

Q: What resolutions and HDR does it output?

Up to 4K60 4:4:4 per HDMI 2.0b, 18 Gbps, HDCP 2.2, with HDR supported on input and output. HDMI audio formats include LPCM up to 7.1, Dolby Atmos, and DTS:X.

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