

4K60 4:4:4 JPEG2000 AV over IP Encoder

Distribute Visually Lossless 4K over Standard 1G — Bidirectional IR & RS-232, Dante-Ready, 9×9 Video Wall

MPN: AVO-IPJP2KS-ENC



OVERVIEW

Distributes one 4K60 source at visually lossless quality to an unlimited number of displays over the standard 1G copper network you already have — no 10G, no fiber. A slim single-LAN JPEG2000 AV-over-IP encoder, the AVO-IPJP2KS-ENC carries 4K60 4:4:4 with HDR10, Dolby Vision, and HLG, plus bidirectional IR, RS-232, and CEC pass-through — the right choice for command centers, corporate, education, and digital signage where visually lossless 4K and 1G economics matter more than uncompressed 10G.

It drives matrix switching, video wall up to 9×9, unicast and multicast distribution, and analog audio embedding, with an HDMI loop-out for on-site monitoring and an MJPEG sub-stream for VLC preview. Dante AV-A audio is available when license-activated. Powered by PoE 802.3af or the included DC 12V supply and managed by the AVO-IPCTL-JP2K controller, it lets integrators order the exact encoder-to-decoder ratio each job needs. Decoders (AVO-IPJP2KS-DEC) sold separately.

1 PRODUCT OVERVIEW

DESIGNED FOR

AV/IT integrators and system engineers building command centers, corporate, education, and digital-signage systems that need visually lossless 4K60 distribution and IR/serial control over existing 1G copper.

THE CHALLENGE

Uncompressed 10G/SDVoE delivers 4K but demands 10G switches and often fiber at a steep premium; H.264/265 IP is cheap but visibly compressed for critical 4K content; and bundled ENC/DEC kits force integrators to buy endpoints they don't need at each source.

THE KANEXPRO ADVANTAGE

Delivers JPEG2000 visually lossless 4K60 4:4:4 on standard 1G copper (no 10G/fiber), adds bidirectional IR/RS-232/CEC and an HDMI loop-out, is Dante AV-A ready, and racks 6–10 per 6U at 7.68W — sold standalone so integrators order the exact ENC:DEC ratio with the AVO-IPCTL-JP2K ecosystem.

2 PRODUCT POSITIONING

The AVO-IPJP2KS-ENC is the slim JPEG2000 AV-over-IP encoder for integrators who need visually lossless 4K60 distribution and control over standard 1G copper — without the cost and cabling of uncompressed 10G/SDVoE.

3 SALES ANALYSIS

CHANNEL FIT

AV/IT distribution and rep firms into command-center, corporate, and signage integrators; online-reseller ready as a single encoder SKU.

DEAL SIZE & SALES CYCLE

Typical order value \$5K–\$60K across a venue (multiple ENC + DEC); 4–12 week sales cycle.

COMMON OBJECTIONS

"Why not uncompressed/SDVoE?" — answer with 1G-copper cost, cabling, and visually lossless quality. "Needs a managed switch" — supply switch list + IGMP guidance.

WIN / LOSS THEMES

Wins on visually lossless 4K at 1G-copper economics with integrated IR/serial and Dante readiness; loses when the job genuinely needs uncompressed zero-frame latency (SDVoE) or 10G is already in place.

TOP USE CASES TO CLOSE

- 1 Command centers / control rooms needing visually lossless 4K on existing 1G copper.
- 2 Corporate, education, and signage 4K distribution where 10G/fiber is cost-prohibitive.

4 APPLICATIONS



Command & Control

Distribute and control visually lossless 4K sources across operator walls with 9×9 composition over existing 1G copper.



Corporate & Boardroom

Route 4K60 content to boardrooms and huddle displays with IR/serial control, no 10G upgrade required.



Education & Lecture Capture

Send visually lossless 4K to classrooms and overflow rooms from a central source over standard cabling.



Digital Signage

Drive 4K signage walls and menu boards with HDR and 9×9 video-wall layouts over 1G.



Broadcast & Production

Feed monitoring and review displays with visually lossless 4K and Dante AV-A audio where quality matters.



Government & SCADA

Extend and control secure 4K operator views to remote consoles over a managed 1G network.

5 WHO THIS IS FOR

AV/IT Integrators

System Engineers

Command Centers

Corporate AV

Education

Digital Signage

Ideal User

Command-center / AV-IT integrator or system engineer specifying visually lossless 4K distribution over existing 1G copper for control rooms, corporate, education, and signage.

Project Types

Command & control, corporate AV, K-12 & higher education, digital signage, broadcast/production, government.

Typical Buyer

Integration firm principal or lead engineer; reseller category buyer for online sales.

6 KANEXPRO PRODUCT COMPARISON

Where each KanexPro AV-over-IP product fits, so reps can steer to the right SKU:

MODEL	BEST FOR	KEY CAPABILITY	HOW IT DIFFERS
AVO-IPJP2KS-ENC	Distributing visually lossless 4K	4K60 JPEG2000 encoder (Slim)	Distributes one 4K source over 1G copper with IR/serial control (this product)
AVO-IPJP2KS-DEC	Adding 4K display endpoints	4K60 JPEG2000 decoder (Slim)	Add one per display without buying encoders
AVO-IPJP2K	Fuller I/O JPEG2000 jobs	4K60 JPEG2000 (USB-KVM, ARC/eARC, fiber option)	Choose when USB-KVM or fiber is required
AVO-IP265-4K	Bandwidth-first 4K	4K H.265 over IP	Steps down to H.265 when cost/bandwidth trump visually lossless quality

For visually lossless 4K60 command centers, corporate, education, and signage on standard 1G copper, pair AVO-IPJP2KS-ENC encoders with AVO-IPJP2KS-DEC decoders in the exact ratio each job needs, all managed by the AVO-IPCTL-JP2K controller; step up to SDVoE only when uncompressed zero-frame latency is required.

7 FREQUENTLY ASKED QUESTIONS

Q: Why is the encoder sold separately from the decoder?

So integrators order the exact ENC:DEC ratio a 4K system needs, and KanexPro can list a single JP2K-Slim encoder SKU online.

Q: Is JPEG2000 really visually lossless at 4K?

Yes — it carries 4K60 4:4:4 with HDR10/Dolby Vision/HLG at up to 18Gbps source, with visually lossless quality over a 1G network.

Q: Why choose this over SDVoE/10G?

For most 4K jobs it runs on the 1G copper you already have — far lower switch and cabling cost than uncompressed 10G/fiber.

Q: How does control pass through?

Bidirectional IR + RS-232 + CEC (guest mode) travel with the stream, plus Web GUI/TCP/APP control.

Q: Does it need a managed switch?

Yes — a Layer-3 managed Gigabit switch with IGMP Snooping / multicast; a recommended switch list is provided.

Q: Can it power over the network?

Yes — 802.3af PoE, or the included DC 12V/2.5A supply.

Q: What about audio and Dante?

Analog L/R embeds into the stream; HDMI carries up to 7.1CH; Dante AV-A is available when license-activated.