

4K60 SDVoE AV over IP System Controller

Zero-Frame Latency Matrix Switching, 9×9 Video Wall & USB KVM for SDVoE Systems — Dual-Network Isolation, Web GUI & IR/RS-232 Control

MPN: AVO-IPCTL-SDV



1 PRODUCT OVERVIEW

DESIGNED FOR

AV integrators and AV directors deploying SDVoE systems where zero-frame latency and visually lossless 4K60 4:4:4 are non-negotiable requirements.

THE CHALLENGE

Broadcast, simulation, and command-and-control deployments cannot tolerate the 50–67ms latency of compressed AV over IP systems.

THE KANEXPRO ADVANTAGE

AVO-IPCTL-SDV provides full centralized control of SDVoE AVP2000 systems with zero-frame latency, 9×9 video wall, 25-window multi-view, and USB KVM.

2 PRODUCT POSITIONING

AVO-IPCTL-SDV is the system controller for mission-critical SDVoE deployments requiring zero-frame latency and visually lossless 4K60 4:4:4.

3 SALES ANALYSIS

CHANNEL FIT

Direct and AV integration channel. Always sold alongside AVO-IPSDV-4K endpoint pairs.

DEAL SIZE & SALES CYCLE

Premium project pricing. System deal \$5,000–\$100,000+

COMMON OBJECTIONS

1. vs H.265? Latency unacceptable. 2. 10G expensive? Justified for zero-latency. 3. Bandwidth? SDVoE requires full 10G per endpoint.

WIN / LOSS THEMES

Win: broadcast, simulation, visualization, mission-critical control rooms. Loss: cost-sensitive distribution.

TOP USE CASES TO CLOSE

- 1 Broadcast production control room — zero-frame latency 4K60 routing with seamless switching. No black frames between camera feeds.
- 2 Government visualization center — 9×9 video wall, 25-window multi-view monitoring, USB KVM for operator workstations.

4 APPLICATIONS



Zero-Frame Latency

SDVoE AVP2000 chipset delivers visually lossless 4K60 4:4:4 with zero frames of latency — essential for broadcast, simulation, and visualization where any delay is unacceptable.



Matrix Switching

Route any SDVoE encoder to any decoder via drag-and-drop web GUI. Seamless switching with zero-frame transitions — no black frames during live source changes.



9x9 Video Wall

Configure multi-display video walls up to 9 rows × 9 columns with seamless switching. Supports bezel compensation and custom display layouts.



USB KVM Routing

Route USB 2.0 keyboard, mouse, and peripheral access across SDVoE zones. One operator manages multiple PCs without a dedicated KVM switch.



Multi-View (25 Windows)

Display up to 25 source windows simultaneously on a single decoder display. Ideal for monitoring walls and control rooms requiring maximum visibility.



Dual-Network Isolation

VIDEO LAN connects to the 10G AV switch. CONTROL LAN connects to the IT network. AV multicast stays fully isolated from corporate IT traffic.

5 WHO THIS IS FOR

AV Integrators

Broadcast Engineers

Control Room Designers

Government AV

Military/Defense

Simulation Centers

Ideal User

AV integrator or broadcast engineer designing a zero-latency SDVoE system.

Project Types

Broadcast production, military/government, simulation, visualization, command-and-control

Typical Buyer

AV Director or Systems Engineer. Zero-latency is a hard requirement.

6 KANEXPRO PRODUCT COMPARISON

AVO-IPCTL-SDV is the zero-latency SDVoE controller. Use this table to select the right controller tier.

MODEL	BEST FOR	KEY CAPABILITY	HOW IT DIFFERS
AVO-IPCTL-265	H.265 1G Advanced	Matrix, wall, 1G, mouse collab	50–67ms latency — not suitable for zero-latency
AVO-IPCTL-JP2K	JPEG2000 Controller	Matrix, wall, KVM, Dante	Visually lossless but not zero-frame

★ AVO-IPCTL-SDV is the only choice for deployments requiring true zero-frame latency at 4K60 4:4:4.

7 FREQUENTLY ASKED QUESTIONS

How does AVO-IPCTL-SDV differ from AVO-IPCTL-265?

AVO-IPCTL-SDV manages SDVoE endpoints on 10G with zero-frame latency. AVO-IPCTL-265 manages H.265 on 1G with 50–67ms latency. SDV for zero-latency/broadcast; H.265 for cost-effective distribution.

Is the controller required for SDVoE operation?

No — point-to-point works without it. Required for matrix switching, video wall, multi-view, USB KVM, and centralized management.

What network switch is required?

10G managed switch with IGMP Snooping and Jumbo Frame support. Controller VIDEO LAN (1G) connects to the same 10G switch.

How do I access the web GUI?

<http://controller.local> or 192.168.6.100. Connect CONTROL LAN to IT LAN or PC. Default login: admin/admin.

Does it support Dante?

Dante audio can be customized and added to compatible AVO-IPSDV-4K endpoints. Contact KanexPro for project-specific requirements.

How does USB KVM routing work?

USB 2.0 keyboard, mouse, and peripheral routing managed via the web GUI across SDVoE zones — one operator manages multiple PCs without a dedicated KVM switch.

How do I reset to factory defaults?

Press and hold RESET for approximately 5–6 seconds until LEDs flash. Wait approximately 1 minute until both LEDs become steady.