

EDPN-PRO-4D

Seamless DisplayPort KVM Switch For Radiology & Medical Imaging

Designed for diagnostic workstations and reading rooms, this solution enables radiologists to securely control multiple imaging systems such as PACS, RIS, VNA, CT, MRI, Ultrasound, and Advanced Visualization Servers from a single, unified workstation, without compromising image quality or workflow continuity.

By centralizing IT hardware outside the reading room, the system reduces heat, noise, and physical clutter while delivering instant, seamless access to multiple systems in real time—supporting faster reads, improved focus, and higher diagnostic confidence with specialized medical imaging resolutions such as 2048×2048 @ 60Hz.



KEY FEATURES AND CAPABILITIES

SmartAVI's radiology-dedicated KVM platform is engineered to meet the demands of modern diagnostic imaging where image precision, uninterrupted workflows, and clinician focus directly impact patient outcomes.

- Integrated Multiviewer: Simultaneous system monitoring
- True seamless switching: No video blanking or re-sync
- Ultra-low latency: Preserving natural cursor and image response
- Specialized medical imaging resolutions: Including 2048 × 2048 4K60 DisplayPort: Full frame integrity
- Uninterrupted visualization
- No loss of grayscale fidelity or spatial accuracy
- EDID (AUX) Emulation: Window and Monitor Configurations remain intact when switching channels
- Supports resolutions up to 3840 × 2160 @ 60 Hz
- Supports USB keyboard and mouse emulation
- Supports additional USB 2.0 devices like printers, scanners, web cameras and more
- Flash upgradeable firmware
- Stereo Audio support
- Front panel keys for manual port selection
- Hot-key commands for quick port selection
- Independent (asynchronous) switching of KVM and peripheral USB/audio ports. Users can listen to audio from one computer while working on a different computer, or scan a document and save it on another computer
- Supports all major Operating Systems like Windows, Mac, Linux, Sun, Unix, DOS, etc.

HOW IT WORKS



Viewing Modes
Flexible Multiview Modes



Fullscreen Mode
Display any single computer in full-screen 4K UHD for focused work.



Dual Mode
View two inputs simultaneously, for comparison or monitoring.

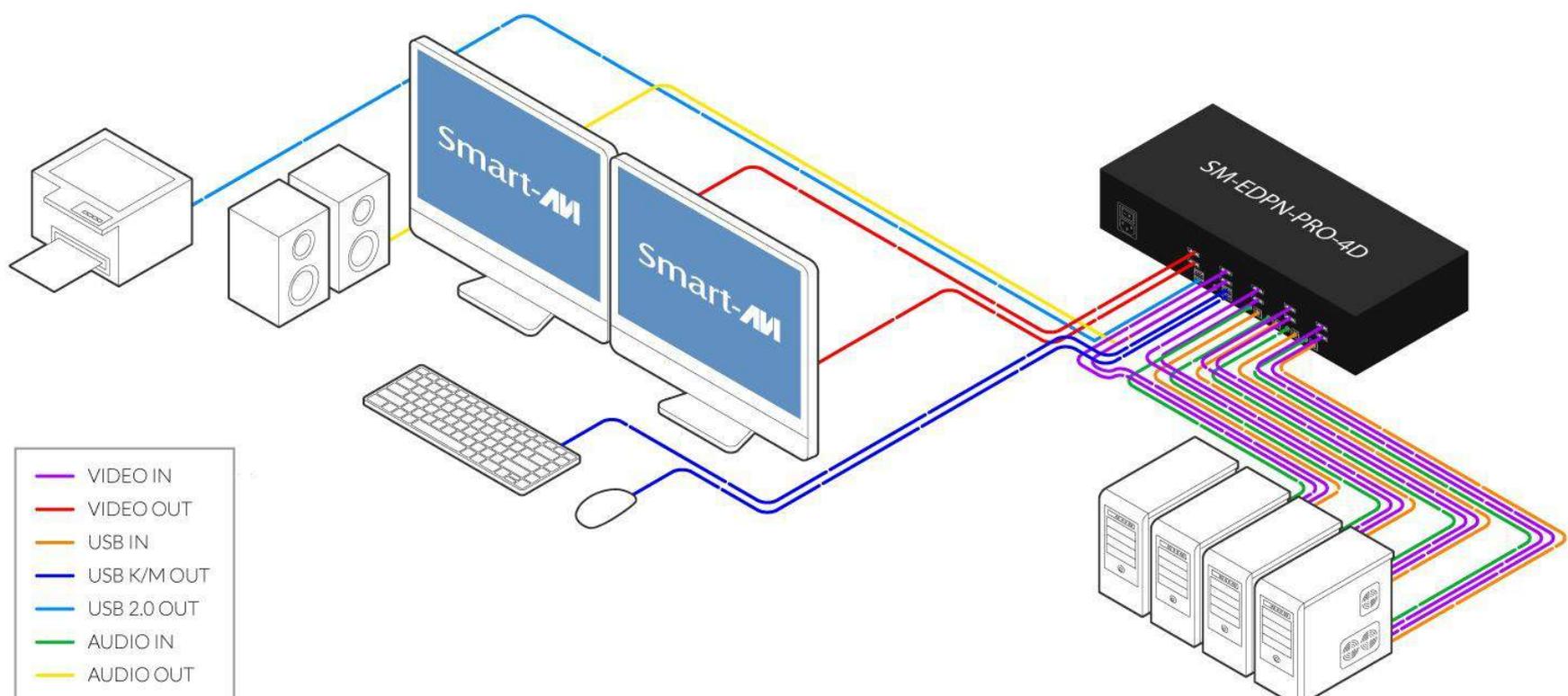


Quad Mode
Display all four inputs at once for complete situational awareness.



Picture-in-Picture (PiP)
Overlay a secondary source while maintaining focus on a primary system.

APPLICATION DIAGRAM



Immediate access to prior studies and parallel systems
Supports **Single-Head, Dual-Head, and Quad-Head**

KEY CAPABILITIES

- **Integrated Multiviewer:** Simultaneous review of multiple imaging sources
- **Ultra-low latency:** Preserving natural cursor and image response
- **True seamless switching:** No screen blanking or re-synchronization
- **4K60 DisplayPort:** Full pixel integrity
- Supports specialized medical imaging

SPECIFICATIONS

Video	
Format	DisplayPort1.2
Maximum Pixel Clock	594 MHz
Input Interface	SM-EDPN-PRO-4D (8) DisplayPort 20-pin (female)
Output Interface	SM-EDPN-PRO-4D (2) DisplayPort 20-pin (female)
Resolution	3840 x 2160 @ 60 Hz
Color Mode	24-bit
DDC	5 volts p-p (TTL)
Input Equalization	Automatic
Input Cable Length	Up to 20 ft
Output Cable Length	Up to 20 ft
Data Rate	1.65 Gbps per color
EDID Support	Full emulation & preloaded profiles

Audio	
Input Interface	(4) 3.5 mm Stereo Audio
Output Interface	(1) 3.5 mm Stereo Audio
Impedance	600 Ohm
Frequency Response	20 Hz to 20 kHz
Nominal Level	0-1.0 V
Common Mode	Rejection at 60 dB

Control	
Front Panel	Push Buttons with LED Indicators
LAN	RJ45
Hot Keys	Via Keyboard

USB	
Signal Type	USB 2.0, 1.1, and 1.0 w/ internal hub
Input Interface	(4) USB Type B (female)
Output Interface	(2) USB Type A (female) for K/M emulation; (2) for USB 2.0 Transparent

Other	
Power Adapter	External 120-240 VAC, Internal PSU
Dimensions	17.0" W x 2.7" H x 8.69" D
Weight	4.4 lbs
Approvals	UL, CE, ROHS Compliant
Operating Temperature	+32 to +104°F (0 to +40°C)
Storage Temperature	-4 to 140°F (-20 to +60°C)
Humidity	Up to 80% (No Condensation)
Emulation	Keyboard and Mouse