

AVIP-J1G-ENS

**4K60 4:4:4 AV over IP JPEG2K
AV Encoder**

FEATURE:

- HDMI 2.0b, HDCP 2.2 compliant
- Support 18Gbps video bandwidth
- Input and output video resolution is up to 4K60Hz. 4:4:4 HDR
- Signal transmission distance can be extended up to 330ft / 100m via CAT5E/6/6A/ cable
- Transmit video, analog/digital audio, IR, RS-232, CEC and USB over Ethernet
- Integrate Copper port and Fiber port within a single
- ARC/eARC/SPDIF/Analog audio return function
- Channel configuration via front panel buttons and LED screen
- Built-in two channel RELAY ports and two channel I/O ports for contact control
- Support unicast and multicast functions
- Support point-to-point, video matrix and video wall functions (video wall supports up to 9x9)
- Intelligent video wall class management
- Support MJPEG Sub-stream real-time preview
- 1G Ethernet Switch
- Support POE function
- Built-in web page configuration and control, Telnet and SSH as well
- HDMI audio formats: LPCM 2.0/5.1/7.1CH, Dolby Digital/Plus/EX, Dolby True HD, DTS, DTS-96/24, DTS-EX DSD, DTS High Res, DTS-HD Master
- Flexible control via Web GUI/TCP/RS-232/ HControl and third-party central control
- Smart networking design for easy and flexible installation



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This product leverages JPEG2000 technology, integrating both copper and fiber ports within a single unit. The encoder input supports resolutions up to 4K60Hz. 4:4:4 HDR, with options for audio embedding or extraction, while the decoder output supports up to 4K60Hz. 4:4:4 HDR with audio extraction. It features ARC/eARC/SPDIF/analog audio return, along with support for USB 2.0, KVM, camera integration, 1G Ethernet, bidirectional RS-232, two-way IR, and POE functionality. Guest mode controls for RS-232, IR, and CEC are available. The product includes two built-in relay channels and two I/O ports for contact control, as well as an MJPEG sub-stream that supports numerous API commands, enabling flexible configurations for third-party control apps to preview video content. The system, built on Linux for software development, offers flexible control methods through intelligent networking via a 1G Ethernet switch.

Key Features (continued)

Secure content distribution with AES-128 encryption

- Any AV presentation content can be secured by scrambling IP streams.
- Ensures secure content delivery across the network.
- Ideal for government, military, and enterprise applications, as well as meeting IT security requirements.

Supports industry-standard, network security features and protocols

- HTTPS, Telnet, SSH, WebSockets with TLS, and AES-128 encryption
- Features IEEE 802.1x which meets IT authentication requirements for enhanced Network security.

Enhance AV presentations with visual enhancements

- Display a full-screen image.
- Identity and label presentation.



AV over IP

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Encoder**



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SPECIFICATIONS:

Technical

HDMI Compliance	HDMI 2.0b
HDCP Compliance	HDCP 2.2
Video Compression Standard	JPEG2000
Video Bandwidth	18Gbps
Network Video Bandwidth	1G
Video Resolution	640x480p60Hz, 800x600p60Hz, 1024x768p60Hz, 1280x1024p60Hz, 1360x768p60Hz, 1440x900p60Hz, 1440x1050p60Hz, 1600x1200p60Hz, 720x480i59.94Hz(480i59), 720x480p59.94Hz (480p59), 720x576i50Hz(576i50), 720x576p50Hz(576p50), 1280x720p50Hz (720p50), 1280x720p59.94Hz(720p59), 1280x720p60Hz(720p60), 1920x1080i50Hz(1080i50), 1920x1080i59.94Hz(1080i59), 1920x1080i60Hz(1080i60), 1920x1080p23.98Hz(1080p23), 1920x1080p24Hz(1080p24), 1920x1080p25Hz(1080p25), 1920x1080p29.97Hz(1080p29), 1920x1080p30Hz(1080p30), 1920x1080p50Hz(1080p50), 1920x1080p59.94Hz(1080p59), 1920x1080p60Hz(1080p60), 3840x2160p23.98Hz(2160p23), 3840x2160p24Hz(2160p24), 3840x2160p25Hz(2160p25), 3840x2160p29.97Hz(2160p29), 3840x2160p30Hz(2160p30), 3840x2160p50Hz(2160p50), 3840x2160p59.94Hz(2160p59), 3840x2160p60Hz(2160p60), 4096x2160p23.98Hz, 4096x2160p24Hz, 4096x2160p25Hz, 4096x2160p29.97Hz, 4096x2160p30Hz, 4096x2160p50Hz, 4096x2160p59.94Hz, 4096x2160p60Hz
Chroma Subsampling	Chroma 4:4:4, 4:2:2, 4:2:0, VCx = Yes
Color Space	RGB, YCbCr 4:4:4/4:2:2/4:2:0
Color Depth	Input: 8-bit, 10-bit, 12-bit, @8-bit (4K60Hz 4:4:4) Output: 8-bit
HDR	HDR10, HLG, Dolby Vision
HDMI Audio Formats	LPCM 2.0/5.1/7.1CH, Dolby Digital/Digital Plus/EX, Dolby True HD, Dolby Atmos, DTS, DTS-96/24, DTS-EX DSD, DTS High Res, DTS-HD Master Audio, DTS:X
Audio Sample Rate	32 kHz, 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz, 192 kHz
Bit Rate	Up to 24-bit
Audio Streaming	RTP, up to 7.1 channels, AES67, up to LPCM 7.1 channels
Scaler	Encoder Up and down. 3840x2160 max.
Analog Audio Formats	Left and Right stereo analog audio
Transmission Distance	100 meters (330 feet) Network (CAT6/6A)
IR Level	Default 12V, optional 5V
IR Frequency	Wideband 20K - 60KHZ
ESD Protection	Human body model: ±8kV (air-gap discharge) & ±4kV (contact discharge)

Connections Encoder

Network	1x RJ45 (10/100/1000 Mbps)
Input	1x HDMI IN [Type A, 19-pin female] Supports Thumbnails Resolution 320x180px 1 x L/R AUDIO IN [3-pin 3.81mm Phoenix connector]
Output	1x HDMI OUT [Type A, 19-pin female] 1 x L/R AUDIO OUT [3-pin 3.81mm Phoenix connector] 1 x SPDIF OUT [Optical audio connector]
Control	1 x RS-232 [3-pin 3.81mm Phoenix connector] IR Bidirectional pass-through from control system to network Human body model: ±8kV (C48:E50air-gap discharge) & ±4kV (contact discharge) 1 x FIBER [Optical fiber slot] 1 x USB 2.0 HOST [Type B, 4-pin female] 2 x USB 2.0 DEVICE [Type-A, 4pin female] 2 x RELAYS [3.81mm Phoenix connector] 2 x DIGITAL IO [3.81mm Phoenix connector] 1 x IR IN [3.5mm Audio Jack] 1 x IR OUT [3.5mm Audio Jack]

Mechanical

Housing	Metal Enclosure
Color	Black
Dimensions	204mm (W) × 136mm (D) × 25.5mm (H)
Weight	Encoder: 631g, Decoder: 626g
Power Supply	Input: AC 100 - 240V 50/60Hz, PoE (IEEE 802.3af) Output: DC 12V/2.5A (US/EU standards, CE/FCC/UL certified)
Power Consumption	Encoder: 8.52W
Operation Temperature	32°F - 104°F / 0°C - 40°C
Storage temperature	-4°F - 140°F / -20°C - 60°C
Relative Humidity	20 - 90% RH (no condensation)
Certification	CE, FCC, CB, RoHS

Video Resolution

Resolution /Cable Length	4K60 - Feet / Meters	4K30 - Feet / Meters	1080P60 - Feet / Meters
HDMI IN / OUT	16ft / 5M	32ft / 10M	50ft / 15M

The use of "Premium High Speed HDMI" cable is highly recommended.