

# AVIP-J1G-EN-WPS

**JPEG2000 4K60 AV over IP encoder for HDMI sources 1GbE Encoder (Wall-plate) with KVM Function**

## FEATURE:

- HDCP 2.2 and DP 1.2 compliant
- Support 18Gbps video bandwidth
- Input and output video resolution is up to 4K60Hz. 4:4:4 HDR, as specified in HDMI 2.0b
- Signal transmission distance can be extended up to 328ft/100m via CAT6/6A/7 cable
- Transmit video, analog audio, RS-232, CEC and USB signal over
- Ethernet
- Support USB 2.0 and KVM function
- US 2-Gang wall-plate
- With HDMI and USB-C dual inputs, supporting auto switching (switch to the corresponding signal input channel automatically when the signal source is connected and detected) and manual switching modes
- The USB-C 1 port supports video/audio/USB data transmission and power charging to USB-C source device by USB-C adapter connected to the USB-C 2 port
- Audio embedding and de-embedding are supported
- Dante AV-A mode is supported if license activated
- 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
- Built-in MJPEG Substream for video real-time preview on portable devices
- Support 1G Ethernet Switch, router and hub devices transmission
- Standard PoE (802.3at PD device) or local 12V power supply
- Built-in web page configuration and control, Telnet and SSH as well
- Support HDR10, Dolby Vision, HLG bypass
- Audio formats: LPCM 2.0/5.1/7.1CH, Dolby Digital/Plus/EX, Dolby True HD, Dolby Atmos, DTS, DTS-96/24, DTS-EX DSD, DTS High Res, DTS-HD Master, DTS:X
- Flexible control via Web GUI/TCP/RS-232/HControl and third-party central control
- Smart networking design for easy and flexible installation



## AVIP-J1G-EN-WPS

This 4K60 AV over IP 1GbE Encoder (Wall-plate) is based on JPEG2000 technology, and uses ASPEED AST1530 for image codec and low-latency KVM applications. It features HDMI and USB-C dual input, with a video resolution of up to 4K60Hz. 4:4:4 HDR. This product supports audio embedding and de-embedding function, as well as USB 2.0/KVM/Camera, 1G Ethernet, bi-directional RS-232 (pass-through & Guest mode) and PoE function. Guest mode controls of RS-232 and CEC are supported. Dante AV-A mode is supported if the product is license activated.

Built-in MJPEG Sub stream which supports plenty API commands to achieve flexible configurations is useful for 3rd party control Apps to preview video content.

The system is based on Linux for software development, provides flexible control methods, and can realize intelligent networking based on Gigabit

## 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.



Audio  
Visual  
Equipment

# AV over IP

JPEG2000 4K60 AV over IP  
1GbE Encoder (Wall-plate) with KVM Function



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### SPECIFICATIONS:

#### Technical

|                                       |  |                                  |
|---------------------------------------|--|----------------------------------|
| HDMI Compliant                        | HDMI 2.0b  |                                  |
| HDCP Compliant                        | HDCP 2.2   |                                  |
| Video Bandwidth                       | 18Gbps   |                                  |
| USB Bandwidth                         | 480Mbps  |                                  |
| Video Compression Standard            | JPEG2000   |                                  |
| Video Network Bandwidth               | 1G   |                                  |
| Input 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 |                                  |
| UHD/HD/SD Chroma Subsampling          | 4:2:0 Resolution 4096x2160p24Hz, 4096x2160p30Hz, 3840x2160p60Hz  |                                  |
| Chroma Subsampling                    | Chroma 4:4:4, 4:2:2, 4:2:0, VCx = Yes  |                                  |
| Output Video Resolution               | Depends on the optional decoder  |                                  |
| Color Depth                           | Input: 8-bit, 10-bit, 12-bit, @8-bit (4K60Hz 4:4:4) Output: 8-bit  |                                  |
| Color Space                           | RGB, YCbCr 4:4:4 / 4:2:2. YUV 4:2:0  |                                  |
| Transmission Distance                 | 100 meters (330 feet) Network (CAT6/6A)  |                                  |
| 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 Depth                             | Up to 24-bit   |                                  |
| Analog Input/ Output Audio Parameters | Input / Output Impedance   | >=10k ohms/330 ohms              |
|                                       | Line Input / Output Level (Maximum)  | 1Vrms/1Vrms                      |
|                                       | Frequency Response   | (+0.5dB, -1dB) 20Hz ~ 20kHz      |
|                                       | Audio Output Sync Delay  | TBD                              |
|                                       | Audio S/N Ratio  | >90dB@ HDMI 0dB, 1kHz A-weighted |
| ESD Protection                        | Audio THD+N  | <0.05%@ HDMI 0dB, 1KHz           |
|                                       | IEC 61000-4-2:<br>±15kV (Air-gap discharge) & ±8kV (Contact discharge)   |                                  |

#### Connection

|  |  |
|--|--|
| Encoder  | Input: 1x HDMI IN[HDMI Type A, 19-pin female] 2x USB-C IN [USB Type C, 24-pin female]<br>1x AUDIO IN [3pin-3.5mm Phoenix connector] Output: 1x AUDIO OUT [3pin-3.5mm Phoenix connector]<br>Control: 1x RS-232 [3pin-3.5mm Phoenix connector]<br>1x Ethernet [RJ45, 10/100/1000 Mbps]<br>1x USB 2.0 HOST [USB Type B, 4-pin female] 2x USB 2.0 DEVICE [USB Type-A, 4-pin female]  |
| Decoder (Can work with any decoder of the same series) | Input: 1x SPDIF IN[Optical audio connector]<br>1x L/R AUDIO IN [3-pin 3.81mm Phoenix connector] Output: 1x HDMI OUT [Type A, 19-pin female]<br>1x L/R AUDIO OUT [3-pin 3.81mm Phoenix connector] Control: 1x RS-232 [3.81mm Phoenix connector]<br>1x Ethernet [RJ45, 10/100/1000 Mbps]<br>1x FIBER [Optical fiber slot]<br>2x USB 1.1 DEVICE [Type-A, 4-pin female] 2x USB 2.0 DEVICE [Type-A, 4-pin female] 2x RELAYS [3.81mm Phoenix connector] 2x DIGITAL IO [3.81mm Phoenix connector] 1x IR IN [3.5mm audio Jack]<br>1x IR OUT [3.5mm audio Jack] |

#### Mechanical

|                       |   |
|-----------------------|---|
| Housing               | Encoder: Aluminum panel + Iron case<br>Decoder: Metal enclosure   |
| Color                 | Encoder: White panel + Black case<br>Decoder: Black   |
| Dimensions            | Encoder: 115.9mm [W] x 114.3mm [H] x 44.25mm [D]<br>Decoder: 204mm [W] x 136mm [D] x 25.5mm [H]                 |
| Weight                | Encoder: 350g<br>Decoder: 626g  |
| Power Supply          | Input: AC100 - 240V 50/60Hz, PoE ( IEEE 802.3af )<br>Output: DC 12V/2.5A (US/EU standards, CE/FCC/UL certified) |
| Power Consumption     | Encoder: 12W (Max.)<br>Decoder: 7.08W (Max.)  |
| Operating Temperature | 32 - 104°F / 0 - 40°C   |
| Storage Temperature   | -4 - 140°F / -20 - 60°C   |
| Operating Humidity    | 20% - 80% (relative humidity, no condensing)  |
| Storage Humidity      | 10% - 90% (relative humidity, no condensing)  |
| Certification         | CE, FCC, CB, RoHS   |

#### Video Resolution

|                                 |         |          |          |
|---------------------------------|---------|----------|----------|
| HDMI Cable Length (HDMI IN/OUT) | 4K60    | 4K30     | 1080P60  |
|                                 | 16ft/5M | 32ft/10M | 50ft/15M |

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