

DuetD5-WP • Duet Wallplate Decoder

4K60 4:4:4 Wallplate AV-over-IP Decoder with HDMI Output and USB-over-IP Connectivity

Overview

Visionary proudly introduces the DuetD5-WP 4K60 4:4:4 Wallplate AV-over-IP Decoder, the company's first wallplate decoder, extending the 5-Series platform into a sleek and space-efficient in-wall design. Building on Visionary's award-winning PacketAV® technology, the DuetD5-WP delivers the same powerful decoding and control capabilities found in Visionary's full-size endpoints, now in a refined form factor for discreet integration.

The DuetD5-WP provides 4K60 4:4:4 ultra-low-latency video decoding and Dante®/AES67 audio over a single Gigabit Ethernet port, ensuring accurate color reproduction and smooth motion performance. Its HDMI output delivers pristine video to connected displays, while dual USB-C ports support USB-over-IP connectivity for peripherals such as cameras, microphones, and control devices.

This USB functionality enables bi-directional communication with encoders like the DuetE5-WP-C and DuetE5-WP-C-BT, allowing devices connected to the decoder to be accessed by a host computer at the encoder location - creating seamless USB-over-IP and KVM extension paths across the network. Integrated VLAN tagging and Dante®/AES67 support provide efficient traffic management and compatibility across enterprise network architectures.



The DuetD5-WP is powered entirely by standard PoE and requires only one network connection. Its angled 45-degree Ethernet connector ensures proper CAT5/6 bend-radius compliance within electrical boxes, minimizing cable strain and simplifying installation in constrained spaces.

Fully compatible with Visionary's PacketAV® 5-series ecosystem, the DuetD5-WP can operate on any industry-standard IP network - either integrated with enterprise data infrastructure or deployed on a dedicated AV network.

As Visionary's first decoding wallplate, the DuetD5-WP delivers powerful video, audio, and USB-over-IP functionality in an elegant form factor - perfect for any installation demanding high performance, flexibility, and reliability in networked AV.

Features

4K60 4:4:4 Video Support

- Experience ultra-high-definition video with 4K resolution at 60 frames per second and full 4:4:4 color sampling for unparalleled image quality, suitable for professional applications where every detail matters.

One Gigabit LAN Port for 4K60 4:4:4 Video, Dante®/AES67, Control, and Powered Device (PD)

- A single Ethernet port for Video over IP and Dante®/AES67 audio embedding and de-embedding, with VLAN tagging capability to separate Audio & Video network traffic as needed

AES67 and Dante® Audio Support

- Provides embedded and de-embedded network audio integration for professional AV environments. Allows easy routing of room microphones, loudspeakers, and DSP-processed signals over standard IP infrastructure.

Isochronous USB 2.0 over IP

- Enables real-time data transfer for USB devices, such as webcams and microphones, over the network. This feature simplifies the deployment of video conferencing solutions and offers greater flexibility in AV system design. By leveraging the AV over IP infrastructure, it allows seamless integration and extension of USB peripherals.
*** Supports Data Limits up to 200Mb

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Features cont.

Full Motion MJPEG Substream

- Maximize bandwidth efficiency and enhance video quality with a full motion MJPEG substream, delivering smooth, high-quality video feeds for preview or monitoring purposes without impacting the primary 4K60 4:4:4 video stream.

Mass Configuration

- Auto Discover all endpoints on the network, export to .CSV file (all configurable parameters included), make changes offline, upload .CSV file through embedded web page of encoder/decoder and push configuration to the network
- No external software required – mass configuration capabilities built into the endpoint embedded webpage UI

LLDP Support

- Link Layer Discovery Protocol (LLDP) is a protocol used by network devices for advertising their identity, capabilities, and neighbors on a local area network based on IEEE 802 technology
- Allows for dynamic control of endpoints based on automatic discovery of physical location

QoS Support

- Quality of Service (QoS) is an advanced feature that prioritizes network traffic resulting in performance improvement for critical network traffic

Control

- Vision Lite Control Software
- 3rd Party Control Drivers [Crestron, QSC, Symetrix, RTI, etc.]
- *API providing access to the full range of features on the encoders and decoders offered to qualified System Integrators

Seamless Fast Switching

- Tearing free, no black screen, no frame lock

HDMI 2.0 and HDCP 2.2, 2.3 Compliant

Independent Routing

- Independently route all signals with the ability to separately matrix video & Bluetooth audio (including Dante®/AES67)

Dynamically Optimized (Adaptive) bit-rate compression CODEC w/ built-in AI

- Visionary's highly efficient video compression codec is a modified full frame encoding that dynamically optimizes for fine lines (computer generated graphics) or motion video by using sophisticated AI to analyze the input source content. Actively matching the level of compression to a scene by leveraging periods of low motion video content reduces the stream's size and enhances performance - enabling, without compromising image quality, Visually Lossless transmission of computer generated graphics or full-motion video sources.
- Adjustable Video Bitrate: (50 – 200 Mbps or Auto [800Mbps max])

Enterprise Level Security –AES Encryption, 802.1x, HTTPS, SSH

Enterprise applications demand a secure Network AV solution

- AES Stream Encryption - The Advanced Encryption Standard, or AES, is a worldwide standard and was adopted as the standard encryption algorithm by the U.S. government for encrypting classified information
- HTTPS Secure API - Using secure SSL/TLS communications HTTPS provides integrity that a client is communicating with the real API and receiving back authentic data. It also ensures privacy for applications and users using the API
- 802.1x Authentication for Network access control - 802.1X provides a secure authentication mechanism for any device trying to access a network
- SSH Network Protocol - SSH is a network protocol used to remotely access and manage a device through command line communications. The key difference between Telnet (used by other AV over IP manufacturers) and SSH is that SSH uses encryption, which means that all data transmitted over a network is secure

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Features cont.

Fanless, Silent Design

- Features a solid-state, fanless architecture for silent operation and improved reliability. Ideal for boardrooms, classrooms, and other acoustically sensitive environments where noise is undesirable.

USB 2.0 over IP (KVM), RS-232 over IP, and CEC over IP

- Control practically any remotely located device using USB devices and interfaces
- Also supports KVM-over-IP
- Control any device with an RS-232 interface
- HDMI CEC signal extension over IP

Dynamic OSD text overlay capabilities

- The ability to overlay dynamic or fixed text on screen enables displaying of alerts, announcements, special instructions, clocks / timers, schedules, and other messaging

Auto Video Scaler

- No need to worry about configuring the source resolution
- 4K in/1080P out, 1080P in/4K out

Built in Video Wall Functions

- A Single platform to support distributed displays and Video Walls; without separate expensive video wall processors and controllers
- Enhanced Video Wall functionality – supports video rotation 180/270 degrees
- Easily create video walls using normal commodity displays
- Built-in video wall processor that allows you to build up to a 16x16 video wall

KVM Multi Display Roaming

- Switch keyboard and mouse control automatically and seamlessly between PC's by moving the cursor across the boundaries of a display and 'roaming' to adjacently mapped displays.

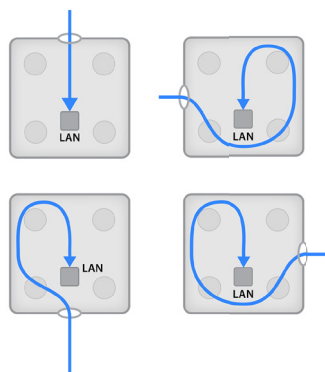
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Benefits

- A single Gigabit LAN Port for PoE Power, 4K604:4:4 Video, Dante®/AES67, and Control
- Streamlined integration with modern low-profile displays
- Secure Network Isolation - VLAN Tagging separates AV traffic on the corporate network
- Easy installation in a wall, floor, or lectern
- Enhanced aesthetics
- Mounts into standard Decora style wallplates
- Easy Control Integration
- Architecturally clean installations
- Ultra-low Latency
[Sub-frame ~2ms visually lossless]
- Low bitrates
- No fiber or 10 Gigabit switch required
- Low-Cost network switches are used
- Scalable / Unlimited Distribution
- Any number and combination of inputs/outputs [in increments of one]
- Standard network cabling [CAT5e/6]
- Utilize existing network resources
- Rapid deployment
- Single network for AV and IT
- Reduced operating costs

Fits conveniently into a 2-gang US or UK back box with no modification

- Low Heat / Power: Natural convection via vent openings on front, sides, and top
- 45 Degree Ethernet connector allows easy access from any side of electrical boxes while providing bend radius relief for category cable.

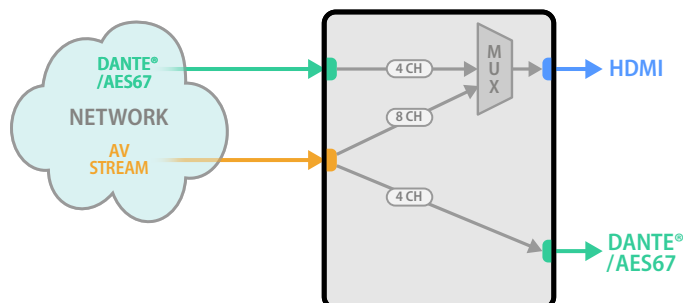


Removable RS-232 Connector Cover



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Audio Workflow



Specifications

Decoding	
Video Codec	JPEG2000 based visually lossless video compression algorithm
Audio Codec	LPCM, Dante® / AES67
Bit Rates	50 to 800 Mbps
Latency	Ultra-Low Latency Sub-Frame (visually lossless video) ~2ms @ 1080p60 & 4K60 4:4:4 ~4ms @ 1080p30 & 4K30
Streaming Protocols	IP, UDP, TCP, ICMP, IGMP
Copy Protection	HDCP 2.2, 2.3, AES-256 Encryption
Video	
Maximum Resolutions	High Dynamic Range (HDR) 4K60 4:4:4 HDR 8 bit 4K30 4:4:4 HDR 12 bit 1080p60 4:4:4 HDR 12 bit 1080p30 4:4:4 HDR 12 bit Supports HDR10, HDR10+, HLG, Dolby Vision
Output Signal Types	1x HDMI capable of scaling and outputting video formats up to 4K60 4:4:4
Scaler	Supports a wide range of resolutions and rates, up to 4K in/1080P out, 1080P in/4K out, image rotation, and video wall up to 16x16 Integrated scaling helps optimize image quality and switching performance
Audio	
Input Signal Types	From HDMI • 1 Dante®/AES67 digital audio input (up to 4 channels)
Output Signal Types	HDMI Digital Audio (NLPCM pass-through), Dante®/AES67 Network Audio • 1 digital audio output via HDMI • 1 Dante®/AES67 digital audio output (up to 4 channels)
Digital Formats	Dolby Digital®, Dolby Digital EX, Dolby Digital Plus, Dolby TrueHD, Dolby Atmos, DTS®, DTS-ES, DTS 96/24, DTS-HD High Res, DTS-HD Master Audio, DTS:X, LPCM up to 8 channels.
Dante®/AES67	24-bit 48 kHz

Communication & Control of External Devices	
HDMI	HDCP 2.2, 2.3 CEC
USB	USB 2.0 host or device signal extension and routing
Serial / RS-232	Bi-directional device control and monitoring
Connectors	
LAN	8-pin RJ-45 connector, female; 100BASE-TX / 1000BASE-T Ethernet port / PD port POE (IEEE 802.3af)
HDMI Output	(1) HDMI Type A connector, female; HDMI digital video/audio output
4 pin Euroblock 3.81mm pitch connector	RS232
USB-C	(2) USB Type-C connector, female; USB 2.0 host port; USB signal extender port for connection to a mouse, keyboard, camera, audio, or other USB 2.0 device
Power	
Power Consumption	12 W typical
Environmental	
Cooling	Convection / no fan (no moving parts)
Temperature	32° to 104° F (0° to 40° C)
Humidity	10% to 90% RH (non-condensing)
Heat Dissipation	25 BTU/hr
Acoustic Noise	0 dBA
Form Factor	
Dimensions	Height: 4.07 in. (103.4 mm) Width: 3.61 in. (91.8 mm) Depth: 2.25 in. (57.2 mm)
Weight	1.0 lb (0.45 kg)
Compliance	
	CE, FCC, C-tick, RoHS, WEEE

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Dimensions • (in mm)

