

DuetE5-WP-H • Duet Wallplate Encoder w/HDMI Only

4K60 4:4:4 & Dante® / AES67 Encoding
 in a convenient, Wallplate form-factor

Overview

Visionary Solutions presents the next generation DuetE5-WP-H 4K60 4:4:4 Wallplate AV over IP Encoder, building upon the revolutionary PacketAV® Duet Wallplate Encoder that has transformed networked AV. Experience true convergence with a single platform that supports Dante®/AES67 and Video over IP in an elegant wallplate form-factor.

The DuetE5-WP-H delivers exceptional 4K60 4:4:4 video and Dante®/AES67 audio over a single Gigabit Ethernet port, offering superior performance and streamlined installation.

The next-generation DuetE5-WP-H features an HDMI-only input, providing a straightforward solution for hassle-free installations in various applications.

The DuetE5-WP-H is designed for easy mounting in walls, tabletops, lecterns, or floor boxes using a standard 2-gang US or UK back box, offering flexibility for diverse installation requirements.

With support for standard Power over Ethernet (PoE) and Ethernet connectivity, the DuetE5-WP-H requires only a single category cable for a neat and efficient installation.



Visionary's PacketTV® and PacketAV® products, including the DuetE5-WP-H, can be deployed on any industry-standard IP network. They can operate on existing enterprise IP networks or separate parallel networks (private networks) without intermingling video traffic with data or voice, ensuring ease of installation and optimal performance.

Upgrade your networked AV experience with the DuetE5-WP-H 4K60 4:4:4 Wallplate AV over IP Encoder from Visionary Solutions. Combining state-of-the-art technology with a sleek design, the DuetE5-WP-H is the perfect choice for professionals seeking a streamlined, high-performance AV over IP solution.

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.

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

One Gigabit LAN Port for 4K60 4:4:4 Video, Dante®/AES67, and Control

- 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

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.

Seamless Fast Switching

- Tearing free, no black screen, no frame lock

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Features cont.

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])

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

Independent Routing

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

HDMI 2.0 and HDCP 2.2, 2.3 Compliant

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

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

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Benefits

- A single Gigabit LAN Port for PoE Power, 4K60 4:4:4 Video, Dante®/AES67, and Control
- HDMI only eliminates unused I/O connectors, simplifying installation & reducing end user support calls
- Secure Network Isolation - VLAN Tagging separates AV traffic on the corporate network
- Easy installation in a wall, floor, or lectern
- Mounts into standard Decora style wallplates
- Easy Control Integration
- 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

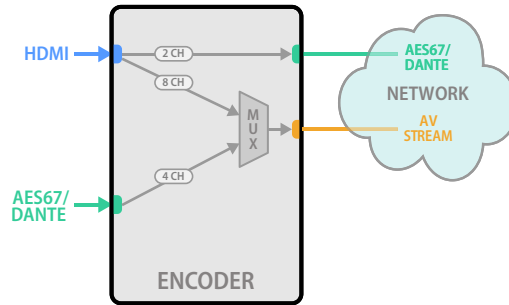
Fits conveniently into a 2-gang US or UK back box with no modification

- 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.



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Audio Workflow



Specifications

Encoding/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
Input Signal Types (Encoder)	1x HDMI capable of receiving source input video formats up to 4K60 4:4:4
Audio	
Input Signal Types	HDMI Audio, Dante®/AES67 Network Audio (up to 4 channels) • 1 digital input de-embedded 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 2 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.
Analog Formats	Stereo 2-channel
Analog-To-Digital Conversion	24-bit 48 kHz
Digital-To-Analog Conversion	24-bit 48 kHz
Dante™/AES67	24-bit 48 kHz
Analog Output Volume Adjustment	-80 to +20 dB

Communication & Control of External Devices	
HDMI	HDCP 2.2, 2.3 EDID
Connectors	
LAN	8-pin RJ-45 connector, female; 100BASE-TX / 1000BASE-T Ethernet port / PD port POE (IEEE 802.3af)
HDMI INPUT	(1) HDMI Type A connector, female; HDMI digital video/audio input
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)

