

DuetE5-WP-C-BT • Duet Wallplate Encoder

4K60 4:4:4 Wallplate AV-over-IP Encoder with USB-C, HDMI, and Bluetooth® Audio

Overview

Visionary presents the DuetE5-WP-C-BT 4K60 4:4:4 Wallplate AV-over-IP Encoder, expanding the 5-Series lineup with USB-C connectivity and integrated Bluetooth® audio for the first time. Building on Visionary's PacketAV® platform, the DuetE5-WP-C-BT offers unparalleled flexibility in a compact, installer-friendly wallplate design that unites wired and wireless connectivity in one advanced AV-over-IP solution.

The DuetE5-WP-C-BT delivers 4K60 4:4:4 ultra-low-latency video and Dante®/AES67 audio over a single Gigabit Ethernet port, providing exceptional performance and network efficiency. With HDMI, USB-C, and Bluetooth® inputs, it supports a wide range of source devices and audio paths, enabling seamless integration into any professional AV-over-IP system.

The USB-C input supports DisplayPort Alt Mode video and bi-directional USB-over-IP data, allowing KVM extension and USB device routing across the network. USB peripherals such as cameras or control interfaces connected to a remote 5-series decoder can be accessed through the wallplate's USB-C port, bridging local and networked USB functionality. The integrated Bluetooth® receiver adds wireless audio capability, enabling direct streaming into the Dante®/AES67 network for added flexibility.

The DuetE5-WP-C-BT is powered by standard PoE and requires only a single category cable for both power and Ethernet.



Its angled 45-degree Ethernet connector allows proper bend-radius compliance within wall and table-box installations, simplifying deployment and ensuring long-term cable reliability.

As part of Visionary's PacketAV® family, the DuetE5-WP-C-BT can be deployed on any industry-standard IP network, either integrated with enterprise infrastructure or configured on a dedicated AV network. The DuetE5-WP-C-BT embodies Visionary's commitment to delivering advanced AV-over-IP technology in an elegant, simplified, and professional format.

Experience the innovation of the DuetE5-WP-C-BT 4K60 4:4:4 Wallplate AV-over-IP Encoder from Visionary - combining state-of-the-art connectivity, intuitive installation, and uncompromised network performance.

Features

USB-C Connectivity

- Connect easily and share media from your Mac, Laptop, Tablet, Mobile, and Other USB-C enabled devices
- Note: Not all devices will be compatible; Source devices must support DisplayPort Alt Mode for USB Type-C or Thunderbolt.

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

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.

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.

Bluetooth® Audio Connectivity

- Bluetooth® 5.0 for extended range, faster data throughput, and more reliable connections
- Bluetooth® Audio bridge for Dante®
- Supports both A2DP profile for media streaming and Hands Free Profile (HFP) for bi-directional smartphone bridging
- Connect easily and share audio from your Mac, Laptop, Tablet, Mobile, and Other Bluetooth® enabled devices

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.

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

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.

QoS Support

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

Intuitive Single Button Bluetooth® Pairing with LED Status Indication

- Simple one button pairing/connect process, multiple pairing modes – Manual (default), Auto and Private
- Pairing button can be disabled for restricted use applications with third-party control systems
- LED “off” mode

USB 2.0 over IP (KVM) & RS-232 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

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

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

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

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Features cont.

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

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])

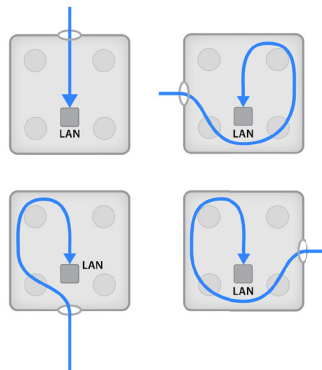
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Benefits

- USB-C Connectivity
- A single Gigabit LAN Port for PoE Power, 4K60 4:4:4 Video, Dante®/AES67, and Control
- Effortlessly play audio from your Bluetooth® enabled devices
- Bi-directional smartphone connectivity via Bluetooth® for web conference soft-codec AV integration
- Eliminates need for separate AV Bluetooth® bridging hardware
- 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.

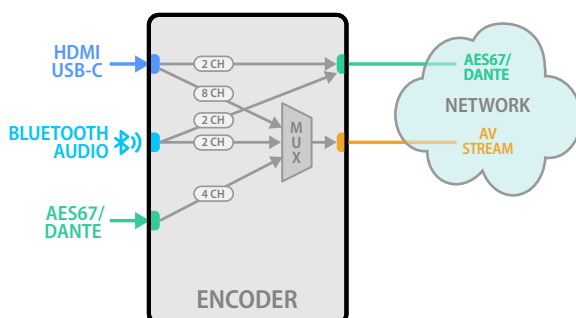


Removable RS-232 Connector Cover



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Audio Workflow



Specifications

Encoding	
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	1x HDMI & 1x USB-C capable of receiving source input video formats up to 4K60 4:4:4 *(DisplayPort Alt Mode for USB Type-C or Thunderbolt)
Audio	
Input Signal Types	HDMI Audio, USB-C DP Audio, Bluetooth® Stereo Audio, Dante®/AES67 Network Audio (up to 4 channels) • 1 digital input de-embedded from HDMI • 1 digital input de-embedded from USB-C (DisplayPort Alt Mode) • 1 Bluetooth® Stereo Audio input (A2DP) • 1 Dante®/AES67 digital audio input (up to 4 channels)
Output Signal Types	HDMI Digital Audio (NLPCM pass-through), UAC Audio, Dante®/AES67 Network Audio • Digital (stream) Audio output (NLPCM pass-through) • 1 digital audio output via USB-C (UAC) • 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.
Bluetooth Formats	Stereo 2-channel
Dante®/AES67	24-bit 48 kHz

Communication & Control of External Devices	
Bluetooth® Profiles	A2DP - Stereo Audio is streamed from a Bluetooth® device and embedded into the AV (HDMI) stream and/or simultaneously onto the Dante® network
	HFP (Hands Free Profile) - bi-directional pairing to a cell phone for call bridging
Bluetooth® Pairing Button	Blue LED: Pairing Status
Bluetooth® Range	10m (30ft) minimum. Typical Range is 14 - 23m (46 - 75ft)
HDMI	HDCP 2.2, 2.3 EDID
USB	EDID; 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 INPUT	(1) HDMI Type A connector, female; HDMI digital video/audio input
4 pin Euroblock 3.81mm pitch connector	RS232
USB-C	(1) USB Type C connector, female; Display Port digital video/ audio inputs & USB 2.0 device port; USB signal extender port for connection to a computer or other USB 2.0 host
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)

