

E-WP-BT • Wallplate Encoder w/Bluetooth®

Powerful AV Encoding in a convenient, Wallplate form-factor

Overview

Visionary's PoE 4K UHD over IP cinema quality, ultra-low latency [~1 frame - visually lossless], encoders and decoders bypass the constraints of traditional switch matrix distribution systems by continuing to harness the flexibility and scalability of converged IP networks.

With the growing demand for 4K UHD video, professional AV designers and IT directors – in an increasingly converged AV/IT environment – have been using Visionary's products as an alternative to conventional distribution systems.

Visionary's PacketAV® AV over IP products can be deployed on any industry standard IP network.



They can be used on existing enterprise IP networks or a physically separate parallel network [private network] to offload traffic, using the same network protocols, methods, and devices but without intermingling of video traffic with data or voice; with equal ease of installation.

Features

One Gigabit LAN Port for 4K UHD Video and Control

- A single Ethernet port for AV over IP and POE Power Input

Bluetooth® Audio Connectivity

- Bluetooth® 5.0 for extended range, faster data throughput, and more reliable connections
- 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

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

A single Gigabit LAN Port for PoE Power, 4K UHD Video, and Control

Secure Network Isolation - VLAN Tagging separates AV traffic on the corporate network

Easy installation in a wall, door, or lectern

Mounts into standard Decora style wallplates

Easy Control Integration

Ultra-low Latency [~1 frame - visually lossless]

Low bitrates

No server 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

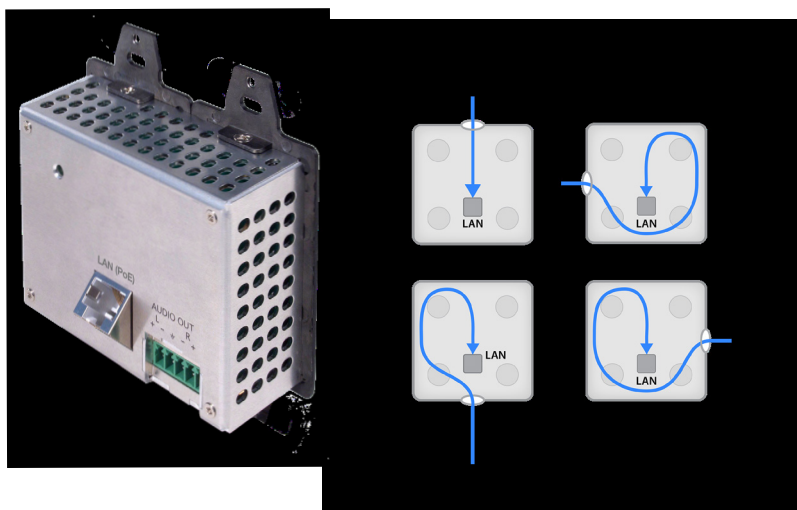
Single network for AV and IT

Reduced operating costs

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

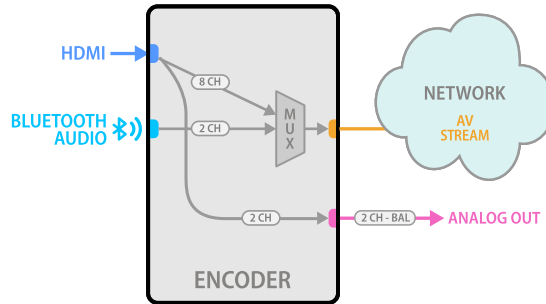
Low Heat / Power: Natural convection via vent openings on front, sides, and top

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 up to 8 Channels
Bit Rates	50 to 800 Mbps
Latency	Ultra-low Latency (visually lossless video) 17ms @ 1080p60 & 4K60 4:2:0 33ms @ 4K30 4:4:4
Streaming Protocols	IP, UDP, TCP, ICMP, IGMP
Copy Protection	HDCP 2.2, AES-128 Encryption
Video	
Maximum Resolutions	High Dynamic Range (HDR) 4K60 4:2:0 HDR 8 bit 4K30 4:4:4 HDR 8 bit 1080p60 4:4:4 HDR 12 bit 1080p30 4:4:4 HDR 12 bit
Input Signal Types (Encoder)	1x HDMI capable of receiving source input video formats up to 4K60 4:2:0
Audio	
Input Signal Types	HDMI Audio and Bluetooth® Stereo Audio • 1 digital input de-embedded from HDMI • 1 Bluetooth® Stereo Audio input (A2DP)
Output Signal Types	HDMI Digital Audio (NLPCM pass-through), Analog Stereo Audio • 1 digital audio output via HDMI • 1 analog stereo audio output (balanced)
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
Analog Output Volume Adjustment	-80 to +20 dB

Communication & Control of External Devices	
Bluetooth® Profiles	A2DP - Stereo Audio is streamed from a Bluetooth® device and embedded into the AV (HDMI) stream 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, 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
5 pin Euroblock 3.81mm pitch connector	Analog Stereo Output (balanced)
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 in. (50.6 mm)
Weight	1.0 lb (0.45 kg)
Compliance	
	CE, FCC, C-tick, RoHS, WEEE

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Dimensions • (in mm)

