

1080P60 H.265 AV over IP Decoder

Adds a display to your AV-over-IP system without adding an encoder — it simply joins the standard 1G network you already have. A compact, low-power 1080P60 H.265/H.264 AV over IP decoder, the AVO-IP265HD-DEC measures just 120×95×21.5mm and draws 3.1 watts — rack-mounting up to 12 units in 4U or 8 in 1U, the right choice for digital signage, education, retail, and corporate AV where display counts grow independently of sources and density matters more than 4K or KVM.

It receives any AVO-IP265HD encoder's stream by unicast or multicast, drives matrix switching and video wall up to 9×9, extracts analog audio, and passes RS-232 through — all configured through the web GUI. Pair it to a source with the AVO-IPCTL-265HD controller or the RS-232 command !OUT xxx FR yyy. Sold as a standalone decoder, it turns display expansion into a simple add-on. Encoders (AVO-IP265HD-ENC) sold separately.

Surge Protection Recommended — This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shock, or lightning strikes. Use of surge protection is highly recommended.

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FEATURES

- ✓ H.265/H.264 codec — 1080P@60Hz 4:4:4, up to 1920×1200@60Hz, HDMI 1.3, HDCP 1.4
- ✓ Compact form factor: 4.72" × 3.74" × 0.85" (120 × 95 × 21.5mm), 0.65 lbs per unit
- ✓ Rack-dense: 4U rack (up to 12 units) or 1U rack (up to 8 units)
- ✓ Decodes any AVO-IP265HD encoder stream to a connected HDMI display
- ✓ Matrix switching, video wall up to 9×9, unicast and multicast reception over 1G
- ✓ Analog audio extraction — LPCM 2.0CH to the 3-pin Phoenix output
- ✓ Decoder-to-encoder pairing via RS-232 command (!OUT xxx FR yyy) or controller
- ✓ RTSP sub-stream for VLC and third-party application preview
- ✓ Web GUI for video configuration, scaling, picture settings, firmware updates
- ✓ PoE 802.3af Class 3 PD or DC 12V/1A — ultra-low power: 3.1W
- ✓ Works with AVO-IPCTL-265HD (CTL100H) controller

PACKAGE CONTENTS

Each AVO-IP265HD-DEC includes: 2× 3-pin Phoenix connectors | 2× Mounting ears | 4× Screws (KM3) | 1× DC 12V/1A locking PSU | User manual. Encoder (AVO-IP265HD-ENC) sold separately.



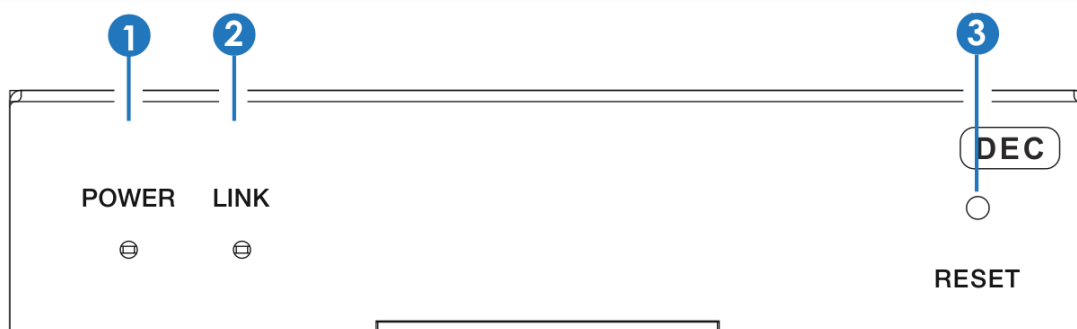
Specifications

TECHNICAL		
	Video Compression	H.265 / H.264
	HDMI Compliance	HDMI 1.3
	HDCP Compliance	HDCP 1.4
	Video Resolution	Up to 1920×1200@60Hz 4:4:4 (1080P60)
	Color Space	RGB 4:4:4, YCbCr 4:4:4, YCbCr 4:2:2
	Color Depth	Input: 8/10/12-bit (1080p@60Hz) • Output: 8-bit
	Audio Formats	LPCM 2.0CH (32 / 44.1 / 48kHz)
	Video Bandwidth	4.95Gbps
CONNECTION		
	Connectors	1× HDMI OUT [Type A, 19-pin female] 1× LAN [RJ45, PoE] 1× Audio OUT [3-pin Phoenix] 1× RS-232 [3-pin Phoenix]
	Transmission Distance	Up to 328 ft / 100m via CAT5E/6/6A/7
NETWORK & CONTROL		
	Network	100M / 1G Ethernet (RJ45), IGMP multicast
	Control	RS-232 pass-through • TCP/IP • Web GUI • AVO-IPCTL-265HD controller
	Video Wall	Up to 9×9 (81 displays)
POWER		
	Power Supply	PoE 802.3af Class 3, or DC 12V/1A (AC100–240V 50/60Hz adapter)
	Power Consumption	3.1W
MECHANICAL		
	Housing	Metal enclosure, Black
	Dimensions (W×D×H)	4.72" × 3.74" × 0.85" (120 × 95 × 21.5mm)
	Net Weight	0.65 lbs (294g)
ENVIRONMENTAL		
	Operating Temperature	14°F – 113°F (–10°C – 45°C)
	Storage Temperature	–4°F – 140°F (–20°C – 60°C)
	Relative Humidity	20% – 90% RH (no condensing)
	ESD Protection	IEC 61000-4-2: ±8kV air-gap, ±4kV contact



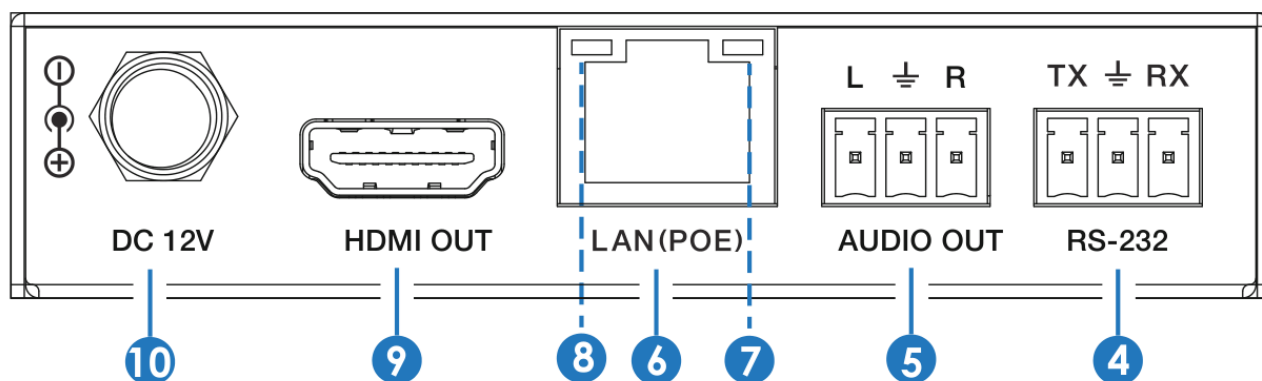
Operation Controls

FRONT PANEL



No.	Name	Function Description
1	POWER LED (Red)	Flashes at 2Hz during system startup; stays on after startup completes.
2	LINK LED (Green)	Network connection status. On: connected with video data. Flash: connected but no video data. Off: not connected.
3	RESET	System reset button. Press and hold 3 seconds to restart and restore factory settings.

REAR PANEL



No.	Name	Function Description
4	RS-232	RS-232 serial port — supports signal pass-through and local serial-port control.
5	AUDIO OUT	Analog stereo audio output via 3-pin Phoenix connector. Connect to an amplifier or loudspeaker; follows the encoder's audio output.
6	LAN (POE)	100M/1G network port. Connect to a switch/router/hub for data transmission or PoE.
7	Link Signal Indicator (Green)	Illuminated: network cable connected normally. Dark: not connected well.
8	Data Signal Indicator (Yellow)	Flashing: data is transmitting. Dark: no data transmission.
9	HDMI OUT	HDMI output port. Connect to a display such as a TV or monitor.
10	DC 12V	Two power methods: local DC 12V/1A, or PoE from the network switch (PD mode). When the switch supports PoE, the DC adapter is not needed.



Setup & Application

ENCODER & DECODER MATCHING

Every AVO-IP265HD-ENC and AVO-IP265HD-DEC ships with a unique ID. To pair a decoder to an encoder, use the AVO-IPCTL-265HD controller or send the RS-232 command **!OUT xxx FR yyy**, where xxx is the decoder (output) ID and yyy is the encoder (source) ID. Multiple decoders may subscribe to the same encoder for one-to-many distribution, and any decoder can be re-pointed to a different encoder to build a matrix or video wall up to 9×9.

A Layer-3 managed Gigabit switch with IGMP Snooping / multicast enabled is required. Default device IPs are **169.254.100.254** (encoder) and **169.254.100.253** (decoder); log in to the Web GUI as **admin / admin** to configure streams, EDID, and network settings.

APPLICATION EXAMPLE

1080P60 H.265 AV-over-IP Distribution — Matrix & Video Wall over 1G



How it works: The encoder converts one HDMI source into an H.265/H.264 stream on a 1G managed network. Any number of decoders subscribe to that stream by multicast and output HDMI to their displays — add displays by adding decoders, not encoders.

Matrix & video wall: Route any encoder to any decoder and compose walls up to 9×9 via the AVO-IPCTL-265HD controller or the RS-232 command **!OUT xxx FR yyy**.

Power: Each endpoint draws PoE 802.3af from the switch — no local PSU required.



Troubleshooting

Q: No video on the connected display?

A: Confirm the decoder is paired to an active encoder (RS-232 *!OUT xxx FR yyy* or the controller) and both are on the same segment with IGMP Snooping enabled. Check the decoder LINK LED is on.

Q: No audio from the AUDIO OUT port?

A: Analog stereo is extracted to the 3-pin Phoenix output and follows the encoder's audio source. Verify the encoder has an audio source connected and the Phoenix connector is seated.

Q: How do I open the Web GUI?

A: Set your PC to the 169.254.x.x subnet, then browse to the decoder's default IP **169.254.100.253** and log in as **admin / admin**.

Need help? — For additional support, contact KanexPro technical support at support@kanexpro.com or 888.975.1368, or scan the QR code below for the product page.

