

18Gbps 4K HDMI Audio Extractor with Dolby Atmos

De-embed 4K HDMI Audio to Optical and Analog with Selectable Audio Modes

Surge Protection Recommended. This product contains sensitive electrical components that may be damaged by electrical spikes, surges, or lightning strikes. Use of surge protection systems is highly recommended to protect and extend the life of your equipment.

The KanexPro HAECOAX3 is a 3rd-generation 4K HDMI audio extractor built for integrators who need reliable, format-flexible audio de-embedding from any HDMI 2.0 source. With 18Gbps bandwidth and full HDMI 2.0b compliance, it passes 4K@60Hz 4:4:4 video with 10-bit HDR transparently while simultaneously extracting audio to both S/PDIF Toslink optical and 3.5mm analog L/R outputs — supporting Dolby Atmos, DTS:X, and the full suite of HDMI high bit-rate audio formats.

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1. Introduction

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2. Features

- 4K/60 HDMI audio extractor with Dolby Atmos and DTS:X support
- 18Gbps bandwidth — full HDMI 2.0b specification compliance
- Video resolutions up to 4K@50/60Hz (YUV 4:4:4), 4K@30Hz, 1080P@120Hz
- 10-bit HDR (High Dynamic Range) pass-through for wide color gamut
- Supports HDMI High Bit Rate (HBR) audio pass-through
- De-embeds audio to multi-channel digital via Toslink S/PDIF or analog L/R simultaneously
- Front-panel 3-position switch: TV / Bitstream / LPCM 2CH audio mode selection
- HDMI audio output: PCM 2/5.1/7.1CH, Dolby TrueHD, Dolby Atmos, DTS-HD MA, DTS:X
- Optical audio output: LPCM 2CH, LPCM 5.1CH, Dolby Digital 2/5.1CH, DTS 2/5.1CH
- Supports uncompressed LPCM — converts 2CH from 24-bit up to 192kHz
- HDCP 2.2 compliant with automatic input cable equalization
- CEC pass-through for transparent device control

3. Package Contents

1× HAECOAX3 18Gbps Audio Extractor

1× 5V/1A Power Adapter

1× User Manual



4. Specifications

Video	
HDMI Compliance	HDMI 2.0b
HDCP Compliance	HDCP 2.2 and HDCP 1.4
Video Bandwidth	18Gbps
Video Resolution	4K@50/60Hz (YUV 4:4:4); 4K@30Hz; 1080P@120Hz; 1080P 3D@60Hz
Color Space	RGB, YCbCr 4:4:4, YCbCr 4:2:2
Color Depth	10-bit, 12-bit
HDR	10-bit HDR pass-through
Audio	
HDMI Audio (Pass-thru)	LPCM 2/5.1/7.1CH, Dolby Digital, DTS 5.1, Dolby Digital+, Dolby TrueHD, DTS-HD MA, Dolby Atmos, DTS:X
Optical Audio Out	LPCM 2CH, LPCM 5.1CH, Dolby Digital 2/5.1CH, DTS 2/5.1CH
L/R Audio Out	Analog Stereo 2CH
Audio Sampling Rate	Up to 192kHz (24-bit, 2CH)
ESD Protection	±8kV Air-gap; ±4kV Contact
Connections	
Input	1× HDMI Type A [19-pin female]
Output	1× HDMI Type A 1× L/R Audio Out [3.5mm Stereo Mini-jack] 1× Optical Out [S/PDIF Toslink]
Mechanical	
Dimensions	73.5mm [W] × 60.7mm [D] × 17mm [H]
Weight	0.28 lb (~127g)
Housing	Metal Enclosure — Black
Power Supply	DC 5V/1A — Input: AC 100–240V 50/60Hz (CE/FCC/UL)
Power Consumption	1W (Max)
Environment	
Operating Temperature	0°C – 40°C / 32°F – 104°F
Storage Temperature	-20°C – 60°C / -4°F – 140°F
Relative Humidity	20–90% RH (non-condensing)



5. Operation Controls and Functions

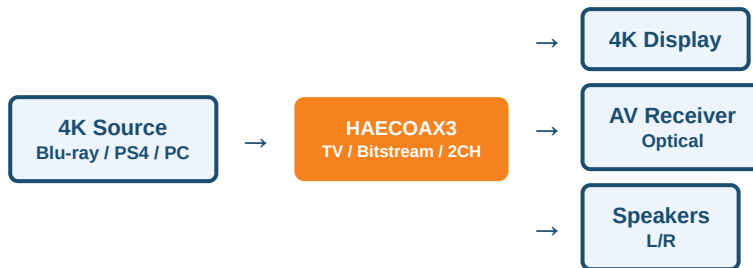
FRONT PANEL

#	NAME	FUNCTION
1	DC 5V	Connect 5V/1A adapter for power.
2	Power LED	Red LED: system is powered on.
3	TV / BS / 2CH Switch	Audio mode: TV = display EDID-driven; Bitstream = raw encoded to optical; 2CH = LPCM stereo downmix.
4	HDMI In	Connect to HDMI 2.0 source (Blu-ray, gaming console, PC, STB).
5	Link LED	Green LED: HDMI input signal detected.

REAR PANEL

#	NAME	FUNCTION
1	HDMI Out	Connect to display. Passes full 4K@60Hz 4:4:4 video and HDMI audio.
2	L/R Out	3.5mm stereo analog output. Connect to amplifier or powered speakers.
3	Optical Out	S/PDIF Toslink output. Connect to AV receiver optical input.

6. Application Example



Connect 4K HDMI source to HDMI In. Video passes to HDMI Out at 4K@60Hz with HDR. Audio de-embeds to Optical and L/R simultaneously. Use the TV/Bitstream/2CH switch to select the audio output format.

7. Troubleshooting

Q: No audio from Optical?

A: Set switch to Bitstream. Verify Toslink cable is fully inserted. Confirm amplifier supports the audio format output by the source.

Q: Amplifier shows format but no sound?

A: Try 2CH mode. Some amplifiers may not decode Bitstream formats via optical. LPCM 2CH is universally compatible.

Q: Video passes but audio is missing?

A: Ensure source is set to output audio over HDMI. Confirm Power LED is on and power adapter is connected.

For further support, contact: support@kanexpro.com | 888.975.1368 | www.kanexpro.com

Warranty: 3-Year Limited. KanexPro™ reserves the right to make changes without prior notice.

