

HDMI 2.0 Audio Inserter & Extractor



- Supports 4K/60 4:4:4, HDR, HDCP 2.2 & 1.4
- 18 Gbps bandwidth for compatibility with both HDMI 1.4 and 2.0b
- Supports multi-channel digital and 2-channel analog audio
- Extracts both LR analog and digital audio embedded in the HDMI input
- Embeds either LR analog or digital audio into the HDMI output
- Generates HDMI output with embedded audio with no HDMI input
- EDID management
- Can pass-thru or emulate EDID
- RS-232 controllable
- Configurable digital input for muting audio and/or video

The Hall Research HD-AUD-IO is an all-in-one HDMI audio manager capable of extracting audio from (de-embedding) and inserting audio into (embedding) an HDMI video signal. The product also provides EDID management features.

The product provides one HDMI input with a corresponding HDMI output. The HDMI input audio signal simultaneously extracts to both 2-channel L/R analog and Digital SPDIF (TOSLINK).

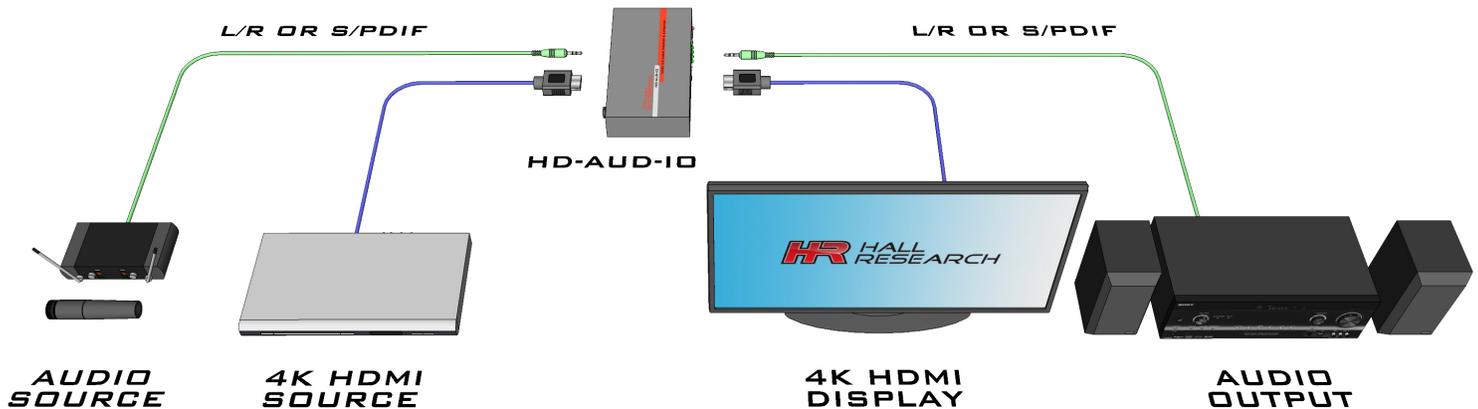
The product provides two audio inputs (analog and digital). Users can select which audio to embed in the HDMI output. It can be the same as the original HDMI audio (pass-thru), SPDIF digital, or 3.5mm L/R analog.

Advanced EDID management allows users to control the video portion as well as the audio part of the EDID. The EDID presented to the video source connected to the HDMI input can pass from the downstream device or emulate an EDID from internal memory. The device can also “Learn” the EDID connected to its HDMI output.

The product has a video bandwidth of 18 Gbps and supports resolutions up to 4K @ 60 Hz 4:4:4 with HDR. It supports HDCP 2.2 as well as HDCP 1.4 if needed.

The device has the ability to generate and output a blank HDMI signal with audio embedded even if there is no HDMI input; often referred to as “HDMI Audio Bridging.” This is a convenient means to distribute audio only signals over an HDMI network. The HD-AUD-IO has a configurable digital input terminal that can mute the audio and/or video.

Block Diagram



Specifications

Standards	DVI signal VGA (640x480) thru WUXGA (1920x1200) HDTV signal 480p through 4K 60 Hz 4:4:4
Audio Formats:	LPCM 2CH Audio (32, 44.1 and 48 KHz sample rate) Digital Audio multi-channel 2.1, 5.1, 7.1
Other Signals	
RS-232:	(1) RX, TX and GND on Terminal Strip RS-232 Baud Rate: 115200, N, 8, 1
Digital Input:	Dry Contact, connect to ground to trigger configured action
General	
Power Supply:	100 VAC to 240 VAC, 47-63 Hz, External; 5 VDC 1.0 ADC
Temp/humidity Storage:	-40 to +158 °F (-40 to +70 °C) / 10% to 90%, non-condensing
Operating:	+32 to +122 °F (0 to +50 °C) / 10% to 90%, non-condensing
Current Draw:	@5VDC - 85 mADC (typical), 200 mADC (fully loaded)
Cooling:	Convection
Enclosure type:	Metal (Steel)
Dimensions	
Model:	0.9" H x 4.47" W x 2.53" D (23 mm H x 114 mm W x 64 mm D)
Shipping:	4.0" H x 10.0" W x 8" D (101.6 mm H x 254 mm W x 203.2 mm D)
Product weight:	Model Only HD-AUD-IO - 0.5 lb (0.227 Kg) Shipping HD-AUD-IO - 1.6 lb (0.726 Kg)
Safety:	CE
EMI/EMC:	CE, FCC Class A
MTBF:	90,000 hours (estimate)
Warranty:	3 years parts and labor