

AHD-111 HDMI Audio Extractor User Manual



Thank you for purchasing the Luxi Electronics AHD-111 HDMI Audio Extractor. Please read through this manual before using the product.

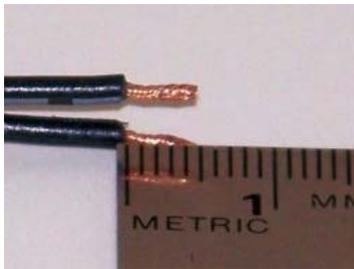
Power options:

This product can draw power from the source device via HDMI cable or from the optional external power supply. To determine if the source device has enough power to power this device, connect this device in between the source and display

devices via a short HDMI cable. If a normal picture appears on screen, then this device can get enough power from the source device and no need for an external power supply. If no normal picture on screen, then it needs an external power supply. You can buy the optional Luxi power supply (P/N 69-001-01) or use any standard 5 V DC power supply with at least 0.5 A output current capability.

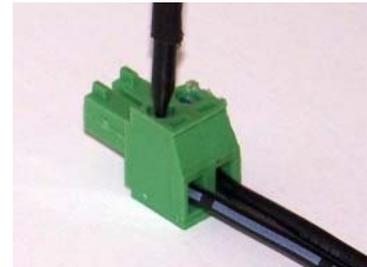


Power wire and plug preparations:



Unplug the power supply from the outlet first; cut off the original DC plug if using a non-Luxi power supply, separate the two wires for about 1" (2.5 cm) long, strip off the wire insulation precisely 3/16" (5 mm) from the end; too short a lead won't provide enough for the plug screws to catch; too long a lead may create short circuit). Identify the positive and negative leads; Luxi power supply has a white strip on the positive wire. If not sure, use a multi-meter to

test it. Insert the leads all the way to the end of the 3.5 mm captive screw plug (provided with each AHD-111) with the correct polarity (positive on left side), use a small flat head screw driver to tighten the 2 locking screws securely.



If multiple of these products are used in the same location, one Luxi external power supply can power up to 5 units. Use extra insulated wires (18 AWG to 22 AWG) daisy-chain the multiple power input captive screw plugs, connecting all positive side together, and connecting all negative side together.

Where to apply the product and how to connect the cables:

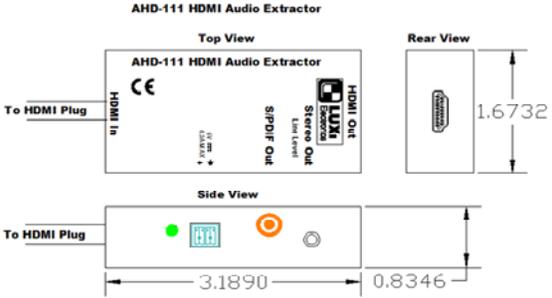
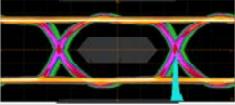
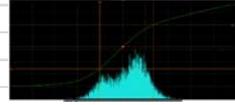
This product is designed to be plugged in directly onto the output connectors on the back of the source device. The HDMI output of this product is connected to the display with an HDMI cable. The S/PDIF output is connected to an audio device via a coax RCA cable. The analog audio output is connected to a power amp's line level input via a 3.5 mm mini cable. Note: it CANNOT drive a headphone.

How the product functions:

All 3 audio outputs (HDMI audio, S/PDIF and analog audio) are live simultaneously. The display or the Audio Extractor's EDID would request the source to send 2 channel audio. The Audio Extractor regenerates the same HDCP key of the display. The Audio Extractor works without a display.

When the HDMI 1.4 Return Audio is in effect, the S/PDIF and analog audio outputs will be muted. This is the limitation of the HDMI specs.

Support: Please contact your reseller directly for local support; or to Luxi in the contact info above.

Product Specification	Part Number: 77-002-01
HDMI Audio Extractor, M-F pigtail	Model: AHD-111
Product Image	Product Drawing
	
Features and Benefits	Mechanical
<ul style="list-style-type: none"> > World's smallest HDMI audio extractor with HDMI 2.0 support including 3D, HEAC, Deep Color, etc. > No mounting needed; just plug it in-line between the source device's output and the cable to the sink device > External power is not always required; it draws power from source device first. If not enough, then external power. > Two channel analog output on 3.5 mm mini stereo jack and SPDIF output on female RCA connector > Luxi's patented T-grip locking HDMI connector design on both male input and female output to ensure secure connector mating > Luxi's SuperSlim HDMI plug and cable fits the tightest space > Flexible pigtail and compact design allowing multiple of these products to hang on the back of a matrix switcher > All 3 audio outputs (HDMI out, S/PDIF and mini jack) live > HDCP 2.0 compliant > CE and FCC compliant > RoHS compliant 	<ul style="list-style-type: none"> Enclosure material: Aluminum Enclosure size: 3.2" x 1.7" x 0.8" (81 x 42 x 21 mm) Pigtail length (neck to neck): 4.8" (123 mm) Pigtail cable diameter: 0.24" (6 mm) Overall plug height: 0.35" (9 mm) Overall plug length: 0.59" (15 mm)
Package	Electrical
<ul style="list-style-type: none"> 1 piece in one white cardboard box; no power supply 	<ul style="list-style-type: none"> Supported Signal Formats Maximum data rate: 6.75 Gbps (2.25 Gbps per color) Maximum pixel clock: 225 MHz Resolution range: Up to 1080p 36-bit @ 60 Hz, or 3D, or 4k @ 24 Hz Video formats: RGB and YCbCr digital video Audio formats: Dolby TrueHD, DTS-HD Master Audio and all other HDMI audio formats (output L and R channels) Standards: HDMI 2.0, DVI 1.0 (with proper adaptors)
 <ul style="list-style-type: none"> Box size: 6.0" x 4.8" x 1.1" (15.3 x 12.2 x 2.8 cm) Weight: package, 0.33 lb (0.15 kg); product, 0.15 lb (68 g) 48-pc box: 15.8" x 14.2" x 9.8" (40 x 36 x 25 cm) 48-pc box weight: 17.6 lb (8.0 kg) 	<ul style="list-style-type: none"> Audio outputs: S/PDIF: 75 ohm, 0.6 Vp-p, 2 channel PCM Mini jack: 50 ohm, 316 mVrms nominal, 2 channel analog max output 1.25 Vrms, THD 0.01%
General	Electrical test results (1080p 24-bit 60 Hz results below)
<ul style="list-style-type: none"> Input connector: 1 HDMI Type A female Output connectors: 1 HDMI Type A male 1 RCA female S/PDIF (1) 3.5 mm stereo mini jack analog Power connector: 2-pin 3.5 mm captive screw receptacle 	<ul style="list-style-type: none"> TMDS clock jitter: 81 mTbit TMDS data jitter: 134, 131, 136 mTbit for D0, D1, D2 resp. TMDS clock rise time: 202 ps TMDS clock fall time: 186 ps TMDS data rise time: 116, 140, 123 ps for D0, D1, D2 TMDS data fall time: 111, 125, 113 ps for D0, D1, D2 Clock duty: 48.23 min, 48.54 max Inter-pair skew: D0/D1, 1 mTpixel D0/D2, 0.9 mTpixel D1/D2, 2 mTpixel  
Other Related Products	Power: 5 V DC, 0.3 A from source device or external power
	<ul style="list-style-type: none"> Optional power supply: Auto switching 100-240 V AC input on US plug, 5 V DC 2 A max on bare wires, wall ward type, UL, PSE, CE, FCC
TPR-110CR, P/N 74-017-01; RPR-110CR, P/N 74-020-01	Mounting: not needed; pigtail plugged into a display input
	Regulatory compliance
	Safety: CE, CUL, UL (power supply only)
	EMI/EMC: CE, FCC Class B
	MTBF: 30,000 hours
	Warranty: 3 years parts and labor