Luxi™ HDMI Audio Extractor – Quick Start Guide
LU-AHD-111

PureLink
digital solutions

Power options

This product can draw power from the source device via HDMI cable or from an optional external power supply. To determine if the source device has enough power to power this device, connect the AHD 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 there is no need for an external power supply. If you can't see a normal picture on screen, then it needs an external power supply. You can buy the optional power supply LU-PS-5V2A from PureLink or use any standard 5V 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.

Mechanical	
Enclosure material	Aluminum
Enclosure size	81 x 42 x 21 cm
Pigtail length	123 mm
Pigtail cable diameter	6 mm
Overall plug height	9 mm
Overall plug length	15 mm

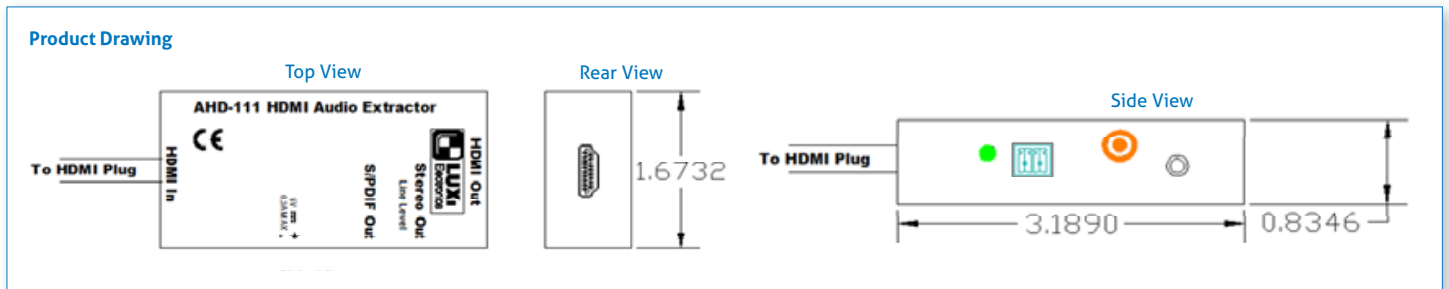| General	
Input connector	1 HDMI Type A female
Output connectors	1 HDMI Type A male 1 RCA female S/PDIF 1 3.5 mm stereo mini jack analog
Power connector	2-pin 3.5 mm captive screw receptacle

For local support, please contact your reseller directly.

K n o w - H o w .   Q u a l i t y .   D e s i g n .   I n n o v a t i o n   G e r m a n   E n t e r p r i s e s .

Product Drawing

Top View — AHD-111 HDMI Audio Extractor — CE — To HDMI Plug — HDMI In — Stereo Out Line Level — S/PDIF Out — HDMI Out

Rear View — 1.6732

Side View — To HDMI Plug — 3.1890 — 0.8346

Features

- World's smallest HDMI audio extractor with HDMI 2.0 support including 3D, HEAC, ARC, 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
- Two channel analog output on 3.5 mm mini stereo jack and S/PDIF output on female RCA connector
- Patented T-grip locking HDMI connector design on both male input and female output to ensure secure connector mating
- PureLink's SuperSlim HDMI cables (ProSpeed series) ensure a space-saving installation
- 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

Technical Specifications

Maximum data rate	6.75 Gbps (2.25 Gbps per color)
Maximum pixel clock	225 MHz
Resolution range	4K / UltraHD / 2160p @24Hz, FullHD / 1080p @60Hz, FullHD 3D 1080p @24Hz
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)
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%
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
Power	5 V DC, 0.3 A from source device or external power
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
Mounting	Not needed; pigtail plugged into a display input
Safety	CE, CUL, UL (power supply only)
EMI/EMC	CE, FCC Class B
MTBF	30,000 hours
Warranty	3 years parts and labor

Packaging

BOX SIZE:
15.3 x 12.2 x 2.8 cm
WEIGHT:
Package 0.15kg
Product 0,068kg
48-PC BOX SIZE:
40 x 36 x 25 cm
48-PC BOX WEIGHT:
8 kg

Package Content

- One piece in one white cardboard box
- Power supply not included

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