PULSEAUDIO™
A Vanco Brand

ARC DIGITAL
AUDIO EXTENDER

PAEXARC1

For applications where ARC signals need to be extended above HDMI® cabling limitations to an amplifier or distributed audio system.

Updated: March 2023

SAFETY INSTRUCTIONS

For optimum performance and safety, please read these instructions carefully before use. Please keep this manual for future reference.

- To prevent electric shock, please ensure that all apparatus is properly grounded.
- Place the device in a well-ventilated area, do not block any ventilation openings.
- Do not expose this apparatus to rain or place it near water. Any liquid that goes into the apparatus may cause a failure, fire, or electric shock.
- Do not place the device on an uneven or unstable surface. The device may fall resulting in a malfunction.
- Never insert anything metallic into the open parts of this apparatus. This may cause a danger of electric shock.
- If a third-party power supply is used, please ensure that the power supply specifications meet the product requirements.

INTRODUCTION

The PulseAudio PAEXARC1 is an ARC Digital Audio Extender that allows digital audio to be routed from a display, back to a remote location or amplifier, over a single Cat5e/6 cable up to 492ft (150m). For displays without ARC capability, or when ARC settings are not working as they should, the built-in "ARC Backup Plan" is featured where audio can still be extended utilizing SPDIF. For applications where ARC signals need to be extended above HDMI® cabling limitations to an amplifier or distributed audio system, the PAEXARC1 is the perfect solution.

The range of the PAXEARC1 will vary depending on the HDMI®/ARC sample rates. For instance, higher sample rates, 192kHz, will be rated at 295ft (90m), while lower sample rates, 96kHz, will be rated at 492ft (150m).

Product Features

- Extends ARC Digital Audio signals over Cat5e/6
- Supports a single HDMI® ARC input and output
- Extends digital audio signals up to 492ft (150m) at 96kHz or 295ft (90m) at 192kHz over a single Cat5e/6
- Built-in "ARC Backup Plan" with SPDIF input and output
- Supports Dolby / DTS 5.1CH and PCM 2CH audio formats
- Simultaneous output of HDMI® and SPDIF ports on the RX unit
- CEC pass-through when HDMI® ARC mode is enabled
- Dimensions: 3.5" x 2.8" x 0.8" (90mm x 72mm x 20mm)
- Weight: 6.2oz (175g)

Package Contents

(1) Digital audio extender set - TX and RX
(2) 5V 2A USB power sdapters
(2) USB-A to micro-USB cables
(1) Product manual

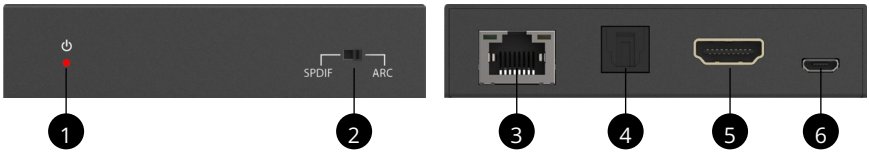
SPECIFICATIONS

Audio	
Supported Audio Formats	PCM 2CH, Dolby/DTS 5.1CH
Sample Rates	
Optical / ARC (492ft / 150m)	32kHz, 44.1kHz, 48kHz, 88.2kHz, 96kHz
ARC (295ft / 90m)	32kHz, 44.1kHz, 48kHz, 88.2kHz, 96kHz, 176.4kHz, 192kHz
Connections	
Transmitter	Input: (1) SPDIF, (1) ARC HDMI® In, (1) Micro-USB (Power)
	Output: (1) CAT Out (Cat5e/6)
Receiver	Input: (1) CAT In (Cat5e/6), (1) Micro-USB (Power)
	Output: (1) SPDIF Out, (1) ARC HDMI® Out
Technical & Mechanical	
Housing	Metal
Color	Black
Dimensions	3.5" x 2.8" x 0.8" (90mm x 72mm x 20mm)
Weight	6.2oz / 175g
Power	
Power Consumption	Transmitter: .35W
	Receiver: .7W
ESD	Human-body Model: ±8kV (Air-gap discharge)
	±4kV (Contact discharge)
Operating Environment	
Temperature	Working: 0°C to 40°C / 32°F to 104°F
	Storage: -20 to 60°C / -4°F to 140°F
Relative Humidity	20 to 90% RH (Non-condensing)

PANEL DESCRIPTIONS

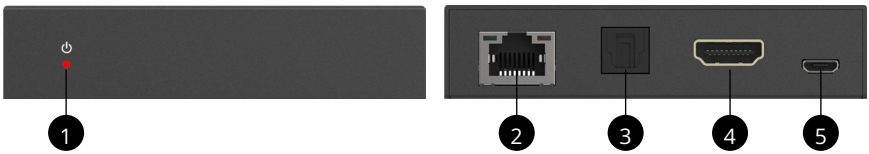
Transmitter Panel

1. POWER LED: When the transmitter is receiving power, the LED light will be red.
2. SPDIF/ARC SWITCH: Selects the audio pass-through channel:
   SPDIF: Digital audio signals are input from the SPDIF IN port of the transmitter
   ARC: Digital audio signals are input from the HDMI® ARC IN port of the transmitter.
3. CAT OUT: Connect a single Cat5e/6 cable from the transmitting unit to the receiving unit (home-run cabling strongly recommended without any couplings, punch-downs, or patch panels).
4. SPDIF IN: Connect to an optical audio source device with an optical toslink cable.
5. ARC IN: Connect to a TV with ARC functionality for ARC audio and CEC pass-through.
   NOTE: Ensure this is connected to the display's ARC HDMI® port, and that the option for ARC is enabled within the display options.
6. DC 5V: Plug in the included Micro USB power cable for power.



Receiver Panel

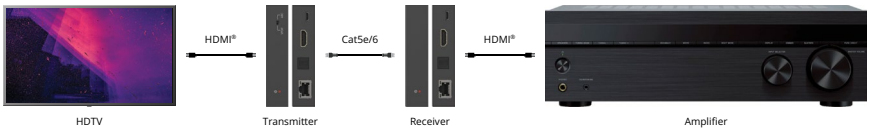
1. POWER LED: When the receiver is receiving power, the LED light will be red.
2. CAT IN: Connect a single Cat5e/6 cable from the transmitting unit to the receiving unit (home-run cabling strongly recommended without any couplings, punch-downs, or patch panels).
3. SPDIF OUT: Connect to a speaker or amplifier with an optical toslink cable.
4. ARC OUT: Connect to an audio device with ARC such as a soundbar, amplifier, or AV Receiver.
5. DC 5V: Plug in the included Micro USB power cable for power.



OPERATION

HDMI ARC – For Displays and Amplifiers/Soundbars with ARC functionality

1. Connect an ARC equipped display such as an HDTV or HD Projector using the ARC HDMI® port of the display to the HDMI® input on the Transmitting unit and set the SPDIF/ARC toggle switch to ARC.
   NOTE: Please refer to the displays manual on how to enable ARC settings.
2. Connect an amplifier, AV Receiver, or soundbar to the HDMI® output on the Receiving unit.
   NOTE: If there are multiple HDMI® ports on the audio device connected to the receiver, make sure it is connected to the HDMI® port labeled ARC. Refer to the device's manual if additional ARC settings need to be enabled.
3. Connect a single Cat5e/6 to the CAT OUT port of the Transmitting unit, and the other end to the CAT IN port of the Receiving unit (home-run cabling strongly recommended without any couplings, punch-downs, or patch panels).
4. For power, plug the Transmitting unit and Receiving unit with the included USB power cables and adapters.
   NOTE: The PAEXARC1 can perform and function using a single power supply being used on the Transmitting or Receiving units. However, in some applications this can result in occasional loss of CEC control and functionality (ARC remains intact).
5. Power on and test (Receiver and Transmitter will already be powered when either unit is plugged in).



SPDIF Digital Audio

1. Connect an optical audio out port from a display such as an HDTV or HD Projector to the SPDIF IN port on the Transmitting unit, and set the SPDIF/ARC toggle switch to SPDIF.
   NOTE: Please refer to the displays manual on how to enable or change audio output settings.
2. Connect an amplifier, AV Receiver, or soundbar to the SPDIF OUT port on the receiving unit.
3. Connect a single Cat5e/6 to the CAT OUT port of the Transmitting unit, and the other end to the CAT IN port of the Receiving unit
4. For power, plug the Transmitting unit and Receiving unit with the included USB power cables and adapters.
   NOTE: The PAEXARC1 can perform and function using a single power supply being used on the Transmitter or Receiver units. However, in some applications this can result in occasional loss of CEC control and functionality (ARC remains intact)
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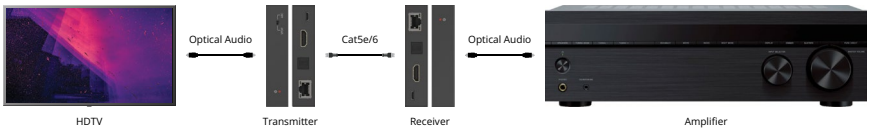
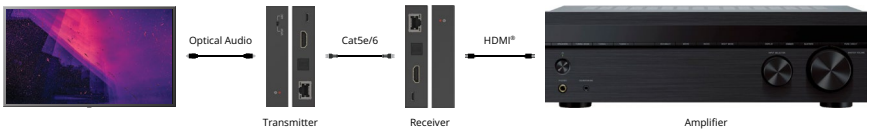


Built In ARC Backup

In the event there are compatibility or communication issues when trying to only use the HDMI® ARC functions of the extender, or the display may not have ARC capabilities, the “ARC Built-In Backup Plan” allows you to convert digital audio. This allows you to utilize the optical audio output of the display, into the SPDIF IN port on the transmitter, and through the HDMI® OUT port on the receiver.



TECHNICAL SUPPORT

In case of problems, please contact Vanco Technical Support by dialing 1-800-626-6445. You can also email technical support issues to techsupport@vanco1.com. When calling, please have the part number, serial number (affixed to the bottom of the unit) and invoice available for reference during the call.

Please read this instruction manual prior to calling or installing this unit, since it will familiarize you with the capabilities of this product and its proper installation.

All active electronic products are 100% inspected and tested to insure highest product quality and trouble-free installation and operation. The testing process utilizes the types of high-definition sources and displays typically installed for entertainment and home theater applications.

For additional information, please visit www.vanco1.com.

LIMITED WARRANTY

With the exceptions noted in the next paragraph, Vanco warrants to the original purchaser that the equipment it manufactures or sells will be free from defects in materials and workmanship for a period of 2 years from the date of purchase. Should this product, in Vanco's opinion, prove defective within this warranty period, Vanco, at its option, will repair or replace this product without charge. Any defective parts replaced become the property of Vanco. This warranty does not apply to those products which have been damaged due to accident, unauthorized alterations, improper repair, modifications, inadequate maintenance and care, or use in any manner for which the product was not originally intended.

Items integrated into Vanco products that are made by other manufacturers, notably computer hard drives and liquid crystal display panels, are limited to the term of the warranty offered by the respective manufacturers. Such specific warranties are available upon request to Vanco. A surge protector, power conditioner unit, or an uninterruptible power supply must be installed in the electrical circuit to protect against power surges.

If repairs are needed during the warranty period the purchaser will be required to provide a sales receipt/sales invoice or other acceptable proof of purchase to the seller of this equipment. The seller will then contact Vanco regarding warranty repair or replacement.

LIABILITY STATEMENT

Every effort has been made to ensure that this product is free of defects. The manufacturer of this product cannot be held liable for the use of this hardware or any direct or indirect consequential damages arising from its use. It is the responsibility of the user and installer of the hardware to check that it is suitable for their requirements and that it is installed correctly.

Manufacturer reserves the right to revise any of its hardware and software following its policy to modify and/or improve its products where necessary or desirable. This statement does not affect the legal rights of the user in any way.

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Web: www.vanco1.com

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