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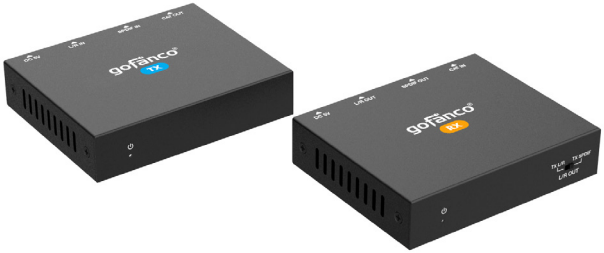
Audio Extender over CAT with DAC - 300m



G4-0161A

P/N: AudioCATExt22

Thank you for purchasing from gofanco. Our products aim to meet all our connectivity needs wherever you go. For optimum performance and safety, please read the instructions carefully and keep this User's Guide for future reference. If you need more information about our products, please visit **www.gofanco.com**.

For technical support, email us at **support@gofanco.com**.
For drivers or manual download, please go to **www.gofanco.com/downloads**.

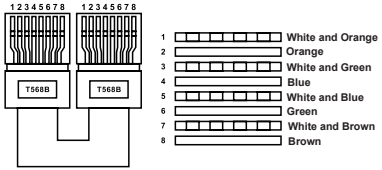
Important Safety Notices

Please read safety instructions carefully before installation and operation.

- Please pay close attention to all warnings and hints for this device.
- Do not expose this unit to rain, heavy moisture, or liquid.
- Do not put any items into the device or attempt to modify its operation.
- Do not repair the device or open the enclosure without professional guidance to avoid electric shocks. Doing so may void your warranty.
- Keep the product in a well-ventilated location to avoid damage from overheating.
- Shut off power and make sure environment is safe before installation.
- Do not plug the HDMI cables and IR cables in/out when the device is in use to avoid cable damage. Make sure they are plugged into the correct ports.
- Use the included power adapters only. Make sure the specification matches if using 3rd-party DC power adapters.

Important Safety Notices (Continued)

- This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shock, lighting strikes, etc. Use of surge protection systems is highly recommended in order to protect and extend the life of your equipment.
- The product requires the use of UTP connectors. Please connect in direct interconnection method and do not cross connect.



Direct Interconnection Method

Table of Contents

1. Introduction

This Audio Extender can transmit digital optical (Toslink) and analog audio (L/R) signals concurrently up to 300m/984ft (48kHz), 150m/492ft (96kHz) or 100m/328ft (192kHz) over a single CAT5e/6/7 cable. The digital optical audio directly passes from transmitter to receiver, while analog audio output on receiver is selectable from the digital optical or analog audio signal from the transmitter. The extender supports bi-directional POC function.

A fantastic plug-and-play solution for sending digital optical and analog audio from an HDTV back to an amplifier, AVR or multi-room audio system over long distances.

2. Features

- Extends Toslink (Optical) and analog (L/R) audio signals up to 984ft/300m (48kHz), 492ft/150m (96kHz), 328ft/100m (192kHz) over a CAT5e/6/7 cable
- Audio formats: LPCM, DTS, Dolby Digital™, Dolby Digital Plus
- Audio sample rates: 32kHz, 44.1kHz, 48kHz, 96kHz, 176.4kHz, and 192kHz up to 24-bit
- Built-in DAC (Digital to Analog Converter)
- Analog audio output can output PCM 2.0 digital audio or analog audio
  *** NOTE:** The L/R input (on transmitter) CAN'T output to SPDIF output (on receiver) under any circumstances.
- Supports bi-directional PoC (Power over Cable) function
- Ultra-low jitter and high-fidelity design

3. Package Contents

- 1x Transmitter (TX)
- 1x Receiver (RX)
- 1x USB-A to Micro-USB port
- 1x User Manual

4. Product Layout

4.1 Transmitter Layout

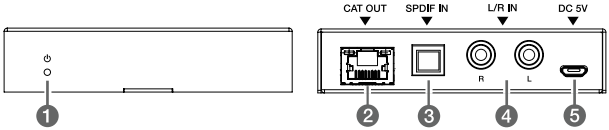


Figure 1: Transmitter Layout

No.	Name	Function Description
1	Power LED	ON when the transmitter is powered on.
2	CAT OUT	Connect to the receiver's CAT IN port with a CAT5e/6/7 cable.
3	SPDIF IN	Connect to an optical digital audio source with an optical Toslink cable.
4	L/R IN	Connect to an analog audio source device with an RCA L/R cable.
5	DC 5V	Micro-USB power input port.

4.2 Receiver Layout

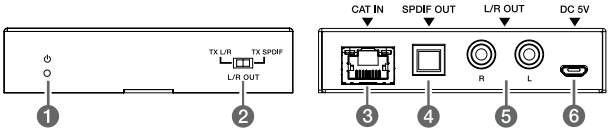


Figure 2: Receiver Layout

No.	Name	Function Description
1	Power LED	ON when the receiver is powered on.
2	L/R OUT Audio Selection Switch	L/R OUT Audio Selection Switch: Use this switch to select the audio source ONLY for the L/R OUT port on the receiver. •**TX L/R:** The L/R OUT port outputs analog audio from the transmitter's L/R IN port. •**TX SPDIF:** The L/R OUT port outputs digital audio from the transmitter's SPDIF IN port.
3	CAT IN	Connect to the transmitter's CAT OUT port with a CAT5e/6/7 cable.
4	SPDIF OUT	Connect to an amplifier or speaker system with an optical Toslink cable.
5	L/R OUT	Connect to an amplifier or speaker system with an RCA L/R cable.
6	DC 5V	Micro-USB power input port.

5. Specifications

Technical	
Bitrate over Distance	110m/328ft, 150m/492ft, 300m/984ft
Supported Audio Formats	**Optical**: All audio formats, including LPCM 2.0, LPCM 5.1, Dolby Digital 2/5.1CH
	Analog: PCM 2.0
Sample Rates	32kHz, 44.1kHz, 48kHz, 96kHz, 176.4kHz and 192kHz up to 24-bit resolution
ESD Protection	IEC 61000-4-2: ±8kV (Air-gap discharge), ±4kV (Contact discharge)

Connection		
Transmitter	Input:	1x SPDIF IN [Optical Audio Jack] 1 x L/R IN [RCA Stereo Audio jack] 1 x Micro-USB
	Output:	1x CAT OUT [RJ45]
Receiver	Input:	1x CAT IN [RJ45] 1x Micro-USB
	Output:	1x SPDIF OUT [Optical Audio Jack] 2x L/R OUT [RCA Stereo Audio jack]

Specifications (Continued)

Mechanical	
Housing	Metal Enclosure
Color	Black
Dimensions	Transmitter / Receiver: 90mm (W)×72mm (D)×20mm (H)
Weight	Transmitter: 174g, Receiver: 174g
Power Supply	DC 5V/1A
Power Consumption	1.5 W (max)
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)

6. Hardware Installation

1. Power off all devices including your audio source and audio output device.

2. Connect your audio source device(s) to the Transmitter's digital Toslink Input and/or analog L/R connectors with the proper cables (cables not included).

3. Connect a CAT cable between the Transmitter's RJ45 OUT and Receiver's RJ45 IN (cable not included).

4. Connect your audio output device (AVR, speakers, etc.) to the Receiver's Toslink and/or L/R Output connectors (cables not included).
   NOTE: Depending on the setup, both Toslink and L/R Outputs can be connected and produce sound simultaneously.

5. Set the L/R OUT selection switch according to page 7.
   NOTE: This switch only applies to the L/R Output on the receiver.

6. Plug the included power adapter into the Transmitter's or Receiver's power jack, then plug the power adapter into a reliable power source.
   NOTE: Power over Cable (PoC) technology allows one power adapter connected to either the transmitter or receiver to power both units through CAT cable.

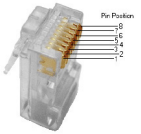
7. Power on all connected devices.

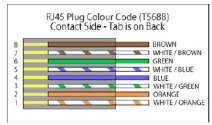
8. The extender is ready for use.

7. CAT Cable Wiring

We suggest both RJ-45 connectors be wired identically using T568B wiring standard for the best performance and compatibility.

Both connectors must be wired identically, to T568B standard.





Note: You may use CAT5e, CAT6 wiring, however, for best performance CAT6a or CAT7 (particularly in electrically noisy environments) is recommended. The maximum transmission distance and video quality may be compromised by cable quality, patch cables, poor termination, wall plates, cable kinks, and electrical interference. We recommend using 100% copper 23AWG (avoid CCA type) CAT cable, in one straight run (avoid/minimize patches) and avoid close proximity to electrical sources.

8. Application Diagram

The application diagram shows the most typical input and output devices used with this Audio Extender.

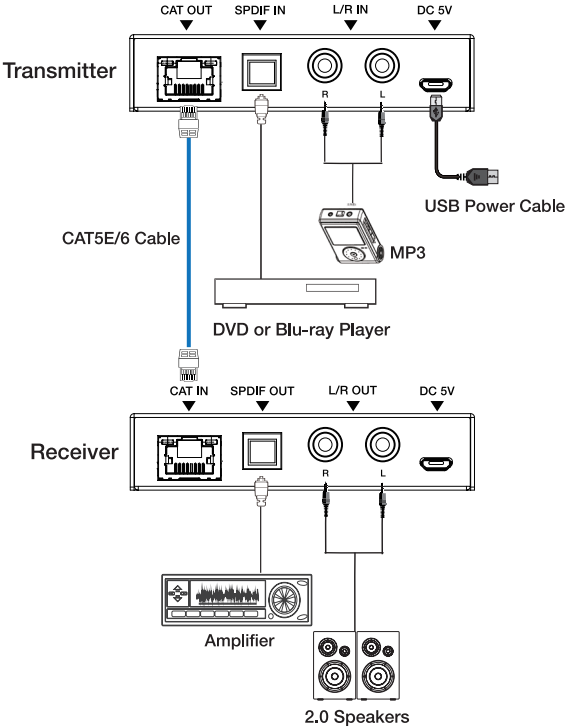


Figure 3: Application Diagram

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10. Disclaimer

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