Long-Range ARC Audio Extender over CAT (150m/492ft)

Dual-Input TX/RX Kit — HDMI ARC or Optical S/PDIF to Amplifier over CAT5e/6/7



When an ARC-enabled display is installed far from the amplifier or AV rack — across a ceiling, through conduit, or down a floor — the native HDMI cable offers no practical path for audio return. The KanexPro AUD-EXT-ARC150M closes that gap, extending HDMI ARC or optical S/PDIF audio up to 150m/492ft over a single CAT5e/6/7 cable in a compact TX/RX kit. One cable replaces what would otherwise require signal repeaters, analog conversion, or dedicated audio cabling runs.

The AUD-EXT-ARC150M accepts either HDMI ARC or optical S/PDIF as a selectable input at the transmitter — covering both ARC-capable displays and legacy sources without an ARC port. CEC pass-through in ARC mode preserves TV remote volume control to the amplifier. High-resolution audio up to 192kHz is supported, with format compatibility for PCM 2.0, Dolby Digital 5.1, and DTS 5.1. Both transmitter and receiver are metal-housed and USB-powered, sized for discreet installation behind panels or in ceiling spaces.

Surge Protection Recommended — This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shock, or lightning strikes. Use of surge protection systems is highly recommended.

TABLE OF CONTENTS

1. Features 1
2. Package Contents 2
3. Specifications 2
4. Before You Begin 3
5. Introduction 3
6. Panel descriptions 3
Transmitter 4
Receiver 5
7. Troubleshooting 5
8. Connection Diagram 6
9. Installation FAQ 6
10. Integration FAQ 7

1. Features

- ✓ Extends HDMI ARC or optical S/PDIF audio up to 150m/492ft over a single CAT5e/6/7 cable — no signal repeaters or dedicated audio cabling required
- ✓ Selectable input at transmitter — switch between HDMI ARC and optical S/PDIF to accommodate ARC-capable displays and legacy sources in the same kit
- ✓ High-resolution audio support up to 192kHz — 150m reach at 96kHz, 90m/295ft at 192kHz for installations requiring extended sample rates
- ✓ CEC pass-through in ARC mode — TV remote volume control is preserved end-to-end without additional control infrastructure
- ✓ Supports PCM 2.0, Dolby Digital 5.1, and DTS 5.1 — compatible with standard surround formats used in commercial and residential AV systems
- ✓ Metal-housed TX and RX units with ESD protection (±8kV air-gap / ±4kV contact) — built for installation in ceiling spaces, wall cavities, and AV racks
- ✓ Plug-and-play operation — no drivers or software required; 5V Micro USB power on both units

2. Package Contents

- ✓ 1× HDMI Audio Extender (Transmitter)
- ✓ 1× HDMI Audio Extender (Receiver)
- ✓ 2× USB Shielded Cable (USB-A to Micro USB, 1m)
- ✓ 2× 5V/1A Power Adapter

3. Specifications

TECHNICAL	
Supported Audio Formats	PCM 2.0ch, Dolby Digital 5.1ch, DTS 5.1ch
Maximum Sample Rate	192kHz
ESD Protection	±8kV air-gap discharge / ±4kV contact discharge
TRANSMISSION	
ARC Audio — 96kHz	150m / 495ft
ARC Audio — 192kHz	90m / 295ft
S/PDIF Audio — 96kHz	150m / 495ft
Cable Type	CAT5e / CAT6 / CAT7 (straight-through, T568B)
TRANSMITTER	
Inputs	1× ARC IN [HDMI Type-A, 19-pin female], 1× S/PDIF IN [Optical Audio Jack], 1× Micro-USB
Output	1× CAT OUT [RJ45]
Input Select	Front-panel S/PDIF / ARC toggle switch
RECEIVER	
Inputs	1× CAT IN [RJ45], 1× Micro-USB
Outputs	1× ARC OUT [HDMI Type-A, 19-pin female], 1× S/PDIF OUT [Optical Audio Jack]
MECHANICAL	
Housing	Metal Enclosure
Color	Black
Dimensions	90 × 72 × 20mm (TX & RX)
Weight	175g (TX & RX)
POWER	
Power Supply	DC 5V / 1A (Micro USB)
Power Consumption	Transmitter: 0.35W (max) / Receiver: 0.7W (max)
ENVIRONMENTAL	
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)

4. Before You Begin

Thank you for purchasing this product. For best performance and safety, read these instructions carefully before you connect, operate or adjust the extender.

Use surge protection. This product contains sensitive electrical components that electrical spikes, surges, electric shock or lightning strikes can damage. We strongly recommend a surge protection system.

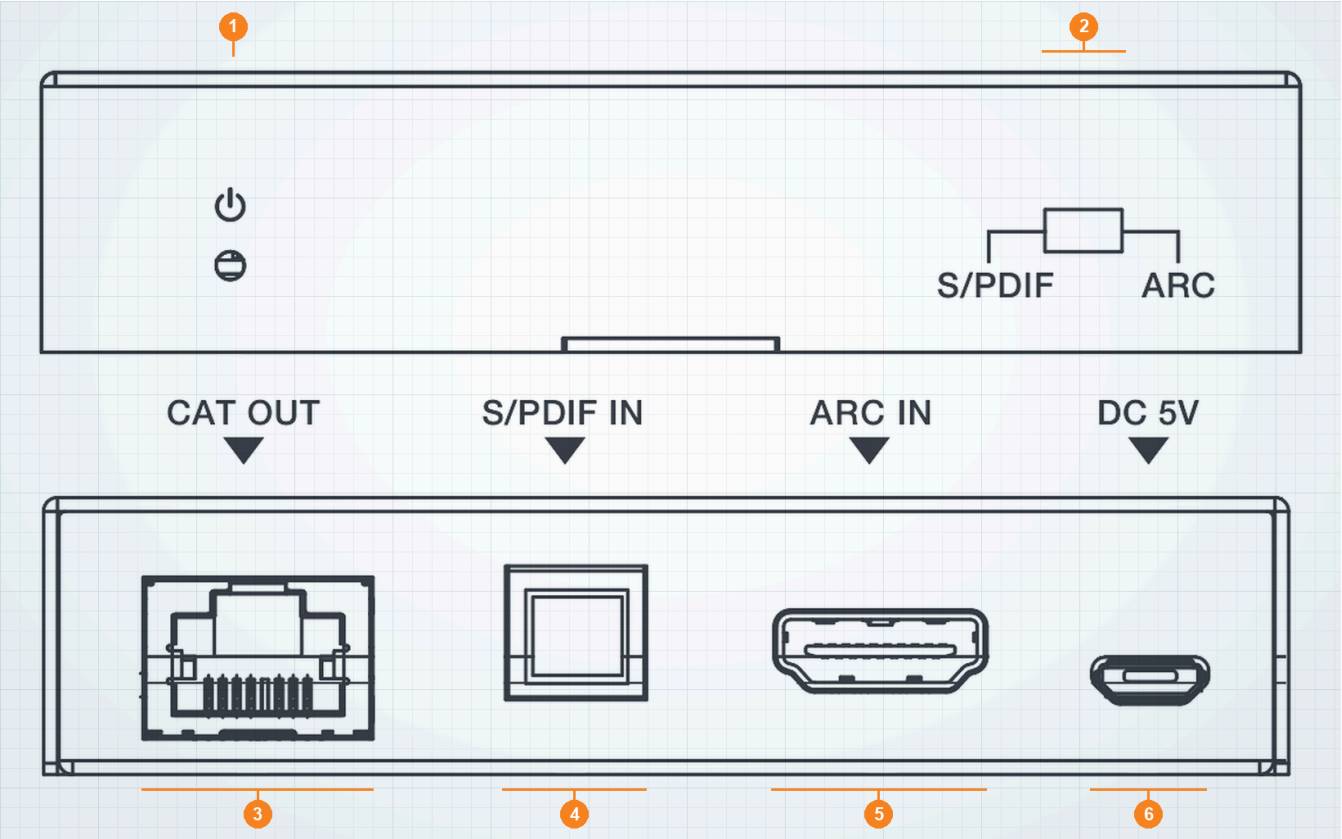
Wire the CAT cable straight-through (T568B). The product needs UTP connectors. Terminate both ends of the cable with the T568B direct interconnection method. Do not use a crossover cable.

5. Introduction

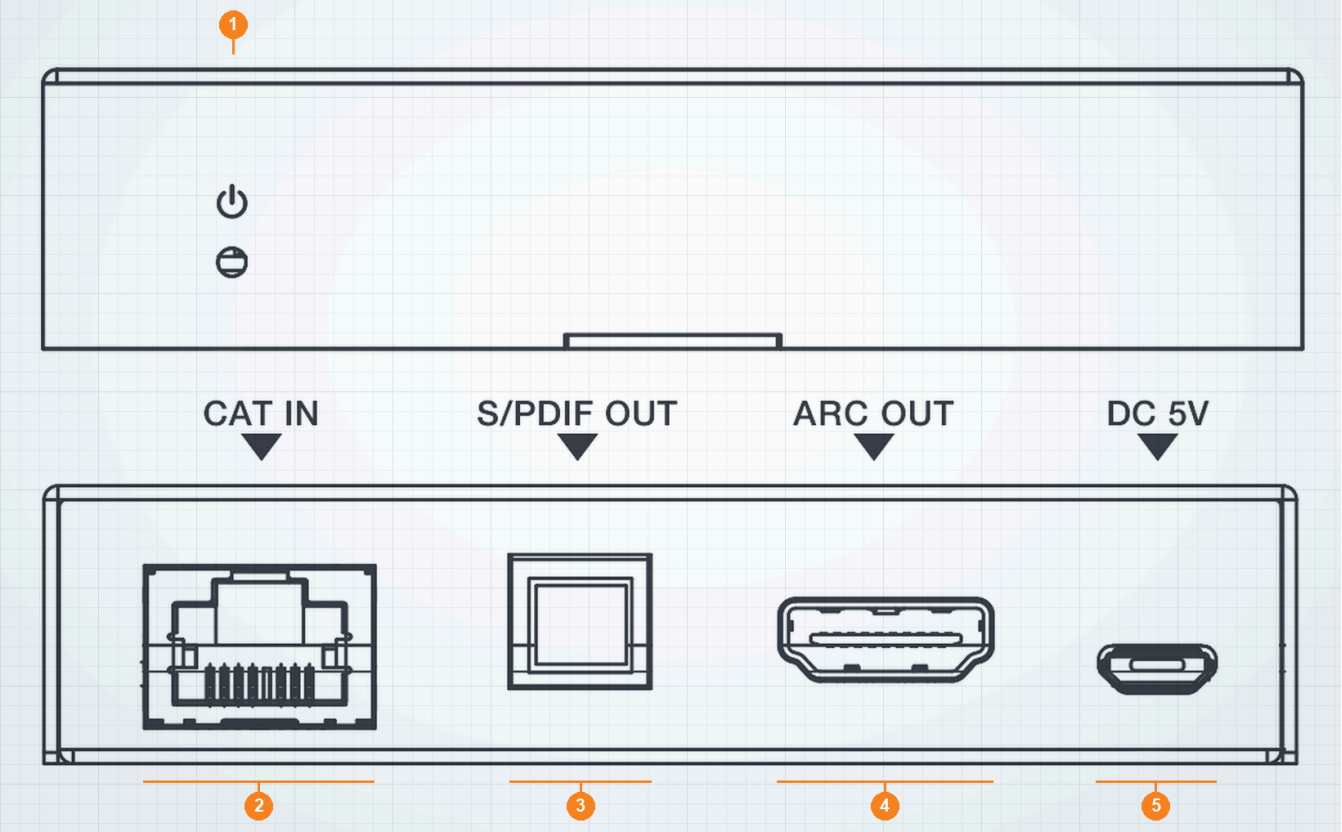
The AUD-EXT-ARC150M carries HDMI ARC or S/PDIF audio over a single CAT cable. At 96kHz it reaches up to 150m (492ft). At 192kHz it reaches up to 90m (295ft), and 192kHz works only on the ARC channel. The extender passes CEC between the transmitter's ARC IN port and the receiver's ARC OUT port, so the TV and the audio device can complete the handshake that ARC needs.

If your TV has no ARC function, use the separate S/PDIF channel. It carries optical audio from the transmitter's S/PDIF IN port to the receiver's S/PDIF OUT port. The kit is plug-and-play and sends audio from an HDTV back to an amplifier, AV receiver or multi-room audio system.

6. Panel descriptions



Front panel



Rear panel

The manual numbers each unit's connectors and controls as one sequence. It does not split them into front and rear panels, so they are shown here by unit, with the manual's numbers and row order unchanged.

TRANSMITTER

No.	Name	Description
1	**Power LED**	Lights red when the transmitter is powered on.
2	**S/PDIF / ARC Switch**	Selects which audio channel the extender carries. In the **S/PDIF** position, the receiver's S/PDIF OUT port outputs the optical audio from the transmitter's S/PDIF IN port. In the **ARC** position, the receiver's ARC OUT port outputs the HDMI ARC audio from the transmitter's ARC IN port.
3	**CAT OUT**	RJ45 output. Connect it to the receiver's CAT IN port with a CAT5e/6/7 cable (straight-through, T568B).
4	**S/PDIF IN**	Optical audio input. Connect it to an optical digital audio source with a TOSLINK cable.
5	**ARC IN**	HDMI Type-A audio input. Connect it to a TV with ARC. This port carries the ARC audio and the CEC pass-through.
6	**DC 5V**	Micro USB power input. Connect it to a 5V/1A USB power source with the supplied USB cable and power adapter.

RECEIVER

No.	Name	Description
1	**Power LED**	Lights red when the receiver is powered on.
2	**CAT IN**	RJ45 input. Connect it to the transmitter's CAT OUT port with a CAT5e/6/7 cable (straight-through, T568B).
3	**S/PDIF OUT**	Optical audio output. Connect it to an amplifier or speaker system with a TOSLINK cable.
4	**ARC OUT**	HDMI Type-A audio output. Connect it to an HDMI audio device with ARC, such as a soundbar or AV receiver.
5	**DC 5V**	Micro USB power input. Connect it to a 5V/1A USB power source with the supplied USB cable and power adapter.

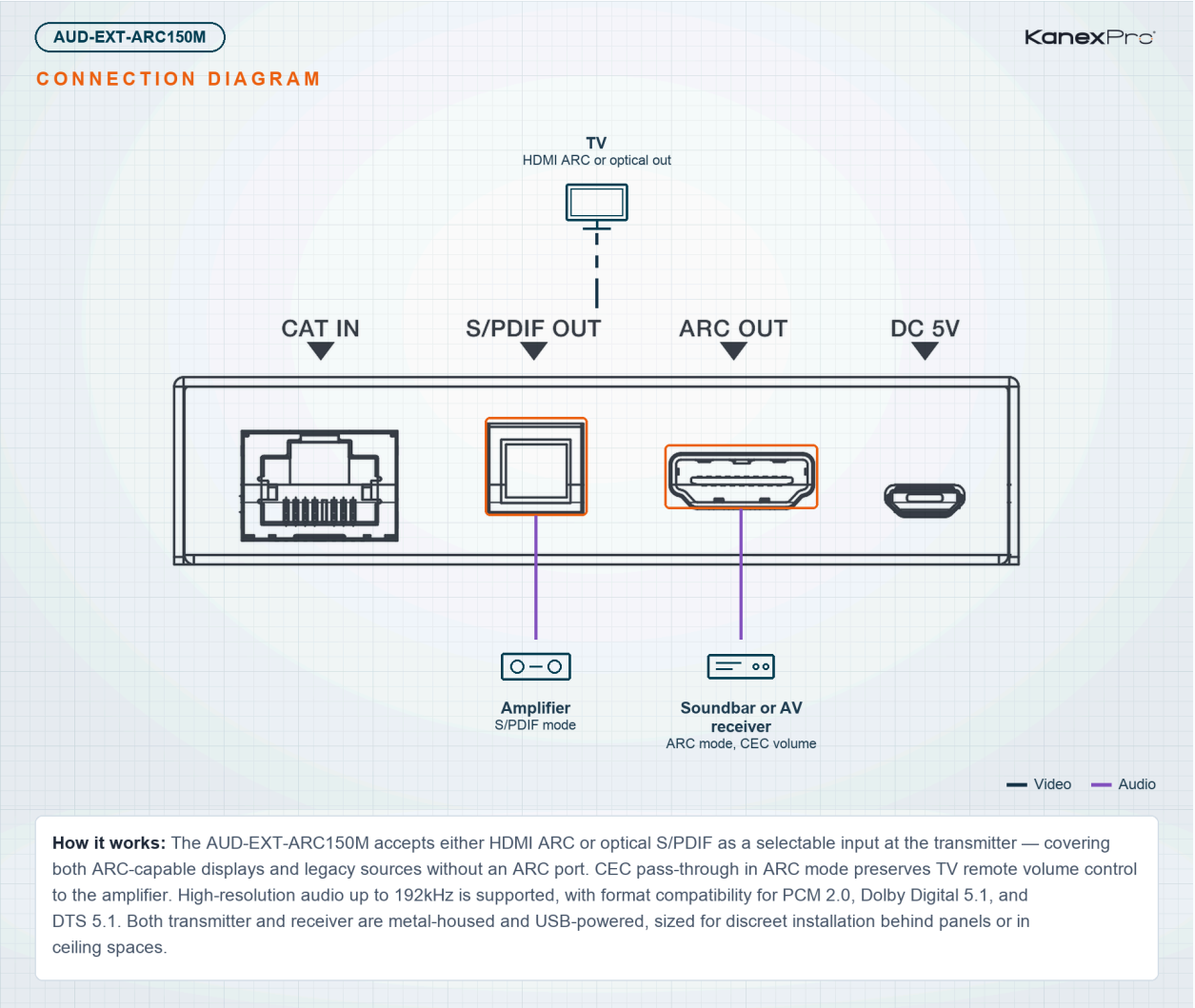
7. Troubleshooting

No audio at the receiver output? Check that the S/PDIF / ARC toggle switch on the transmitter is set to the right mode for your connection. Check that both units are powered: the red LED on each should be lit. Make sure the CAT cable is wired straight-through to T568B and is not a crossover cable. Also make sure the cable is no longer than 150m at 96kHz, or 90m at 192kHz (ARC only).

The TV remote does not control the amplifier's volume? CEC pass-through works in ARC mode only, so check that the toggle switch is set to ARC. Turn on CEC in the TV's settings; manufacturers call it names such as Anynet+, Bravia Sync or SimpLink. Then check that the amplifier or soundbar supports both ARC and CEC.

Audio cuts out or is intermittent? Check the quality of the CAT cable and use CAT5e, CAT6 or CAT7. Make sure every RJ45 connector is fully seated. Do not run the CAT cable alongside high-voltage power cables. In electrically noisy places, use shielded CAT cable if you can.

8. Connection Diagram



How it works: The AUD-EXT-ARC150M accepts either HDMI ARC or optical S/PDIF as a selectable input at the transmitter — covering both ARC-capable displays and legacy sources without an ARC port. CEC pass-through in ARC mode preserves TV remote volume control to the amplifier. High-resolution audio up to 192kHz is supported, with format compatibility for PCM 2.0, Dolby Digital 5.1, and DTS 5.1. Both transmitter and receiver are metal-housed and USB-powered, sized for discreet installation behind panels or in ceiling spaces.

9. Installation FAQ

Q: When should I set the S/PDIF / ARC toggle switch?
A: Set the switch on the transmitter before you power the units up. The switch decides which audio channel the extender carries to the receiver.

Q: How do I wire the extender for an ARC-equipped TV?
A: Connect the TV's HDMI ARC port to ARC IN on the transmitter and set the toggle switch to ARC. Run the CAT cable from the transmitter's CAT OUT to the receiver's CAT IN, then connect the receiver's ARC OUT to the soundbar or AV receiver.

Q: How do I wire the extender for a TV without ARC?
A: Connect the TV's optical output to S/PDIF IN on the transmitter with a TOSLINK cable and set the toggle switch to S/PDIF. Connect the receiver's S/PDIF OUT to the amplifier or speaker system.

Q: How can I tell that each unit is powered?
A: Each unit has a Power LED that lights red when it is powered on. Each unit needs its own 5V/1A supply, connected with the supplied USB cable and power adapter.

Q: Is surge protection recommended for the installation?
A: Yes. The units contain sensitive electrical components that spikes, surges or lightning strikes can damage, so a surge protection system is strongly recommended.

10. Integration FAQ

Q: Do I need a control processor to run the AUD-EXT-ARC150M?
A: No. The kit is plug-and-play. In ARC mode, CEC passes between the TV and the audio device, so the TV remote can control volume with no extra control equipment.

Q: What audio equipment can the receiver feed?
A: In ARC mode the receiver's ARC OUT feeds an HDMI audio device with ARC, such as a soundbar or AV receiver. In S/PDIF mode its optical output feeds an amplifier, a speaker system or a multi-room audio system.

Q: Can a source other than a TV feed the transmitter?
A: Yes, on the S/PDIF channel. The transmitter's S/PDIF IN accepts any optical digital audio source over a TOSLINK cable, while ARC IN is meant for a TV with ARC.