



8K Fiber Optic Extender Kit



Description

The AC-EXO-X-PLUS-KIT is a 48Gbps transmitter and receiver pair that extends HDMI 2.1 signals up to 8K 60Hz 4:2:0 or 4K 120Hz 4:4:4 with 7.1 audio over simplex multimode fiber up to 300 meters (984 ft). It offers features like Auto Low Latency Mode (ALLM), Variable Refresh Rate (VRR), 16 EDID presets, auto-scaling HDMI outputs, and a built-in test pattern. Additional capabilities include 1Gbps Ethernet, ARC/eARC, USB 2.0 (350 Mbps) for KVM, and bidirectional IR and RS-232 control. With HDCP 2.3 support and reliable performance, this kit ensures high-quality AV transmission for advanced setups.

Power Connections

Fiber optic cables do not carry an electrical charge and cannot supply power from one unit to another. Here are the recommended solutions to power both units.

First, power either the transmitter or receiver with the provided 48V power supply. Next, power the other unit using one of the following options listed below:

1. USB charger brick to USB-C input
2. Power output to power input with 18-2 cable*
3. Sink (TV or AVR) USB-A port to USB-C input

*18 AWG 2 Conductors Cable is not supplied

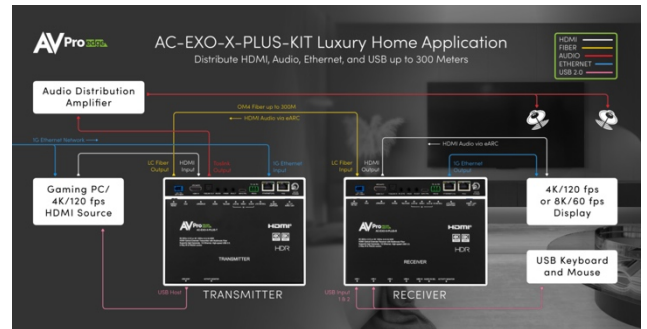
Note: The AC-EXO-X-PLUS-KIT must be powered from both units for complete operation.

Quick Start Guide

AC-EXO-X-KIT

Quick Install

- 1 Connect the 48V power supply to the Power In port on either the transmitter or receiver.
- 2 Power the other device using one of the options listed in the Power Connections section.
- 3 Connect the transmitter's Opt. Fiber LC / TX port to the receiver's Opt. Fiber LC / RX port with a simplex multimode fiber optic cable terminated with LC connectors.
- 4 Connect the HDMI source device to the HDMI In port on the transmitter with an HDMI cable.
- 5 Connect the HDMI output device to the HDMI Out port on the receiver with an HDMI cable.



Fiber Optic Cables

For maximum performance, OM3 Clearline SFF™ fiber optic cabling is recommended. LC (Lucent) connectors must be used.



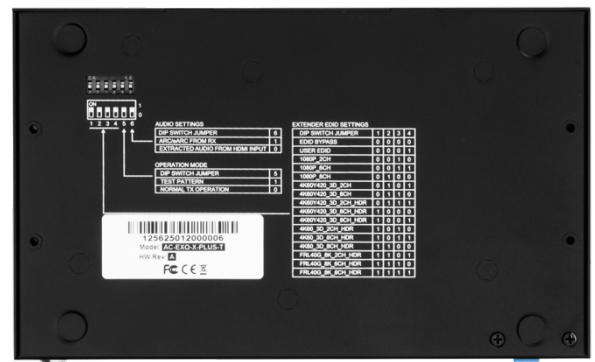
LC Connector



Clearline SFF™ OM3 multimode Fiber

EDID Settings

EDID management can be done using dipswitches 1, 2, 3, and 4 located on the transmitter (AC-EXO-X-PLUS-T). Flip the dipswitches up ("on" or "1") or down ("off" or "0") to select the corresponding EDID setting.



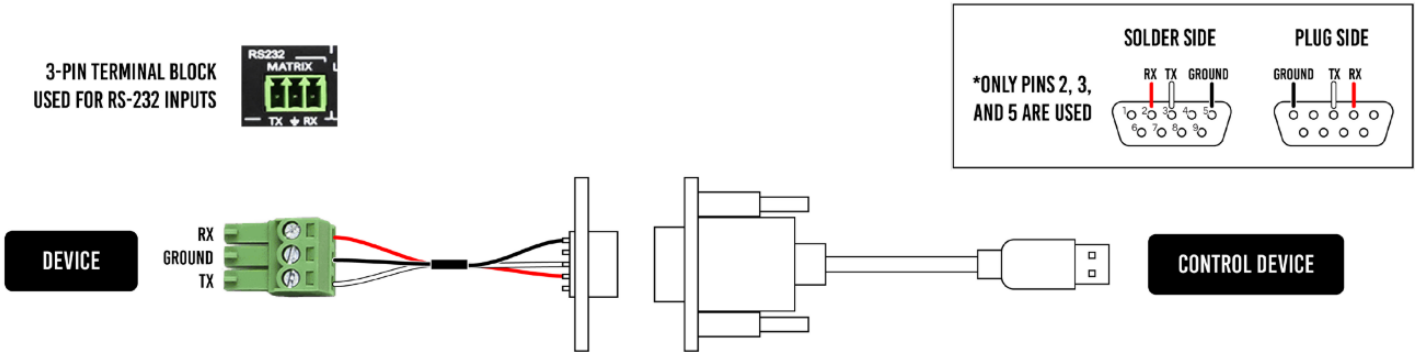
RS232 CONTROL (THROUGH 3 PIN TERMINAL BLOCK OR USB C)

To control via RS232, the 3 Pin Terminal Block or a USB data cable with a USB C connector can be used. 57600, 8, 0, 1, 0



HOW TO RS-232

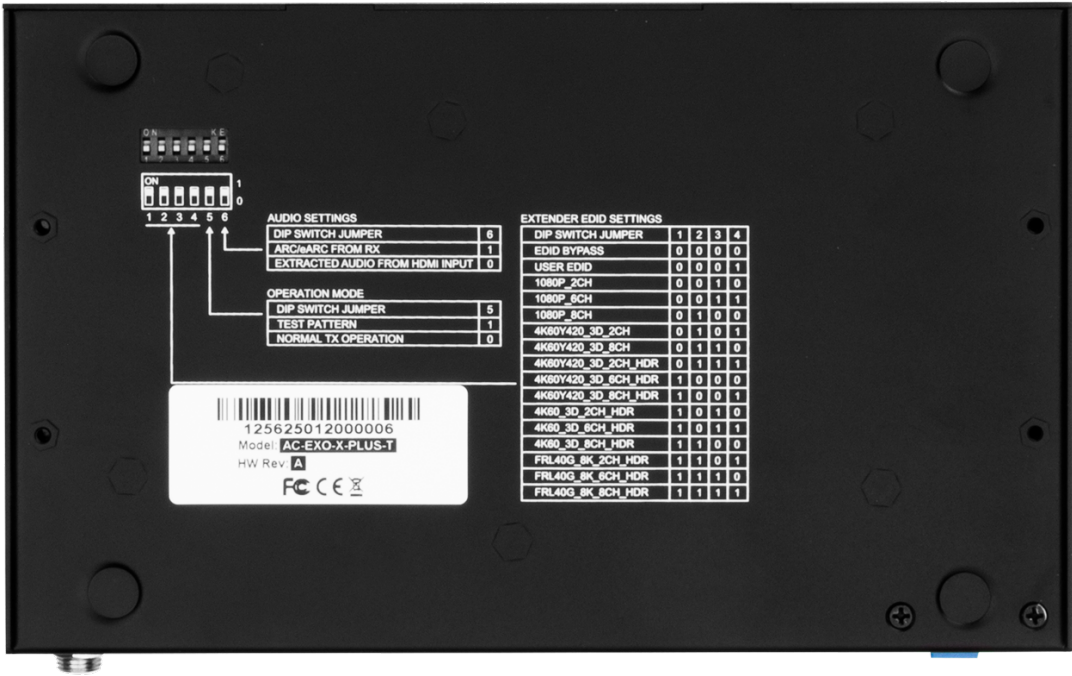
IN ORDER TO CONTROL VIA RS-232, FOLLOW THE WIRING INFORMATION BELOW. CONNECTING TO A DB9 PORT ONLY PINS 2, 3, AND 5 ARE USED. IF YOUR CONTROL DEVICE DOES NOT HAVE A DB9 PORT, A USB TO DB9 ADAPTER MAY BE REQUIRED. AVPRO EDGE HAS THESE CABLES AVAILABLE (AC-USB-DB9-ADPT).



Audio Extraction/Extension

This feature extracts up to 8-channel audio from the source device and sends it to a separate amplifier or AVR. Both the Transmitter and Receiver have an AUDIO dipswitch that is used to select where the audio is coming from. The Transmitter's is the 6th switch on the bottom panel of the unit, the receiver's is labeled AUDIO IN SEL on the front panel of the unit.

AC-EXO-X-PLUS -T (Transmitter)



AC-EXO-X-PLUS-R (Receiver)



Note: You can extract audio at the Transmitter via the TOSLINK port. The source of the audio can either be HDMI (ARC) or you can input via the TOSLINK port on the Receiver.

Transmitter Audio Settings

EXTRACTED AUDIO FROM HDMI INPUT OFF/DOWN

ARC/eARC FROM RX: Dipswitch ON/UP

Extract Audio from HDMI Input (TOSLINK Output Only): If the audio is coming from the Transmitter's HDMI IN port, flip dipswitch number 6 on the underside of the Transmitter into the ON/UP position.

Extract Audio from Receiver (TOSLINK and ARC/eARC HDMI Output): If the audio is coming from the Receiver's HDMI OUT ARC/eARC port, Flip dipswitch number 6 on the underside of the Transmitter into the OFF/DOWN position. If the Receiver does not have an active ARC/eARC or digital audio input, no audio will be played.

Extend HDMI Arc/eARC from Receiver: Flip dipswitch number 6 on the underside of the Transmitter into the ON/UP position.

An active ARC/eARC signal must be received by the Receiver's HDMI Output connection from the display's

ARC/eARC port.

RECEIVER AUDIO SETTINGS

AUDIO IN SELECT DIPSWITCH POSITION

ARC/eARC SENT BACK TO TX IS FROM TV: ARC/eARC(TV) Left Switch Position

ARC/eARC SENT BACK TO TX IS FROM TOSLINK INPUT: TOS/ Right Switch Position

Send Audio to Transmitter from Receiver's HDMI ARC/eARC: If the audio is coming from the Receiver's HDMI OUT

ARC/eARC port, flip the AUDIO IN SEL dipswitch on the Receiver to the ARC/eARC(TV) or Left position. An active

ARC/eARC signal must be received by the HDMI Output connection from the display's ARC/eARC port.

Extract Audio from Receiver (TOSLINK and ARC/eARC HDMI Output): If the audio is coming from the Receiver's TOSLINK port,

flip the AUDIO IN SEL dipswitch on the Receiver to the TOS or Right position.

Note: Both connected devices must support ARC/eARC. Ensure the port you are connecting to is labeled ARC/eARC. Some devices may require their ARC/eARC functionality to be enabled. It is recommended to check the device's user manual to verify the ARC/eARC function is on or enabled.

Troubleshooting

- **Verify Power** – Check the POWER light is solid blue on the front panel of both the transmitter and receiver. This indicates there is power connected and present on the devices.

Note: The AC-EXO-X-KIT must be powered from both units for complete operation. See Power Connections.

- **Verify Connections** – Check that all cables are properly connected and can support 48Gbps. Check the LINK light is solid blue on the front panel of both the transmitter and receiver.
- **Issues with One Output** – Swap HDMI outputs to see if issue follows. Try copying EDID from the display. See EDID Settings.
- **Issues with Legacy HDMI Device when Scaling** – Ensure the legacy device supports the input source's frame rate. Ensure Variable Refresh Rate is disabled and supports meta-data.
- **Not Passing Video** – Use the built-in test pattern on the transmitter.
- **IR Issues** – Verify correct connections and settings.

Note: Use the provided IR cables included with the device. Visible flashing IR emitters or other third-party IR cable functionality is not guaranteed.

Have questions or need assistance?

Don't hesitate to contact us!

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