100m Audio-Only eARC Extender

EXA-100-EARC

WyreStorm

Quickstart Guide

WyreStorm recommends reading through this document in its entirety to become familiar with the product's features prior to starting the installation process.
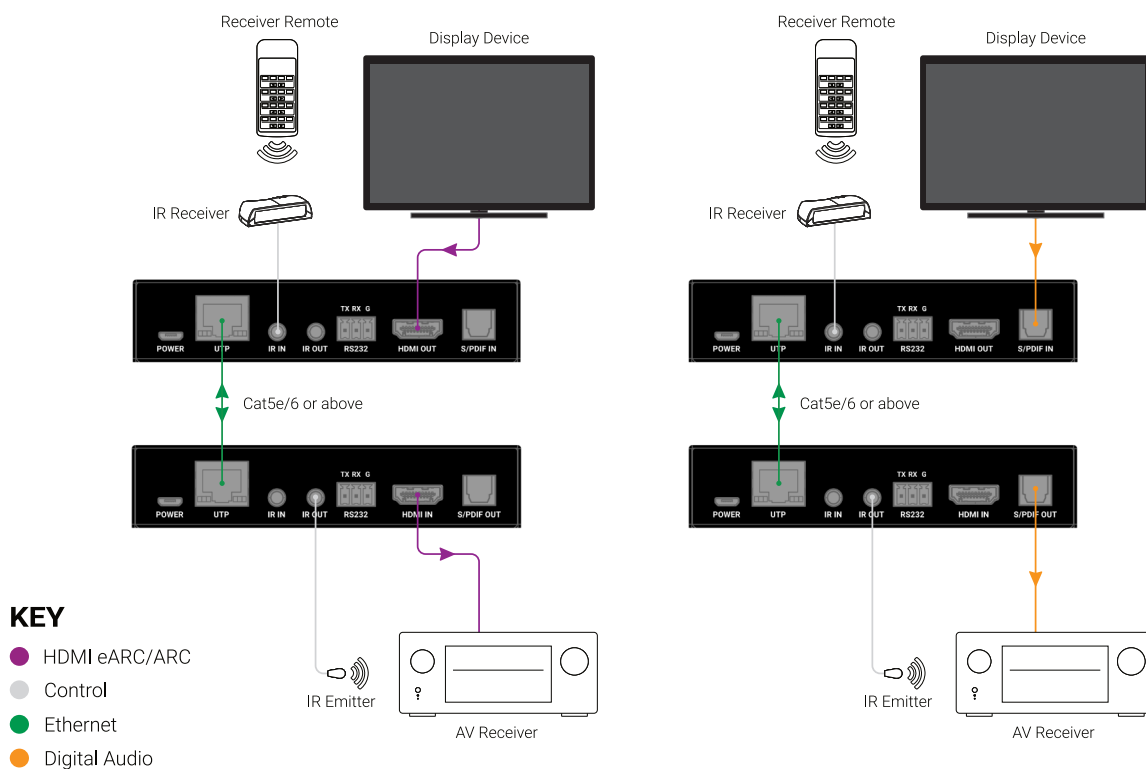
⚠️ **IMPORTANT! Installation Requirements**

- Visit the product page to download the latest firmware, document version, additional documentation, and configuration tools.
- Read through the Wiring and Connections section for important wiring guidelines before creating or choosing pre-made cables.
- While this product supports CEC, WyreStorm cannot guarantee compatibility with all forms of CEC communication.
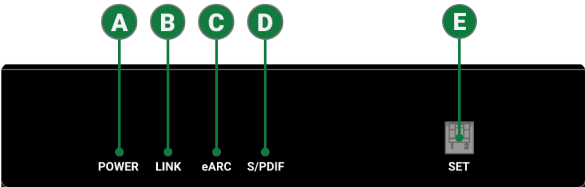
In the Box

1x EXA-100-EARC Transmitter Unit
1x EXA-100-EARC Receiver Unit
2x 5V 1A USB Power Supply (US/EU/UK/AU)
2x 3-pin Detachable Terminal Block Connectors
1x IR Receiver
1x IR Transmitter
4x Mounting Ears with Screws
2x 1m USB Micro-to-A USB Cables
1x Quickstart Guide

Basic Wiring Diagram

KEY
- 🟣 HDMI eARC/ARC
- ⚪ Control
- 🟢 Ethernet
- 🟠 Digital Audio

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EXA-100-EARC Transmitter (Front)

|		
A	Power LED	**Solid:** The unit is powered On **Off:** The unit is powered Off
B	Link LED	**On:** Indicates UTP link with receiving device **Off:** No UTP link or link error
C	eARC LED	**On:** eARC audio is being transmitted **Blinking:** ARC audio is being transmitted **Off:** No eARC and ARC audio is being transmitted
D	S/PDIF LED	**On:** S/PDIF audio is being transmitted **Off:** No S/PDIF audio is being transmitted
E	Set	For eARC/ARC audio output channel selection. **Note:** For detailed information, please refer to "DIP Switch Settings" section

EXA-100-EARC Transmitter (Rear)
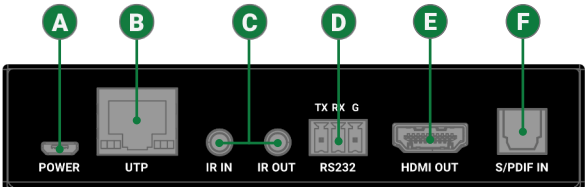
A	Power	Use the provided Micro USB to USB type-A cable to connect with 5V power source (Such as USB port of display)
B	UTP	Connect to UTP IN port of the receiver
C	IR IN/OUT	3.5mm jack: Bidirectional IR Connect to the IR emitter/receiver provided
D	RS-232	Connect to RS232 enabled device for RS232 pass-through or upgrading
E	HDMI Output	Connect to a display's eARC/ARC HDMI input port
F	S/PDIF Input	Connect to a display's Toslink output port

EXA-100-EARC Receiver (Front)

A	Power LED	**Solid:** The unit is powered On **Off:** The unit is powered Off
B	Link LED	**On:** Indicates UTP link with receiving device **Off:** No UTP link or link error
C	eARC LED	**On:** eARC audio is being transmitted **Blinking:** ARC audio is being transmitted **Off:** No eARC and ARC audio is being transmitted
D	S/PDIF LED	**On:** S/PDIF audio is being transmitted **Off:** No S/PDIF audio is being transmitted

EXA-100-EARC Receiver (Rear)
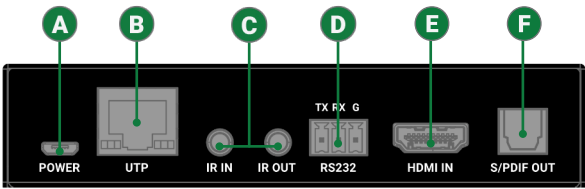
|		
A	Power	Use the provided Micro USB to USB type-A cable to connect with 5V power source (Such as USB port of display)
B	UTP	Connect to UTP OUT port of the transmitter
C	IR IN/OUT	3.5mm jack: Bidirectional IR Connect to the IR emitter/receiver provided
D	RS-232	Connect to RS232 enabled device for RS232 pass-through or upgrading
E	HDMI Input	Connect to AV receiver's eARC/ARC HDMI output port
F	S/PDIF Output	Connect to AV receiver's Toslink input port

Wiring and Connections

WyreStorm recommends that all wiring for the installation is run and terminated prior to making connections to the switcher. Read through this section in it's entirety before running or terminating the wires to ensure proper operation and to avoid damaging equipment.

⚠️ **IMPORTANT! Wiring Guidelines**

- The use of patch panels, wall plates, cable extenders, kinks in cables, and electrical or environmental interference will have an adverse effect on signal transmission which may limit performance. Steps should be taken to minimize or remove these factors completely during installation for best results.
- WyreStorm recommends using pre-terminated HDMI and USB cables due to the complexity of these connector types. Using pre-terminated cables will ensure that these connections are accurate and will not interfere with the performance of the product.

RS-232 Wiring

The EX3-100-EARC uses a 3-pin RS-232 with no hardware flow control. Most control systems and computers are DTE where pin 2 is RX, this can vary from device to device. Refer to the documentation for the connected device for pin functionally to ensure that the correct connections can be made.
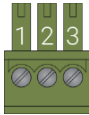
WyreStorm Connector			3rd Party Device
Pin 1	TX (Transmit)	---> To --->	RX (Receive)
Pin 2	RX (Receive)	---> To --->	TX (Transmit)
Pin 3	G (Ground)	---> To --->	G (Ground)

Dipswitch Settings

The dipswitches on the TX and RX allow for changing the audio transmitting mode. Use the table to the right to configure the extender's audio mode based on the application's requirement.

When setting a dipswitch setting, power off both the transmitter and receiver before making a change. Once set, the units can be powered back on.

Functions	Setting
eARC/ARC Channel (default)	
S/PDIF Channel	

Troubleshooting

No or Poor Quality Audio
- Verify that power is being supplied to the transmitter and receiving device.
- Verify that all connections are not loose and are functioning properly.
- Verify that the HDBaseT cable is properly terminated following EIA568B standard.
- Ensure eARC/ARC is enabled in the display device

No or Intermittent 3rd party Device Control
- Verify that the RS-232 cables are properly terminated following the Wiring and Connections section.

💡 **Troubleshooting Tips:**
- WyreStorm recommends using a cable tester or connecting the cable to other devices to verify functionality.

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Specifications

Audio		
	Transmitter	**Receiver**
Inputs	1x S/PDIF In 1x IR In	1x HDMI: 19-pin Type A Female 1x UTP In 1x IR In
Outputs	1x HDMI: 19-pin Type A Female 1x UTP Out 1x IR Out	1x IR Out 1x S/PDIF Out
Audio Formats	**S/PDIF:** Dolby Digital, Dolby Digital Plus, DTS, DTS HD, PCM 2.0 **ARC Mode:** Dolby Digital, Dolby Digital Plus, DTS, DTS HD, PCM 2.0 **eARC Mode:** PCM 2.0, PCM 5.1, PCM 7.1, Dolby Digital, Dolby Digital Plus, Dolby TrueHD, Dolby Atmos, DTS, DTS HD, DTS HD Master Audio, DTS:X	

Power	
Power Supply	DC 5V 1A
Power Consumption	3.582W (Max)

Environmental	
Operating Temperature	0 to + 45°C (32 to + 113 °F), 10% to 90%, non-condensing
Storage Temperature	-20 to +70°C (-4 to + 158 °F), 10% to 90%, non-condensing
ESD Protection	Human-body Model: ±8kV (Air-gap discharge)/ ±4kV (Contact discharge)

Dimensions	
Length x Width x Height	120mm x 25mm x 70.2mm / 4.72" x 0.98" x 2.76"
Weight	0.32kg/0.71lb

Regulatory	
Safety and Emission	CE	FCC	RoHS	RCM	EAC	UKCA

Note: WyreStorm reserves the right to change product specification, appearance or dimensions of this product at any time without prior notice.

Warranty Information
WyreStorm ProAV Corporation warrants that its products to be free from defects in material and workmanship under normal use for a period of five (5) years from the date of purchase. Refer to the Product Warranty page on wyrestorm.com for more details on our limited product warranty.