

ANI-HDR-200

HDMI 18Gbps Over HDBaseT™ 2.0 w/ ARC
TRANSMITTER & RECEIVER





SAFETY INFORMATION



1. To ensure the best results from this product, please read this manual and all other documentation before operating your equipment. Retain all documentation for future reference.
2. Follow all instructions printed on unit chassis for proper operation.
3. To reduce the risk of fire, do not spill water or other liquids into or on the unit, or operate the unit while standing in liquid.
4. Make sure power outlets conform to the power requirements listed on the back of the unit. Keep unit protected from rain, water and excessive moisture.
5. Do not attempt to clean the unit with chemical solvents or aerosol cleaners, as this may damage the unit. Dust with a clean dry cloth.
6. Do not use the unit if the electrical power cord is frayed or broken. The power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords and plugs, convenience receptacles, and the point where they exit from the appliance.
7. Do not force switched or external connections in any way. They should all connect easily, without needing to be forced.
8. Always operate the unit with the AC ground wire connected to the electrical system ground. Precautions should be taken so that the means of grounding of a piece of equipment is not defeated.
9. AC voltage must be correct and the same as that printed on the rear of the unit. Damage caused by connection to improper AC voltage is not covered by any warranty.
10. Turn power off and disconnect unit from AC current before making connections.
11. Never hold a power switch in the "ON" position.
12. This unit should be installed in a cool dry place, away from sources of excessive heat, vibration, dust, moisture and cold. Do not use the unit near stoves, heat registers, radiators, or other heat producing devices.
13. Do not block fan intake or exhaust ports. Do not operate equipment on a surface or in an environment which may impede the normal flow of air around the unit, such as a bed, rug, carpet, or completely enclosed rack. If the unit is used in an extremely dusty or smoky environment, the unit should be periodically "blown free" of foreign dust and matter.
14. To reduce the risk of electric shock, do not remove the cover. There are no user serviceable parts inside. Refer all servicing to qualified service personnel. There are no user serviceable parts inside.
15. When moving the unit, disconnect input ports first, then remove the power cable; finally, disconnect the interconnecting cables to other devices.
16. Do not drive the inputs with a signal level greater than that required to drive equipment to full output.
17. The equipment power cord should be unplugged from the outlet when left unused for a long period of time.
18. Save the carton and packing material even if the equipment has arrived in good condition. Should you ever need to ship the unit, use only the original factory packing.
19. Service Information Equipment should be serviced by qualified service personnel when:
 - A. The power supply cord or the plug has been damaged.
 - B. Objects have fallen, or liquid has been spilled into the equipment.
 - C. The equipment has been exposed to rain.
 - D. The equipment does not appear to operate normally, or exhibits a marked change in performance.
 - E. The equipment has been dropped, or the enclosure damaged.

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INTRODUCTION

The ANI-HDR-200 HDBaseT™ extender enables transmission of video resolutions up to 4K2K@60Hz(YUV 4:4:4), along with HD audio, dedicated optical audio pathways, 100BaseT™ Ethernet, Two-Way IR, RS-232, 24V POC and ARC signals up to 330ft (100M). ARC (Audio Return Channel) function enables audio from a compatible display to be routed back from the receiver unit to the transmitter. Using the latest HDBaseT™ 2.0 technology can make your home or office set-up more efficient and easy to use. This product come with a 3 year warranty.

PACKAGE CONTENTS

Before attempting to use this unit, please check the packaging and make sure the following items are contained in the shipping carton:

- ANI-HDR-200 HDMI Extender Transmitter
- ANI-HDR-200 HDMI Extender Receiver
- (2) Wideband IR Tx
- (2) Wideband IR Rx
- (4) Mounting ears
- 24V/1A Power Adaptor
- Users Guide

SURGE PROTECTION DEVICE RECOMMENDED

This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shock, lightning strikes, etc. Use of a surge protection systems is highly recommended in order to protect and extend the life of your equipment.

SAFETY PRECAUTIONS

Please read all instructions before attempting to unpack, install or operate this equipment and before connecting the power supply. Please keep the following in mind as you unpack and install this equipment:

- Always follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water.
- Never spill liquid of any kind on or into this product.
- Never push an object of any kind into this product through any openings or empty slots in the unit, as you may damage parts inside the unit.
- Do not attach the power supply cabling to building surfaces.
- Use only the supplied power supply unit (PSU). Do not use the PSU if it is damaged.
- Do not allow anything to rest on the power cabling or allow any weight to be placed upon it or any person walk on it.
- To protect the unit from overheating, do not block any vents or openings in the unit housing that provide ventilation and allow for sufficient space for air to circulate around the unit.

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FEATURES

- HDMI 2.0b, HDCP 2.2 and HDCP 1.4 compliant
- Video resolutions up to 4K2K@60Hz (4:4:4), 4K2K@30Hz, 1080p@120Hz
- Audio up to 7.1 channels of High Definition audio pass through (LPCM, Dolby TrueHD, and DTS-HD Master Audio)
- HDBaseT™ 2.0 over a single CAT5e/6/7 cable up to 330ft (100M) distance
- 5-Play™ Convergence: HD video & audio, IR/RS-232/Ethernet/POC
- Two-Way POC (Power over Cable) supports either TX or RX powered by 24V@1A, the other one doesn't need power supply
- ARC and CEC supported
- The ANI-HDR-200 is **NOT** compatible with EZ-45 connectors
- UTP cable termination follows the IEEE-568B standards

TRANSMISSION DISTANCE

OVER CAT6 CABLE

330ft (100M):

- 1080p@60Hz 36bit
- 3D-1080p@30Hz 36bit

230ft (70M):

- 1080p@60Hz@48bit
- 1080p@120Hz@24bit
- 3D-1080p@60Hz@36bit
- 4K2K@30Hz@24bit
- 4K2K@50/60Hz (YUV444)
- 4K2K@50/60Hz (YUV420)

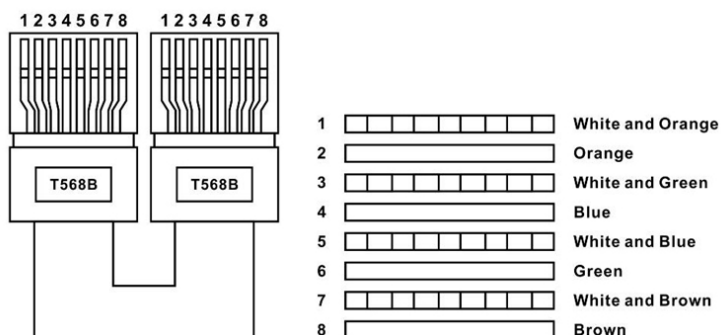
OVER CAT6+ CABLE

330ft (100M):

- 4K2K@50/60Hz (YUV444)
- 4K2K@50/60Hz (YUV420)

CABLE TERMINATION

CAUTION: The extender using UTP termination, which follows the standard of direct interconnection method.



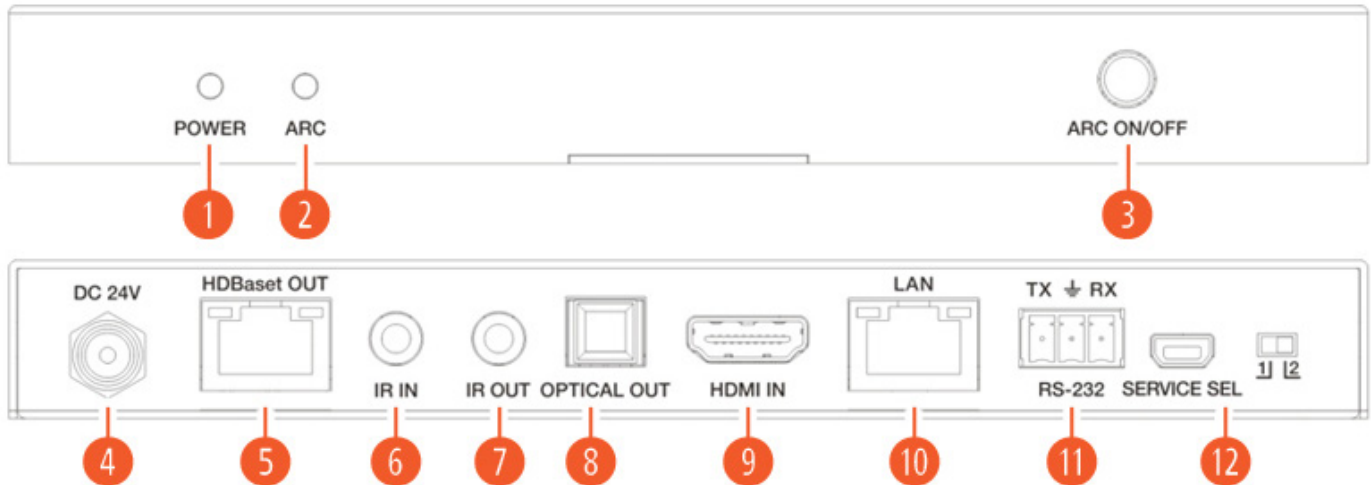
Direct interconnection method

SPECIFICATIONS

- **HDMI Compliance:** HDMI 2.0b
- **HDCP Compliance:** HDCP 2.2 and HDCP 1.4
- **Video Bandwidth:** 18 Gbps
- **Video Resolutions:** up to 4K2K@50/60Hz (YUV4:4:4), 4K2K@30Hz, 1080p@120Hz and 1080p 3D@60Hz
- **Color Space:** RGB, YCbCr 4:4:4, YCbCr 4:2:2
- **Color Depth:** 8-bit, 10-bit, 12-bit
- **HDMI Audio Formats (Pass-through):** LPCM 2/5.1/7.1CH, Dolby Digital, DTS 5.1, Dolby Digital+, Dolby TrueHD, DTS-HD Master Audio, Dolby Atmos, DTS:X
- **Optical Audio Formats:** LPCM 2CH, LPCM 5.1, Dolby Digital 2/5.1CH, DTS 2/5.1CH
- **ESD Protection:** Human body model: $\pm 8\text{KV}$ (air-gap discharge) $\pm 4\text{KV}$ (contact discharge)
- **Inputs:**
 - **Transmitter:**
 - HDMI Type A [19-pin female]
 - IR In [3.5mm Stereo Mini-jack]
 - LAN [RJ45]
 - **Receiver:**
 - HDBaseT™ In [RJ45]
 - IR In [3.5mm Stereo Mini-jack]
 - Optical In [S/PDIF]
- **Outputs:**
 - **Transmitter:**
 - HDBaseT™ Out [RJ45]
 - IR Out [3.5mm Stereo Mini-jack]
 - Optical Out [S/PDIF]
 - **Receiver:**
 - HDMI Type A [19-pin female]
 - IR Out [3.5mm Stereo Mini-jack]
 - LAN [RJ45]
- **Transmission Distance:** Over CAT6 cable
 - **330ft (100M):**
 - 1080p@60Hz 36bit
 - 3D-1080p@30Hz 36bit
 - **230ft (70M):**
 - 1080p@60Hz@48bit
 - 1080p@120Hz@24bit
 - 3D-1080p@60Hz@36bit
 - 4K2K@30Hz@24bit
 - 4K2K@50/60Hz (YUV444)
 - 4K2K@50/60Hz (YUV420)
- **Transmission Distance:** Over CAT6+ cable
 - **330ft (100M):**
 - 4K2K@50/60Hz (YUV444)
 - 4K2K@50/60Hz (YUV420)
- **Dimensions (WxDxH):** 6.8 x 3.8 x .8 in (172x97.5x20mm)
- **Weight:** Tx: 420g / .93 lb / Rx: 425g / 0.94 lb
- **Housing:** Metal Enclosure
- **Color:** Black
- **Power Supply:** Input: AC100 - 240V 50/60Hz / Output: DC 24V/1A (US/EU standards, CE/FCC/UL certified)
- **Operating Temperature:** 32°F~104°F (0°C~40°C)
- **Storage Temperature:** -4°F~140°F (-20°C~60°C)
- **Relative Humidity:** 20~90% RH (no condensation)
- **Power Consumption:** 24W (Max)

As product improvements are continuous, specifications are subject to change without notice.

TRANSMITTER



- 1 POWER LED:** System power indicator.
 - 2 ARC LED:** ARC status indicator.
 - 3 ARC BUTTON:** This button will enable or disable the ARC function.
 - **Enable ARC:** LED ON
 - **Disable ARC:** LED OFF
 - **ARC function:** If you need to use ARC, your HDTV must support this function, when you open the ARC function, the transmitter optical out port will output the HDTVs current display content audio signal, otherwise the transmitter optical out port signal will come from the Receiver's Optical In.
 - 4 DC 24V:** Connects 24V/1A adaptor to AC wall outlet for power supply.
 - 5 HDBaset™ OUT:** Connects to the HDBaset™ Receiver with a CAT5e/6/7 cable.
 - 6 IR IN:** Connects to a Wideband IR RX cable.
 - 7 IR OUT:** Connects to a Wideband IR TX cable.
 - 8 OPTICAL OUT:** Connects to a speaker with coaxial input for audio signal output from Receiver's Optical In or ARC.
 - 9 HDMI IN:** Connects to the HDMI source device.
 - 10 LAN:** Connects to an active network for LAN sharing for a total transmission rate up to 100Mbps. Or when a compatible LAN equipped Transmitter is connected to an active network, this allows the network access (including internet access if available) to be shared between the Transmitter and Receiver.
- NOTE:** Do not connect this RJ-45 port to any of the HDBaset™ ports. This may damage this port or the whole device.
- 11 RS-232:** Connects to any devices with RS-232 port for RS-232 commands transmission.
 - 12 SERVICE SEL 1/2:** Reserved for firmware update use only.

RECEIVER



1 POWER LED: System power indicator.

2 ARC LED: ARC status indicator.

3 ARC BUTTON: This button will enable or disable the ARC function.

- **Enable ARC:** LED ON
- **Disable ARC:** LED OFF

- **ARC function:** If you need to use ARC, your HDTV must support this function, when you open the ARC function, the transmitter optical out port will output the HDTVs current display content audio signal, otherwise the transmitter optical out port signal will come from the Receiver's Optical In.

4 DC 24V: Connects 24V/1A adaptor to AC wall outlet for power supply.

5 HDBaset™ IN: Connects to HDBaset™ Transmitter with a CAT5e/6/7 cable.

6 IR IN: Connects to a Wideband IR RX cable.

7 IR OUT: Connects to a Wideband IR TX cable.

8 OPTICAL IN: Connects to the audio source device such as a DVD or Blu-ray player for sending audio signal to the Transmitter.

9 HDMI OUT: Connects to the HDMI display device.

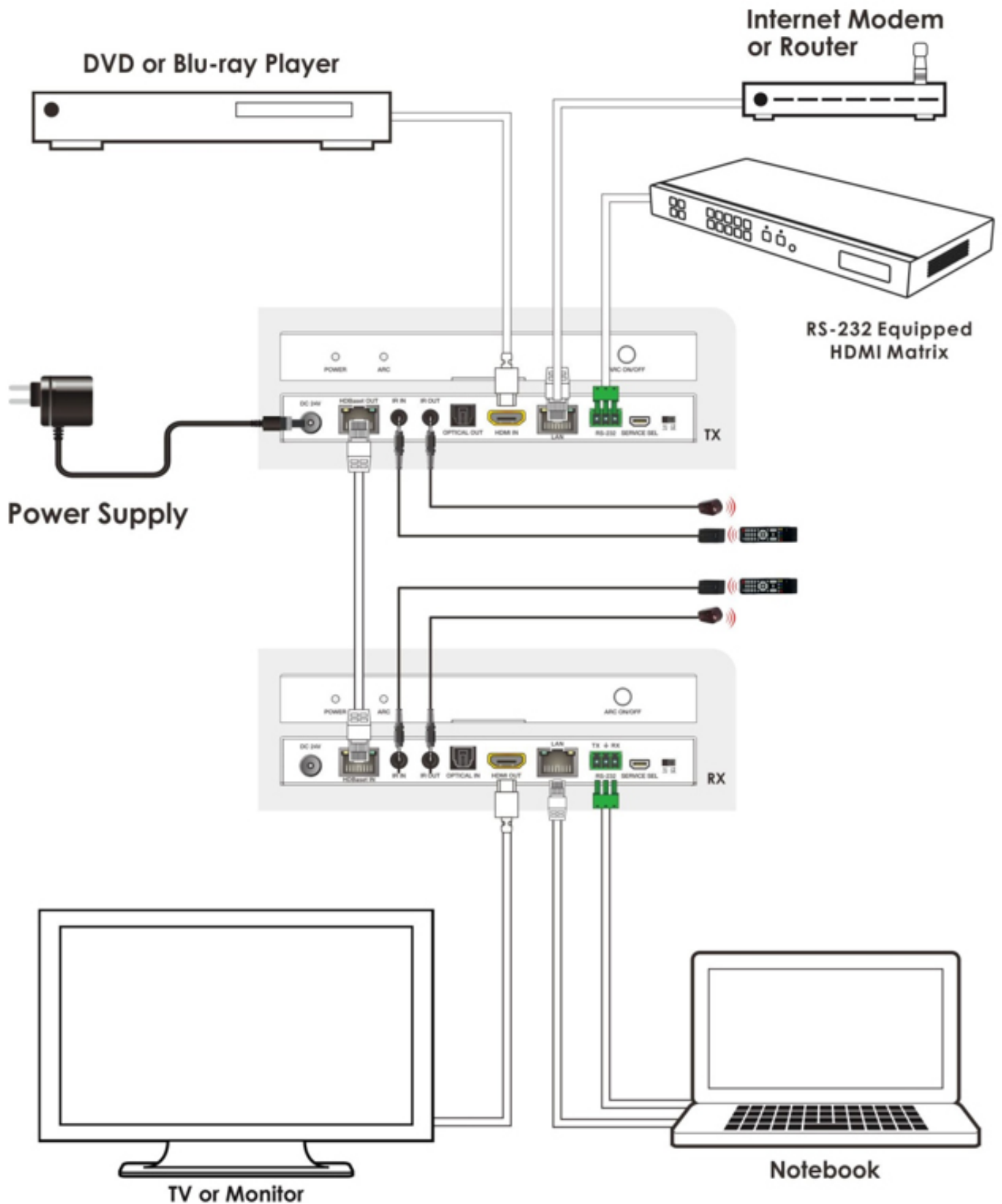
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NOTE: Do not connect this RJ-45 port to any of the HDBaset™ ports. This may damage this port or the whole device.

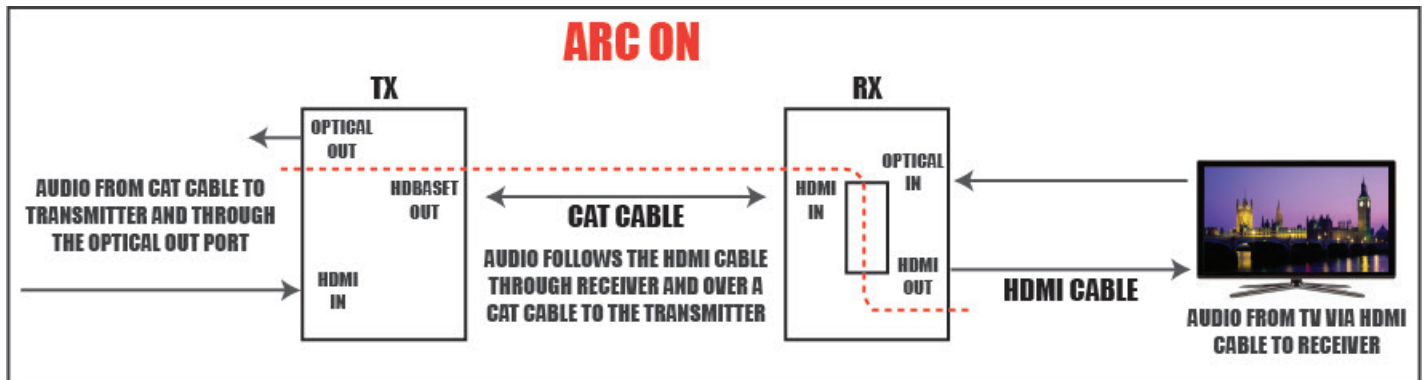
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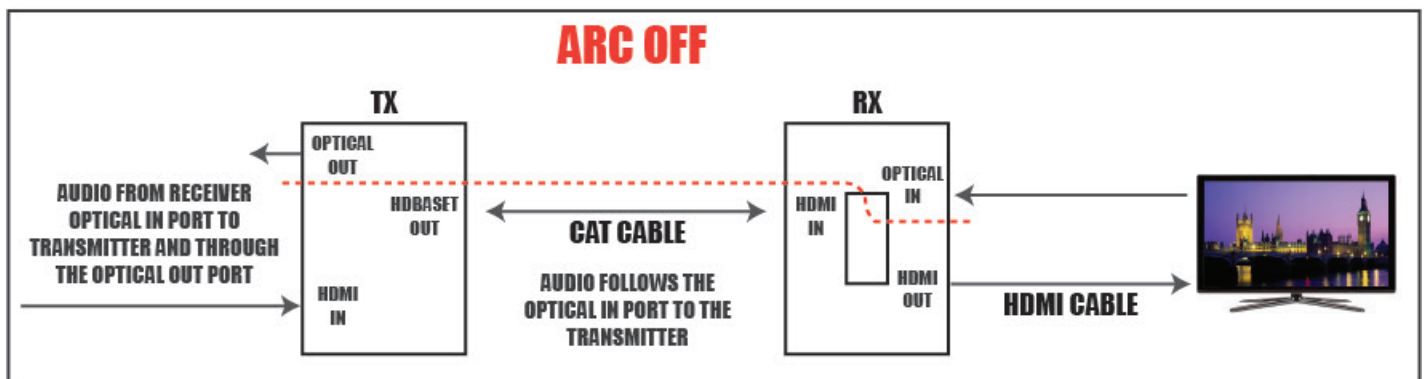
CONNECTION DIAGRAM



ARC AUDIO DIAGRAM



*ARC compatible AV Amplifiers connected to an ARC compatible HDMI terminal on your display is required.
(Refer to the Users Guide to confirm ARC compatible equipment.) Use an ARC compatible HDMI cable.*



WIDEBAND IR (30KHZ--60KHZ) INTRODUCTION

Included in each kit:



IR RECEIVER (RX):

- **To control the source:** Plug IR Receiver into the IR RX port of the receiver unit; place the receiver at or near the display.
- **To control the display:** Plug the IR Receiver into IR RX port of the transmitter unit; place the receiver in position where it is able to receive remote signals.

IR BLASTER (TX):

- **To control the source:** Plug the IR Blaster into IR TX port of the transmitter unit; place the blaster in front of the IR eye of the source.
- **To control the display:** Plug the IR Blaster into IR TX port of the receiver unit; place the blaster in front of the IR eye of the display.

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