

# ANI-HDR-70

HDMI 18Gbps Extender Over CAT5e/CAT6  
TRANSMITTER & RECEIVER



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-70 18Gbps HDMI HDBaseT™ Extender Transmitter/ Receiver kit is a tool which can extend your HDMI signal over 230ft (70M) to a compatible display for high dynamic range (HDR) formats. It is designed to convert HDMI signal to standard HDBaseT™ signal which can be transmitted by LAN cable and is HDCP 2.2 compliant and supports 4K/UHD video @60Hz with 4:4:4 chroma sampling, as well as HDMI data rates up to 18Gbps. The ANI-HDR-70 provides HDMI transmission up to 230 ft (70M) for 1080p video and up to 130ft (40M) for 4K HDR over CAT6a/7 cable. It also supports Transfer Bidirectional Infrared control signal together with the HDMI signal so you can control the Source in the Sink side which is 230ft outside, also you can control the Sink in the Source side which is 230ft outside by using the HDMI Extender. These units feature visually lossless compression with no latency to enable HDR and 4K/60 4:4:4 video signal extension over HDBaseT™. 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-70 HDMI 18Gbps Transmitter
- ANI-HDR-70 HDMI 18Gbps Receiver
- (2) Wideband IR Tx
- (2) Wideband IR Rx
- 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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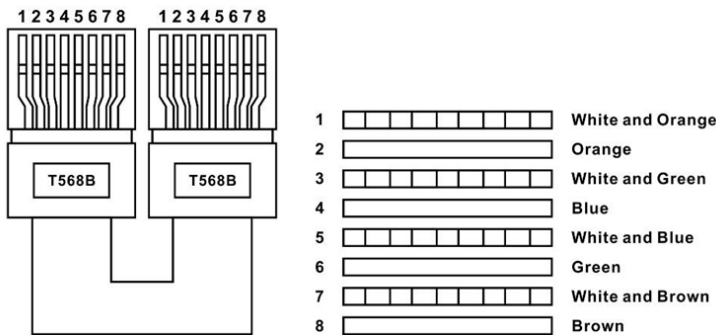
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**FEATURES**

- Fully supports video resolutions, audio formats and color space formats for HDMI 2.0 specifications (18Gbps), HDCP 2.2 and DVI compliant
- Video resolutions up to 4K/UHD capability @60Hz with 4:4:4 chroma sampling, plus support for HDR formats
- Supports 4K HDR10@60Hz (4:2:0 chroma subsampling, 10-bit color) pass through
- Enables HDBaseT™ transmission of HDMI up to 18Gbps using extremely light video compression with no latency
- Supports HDMI High Bit Rate (HBR) audio pass through
- Supports CEC bypass
- Optical audio supports LPCM 2CH, Doby Digital 2/5.1CH, DTS 2/5.1CH
- POC (Power Over Cable) function is supported, either the TX or RX is powered by 24V@1A power supply, the other does not need a power supply from the DC jack. POC power consumption is less than 10W
- Transfer Bidirectional infrared control signal together with the HDMI signal
- Transfer Bidirectional RS-232 control signal together with the HDMI signal
- Transmission distance: Over CAT6 cable
  - 230ft (70M): 1080p@60Hz 36bit; 3D1080p@30Hz 36bit
  - 130ft (40M): 1080p@60Hz@48bit; 1080p@120Hz@24bit; 3D-1080p@60Hz@36bit; 4K2K@30Hz@24bit; 4K2K@50/60Hz (YUV420); 4K2K@50/60Hz (YUV444)

**CABLE TERMINATION**

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



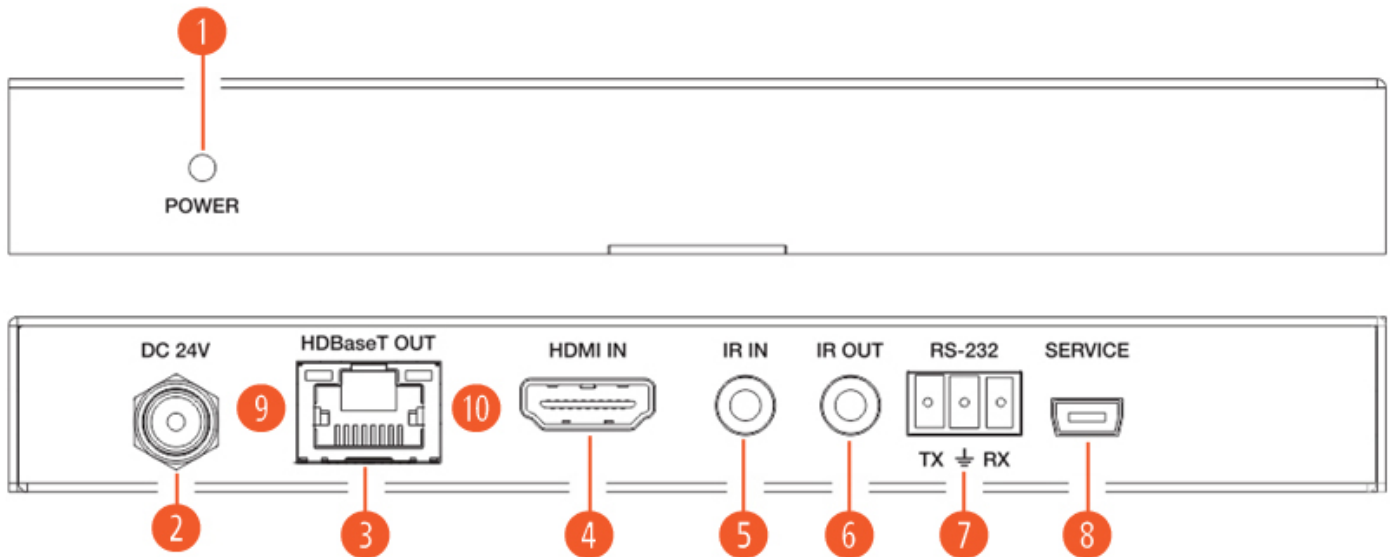
**Direct interconnection method**

## SPECIFICATIONS

- **HDMI Compliance:** HDMI 2.0b
- **HDCP Compliance:** HDCP 2.2 and HDCP 1.4
- **Video Bandwidth:** 18Gbps
- **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:** 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: ±8KV (air-gap discharge) ±4KV (contact discharge)
- **Inputs:**
  - **Transmitter:**
    - HDMI Type A [19-pin female]
    - IR INPUT [3.5mm Stereo Mini-jack]
    - RS-232 [Phoenix jack]
    - Service [Mini-USB jack]
  - **Receiver:**
    - HDBaseT™ In [RJ45]
    - IR INPUT [3.5mm Stereo Mini-jack]
    - RS-232 [Phoenix jack]
    - Service [Mini-USB jack]
- **Outputs:**
  - **Transmitter:**
    - HDBaseT™ Out [RJ45]
    - IR OUTPUT [3.5mm Stereo Mini-jack]
  - **Receiver:**
    - HDMI Type A [19-pin female]
    - IR INPUT [3.5mm Stereo Mini-jack]
- **Transmission Distance:** Over CAT6 cable
  - **230ft (70M):** 1080p@60Hz 36bit; 3D1080p@30Hz 36bit
  - **130ft (40M):** 1080p@60Hz@48bit; 1080p@120Hz@24bit; 3D-1080p@60Hz@36bit; 4K2K@30Hz@24bit; 4K2K@50/60Hz (YUV420); 4K2K@50/60Hz (YUV444)
- **Dimensions (WxDxH):** 6.2 x 3.5 x .8 in (157x90x20mm)
- **Weight:** 333g / 0.75 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)

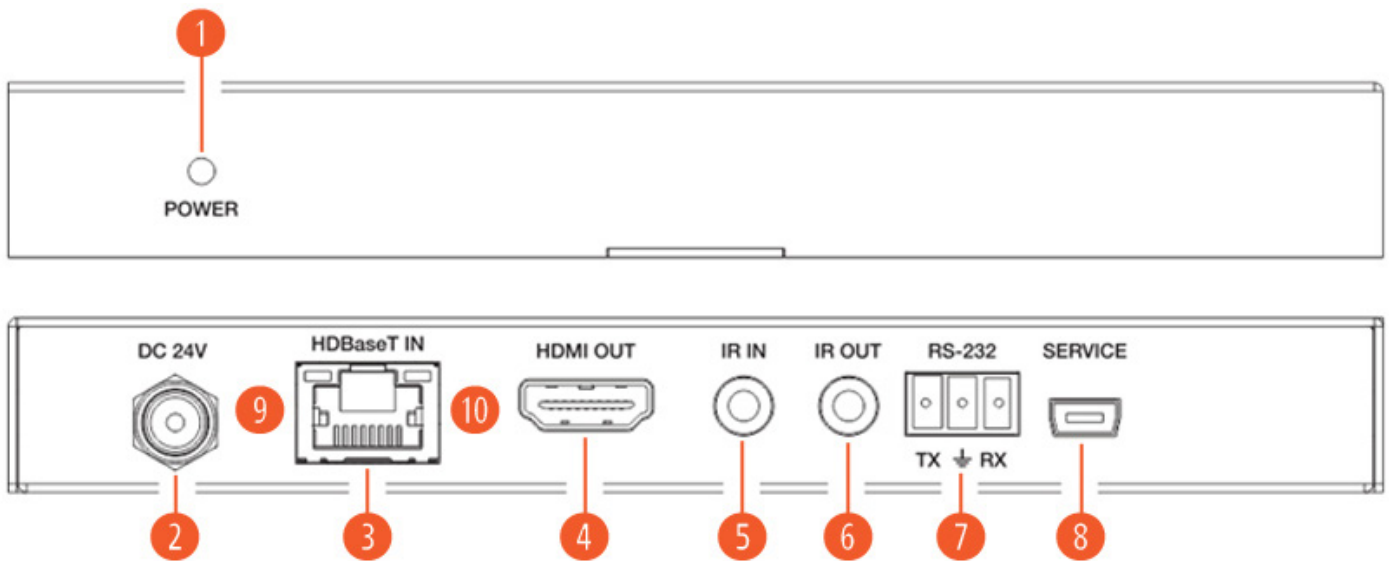
As product improvements are continuous, specifications are subject to change without notice.

TRANSMITTER



- ① **POWER LED:** System power indicator.
- ② **DC 24V:** Connect the 24V/1A adaptor to the AC wall outlet for power.
- ③ **HDBaseT™ OUT:** Standard HDBaseT™ signal output port. Connects the HDBaseT™ receiver with a UTP cable following the standard direct interconnection method.
- ④ **HDMI IN:** Connects to the HDMI source device such as a Blu-ray or PS4 player.
- ⑤ **IR IN:** Channel 2 IR Receiver. Connects with a Wideband IR Rx.
- ⑥ **IR OUT:** Channel 1 IR Transmitter. Connects with a Wideband IR Tx.
- ⑦ **RS-232:** Phoenix jack provides serial port control signal from a receiver or to a receiver.
- ⑧ **SERVICE:** Manufacturer use only.
- ⑨ **CONNECTION SIGNAL INDICATOR LAMP:**
  - **Illuminated:** The Transmitter and Receiver have good connections.
  - **Flashing:** The Transmitter and Receiver have poor connection status.
  - **Dark:** The Transmitter and Receiver are not connected.
- ⑩ **DATA SIGNAL INDICATOR LAMP:**
  - **Illuminated:** The HDMI signal has HDCP.
  - **Flashing:** The HDMI signal is without HDCP.
  - **Dark:** No HDMI signal.

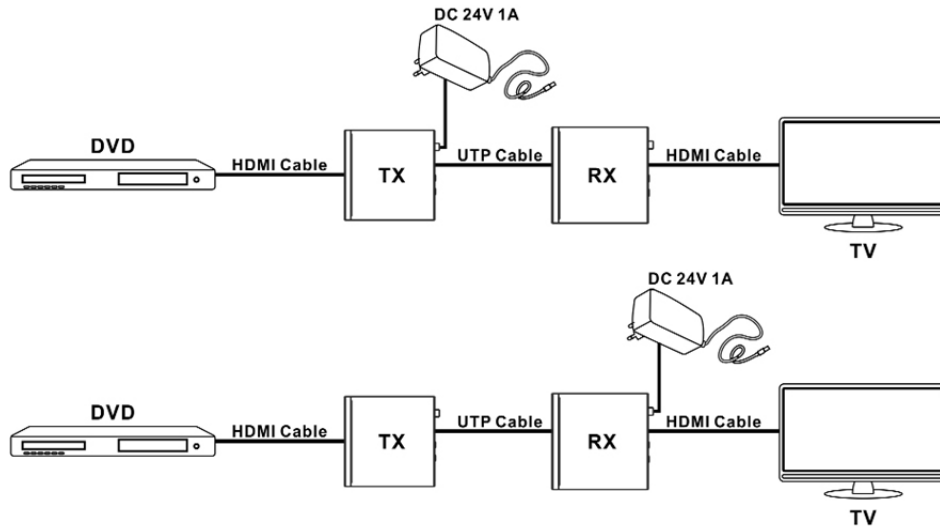
RECEIVER



- ① **POWER LED:** System power indicator.
- ② **DC 24V:** Connect the 24V/1A adaptor to the AC wall outlet for power.
- ③ **HDBaseT™ IN:** Standard HDBaseT™ signal input port. Connects the HDBaseT™ Transmitter with a UTP cable following the standard direct interconnection method.
- ④ **HDMI OUT:** HDMI output port where you connect the HDTV or monitor with HDMI cable.
- ⑤ **IR IN:** Channel 1 IR Receiver. Connects with a Wideband IR Rx.
- ⑥ **IR OUT:** Channel 2 IR Transmitter. Connects with a Wideband IR Tx.
- ⑦ **RS-232:** Phoenix jack provides serial port control signal from a receiver or to a receiver.
- ⑧ **SERVICE:** Manufacturer use only.
- ⑨ **CONNECTION SIGNAL INDICATOR LAMP:**
  - **Illuminated:** The Transmitter and Receiver have good connections.
  - **Flashing:** The Transmitter and Receiver have poor connection status.
  - **Dark:** The Transmitter and Receiver are not connected.
- ⑩ **DATA SIGNAL INDICATOR LAMP:**
  - **Illuminated:** The HDMI signal has HDCP.
  - **Flashing:** The HDMI signal is without HDCP.
  - **Dark:** No HDMI signal.

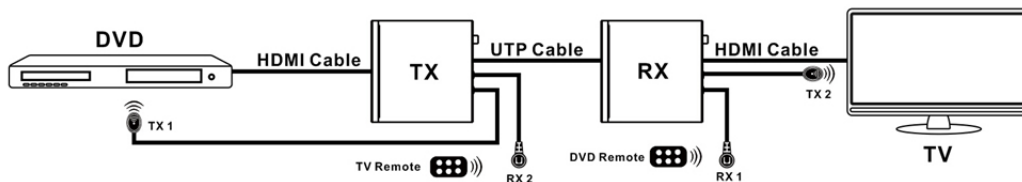
DESCRIPTION 1

POC (Power Over Cable) Application Example



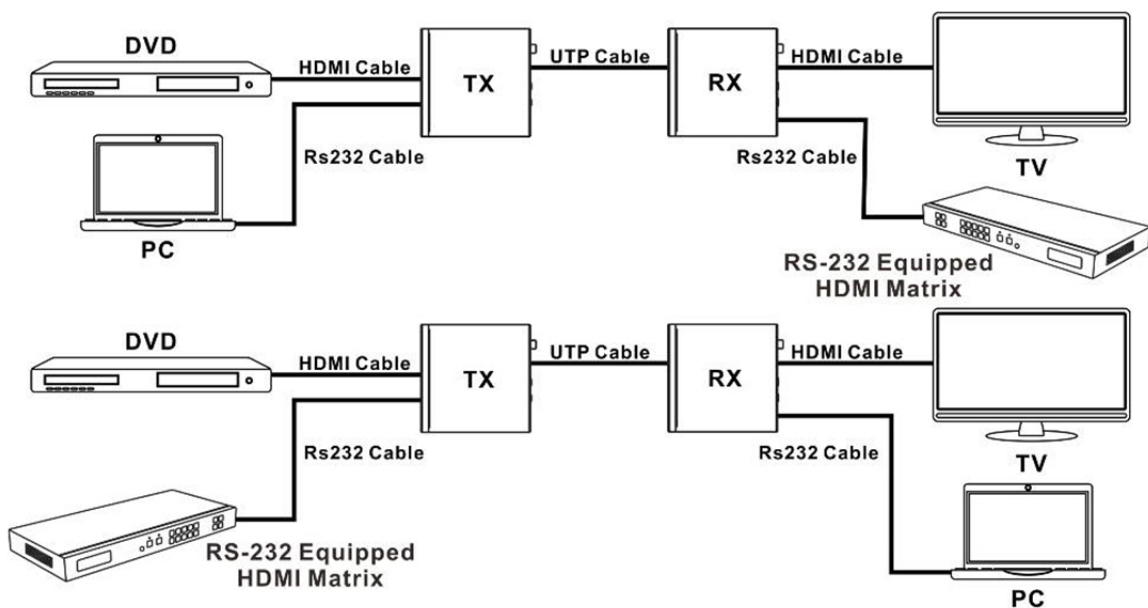
DESCRIPTION 2

Bidirectional Infrared Control Application Example



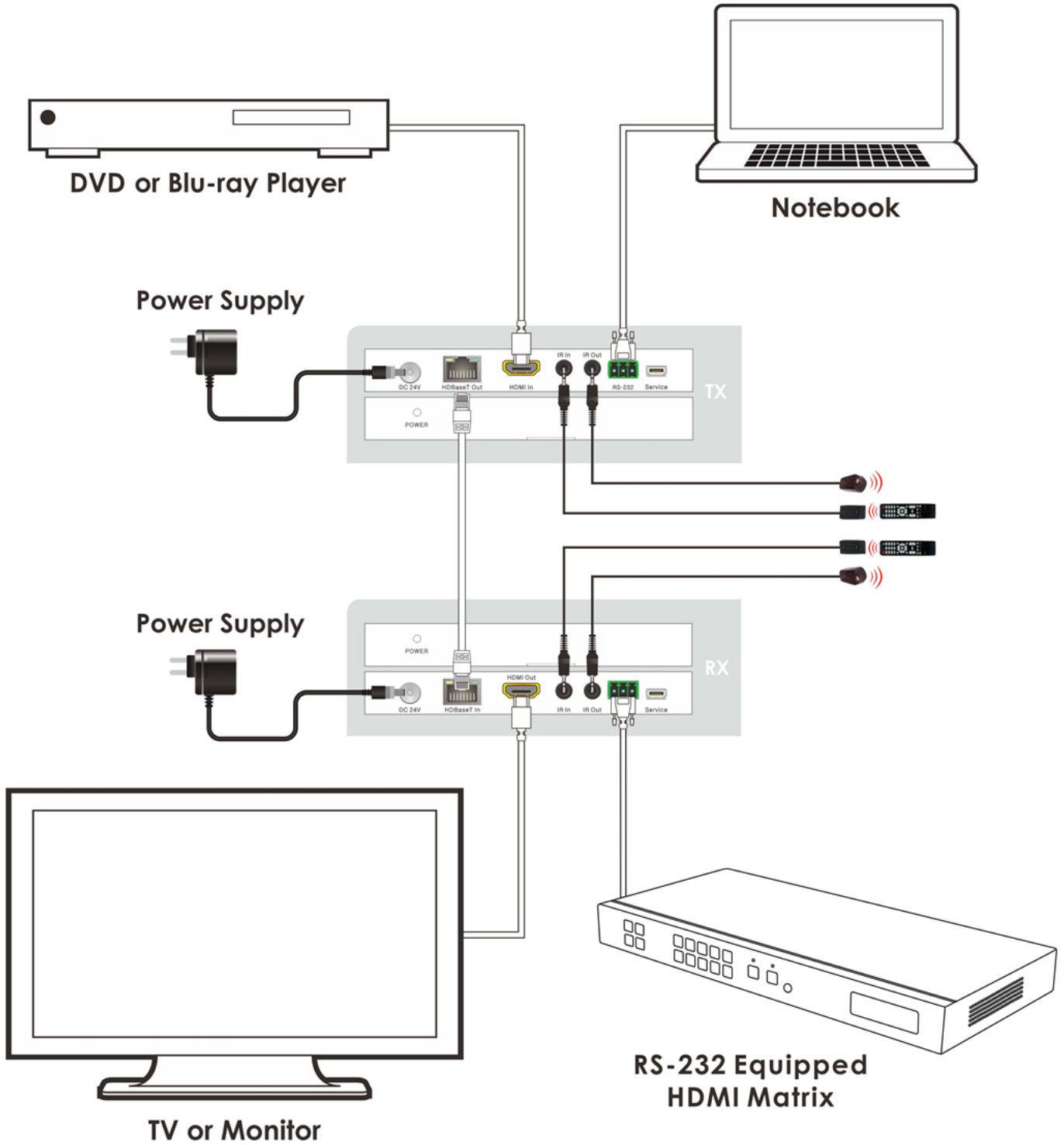
DESCRIPTION 3

Bidirectional RS-232 Control Application Example





CONNECTION DIAGRAM

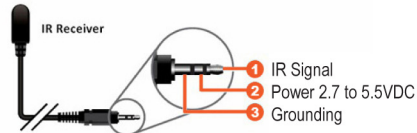


## WIDEBAND IR (30KHZ--60KHZ) INTRODUCTION

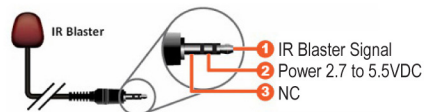
Included in each kit:



IR Rx  
RECEIVERS



IR Tx  
TRANSMITTERS

**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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