

OMX-HDMICAT1X4

18 Gbps HDMI Splitter & Cat6/6a/7 Extender with 4 Receivers



FEATURES

- Extends 4K2K@50/60Hz up to 35m, 4K2K@30Hz up to 50m, 1080p up to 60m over CAT/6/6a/7 cable
- Includes 4 Receivers
- Supports HDR, HDR10+, HLG and Dolby vision
- Advanced EDID Management
- One Way PoC from Tx to Rx
- One-Way IR Control
- HDMI Loop Out
- 12V/2.5A DC Locking Power Adapter
- Rugged Metal Enclosure

INCLUDES

- Four CAT Receivers
- One IR Blaster Cable 4.9 ft/1.5 m
- Four 20K-60KHz IR Receiver Cables 4.9 ft/1.5 m
- One 12V/2.5A DC Locking Power Adapter



Specifications

| | |
|-----------------------|--|
| Compliance | HDMI 2.0b, HDCP 2.2/1.x |
| Video Bandwidth | 594MHz/18Gbps |
| Video Resolution | Up to 4k2k@50/60Hz 4:4:4 |
| Color Depth | 8-bit, 10-bit, 12-bit(1080p@60Hz) 8-bit (4K2K@60Hz YUV4:4:4) 8-bit, 10-bit, 12-bit(4K2K@60Hz YCbCr 4:2:2/4:2:0) |
| Color Space | RGB, YCbCr 4:4:4 / 4:2:2. YUV 4:2:0 |
| HDR | Support HDR10, HDR10+, HLG, Dolby vision |
| HDMI Audio Formats | LPCM 2.0/2.1/5.1/6.1/7/1, Dolby Digital, Dolby True HD, Dolby Digital Plus (DD+), DTS-ES, DTS-HD Master, DTS HD-HRA, DTS-X |
| Coaxial Audio Formats | PCM2.0, Dolby Digital/Plus, DTS 2.0/5.1 |
| Analog Audio Formats | PCM 2.0CH |
| Power Consumption | 14W |
| Power Supply | Input: AC100 - 240V 50/60Hz, Output: DC 12V/2.5A |
| Dimensions | TX 8.3 x 3.9 x 1.1 inch / RX 3.5 x 2.4 x 0.7 inch |
| Weight | TX 1.36 lb / RX 0.34 lb |

Operation Controls

Front Panel

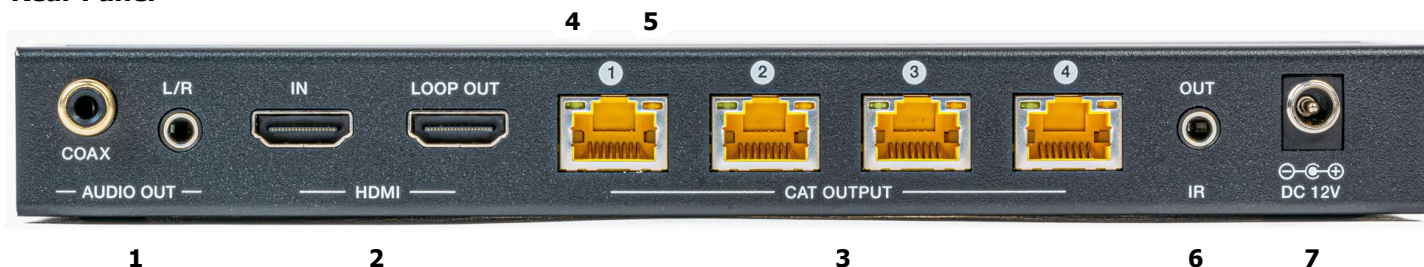


1 2 3 4 5

- 1 Power Switch
- 2 Power LED Indicator — Illuminates red when power is on
- 3 IN LED Indicator — Illuminates green when active source is connected
- 4 LOOP LED Indicator — Illuminates green when active display is connected
- 5 OUT LED 1-4 Indicators — The corresponding OUT LED will illuminate green when active display is connected

Operation Controls

Rear Panel



- 1 Audio Out—COAX, L/R—Coax/Analog Audio Output: Connect to amplifier or speaker
- 2 HDMI Port—IN: Connect to HDMI source / LOOP OUT—Connect to HDMI display
- 3 CAT OUTPUT Port 1-4—Connect to the CAT IN port of the CAT receiver with a CAT cable
- 4 Link Signal Indicator—Illuminates green when transmitter and receiver are connected
- 5 Data Signal Indicator—Illuminates orange when there is a signal transmission between transmitter and receiver
- 6 IR Out—Connect the IR blaster cable to transmit IR signal from the CAT receiver
- 7 DC 12V Power Supply Port—Transmitter can power the receiver over a CAT cable

Side Panel—EDID Management



1 2

- 1 EDID Switch
- 2 Factory Use Only

| Switch Setting | EDID Information |
|----------------|--------------------------------|
| 11111 | 1080P, Stereo Audio 2.0 |
| 11110 | 1080P, Dolby/DTS 5.1 |
| 11101 | 1080P, HD Audio 7.1 |
| 11100 | 1080I, Stereo Audio 2.0 |
| 11011 | 1080I, Dolby/DTS 5.1 |
| 11010 | 1080I, HD Audio 7.1 |
| 11001 | 1080P 3D, Stereo Audio 2.0 |
| 11000 | 1080P 3D, Dolby/DTS 5.1 |
| 10111 | 1080P 3D, HD Audio 7.1 |
| 10110 | 4K2K30Hz_444, Stereo Audio 2.0 |
| 10101 | 4K2K30Hz_444, Dolby/DTS 5.1 |
| 10100 | 4K2K30Hz_444, HD Audio 7.1 |
| 10011 | 4K2K60Hz_420, Stereo Audio 2.0 |
| 10010 | 4K2K60Hz_420, Dolby/DTS 5.1 |
| 10001 | 4K2K60Hz_420, HD Audio 7.1 |
| 10000 | 4K2K60Hz_444, Stereo Audio 2.0 |

| Switch Setting | EDID Information |
|----------------|------------------------------------|
| 01111 | 4K2K60Hz_444, Dolby/DTS 5.1 |
| 01110 | 4K2K60Hz_444, HD Audio 7.1 |
| 01101 | 4K2K60Hz_444, Stereo Audio 2.0 HDR |
| 01100 | 4K2K60Hz_444, Dolby/DTS 5.1 HDR |
| 01011 | 4K2K60Hz_444, HD Audio 7.1HDR |
| 01010 | COPY_FROM_LOOP OUT |
| 01001 | COPY_FROM_CAT OUT1 |
| 01000 | COPY_FROM_CAT OUT2 |
| 00111 | COPY_FROM_CAT OUT3 |
| 00110 | COPY_FROM_CAT OUT4 |
| 00101 | 1080P, Stereo Audio 2.0 |
| 00100 | 1080P, Stereo Audio 2.0 |
| 00011 | 1080P, Stereo Audio 2.0 |
| 00010 | 1080P, Stereo Audio 2.0 |
| 00001 | 1080P, Stereo Audio 2.0 |
| 00000 | PC Control Mode |

Receiver



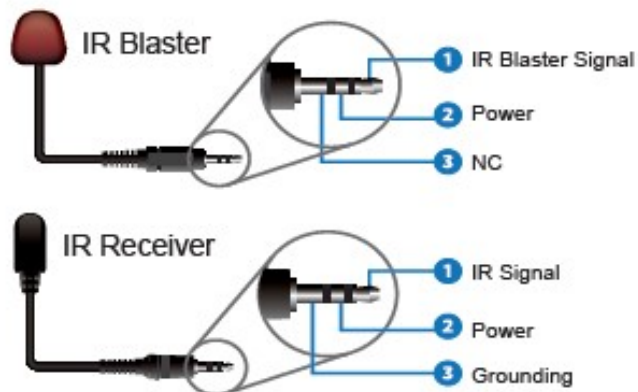
- 1 HDMI OUT
- 2 CAT IN
- 3 Power LED Indicator — Illuminates green when power is on
- 4 Data Signal LED Indicator — Illuminates orange when there is a signal transmission between transmitter and receiver
- 5 Factory Use Only
- 6 IR IN—Connect the IR receiver cable
- 7 DV 12V Power Supply Port—Transmitter can power the receiver over a CAT cable

IR Pin Definition

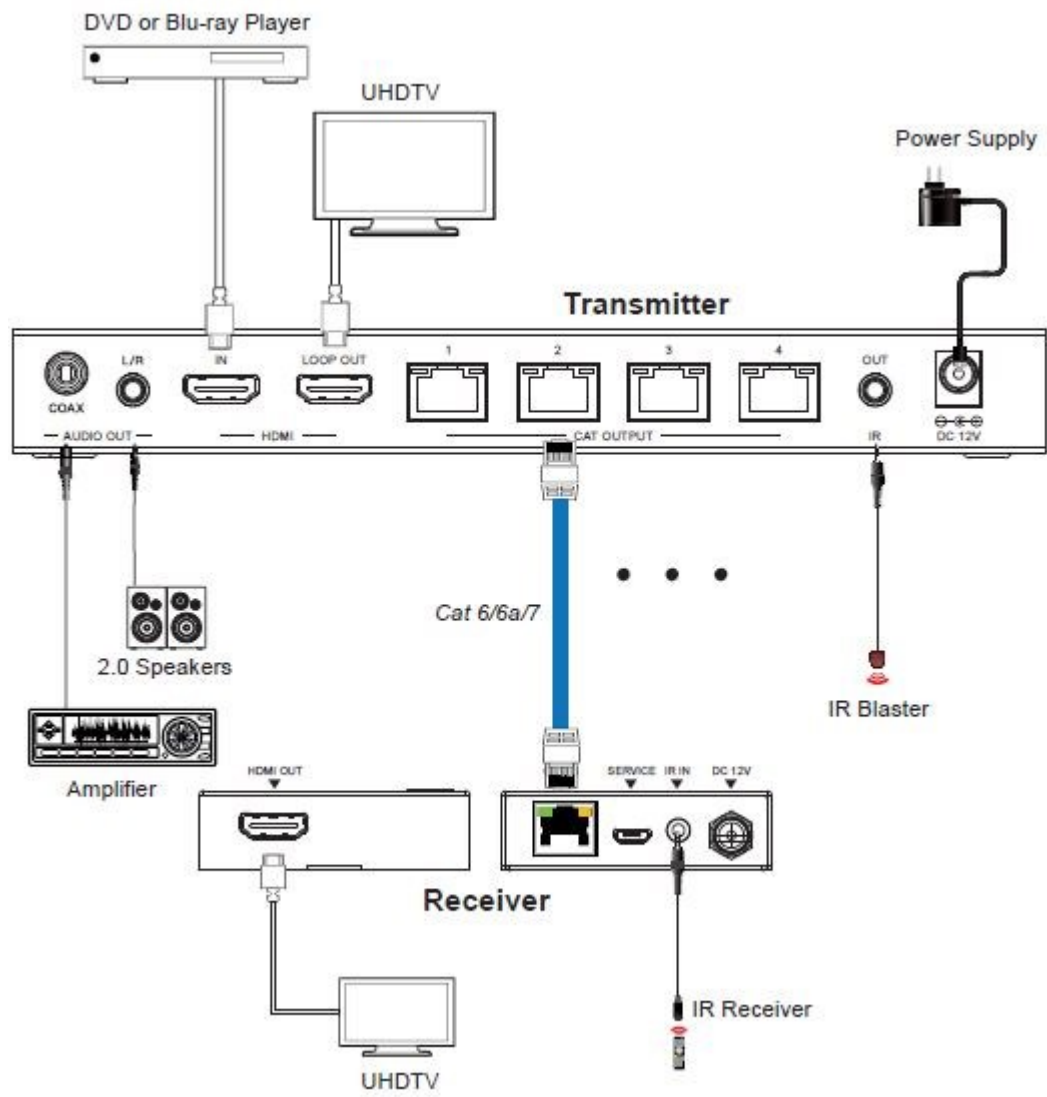


IR Receiver

IR Blaster



Application Example





TROUBLESHOOTING

| Issue | Question | Explanation |
|--|--|--|
| No Picture | <ol style="list-style-type: none"> Are you using on a VLAN (Virtual Local Area Network)? Is the signal destination HDCP (High-bandwidth Digital Content Protection) compliant? Does the source signal match one of these resolutions?: 480i@60Hz; 480p@60Hz; 576i@50Hz; 576p@50Hz; 720p@50/60Hz; 1080i@50/60Hz; 1080p@50/60Hz; How long are your cable runs? | <ol style="list-style-type: none"> If using with a VLAN, make sure it is IGMP (Internet Group Management Protocol) capable and ports have UDP (User Datagram Protocol) enabled The output of the OMX-HDMI-2-IP is automatically encrypted with HDCP. There will be no picture if the destination device is not HDCP compliant (capture cards mostly) Source resolution must be supported by the OMX-HDMI-2-IP in order to display Maximum Length: Cat5 262 ft, Cat5e 328 ft. Cat6 393 ft. If HDMI cables exceed 50 feet, try a shorter cable |
| No Picture and Message saying "Searching TX" | Is the transmitter power supply connection loose? | If the power supply connection is loose on the transmitter, the receiver may not be able to make a connection consistently. Secure the connection or replace the power supply (Item# OMX-DC5V21MM). |
| Intermittent picture—picture randomly drops in and out | Are you running your signal through any other devices in the chain? | <p>This is usually an EDID (Extended Display Identification Data) issue. The display needs to send its table of acceptable resolutions (EDID) all the way back to the source device each time a connection is requested in order for the source to choose the best possible output resolution.</p> <p>There is a window of time in which this must take place depending on the equipment. If the signal takes too long for some reason (network traffic, cable length/speed, latency in other connected equipment) there will be no display. If you are constantly having this problem, we suggest an EDID emulator which will store the correct resolution settings at the display side, eliminating the need to go to the source for that information.</p> <p>If you are running through a network, we suggest a dedicated network switch be used to prevent potential drop outs. To check if the switch may be the issue, take the switch out of the equation and try a point to point setup to see if the drop outs occur.</p> |

SAFETY PRECAUTIONS

- To prevent fire or shock hazard, do not expose this equipment to dust or high humidity. Do not use in an unprotected outdoor installation or in areas classified as overly damp or wet.
- The installation temperature should be kept between 32°F to 140°F (0°C to 60°C). Avoid direct sunlight exposure or extreme changes of temperature over a short period of time.
- Do not place the unit on an unstable base and avoid heavy impact.
- Proper ventilation is required for permanent installation. Do not block enclosure openings as they protect the unit from overheating.
- Prior to cleaning, turn the power off and unplug the unit from all connections. Do not use liquid or aerosol cleaners.
- Do not overload outlets and extension cords as this may result in a risk of fire or electric shock.
- Enclosure entry is dangerous. Never push objects of any kind, including liquids, through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock.
- Do not open or service this unit yourself as opening or removing covers may expose you to dangerous voltage and other hazards.
- There are no user-serviceable parts inside the units. If service is required, contact your authorized dealer or repair service company.