

OMX-HDMICAT1X8

18 Gbps HDMI Splitter & Cat6/6a/7 Extender with 8 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 8 Receivers
- Supports 3D, 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

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



Specifications

Compliance	HDMI 2.0, HDCP 2.2, DVI 1.0
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, Dolby Digital/Plus/EX, Dolby True HD, DTS, DTS-EX, DTS-96/24, DTS High Res, DTS-HD Master Audio, DSD
Coaxial Audio Formats	LPCM2.0, LPCM5.1, Dolby Digital2/5.1CH
Analog Audio Formats	PCM 2.0
Power Consumption	25.44W
Power Supply	Input: AC100 - 240V 50/60Hz, Output: DC 12V/2.5A
Dimensions	TX 11.8 x 3.9 x 1.1 inch / RX 3.5 x 2.4 x 0.7 inch
Weight	TX 1.81 lb / RX 0.34 lb

Operation Controls

Front Panel



- 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 1-8 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 1-8—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	COPY_FROM_CAT OUT5
00100	COPY_FROM_CAT OUT6
00011	COPY_FROM_CAT OUT7
00010	COPY_FROM_CAT OUT8
00001	1080P, Stereo Audio 2.0
00000	PC Control Mode

Receiver



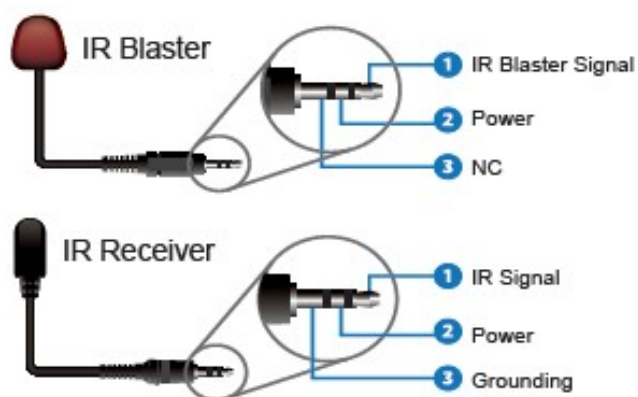
- 1 HDMI OUT
- 2 CAT IN
- 3 Power LED Indicator — Illuminates green when power is on
- 4 Data Signal LED Indicator — Illuminates orange when there is a signal transmission between transmitter and receiver
- 5 Factory Use Only
- 6 IR IN—Connect the IR receiver cable
- 7 Power Supply Port—Transmitter can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

IR Pin Definition

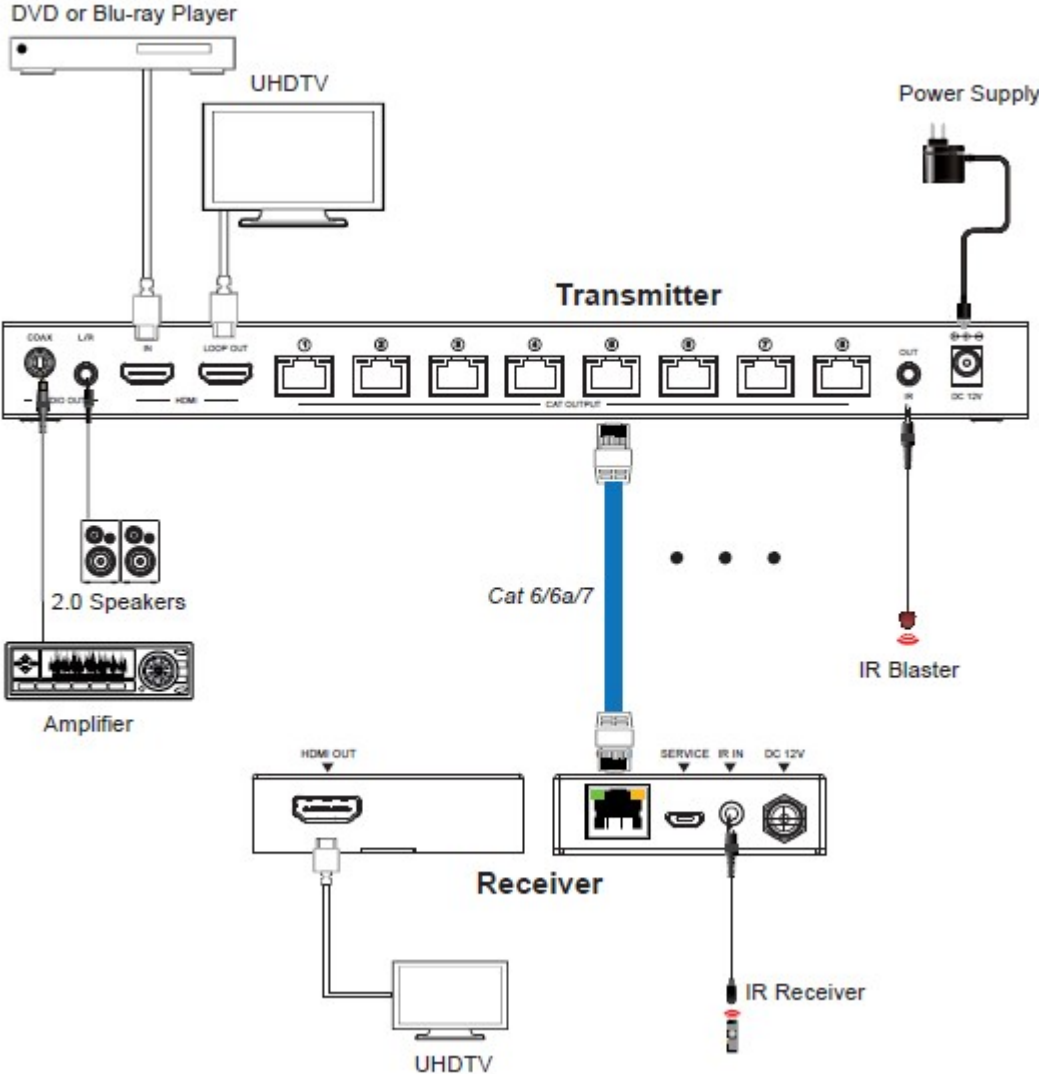


IR Receiver

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.