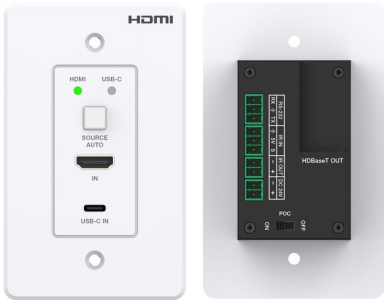


Long-Reach 2×1 HDMI & USB-C HDBaseT Wall Plate Extender Kit — 4K60 4:4:4

Drive a Display Up to 120m Without an AV-over-IP Encoder or Network Switch — Uncompressed 18Gbps, HDR10+/Dolby Vision & Bi-Directional PoC



The WP-EXTHDTC150 carries an uncompressed 4K60 4:4:4 signal from a wall plate to a display up to 120m over a single CAT6/6A cable, with no AV-over-IP encoder, decoder or network switch to commission. A transmitter in a single US 1-gang box takes one HDMI and one USB-C source with automatic or manual switching, a compact box receiver drives the display, and bi-directional PoC powers whichever end has an outlet over the link cable. Reach runs to 120m (394 ft) at 4K60 4:4:4 and 150m (492 ft) at 1080p, making it the right choice for large lecture halls, houses of worship, courtrooms, ballrooms and estate-scale residential where the length of the run — not USB or KVM extension — is the constraint that defeats a shorter-reach plate.

The link passes 18Gbps of uncompressed HDMI 2.0b video with HDR, HDR10, HDR10+, Dolby Vision and HLG intact, alongside LPCM 7.1, Dolby TrueHD and DTS-HD Master Audio, and de-embeds analog stereo at the receiver for a local audio tie-in. Bi-directional IR, RS-232 and CEC pass through the cable so the control system can operate source and display from either end. Its single strongest differentiator is reach at full picture integrity: it holds 4:4:4 color to 120m.

Surge Protection Recommended — This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shock, or lightning strikes. Use of surge protection systems is highly recommended.

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1. Features

- ✓ 1-Gang US-size wall-plate transmitter with two inputs: 1× HDMI and 1× USB-C
- ✓ Video resolution up to 4K2K@60Hz 4:4:4 with 18Gbps video bandwidth
- ✓ HDMI 2.0b, HDCP 2.2 compliant
- ✓ Auto switching and manual switching between the two inputs
- ✓ Maximum transmission distance over CAT6/6A: 120m/394ft at 4K2K@60Hz 4:4:4; 150m/492ft at 1080p@60Hz
- ✓ Audio formats: LPCM 7.1CH, Dolby TrueHD and DTS-HD Master Audio
- ✓ HDR, HDR10, HDR10+, Dolby Vision and HLG pass-through
- ✓ Bi-directional IR, RS-232 and CEC control-signal transmission
- ✓ Bi-directional PoC (Power over Cable) from either end

2. Package Contents

- ✓ 1× 4K60 2×1 HDBT Extender (Transmitter)
- ✓ 1× 18Gbps HDMI-over-HDBaseT Extender (Receiver)
- ✓ 1× 24V/1A multinational power supply
- ✓ 1× IR blaster cable (1.5m)
- ✓ 1× IR wideband receiver cable (1.5m)
- ✓ 1× 2-pin 3.5mm Phoenix connector (male)
- ✓ 2× 3-pin 3.5mm Phoenix connector (male)
- ✓ 1× 3-pin 3.81mm Phoenix connector (male)
- ✓ 2× mounting ear
- ✓ 4× machine screw (KM3×4)

3. Specifications

VIDEO		
	Video Bandwidth	18Gbps
	Video Resolution	Up to 4K2K@60Hz 4:4:4 (includes all 3D TV formats and computer resolutions such as 1920×1200)
	HDMI Compliance	HDMI 2.0b
	HDCP Compliance	HDCP 2.2
	Color Space	RGB 4:4:4, YCbCr 4:4:4, YCbCr 4:2:2, YCbCr 4:2:0
	Color Depth	8-bit, 10-bit, 12-bit
	HDR	HDR, HDR10, HDR10+, Dolby Vision, HLG
	Transmission Distance	Up to 120m/394ft at 4K2K@60Hz 4:4:4 via CAT6/6A; up to 150m/492ft at 1080p@60Hz 4:4:4 via CAT6/6A
AUDIO		
	HDMI Audio Format	LPCM 2.0/2.1/5.1/6.1/7.1, Dolby Digital, Dolby TrueHD, Dolby Digital Plus (DD+), DTS-ES, DTS-HD Master Audio, DTS-HD HRA, DTS:X
	Analog Audio Format	LPCM 2.0CH
CONTROL		



continued

IR Level	5Vp-p
IR Frequency	Wideband, 20kHz–60kHz
Control Signals	Bi-directional IR, RS-232 and CEC pass-through
TRANSMITTER CONNECTIONS	
Input	1× USB-C IN (USB Type-C, 24-pin female); 1× HDMI IN (HDMI Type A, 19-pin female)
Output	1× HDBaseT OUT (RJ45)
Control	1× RS-232 (3-pin 3.5mm Phoenix); 1× IR IN (3-pin 3.5mm Phoenix); 1× IR OUT (2-pin 3.5mm Phoenix)
RECEIVER CONNECTIONS	
Input	1× HDBaseT IN (RJ45, 8-pin female)
Output	1× HDMI OUT (HDMI Type A, 19-pin female); 1× Audio OUT (3.5mm stereo mini-jack)
Control	1× IR IN (3.5mm stereo mini-jack); 1× IR OUT (3.5mm stereo mini-jack); 1× RS-232 (3-pin Phoenix); 1× Service (Mini-USB update port)
POWER	
Power Supply	Input: AC 100–240V, 50/60Hz; Output: DC 24V/1A
Power over Cable	Bi-directional PoC; either end powers the other over the CAT cable
Power Consumption	Transmitter: 4.5W (max); Receiver: 4.7W (max)
PHYSICAL	
Housing	Metal enclosure
Color	Transmitter: white + black; Receiver: black
Transmitter Dimensions (W × D × H)	2.75" × 1.54" × 4.49" (69.8 × 39 × 114mm)
Transmitter Weight	0.45 lbs (203g)
Receiver Dimensions (W × D × H)	5.51" × 2.56" × 0.71" (140 × 65 × 18mm)
Receiver Weight	0.34 lbs (155g)
ENVIRONMENTAL	
Operating Temperature	32°F ~ 104°F (0°C ~ 40°C)
Storage Temperature	-4°F ~ 140°F (-20°C ~ 60°C)
Operating Humidity	20%–80% RH, non-condensing
Storage Humidity	10%–90% RH, non-condensing
ESD Protection	IEC 61000-4-2: ±8kV (air-gap discharge), ±4kV (contact discharge)
CERTIFICATIONS	
Power Supply	CE, FCC, UL certified



4. Introduction

This product extends HDMI and USB-C signals over a single CAT6/6A cable — up to 150m/492ft at 1080p@60Hz, or 120m/394ft at 4K2K@60Hz (4:4:4). The wall-plate transmitter gives you one HDMI input and one USB-C input with manual or automatic switching between them. The box receiver provides one HDMI output and one 3.5mm de-embedded audio output. The link carries bi-directional PoC and bi-directional IR and RS-232, so you can control source and display from either end. It suits presentation rooms, video conferencing, multimedia teaching and similar HDMI extension jobs.

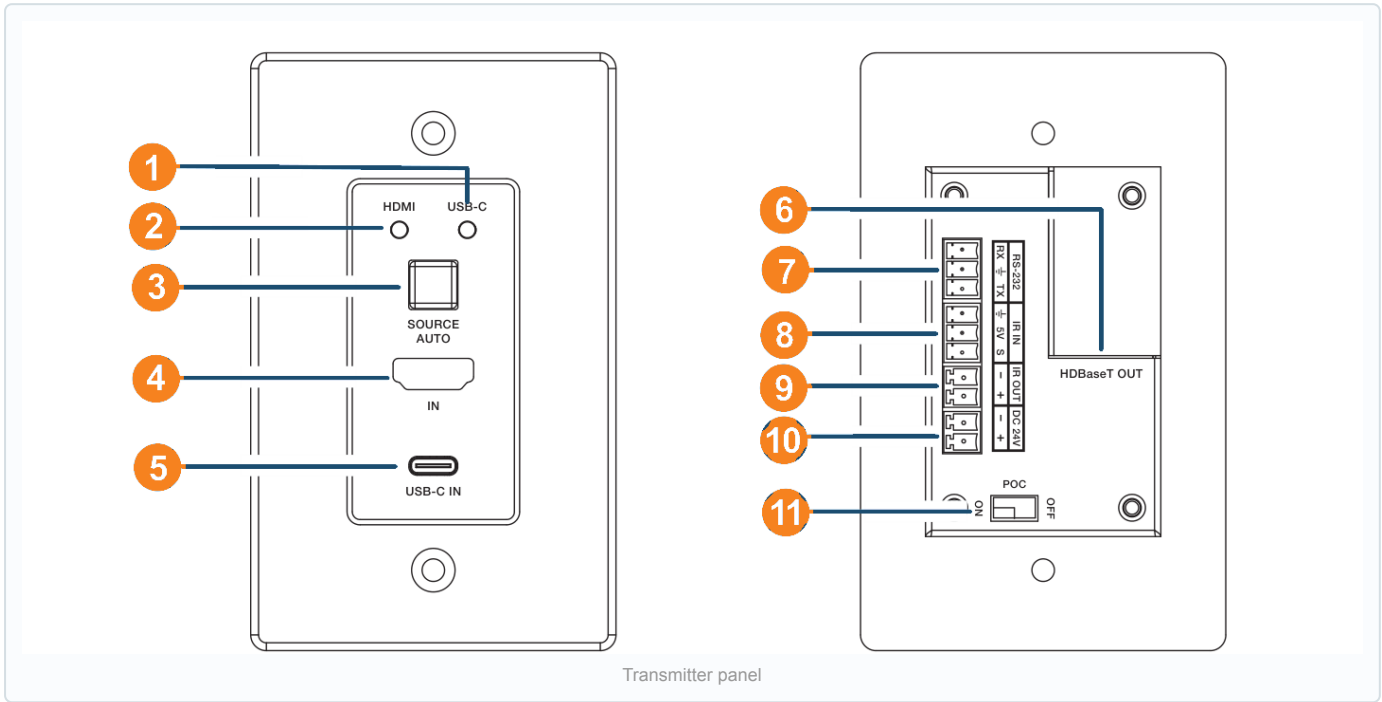
Surge protection: the manual advises that this product contains sensitive components that electrical spikes, surges and lightning can damage, and strongly recommends installing surge-protection equipment to protect and extend the life of the unit.

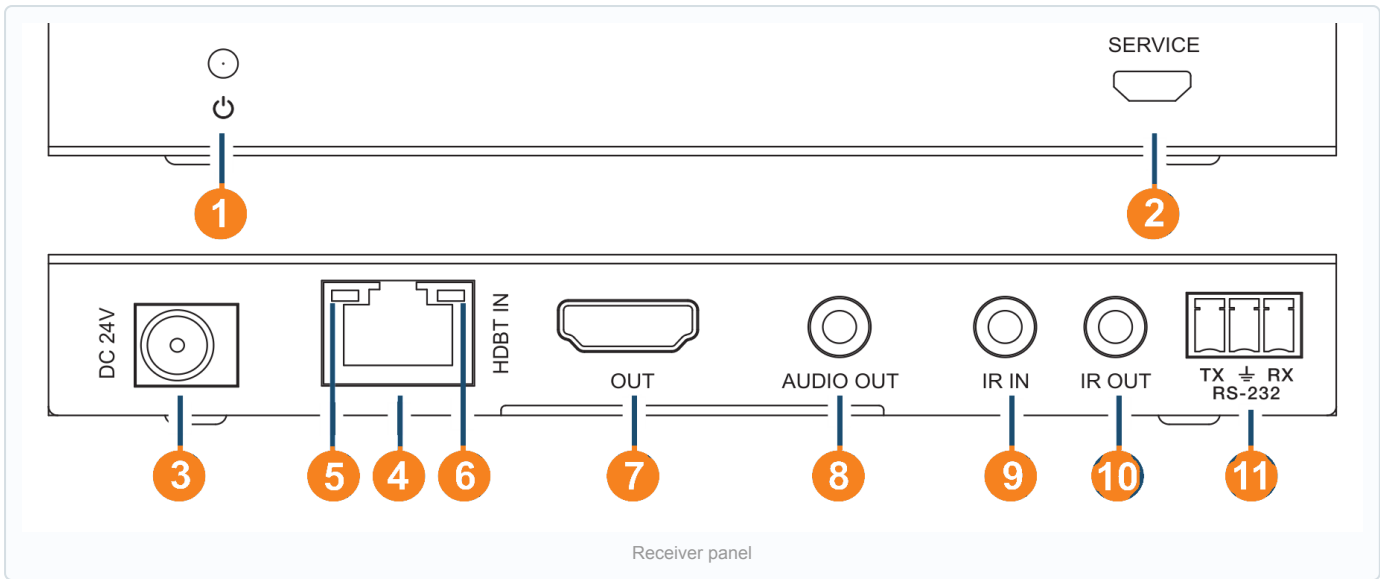
5. Cable termination — Direct Interconnection Method (caution)

The manual cautions that this product requires UTP connectors and that you must terminate the cable **straight-through** (direct interconnection) — do **not** cross-connect. Wire both ends to the same pin order:

PIN	WIRE
1	White/Orange
2	Orange
3	White/Green
4	Blue
5	White/Blue
6	Green
7	White/Brown
8	Brown

6. Panel descriptions





TRANSMITTER PANEL

Numbering confirmed against the manual's own numbered diagram (5.1 Transmitter Panel, page 4/8) — the PDF text extraction had scrambled the No. column entirely; every row below moved.

No.	Name	Description
1	USB-C LED	The green LED lights when the USB-C input is the selected channel.
2	HDMI LED	The green LED lights when the HDMI input is the selected channel.
3	SOURCE/AUTO button & indicator	Press to switch between the two inputs, USB-C and HDMI. Press and hold for 3 seconds to turn auto switching on or off; the indicator glows blue while auto switching is enabled.
4	HDMI IN	HDMI input port, supporting video up to 4K60 4:4:4.
5	USB-C IN	USB-C input port, supporting video up to 4K60 4:4:4.
6	HDBaseT OUT	Connect to the HDBT IN port on the receiver with CAT6/6A cable.
7	RS-232	3-pin Phoenix connector for RS-232 command transmission; commands pass through transmitter-to-receiver and receiver-to-transmitter.
8	IR IN	IR input for receiving the IR remote signal.
9	IR OUT	IR output to control the source device; this signal comes from the IR IN port of the receiver.

continued

No.	Name	Description
10	DC 24V	DC 24V/1A power input. Because the unit supports PoC, powering either the transmitter or the receiver from the 24V/1A adapter powers the other over the CAT cable, so the second unit needs no local supply.
11	PoC ON/OFF	PoC switch. Set to ON to enable PoC; set to OFF to disable it, in which case the transmitter runs from its own local power supply.

RECEIVER PANEL

Confirmed against the manual's own numbered diagram (5.2 Receiver Panel) — the No. column extracted cleanly here and matches the artwork as printed.

No.	Name	Description
1	Power LED	The red LED indicates that the receiver is powered on.
2	SERVICE	Firmware update port (Mini-USB).
3	DC 24V	DC 24V/1A power input. Because the unit supports PoC, powering either the transmitter or the receiver from the 24V/1A adapter powers the other, so the second unit needs no local supply.
4	HDBT IN	Connect to the HDBT OUT port on the transmitter with CAT6/6A cable.
5	Connection Signal Indicator	On: transmitter and receiver are well connected. Flashing: the connection is poor. Off: they are not connected.
6	Data Signal Indicator	On: an HDMI signal with HDCP is present. Flashing: an HDMI signal without HDCP is present. Off: there is no HDMI signal.
7	HDMI OUT	HDMI signal output to the display.
8	AUDIO OUT	3.5mm stereo connector for analog audio output.
9	IR IN	IR input for receiving the IR remote signal.
10	IR OUT	IR output to control the display device; this signal comes from the IR IN port of the transmitter.
11	RS-232	3-pin Phoenix connector for RS-232 command transmission; commands pass through transmitter-to-receiver and receiver-to-transmitter.

7. IR Pin Definition

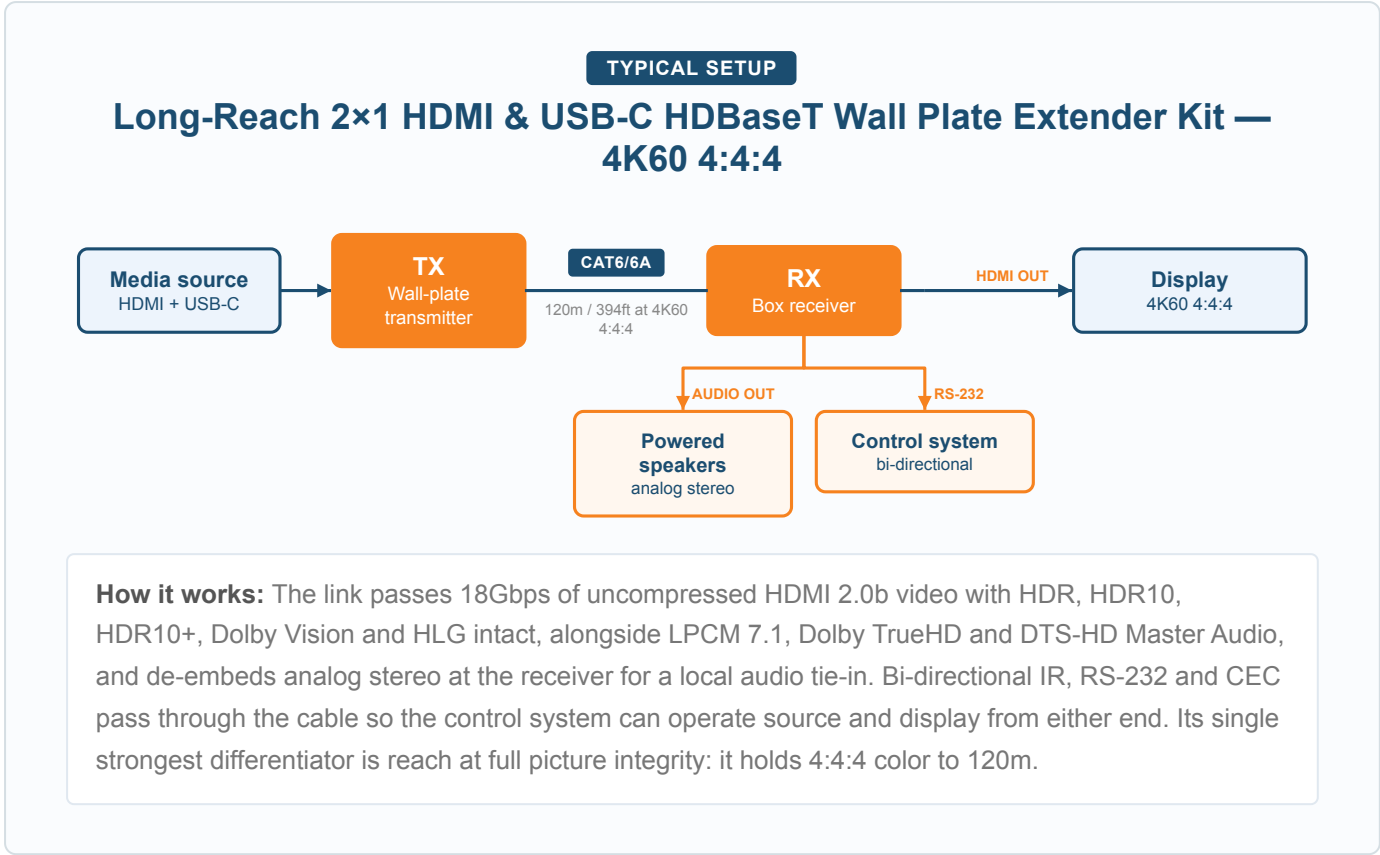
The manual defines the pins for the supplied IR receiver and IR blaster cables. **The pin assignments below extracted ambiguously** and should be confirmed against the artwork — the two connectors' pin labels interleaved in the source text (two "Power" entries appeared and could not be placed with certainty):



CABLE		PINS (AS EXTRACTED — ORDER UNCERTAIN)
	IR Receiver	Power; IR Signal; Grounding
	IR Blaster	IR Blaster Signal; NC; Power

Range note: at ±45° between the IR receiver and the remote, the working distance is 0–5 m; at ±90°, it is 0–8 m.

8. Application Example



9. Troubleshooting

Q: The display shows no picture on my WP-EXTHDTC150 link. Where do I start?

A: Check the receiver's Connection Signal Indicator: on means the transmitter and receiver are well connected, flashing means the connection is poor, and off means they are not connected. If it is flashing or off, verify the CAT6/6A run and that it is terminated straight-through at both ends.

Q: The WP-EXTHDTC150 link is connected but I still get no image. What next?

A: Look at the receiver's Data Signal Indicator: on means an HDMI signal with HDCP is present, flashing means a signal without HDCP, and off means there is no HDMI signal. If it is off, confirm the source is active and selected, and check that the correct input LED (HDMI or USB-C) is lit on the transmitter.

Q: One unit of my WP-EXTHDTC150 has no power. How do I check it?

A: The receiver's red Power LED shows when it is powered on. Since the kit uses PoC, confirm the 24V/1A adapter is connected at one end and the transmitter's PoC switch is set to ON so it feeds the other unit; if PoC is OFF, the far unit needs its own local supply.

Q: The wrong source is showing on my WP-EXTHDTC150. How do I confirm which input is live?

A: The transmitter has a green USB-C LED and a green HDMI LED, and only the selected channel's LED lights. Press the SOURCE/AUTO button to switch inputs, or if auto switching (blue indicator) is picking the wrong source, hold it for 3 seconds to turn auto switching off and select manually.

Q: IR control is not reaching my devices through the WP-EXTHDTC150. What should I check?

A: Confirm the IR blaster and IR wideband receiver cables are on the correct ports at each end, since IR IN on one unit drives IR OUT on the other. Also check aim and distance: the receiver works at 0 to 5m at plus or minus 45 degrees to the remote, and 0 to 8m at plus or minus 90 degrees.

Need help? — For additional support, contact KanexPro technical support at support@kanexpro.com or 888.975.1368, or scan the QR code below for the product page.

10. Installation FAQ

Q: What cable does the WP-EXTHDTC150 run on, and how must it be terminated?

A: Use a single CAT6/6A cable between the transmitter's HDBaseT OUT and the receiver's HDBT IN. Terminate it straight-through (both ends wired to the same pin order); do not cross-connect.

Q: Do I need a network switch between the two units of the WP-EXTHDTC150?

A: No. The transmitter and receiver each connect directly to the single CAT6/6A run, with no LAN switch required between them.

Q: Does the WP-EXTHDTC150 need power at both ends?

A: No. It supports bi-directional PoC, so powering either the transmitter or the receiver from the supplied 24V/1A adapter powers the other over the CAT cable. Set the transmitter's PoC switch to ON to enable this; set it to OFF to run the transmitter from its own local supply.

Q: Should I add surge protection when installing the WP-EXTHDTC150?

A: Yes. It contains sensitive components that electrical spikes, surges and lightning can damage, so installing surge-protection equipment is strongly recommended to protect and extend the life of the unit.

Q: What size wall opening does the WP-EXTHDTC150 transmitter fit?

A: The transmitter is built into a 1-gang US-size wall plate with one HDMI and one USB-C input.

11. Integration FAQ

Q: What control protocols can I run through the WP-EXTHDTC150?

A: It passes bi-directional IR, RS-232 and CEC through the HDBaseT link, so you can control the source and the display from either end.

Q: How does RS-232 work across the WP-EXTHDTC150 link?

A: RS-232 is a transparent pass-through over the CAT cable; commands travel both transmitter-to-receiver and receiver-to-transmitter through the 3-pin Phoenix connectors at each end. No command set is built into the unit itself.

Q: How does IR routing work between the two ends of the WP-EXTHDTC150?

A: IR is bi-directional: the receiver's IR IN feeds the transmitter's IR OUT to control the source, and the transmitter's IR IN feeds the receiver's IR OUT to control the display. Use the supplied IR blaster and IR wideband receiver cables to make those connections.

Q: Can the WP-EXTHDTC150 switch between its two inputs automatically?

A: Yes. The SOURCE/AUTO button toggles between the HDMI and USB-C inputs, and pressing and holding it for 3 seconds turns auto switching on or off; the indicator glows blue while auto switching is enabled.

Q: What does a typical WP-EXTHDTC150 system connect to?

A: Feed a source such as a TV box into the transmitter's HDMI or USB-C input, run one CAT6/6A cable to the receiver, then connect the receiver's HDMI OUT to a UHDTV and its 3.5mm AUDIO OUT to a pair of powered 2.0 speakers.

