Safety Notice: Please read these instructions carefully before use. Keep this manual for future reference. Surge protection is strongly recommended.

1. Introduction

The KanexPro EXT-HDBT70MRX is an HDCP 2.2 compliant HDBaseT receiver. It accepts HDBT IN from a compatible transmitter and outputs HDMI to the display at up to 230ft / 70m (1080p) or 130ft / 40m (4K/30). Supports bidirectional PoH (can be powered by TX over Cat cable), RS-232, and IR. **RX unit only — transmitter sold separately.**

2. Features

- ✓ UltraSlim metal enclosure with mounting ears
- ✓ Supports 1080p to 230ft / 70m and 4K/30 to 130ft / 40m over single Cat5e/6a
- ✓ HDMI 1.4 and HDCP 2.2 compliant — 10.2Gbps bandwidth
- ✓ Bi-directional PoH — one adapter powers both TX and RX
- ✓ Bi-directional RS-232 and IR control pass-through
- ✓ CEC pass-through for TV remote integration
- ✓ LED indicators: LINK, HDCP, Power on both TX and RX
- ✓ Supports 3D video formats
- ✓ RX unit only — pairs with EXT-HDBT70MTX or compatible HDBaseT transmitter

3. Package Contents

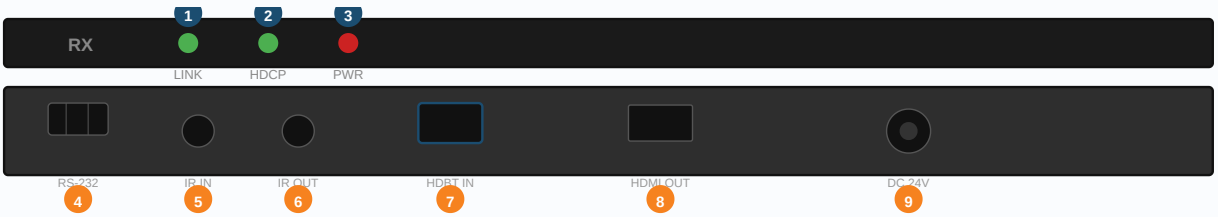
1× RX unit, 2× Mounting Ears, 4× Mounting Screws, 4× Plastic Cushions, 1× RS-232 Cable, 1× IR Receiver, 1× User Manual

4. Specifications

Technical	
HDMI Standard	HDMI 1.4 / HDCP 2.2
Bandwidth	10.2Gbps
Resolution Range	640×480@60Hz up to 4K×2K@30Hz
Transmission Distance	1080p: up to 230ft / 70m | 4K/30: up to 130ft / 40m (Cat5e/6a)
Audio	Digital audio pass-through via HDMI
Connection — Receiver	
RX Input	1× RJ-45 HDBT IN; 1× 3.5mm IR IN; 1× 3-pin Phoenix RS-232
RX Output	1× HDMI [female]; 1× 3.5mm IR OUT; 1× 3-pin Phoenix RS-232
Mechanical	
Housing	Metal Enclosure, Black
Dimensions	4.53″ (W) × 0.64″ (H) × 4.29″ (D) / 115 × 16.2 × 109mm
Weight	0.43 lbs (196g)
Power Supply	AC 100–240V → DC 24V/1.25A; PoH bidirectional; 14W max
Operating Temp	32–122°F / 0–50°C | 10–90% RH
Certifications	
Regulatory	FCC Class B, CE

2. Panel Description

RECEIVER PANEL



No.	Name	Description
1	**LINK LED**	Green: link good. Blinking green: link abnormal. Off: no link.
2	**HDCP LED**	Green: traffic with HDCP. Blinking: traffic without HDCP. Off: no HDMI signal.
3	**Power LED**	Red when DC power present. Off: no power.
4	**RS-232**	3-pin Phoenix connector. Bidirectional RS-232 pass-through.
5	**IR IN**	3.5mm jack. Connect 5V IR receiver to collect remote signals.
6	**IR OUT**	3.5mm jack. Connect 5V IR emitter to control source/display.
7	**HDBT IN**	RJ45. Connect to HDBT OUT on transmitter via Cat5e/6a.
8	**HDMI OUT**	HDMI output to display.
9	**DC 24V**	24V/1.25A power input (optional if TX provides PoH).

Troubleshooting

Q: No image on the display?

A: Verify HDMI cables are connected and working. Confirm Cat5e/6a cable is undamaged, straight-through, and T568B terminated on both ends. Check that the LINK LED is solid green. Ensure power is applied and ground is properly connected.

Q: LINK LED is blinking — what does that mean?

A: Blinking indicates an abnormal or poor connection. Check cable termination at both ends, verify no sharp bends or damage, and confirm the run does not exceed the rated distance (230ft / 70m for 1080p; 130ft / 40m for 4K/30).

Q: Color loss or poor picture quality?

A: Verify HDMI cables at source and display are high quality and firmly connected. Ensure proper grounding of the power supply. Check that the Cat cable shield is connected to the metal shell of the connectors at both ends.

Q: IR control is not working?

A: Confirm IR Receiver is connected to IR IN and IR Emitter to IR OUT at the correct end. IR signals are bidirectional — TX IR IN passes to RX IR OUT, and RX IR IN passes to TX IR OUT. Verify 5V IR accessories are used.

Q: RS-232 commands not passing through?

A: Verify 3-pin Phoenix connectors are correctly wired and fully seated. Confirm baud rate matches the control system specification. RS-232 is bidirectional over the HDBaseT link.

Q: Only one unit is powering on?

A: PoH requires the Cat5e/6a cable to be connected before applying power. Connect the cable first, then power one unit. Verify cable continuity if the second unit still does not power on.