

CAT EXTENDER · HDMI EXTENDER

BLU-HDTX70-HC

Long reach, zero delay.

This 18Gbps HDMI extender sends HDMI and bi-directional IR up to 230ft / 70m over a single CAT6/6a cable, with zero-delay, uncompressed transmission between transmitter and receiver. Video resolution is up to 4K2K@60Hz.



70m
CAT6/6A EXTENSION

18Gbps
4K2K@60HZ 4:4:4

Zero Delay
UNCOMPRESSED

IR + PoC
BI-DIRECTIONAL

EDID
COPY PASS-THROUGH

SPECIFICATION SUMMARY

Type	HDMI CAT extender (TX / RX)
HDMI	HDMI 2.0b
HDCP	HDCP 2.2
Bandwidth	18Gbps
Max Resolution	4K2K@60Hz RGB/YCbCr 4:4:4
Distance	230ft / 70m over CAT6/6a
IR	Bi-directional, wideband 20K-60KHz
Audio	HDMI LPCM 7.1, Dolby TrueHD, DTS-HD; Optical Dolby 5.1, DTS 5.1, PCM 2.0
Power	DC 12V/1A, bi-directional PoC
ESD	±8kV air-gap, ±4kV contact

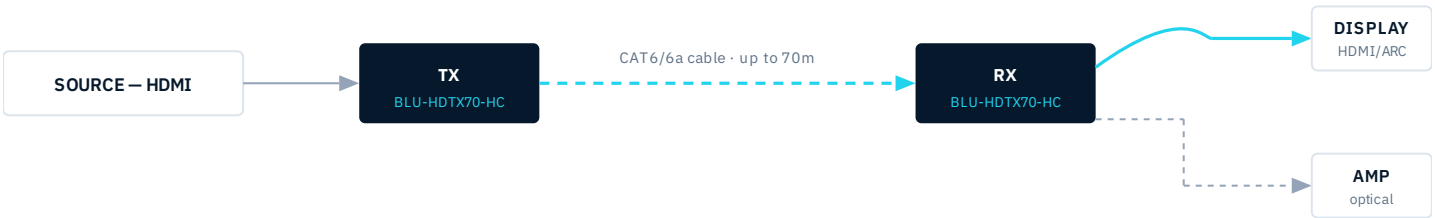
CONTENTS

01	Overview	02
02	Specifications	03
03	Interfaces & control	04
04	Application example	05

KEY FEATURES

- HDMI 2.0b and HDCP 2.2 compliant
- 4K2K@60Hz RGB/YCbCr 4:4:4 over one CAT6/6a cable
- Bi-directional IR and PoC pass-through
- EDID copy pass-through between source and display

One cable, no compromise. Bi-directional PoC powers the link end to end, EDID is copied straight from the display, and IR passes both ways – run one CAT6/6a cable and everything else takes care of itself.



HDMI in · extend over CAT6/6a · HDMI + ARC out · optical audio de-embed

CAT EXTENDER · 4K60 HDMI OVER 70M, WITH BI-DIRECTIONAL IR AND POC

01 Overview

What the extender does, and what's in the box.

This high-performance **HDMI extender** supports resolutions up to **4K2K@60Hz** RGB/YCbCr 4:4:4, sending HDMI and bi-directional IR control up to 230ft / 70m over a single CAT6/6a cable with zero-delay, uncompressed transmission. It supports EDID copy pass-through between the source and display, ARC and audio de-embedding to the receiver's optical output, and bi-directional PoC so only one cable run is needed end to end. Ideal for multi-media conference halls, TV teaching and large-screen displays.

FEATURES

- HDMI 2.0b and HDCP 2.2 compliant
- Supports 18Gbps video bandwidth
- Video resolution up to 4K2K@60Hz RGB/YCbCr 4:4:4
- Extends up to 230ft / 70m over a single CAT6/6a cable
- HDR, HDR10, HDR10+, Dolby Vision and HLG pass-through
- Bi-directional IR control signal pass-through
- Audio formats: LPCM 7.1, Dolby TrueHD, DTS-HD Master
- EDID copy pass-through between source and display device

AT A GLANCE

HDMI 2.0b	HDCP 2.2	BW 18Gbps
Max 4K60	Distance 70m	IR Bi-dir
PoC Yes	EDID Copy	ARC Yes

PACKAGE CONTENTS

1×	Transmitter
1×	Receiver
2×	DC 12V/1A Power Adapter (bi-directional PoC — one may be sufficient)
1×	User Manual

02 Specifications

Technical, connection, mechanical and environmental figures.

TECHNICAL

HDMI Compliance	HDMI 2.0b
HDCP Compliance	HDCP 2.2
Video Bandwidth	18Gbps
Video Resolution	Up to 4K2K@60Hz RGB/YCbCr 4:4:4
IR Level	5Vp-p
IR Frequency	Wideband 20K-60KHz
Transmission Distance	4K2K@60Hz 4:4:4 – 70m 1080p – 70m (CAT6/6a cable)
Color Space	RGB 4:4:4, YCbCr 4:4:4, YCbCr 4:2:2, YCbCr 4:2:0
Color Depth	8 / 10 / 12-bit
HDR	HDR, HDR10, HDR10+, Dolby Vision, HLG
Audio Formats	HDMI: LPCM 7.1CH, Dolby TrueHD, DTS-HD Master Optical: Dolby 5.1, DTS 5.1, PCM 2.0
ESD Protection	Human-body model: ±8kV (air-gap), ±4kV (contact)

CONNECTIONS

Transmitter – Input	1 × HDMI IN [Type A, 19-pin female]
Transmitter – Output	1 × HDMI OUT [Type A, 19-pin female, loop-out] 1 × CAT OUT [RJ45]
Transmitter – Control	1 × SERVICE [Micro-USB] 1 × IR IN [3.5mm] · 1 × IR OUT [3.5mm]
Receiver – Input	1 × CAT IN [RJ45]
Receiver – Output	1 × HDMI OUT [Type A, 19-pin female, ARC] 1 × TOSLINK [optical audio]
Receiver – Control	1 × SERVICE [Micro-USB] 1 × IR IN [3.5mm] · 1 × IR OUT [3.5mm]

MECHANICAL

Housing	Metal enclosure
Color	Black
Dimensions	Transmitter / Receiver: 90mm (W) × 68mm (D) × 18mm (H)
Weight	Transmitter: 160g · Receiver: 155g

POWER

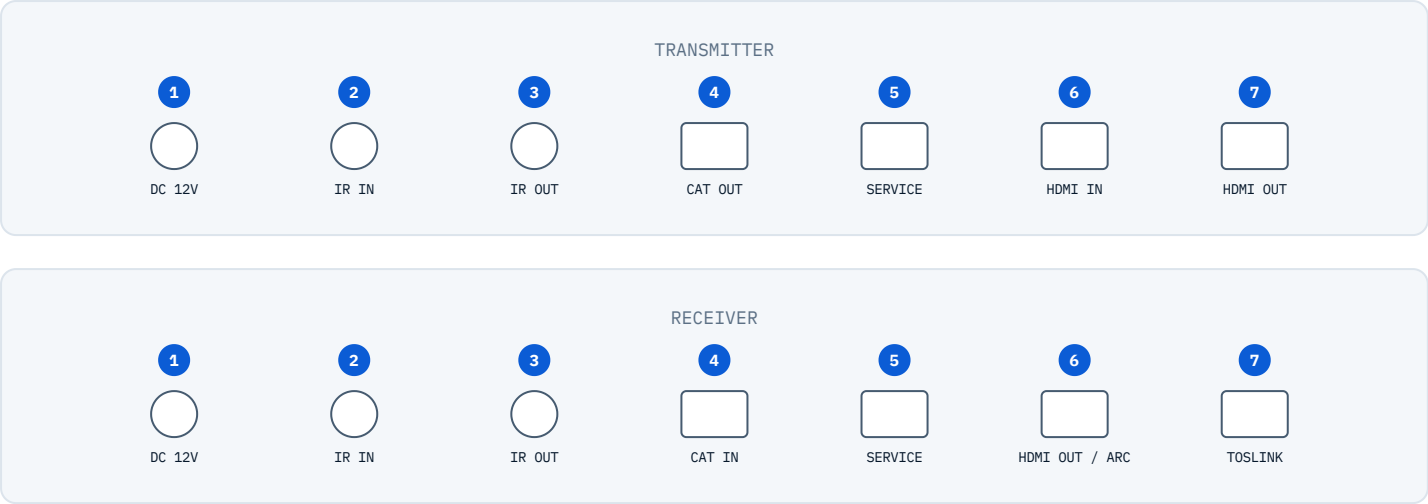
Power Supply	DC 12V / 1A; bi-directional PoC supported
Consumption	3.36W (max)

ENVIRONMENT

Operating Temp.	32°F ~ 104°F / 0°C ~ 40°C
Storage Temp.	-4°F ~ 140°F / -20°C ~ 60°C
Relative Humidity	20 – 90% RH, non-condensing

03 Interfaces & control

The transmitter and receiver connections, and how IR, PoC and EDID work.



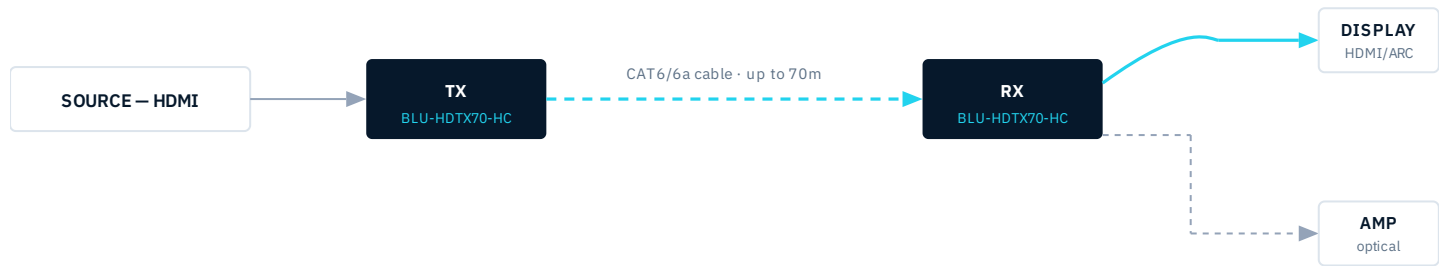
1	DC 12V	Barrel input from the 12V/1A supply, or powered automatically via PoC from the linked unit.
2, 3	IR IN / IR OUT	3.5mm bi-directional IR pass-through for controlling the source or display from the other end.
4	CAT OUT / CAT IN	RJ45 link to the paired transmitter or receiver over a single CAT6/6a cable.
5	SERVICE	Micro-USB port for firmware updates.
6	HDMI IN / OUT (TX)	HDMI source input, plus a local HDMI loop-out on the transmitter.
6	HDMI OUT + ARC (RX)	HDMI output to the display, with ARC support, on the receiver.
7	TOSLINK	Optical digital audio de-embed output on the receiver.

Bi-directional PoC. Either end can supply power over the CAT6/6a link — power one unit and the other draws power automatically, so only one adapter needs to reach the rack or the display.

EDID, copied straight. The extender copies the display's EDID back to the source automatically, so a swapped display or a longer run never causes a black screen.

04 Application example

One source extended to a display up to 70m away, with audio and IR passed both ways.



HDMI in · extend over CAT6/6a · HDMI + ARC out · optical audio de-embed

One cable does it all. Run a single CAT6/6a cable between rooms — HDMI, IR and power all travel over it, with no separate control wiring needed.

Small and quiet. An 18mm-thin, fan-less metal enclosure that tucks behind a display or into a rack shelf.

ORDERING

BLU-HDTX70-HC

4K60 HDMI Extender (70m) — HDMI 2.0b, HDCP 2.2, 18Gbps, up to 4K2K@60Hz 4:4:4, extends 230ft / 70m over CAT6/6a, bi-directional IR + PoC, EDID copy pass-through, ARC + optical audio de-embed.

bluKnot

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