

18Gbps 4K60 HDMI over HDBaseT Extender Kit with PoC - 40m 4K / 70m 1080p

Power Both Ends from One Adaptor - 4K60 4:4:4 10-bit HDR, HDCP 2.2, Bi-Directional IR & RS-232 over a Single CAT6

MPN: EXT-HDBT18G-70M



Delivers 4K60 4:4:4 HDR from the rack or lectern to a display or projector up to 40 m (131 ft) away, with power needed at only one end of the run. The kit is a compact black metal transmitter and receiver, each 4.53 x 2.56 x 0.67 in (115 x 65 x 17 mm), linked by a single straight-through CAT6 cable that also carries 1080p to 70 m (230 ft). One 24V/1A adaptor plugged into either unit powers both over the cable, so a ceiling projector or a display above a fireplace needs no outlet. It is the right choice for classrooms, meeting rooms, hospitality venues and residential media rooms where a clean single-display run with full 18Gbps video and control matters more than eARC, USB or Ethernet extension.

The link is HDMI 2.0b at 18Gbps with HDCP 2.2 and 1.4. It passes 10-bit HDR and HBR audio, including Dolby TrueHD, DTS-HD Master Audio, Dolby Atmos and DTS:X, with CEC bypass. Two independent IR channels and bi-directional RS-232 on 3-pin Phoenix connectors share the same cable. A control system at the rack can drive the display, and a handheld remote at the display can still operate the source. Two IR emitter cables and two IR receiver cables are in the box, so both directions work out of the box. Nothing touches the network, so there is no IP addressing to plan and no IT sign-off to wait for. Link and HDCP status lamps on both units show at a glance whether the cable run or the source is the problem. The single strongest differentiator is Power over Cable from either end: the adaptor goes wherever the outlet is, at the source or at the display.

1 PRODUCT OVERVIEW

DESIGNED FOR

Classrooms with a ceiling-mounted projector and the source at the lectern. Meeting rooms where a credenza or table-box source feeds a display across the room. Media rooms and over-fireplace displays where the equipment stays in the rack. Bars, restaurants, lobbies and stage-floor confidence monitors fed from a back office or production booth. Digital signage driven from a locked closet. In each case one HDMI source goes to one display over one CAT6 run, and the room's control system or a handheld remote has to reach the far end.

THE CHALLENGE

A passive HDMI cable is unreliable beyond about 15 m at 18Gbps. Many HDBaseT kits sold for 70 m runs are 10.2Gbps, which limits them to 4K30 or 4K60 4:2:0, and some do not pass HDR, so the picture that left the source is not the picture that reaches the display. The display end is often a ceiling or wall with no outlet. Adding one means an electrician and a second power point for every room. Control is the other half of the job: without IR and RS-232 on the same cable, the installer pulls separate control wiring or leaves the display out of the room system.

THE KANEXPRO ADVANTAGE

- Full 18Gbps HDMI 2.0b: 4K60 4:4:4 with 10-bit HDR and HDCP 2.2 to 40 m, and 1080p to 70 m, over a single CAT6 cable.
- Power over Cable from either end: one 24V/1A adaptor at the transmitter or the receiver powers both units, so the outlet can be wherever the room already has one.
- Two independent IR channels and bi-directional RS-232 share the HDBaseT link, with two IR emitters and two IR receivers in the box.
- Dolby Atmos, DTS:X, Dolby TrueHD and DTS-HD Master Audio pass through to the display intact.
- Point to point with no network, so there is no IP setup and no IT approval, and the indicator lamps on each unit show link and HDCP status during commissioning.

2 PRODUCT POSITIONING

EXT-HDBT18G-70M is the 18Gbps HDBaseT kit for integrators who need 4K60 4:4:4 HDR, two-way IR and RS-232 over one CAT6 run with power at only one end. Use it in place of 10.2Gbps 70 m kits that stop at 4K30, and in place of eARC and USB extenders on jobs that only need picture and control.

3 APPLICATIONS



1. Classroom ceiling projector

The lectern source feeds the transmitter at the teacher wall. A CAT6 run up to 40 m reaches a 4K laser projector in the ceiling. The 24V adaptor sits at the lectern, so the projector mount needs no outlet for the receiver. RS-232 from the room controller passes through to the projector for power and input control.



2. Corporate meeting-room display

A table-box or credenza source feeds a wall display across the room. RS-232 passthrough lets the room controller drive the display, and the run does not touch the corporate network, which removes an IT approval step.



3. Residential media room or over-fireplace display

The source stays in the rack. The receiver sits behind a 4K HDR display. HDR10 and Atmos/DTS:X pass through to the display. IR from the display location goes back to the rack over the same cable, so handheld remotes keep working without a separate IR system.



4. Bar and restaurant displays

A single cable takes a cable box or streaming source from the back office to the display. Bidirectional IR lets staff control the source from the floor. At 1080p, the run can reach 70 m.



5. Church confidence monitor and lobby display

A 1080p feed from the production desk reaches a stage-floor monitor or lobby display up to 70 m away. RS-232 provides display power scheduling. One power point at the booth end covers both units.



6. Digital signage in retail or reception

A media player in a locked IT closet feeds a 4K60 display up to 40 m away. RS-232 handles scheduled on/off. The metal housing mounts behind the display.

4 WHO THIS IS FOR

Same as Section 1

With the most volume in education and corporate

Ideal User

A project lead or lead installer at a 5–50 person integration firm who specs the extender on the line-item bid. On commercial jobs, an AV consultant or engineer sometimes writes the spec.

Project Types

Same as Section 1, with the most volume in education and corporate.

Typical Buyer

The integrator chooses the brand. The end customer rarely sees it. The integrator cares about margin, stock availability and failure rate.

5 FREQUENTLY ASKED QUESTIONS

Q: What distances does this kit support?

Up to 40 m (131 ft) at 4K60 4:4:4, and up to 70 m (230 ft) at 1080p60 up to 12-bit (36-bit) colour, over a single CAT6 cable with straight-through wiring. 1080p120, 1080p60 48-bit and 3D 1080p60 are limited to 40 m (131 ft). Crossover cables are not supported. Plan runs over 40 m as 1080p runs.

Q: Do I need power at both ends?

No. The kit uses Power over Cable. Connect the included 24V/1A adaptor to either the transmitter or the receiver, and that unit powers the other over the CAT6 cable. Leave the second unit's DC jack empty. This allows a display or projector location with no outlet.

Q: Will HDR and object-based audio pass through?

Yes. The kit is HDMI 2.0b with 18 Gbps bandwidth and passes 10-bit HDR. HBR audio passes through, including Dolby TrueHD, DTS-HD Master Audio, Dolby Atmos and DTS:X, along with LPCM up to 7.1. HDCP 2.2 and HDCP 1.4 are supported.

Q: Can I control the display and the source through the same cable?

Yes. Bidirectional IR and bidirectional RS-232 both travel over the HDBaseT link. Each unit has IR in, IR out and a 3-pin Phoenix RS-232 port. A control system at the rack can drive the display, and a handheld remote at the display can operate the source in the rack.

Q: Does it support eARC or audio return, USB, or Ethernet?

No. This kit is built for one-way video with control, which keeps the installation simple and needs no network.

Q: Can I power it from a PoE switch?

Power comes from the included 24V/1A adaptor at either end, which powers both units over the CAT6 cable. Connect the transmitter and receiver directly with one straight-through CAT6 cable.

Q: What is in the box?

One transmitter, one receiver, two IR emitter cables, two IR receiver cables, and one 24V/1A power adaptor.