HBX-4K70 Pro
HDBaseT Extender Set

DESCRIPTION

The Aniston HBX-4K70 Pro is a professional-grade HDBaseT Extender Set engineered for uncompromising 4K60 AV signal extension in mission-critical environments. Designed to meet the demands of enterprise, education, digital signage, and broadcast installations, it enables long-distance transmission of uncompressed 4K@60Hz (4:4:4) HDMI video, audio, IR, RS-232, and control signals over a single CAT5e/6 cable—without latency or signal degradation.

The system includes a compact transmitter (TX) and receiver (RX), with Power over Cable (PoC) support that simplifies installation by allowing power to be supplied from either end. Integrated HDMI loop-out on the transmitter facilitates local preview or signal distribution, while bi-directional IR pass-through ensures remote device control from either side of the setup.

With compliance for HDMI 2.0b, HDCP 2.2, and support for HDR10, HDR10+, and Dolby Vision, the HBX-4K70 Pro guarantees compatibility with modern media workflows and protected content standards.
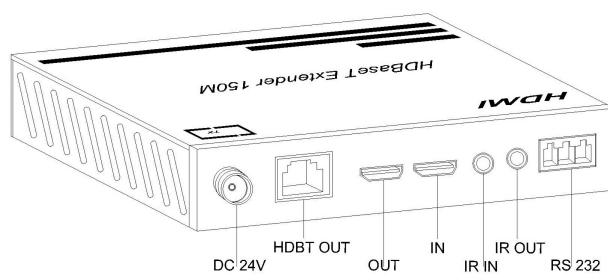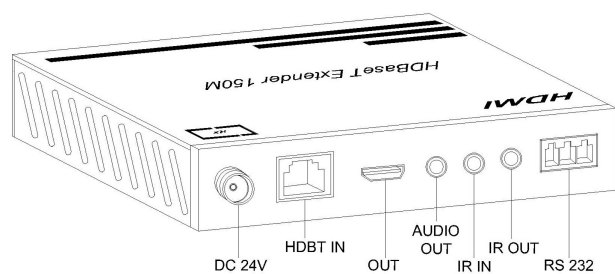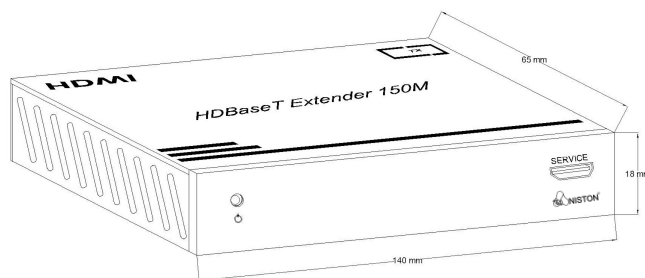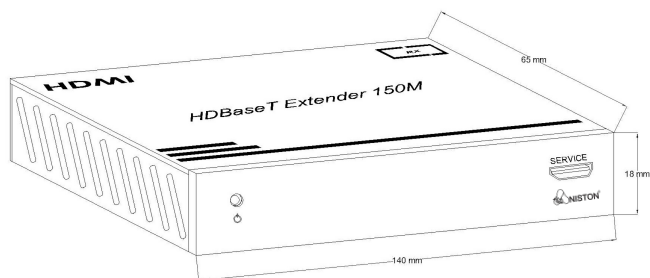
FEATURES

- **4K60 4:4:4 Video Extension**
  Transmits uncompressed HDMI 2.0b signals up to 70 meters at 4K@60Hz (4:4:4) and up to 150 meters at 1080p over a single CAT5e/6 cable.

- **HDBaseT Class A Performance**
  Advanced HDBaseT chipset ensures zero-latency transmission with full signal integrity for video, audio, control, and Ethernet.

- **Flexible PoC Design**
  Power Over Cable (PoC) allows operation from either the TX or RX side, eliminating the need for dual power supplies and simplifying integration.

- **Bi-directional IR Pass-through**
  Supports IR control signal routing in both directions, allowing remote control of source or display devices from either end.

- **HDR and Deep Color Support**
  Compatible with HDR10, HDR10+, Dolby Vision, HLG, and up to 12-bit deep color for enhanced dynamic range and color depth.

- **HDMI Loop-out on Transmitter**
  Enables simultaneous local display or signal splitting without additional devices.

- **Full Compliance with HDCP & CEC**
  Supports HDCP 2.2 and CEC pass-through for protected content playback and device interoperability.

- **RS-232 Pass-through Control**
  Seamlessly integrates with third-party control systems for serial command transmission between endpoints.

- **Compact, Robust Design**
  Professional-grade metal enclosure with mounting ears—optimized for rack, wall, or behind-display installations.

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TECHNICAL SPECIFICATIONS

Model	HBX-4K70 Pro
Product Type	HDBaseT HDMI 2.0 Extender Set (TX + RX)
Video Interface	1x HDMI IN (TX), 1x HDMI OUT (RX), 1x HDMI Loop OUT (TX)
HDMI Compliance	HDMI 2.0b
HDCP Compliance	HDCP 2.2 / HDCP 1.4
Supported Resolutions	Up to 4K@60Hz (4:4:4), 1080p, 720p, 480p
Max Distance @ 4K60	Up to 70m via CAT5e/6
Max Distance @ 1080p	Up to 150m via CAT5e/6
Video Bandwidth	18Gbps
Color Space	RGB, YCbCr 4:4:4 / 4:2:2 / 4:2:0
Color Depth	8-bit (4K60 4:4:4), up to 12-bit (4K30 & 4:2:2)
HDR Support	HDR10, HDR10+, Dolby Vision, HLG
Audio Formats	LPCM 2.0–7.1, Dolby Digital, DTS, Dolby TrueHD, DTS-HD MA, DTS:X
Audio De-embedding	1x 3.5mm Stereo Mini-Jack (Receiver)
Control Interfaces	RS-232 (3-pin Phoenix), IR IN/OUT (3.5mm)
CEC Pass-through	Supported
RS-232 Support	Full bi-directional passthrough
IR Pass-through	Bi-directional (20–60kHz)
Firmware Upgrade	Mini-USB (SERVICE Port)
PoC (Power over Cable)	Supported (Power either TX or RX)
Power Supply	24V / 1A DC (locking barrel connector)
Power Consumption	<10W typical
ESD Protection	±8kV (Air Discharge), ±4kV (Contact Discharge)
Cooling	Passive cooling, no fan
Operating Temperature	0°C to +40°C
Storage Temperature	-20°C to +60°C
Operating Humidity	20%–80% RH (non-condensing)
Storage Humidity	10%–90% RH (non-condensing)
Input Connectors (TX)	1x HDMI IN, 1x HDMI Loop OUT, 1x HDBT OUT, 1x IR IN, 1x IR OUT, 1x RS-232
Output Connectors (RX)	1x HDMI OUT, 1x AUDIO OUT, 1x HDBT IN, 1x IR IN, 1x IR OUT, 1x RS-232
Extender Technology	HDBaseT Class A
Chassis Construction	Industrial-grade aluminum enclosure
Dimensions (TX / RX)	140mm (W) × 65mm (D) × 18mm (H)
Weight	TX: 160g / RX: 155g
Mounting	Surface mount with included ears
Package Includes	TX unit, RX unit, IR Blaster Cable, IR Receiver Cable, 24V/1A Adapter, Mounting Ears,
USB Output Resolutions	Phoenix Connectors, User Manual
Compliance	CE, FCC, RoHS

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