HDBaseT 3.0 Extender

4K60 HDMI HDBaseT 3.0 Extender with Dual Console, Dual-User Access, Local Out, Audio, RS-232, USB 2.0, PoH, 90m

Model: KEX-HBT3-SH90P

PRODUCT OVERVIEW

The **HDBaseT 3.0 KVM Extender, KEX-HBT3-SH90P**, offers uncompressed 18G HDMI 2.0 extension capability to transmit uncompressed 4K 60Hz (4:4:4) video through a single Cat6a or Cat7 cable up to 90 meters. Bi-directional HDMI transmission combines switch and splitter functions, enabling the HDMI output port on the Transmitter Unit (Local Out) to present local video from the TX or remote video from the RX. The switching can be simply achieved by pressing a button. The local/remote video switching function offers better visibility, allowing local users to monitor HDMI signals from both sides or broadcast HDMI signals on both the local (Sender) and remote (Receiver) units concurrently.

The Extender over CATx, supports HDCP 2.2 (High-Bandwidth Digital Content Protection) compatible with 4K UHD content and is backward-compatible with previous HDCP versions, meaning you can connect older sources to a new 4K TV for HD streaming without using an HDCP 2.x to 1.x converter. The Extender supports HDCP keys to ensure uninterrupted video playback at all times.

The HDBaseT KVM Extender, with audio embedder/extractor function, can independently transmit audio signals from the Transmitter unit to the Receiver unit, embed audio from a 3.5mm source to an HDMI signal, or extract HDMI audio to a 3.5mm stereo output. This provides a second audio transmission channel beneficial for content creators in video post-production or audio broadcasting with a home cinema amplifier installation.

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RS-232 serial extension is commonly applied in digital signage, smart classrooms, and smart home systems. The Extender's full-duplex data communication between TX and RX via CATx cable connection is a cost-effective, hardware-based solution providing remote access and control for all RS-232 protocol devices with no need for any setup or configuration.

The Extender enables users to transmit USB 2.0 signals with downward compatibility, eliminating the 5-meter distance limitation of USB. This feature supports USB peripherals sharing capability without any software or driver installation. Dedicated USB-A ports designed on the TX and RX units are suitable for both local and remote USB peripheral access.

The PoH (Power over HDBaseT) feature provides 48V from the Transmitter (PSE, 48V) to the Receiver (PD), allowing for greater flexibility in different installation scenarios where there is no available power socket nearby. The PoH design is based on the IEEE 802.3 standard and includes definitions of the power source equipment (PSE) and the powered device (PD), describing the detection and protection mechanisms to ensure safe and reliable power delivery.

KEY FEATURES

- Allows reliable remote access of a computer or video source via a Cat6a/7 cable up to 90m (295 feet)
- HDBaseT 3.0 Technology grants uncompressed True 4K HDMI 2.0 extension
- Supports resolutions up to 4K@60Hz (4:4:4)
- HDCP 2.2 &1.4 compliance ensures uninterrupted video playback
- HDR10 support for best visual experience
- Auxiliary HDMI allows flexible monitoring:
  1. Transmitter's HDMI 2.0 Local Output
  2. 720P Video Return from the Receiver facilitates monitoring and recording purposes
- USB 2.0 extension supports keyboard, mouse, USB storage, camera, and other devices
- Serial extension facilitates wide-ranging RS-232 Control Applications
- CEC pass-through allows easy control
- Audio embedding allows user to insert informative audio content into the HDMI
- Audio extracting allows easy connection to an analog audio amplifier
- Audio embed controls at both sides allows practical audio applications
- ARC (Audio Return Channel) facilitates Sound Bar application
- PoH (Power over HDBaseT) allows the Transmitter to supply power to the Receiver

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PRODUCT SPECIFICATIONS

KEX-HBT3-SH90P	Transmitter	Receiver
Max Resolution	3840x2160@60Hz (4:4:4), 4096x2160@60Hz (4:4:4), 7680x4320@30Hz (4:2:0)	
Video Extension	HDMI 2.0 x 1 (In)	HDMI 2.0 x 1 (Out)
USB 2.0 Extension	USB-B x 1 USB-A x 3	USB-A x 4
Speaker Extension	3.5mm SPK Jack x 1 (In)	3.5mm SPK Jack x 1 (Out)
	Independent Transmission or Embed into HDMI Signal	Independent Transmission or Extract from HDMI Signal
Microphone Extension	3.5mm MIC Jack x 1 (Out)	3.5mm MIC Jack x 1 (In)
Serial Extension	RJ11 x 1 (RS-232)	
Buttons Control	Audio Embed On or Off Local Console or Video Return	Audio Embed On or Off Audio Extract On or Off
HDCP Compliance	HDCP 2.2 and HDCP 1.4	
HDBaseT Interface	RJ45 x 1 (CAT6a/7)	
Extension Range	Max 70 ~ 90m with Cat6a/7 (HDBaseT cable recommended)	
Auxiliary HDMI	1. HDMI 2.0 Local Out	(Not Used)
	2. 720P Video Return (Receiver-to-Transmitter)	
Power Supply	DC 48V, 315mA (PoH Transmitter-to-Receiver)	
Power Consumption	15W	
Operation Environment	0 ~ 50°C, Humidity < 80%	
Storage Temperature	-20 ~ 60°C	
Material	Aluminium Metal	
H x W x D (mm)	30 x 127 x 135	
Weight (g)	650	650

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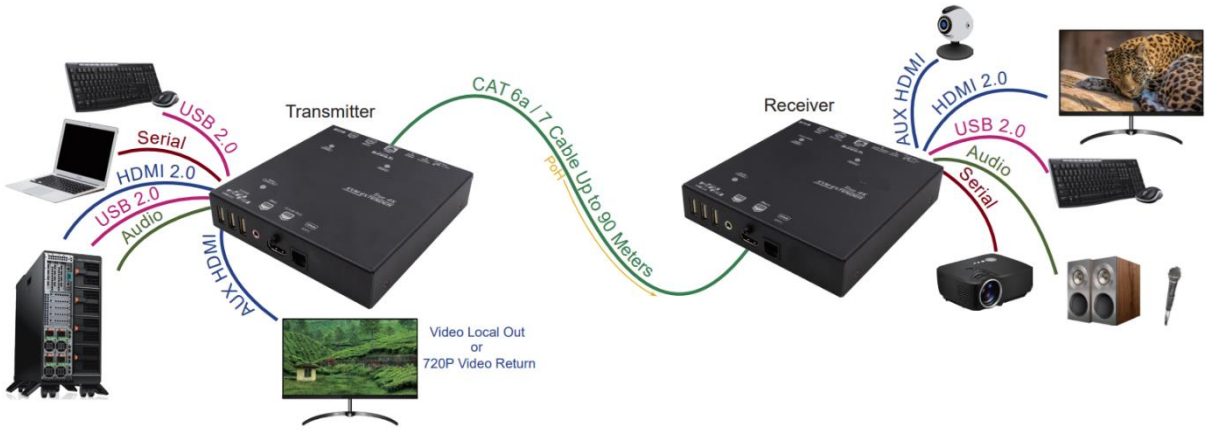
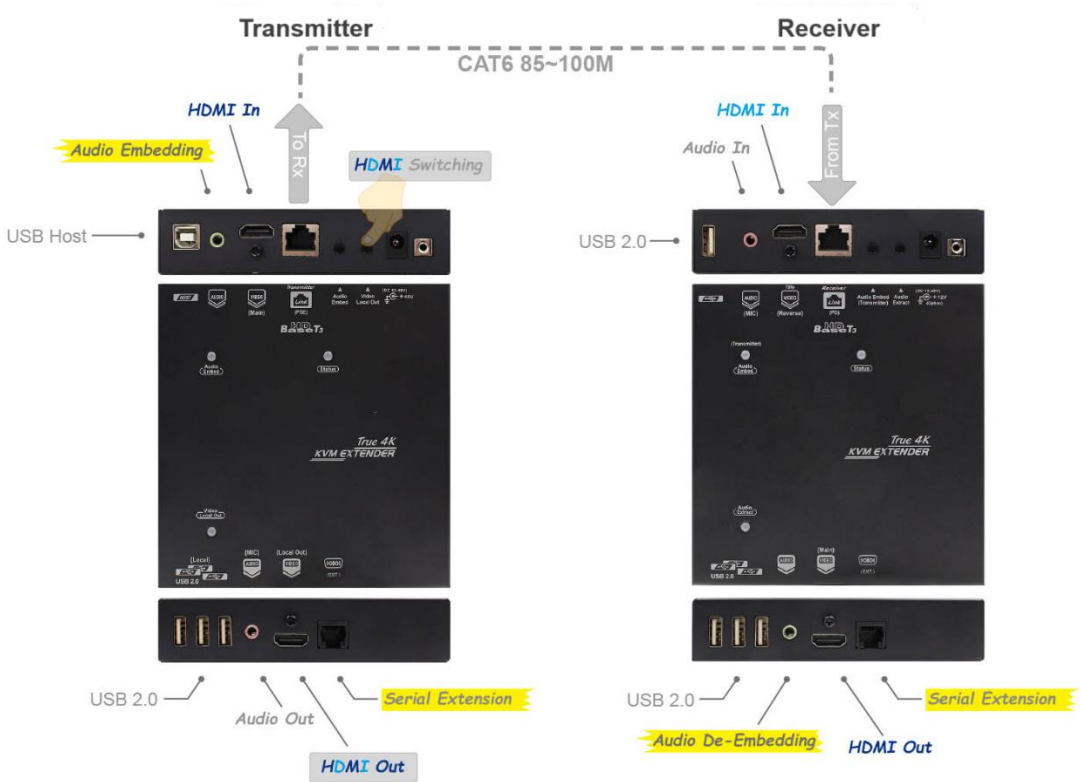
CONNECTION DIAGRAM



Connection Interfaces of the Transmitter and Receiver:



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PACKAGE CONTENTS

- 1 × KEX-HBT3-SH90P Transmitter Unit
- 1 × KEX-HBT3-SH90P Receiver Unit
- 1 × 48V/1.5A DC Power Adapter
- 1 × USB 2.0 A-B Cable
- 2 × RJ-11 to DB9 Adapter
- 1 × User Manual
- 2 × Foot Pad Set
- 2 × Mounting Brackets Set

WARRANTY

- 1-Year Limited Warranty
- Advance Replacement Warranty is available and optional

ORDERING INFORMATION

Part Number	Descriptions
KEX-HBT3-SH90P	4K60 HDMI HDBaseT 3.0 KVM Extender with Dual Console, Dual-User Access, Local Out, Audio, RS-232, USB 2.0, PoH, 90m
(OPTIONAL)	
KEX-ACC-VESA	KVM Extender VESA/Wallmount Kit

CONTACT INFORMATION

For more information, please visit our website or contact our customer service team:

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