

## CH-1604TXD

4K HDR HDMI over HDBaseT Transmitter with IR, RS-232, PoH (PSE), LAN & USB/KVM



### INTRODUCTION

This HDBaseT 2.0 Transmitter and Receiver set provides for the extension of 4K video with HDR and high bitrate audio over a single Cat.6a/7 cable at distances of up to 100m/328ft. This extender set complies with the advanced HDCP 2.2 and HDMI 2.0 standards, as well as supporting the legacy HDCP 1.x and HDMI 1.x standards. Through the use of the highly efficient, and visually lossless, DSC compression scheme, high bandwidth signals, previously unsupported by HDBaseT, such as 4K@60Hz (4:4:4, 8-bit) or 4K@24Hz (4:4:4, 12-bit, HDR) can be extended without visual compromise or additional latency! This extender set can also pass RS-232, IR, Ethernet, and multiple audio streams across the same cable that carries the video signal.

This system also allows for the extension of USB signals between any standard USB host (such as a PC or laptop) on one side to up to 2 USB ports on the other side. This both extends the USB port while simultaneously providing USB hub functionality making this an ideal KVM solution when the PC is housed in a distant control room, or secure server room. The 48V PoH (Power over HDBaseT) design can power the Receiver (PD) from the Transmitter (PSE), eliminating the need for a separate power supply for the Receiver.



## CH-1604RXD

4K HDR HDMI over HDBaseT Receiver with IR, RS-232, PoH (PD), LAN & USB/KVM



### FEATURES

- HDMI with HDR, 3D & 4K@60Hz support, DVI 1.0 compliant
- HDCP 2.2 and HDCP 1.x compliant
- Supports the HDBaseT 2.0 specification
- Supports HD resolutions up to 4K@50/60Hz (YUV 4:4:4, 8-bit)
- Supports 4K HDR at 24Hz (YUV 4:4:4) and 60Hz (YUV 4:2:0) with up to 12-bit color
- Supports 16-bit Deep Color up to 1080p@60Hz
- Simultaneous transmission of video, audio and data over a single Cat.6a/7 cable up to 100m/328ft at 4K
- HDBaseT feature support: HD Video and Audio, 100BaseT Ethernet, USB 2.0, 48V PoH and Control (bidirectional IR/RS-232 pass-through)
- Supports pass-through of audio formats including LPCM 2.0/5.1/7.1, Bitstream, and HD Bitstream via HDMI
- Supports bidirectional pass-through of digital optical audio formats including LPCM 2.0 at audio sampling rates up to 48kHz, and Bitstream via digital Optical (S/PDIF) connections
- Supports pass-through of analog stereo audio from the Transmitter to the Receiver via stereo RCA connections
- 2 USB Type-A ports & 1 USB Mini-B (on Transmitter and Receiver) for extension of USB devices including mice, keyboards, webcams or digital storage
- Supports standard 48V PoH from Transmitter (PSE) to Receiver (PD) (compatible Receivers only)
- RS-232 baud rates from 110bps to 115200bps are supported
- Supports CEC bypass



## HDBaseT 2.0 Extenders Introducing AVLC/DSC Technologies



SPECIFICATIONS	CH-1605TXV	CH-1605RXV	CH-1604TXD	CH-1604RXD
<b>Input Ports</b>	1×HDMI 1×S/PDIF (TOSLINK)	1×HDBaseT (RJ45) 1×S/PDIF (TOSLINK)	1×HDMI 1×S/PDIF (TOSLINK) 1×Stereo (2×RCA)	1×HDBaseT (RJ45) 1×S/PDIF (TOSLINK)
<b>Output Ports</b>	1×HDBaseT (RJ45) 1×S/PDIF (TOSLINK)	1×HDMI 1×S/PDIF (TOSLINK)	1×HDBaseT (RJ45) 1×S/PDIF (TOSLINK)	1×HDMI 1×S/PDIF (TOSLINK) 1×Stereo (2×RCA)
<b>Pass-through Ports</b>	1×IR Extender (3.5mm) 1×IR Blaster (3.5mm) 1×RS-232 (DE-9) 1×LAN (RJ45)	1×IR Extender (3.5mm) 1×IR Blaster (3.5mm) 1×RS-232 (DE-9) 1×LAN (RJ45)	1×IR Extender (3.5mm) 1×IR Blaster (3.5mm) 1×RS-232 (DE-9) 2×LAN (RJ45) 1×USB (Mini-B) 2×USB (Type-A)	1×IR Extender (3.5mm) 1×IR Blaster (3.5mm) 1×RS-232 (DE-9) 2×LAN (RJ45) 1×USB (Mini-B) 2×USB (Type-A)
<b>Power Supply</b>	24V/2.7A	PoH	24V/2.7A	PoH
<b>Dimensions</b>	231.5mm×25mm×108mm (W×H×D) [Case Only] 231.5mm×25mm×110mm (W×H×D) [All Inclusive]	231.5mm×25mm×108mm (W×H×D) [Case Only] 231.5mm×25mm×110mm (W×H×D) [All Inclusive]	231.5mm×25mm×108mm (W×H×D) [Case Only] 231.5mm×25mm×120mm (W×H×D) [All Inclusive]	231.5mm×25mm×108mm (W×H×D) [Case Only] 231.5mm×25mm×120mm (W×H×D) [All Inclusive]
<b>Weight</b>	700g	700g	700g	700g

### Product Selection Guide

HDBaseT FEATURES	CH-1605TXV	CH-1605RXV	CH-2605TXV	CH-2605RXV	CH-1604TXD	CH-1604RXD
<b>HD Video &amp; Audio</b>	✓	✓	✓	✓	✓	✓
<b>IR/RS-232 pass-through</b>	✓	✓	✓	✓	✓	✓
<b>LAN pass-through</b>	✓	✓	✓	✓	✓	✓
<b>USB 2.0 for KVM</b>	–	–	–	–	✓	✓
<b>Send power to Receiver</b>	✓	–	–	–	✓	–
<b>Accept power from Receiver</b>	–	–	✓	–	–	–
<b>Send power to Transmitter</b>	–	–	–	✓	–	–
<b>Accept power from Transmitter</b>	–	✓	–	–	–	✓
<b>Cat.6a/7 Cable Length</b>	100m@4K HDR	100m@4K HDR	100m@4K HDR	100m@4K HDR	100m@4K HDR	100m@4K HDR

AV, ETHERNET,  
CONTROL,  
USB & POWER  
OVER A SINGLE  
CAT. CABLE