

# Single Gang HDMI®2.0 Wall plate over HDBaseT™ w/ IR, RS-232 & PoC

(1- Gang US Decora)



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Version: WP-EXTHDBTKIT 2018v2.0



# Thank you for purchasing this product

For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.

# Surge protection device recommended

This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shook, lighting strikes, etc. Use of surge protection systems is highly recommended in order to protect and extend the life of your equipment.

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#### **FCC Statement**

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. It has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a commercial installation.

Operation of this equipment in a residential area is likely to cause interference, in which case the user at their own expense will be required to take whatever measures may be necessary to correct the interference.

Any changes or modifications not expressly approved by the manufacture would void the user's authority to operate the equipment.







### 1. Introduction

The KanexPro WP-EXTHDBTX1 is a US Decora style single gang HDMI 2.0® wall plate transmitter designed for connecting one HDMI device such as a laptop, Blu-ray, or a 4K media player remotely over CAT5/6 up to 230 ft. (70 meters). The outputs is via HDBaseT port. It supports full 18 Gbps bandwidth with true 4K video resolutions up to 4/60Hz, HDCP 2.2 compliant and will extend 4K up to 40m delivering color sampling rate of 4:4:4.

#### PoC & Control

The wall plate transmitter supports PoC – power over cable requiring only power supply from the Receiver optional, part# EXT-HDBT70MRX side to operate. It also supports bi-directional IR control and RS-232 control for devices to and from the display.

#### **Applications:**

Ideal for use within court rooms, classrooms, conference rooms or showrooms where audio-visual devices can be extended from a remotely located HDMI source device. This single-gang HDMI wall plate can be used anywhere to enhance signal integrity over CAT5e/6 cabling.

#### 2. Features

- Single Gang, One HDMI Input wall plate over HDBaseT
- Extend 4K/60 w/ 4:4:4 up to 40 meters (130ft.)
- Extend 1080p/60 w/ 4:4:4 up to 70 meters (230 ft.)
- Supports the latest HDMI 2.0 Specs with 18 Gbps bandwidth
- Digital Audio Support up to 7.1 channels of HD audio
- HDCP 2.2 /1.4 Compliant
- Bi-directional IR & RS-232C
- Remote power support thru PoC (Either from Tx or Rx)
- POC Power consumption is less than 10W
- Simple point-to point transmission over CAT5e/6
- Active LED status indicator

### 3. Package Contents

- 1 1× 18G HDMI Wall Plate Transmitter
- (2) 1× User Manual
- (3) 2× Phoenix connector(2 pins)
- 4) 3× Phoenix connector(3 pins)
- (5) 1× HDBaseT Receiver
- (6) 1× IR Receiver cable
- (7) 1× IR Transmitter cable
- (8) 2× Mounting Ears
- (9) 1× 24V/1A Power Adaptor



# 4. Specifications

Technical			
HDMI Compliance	HDMI 2.0b		
HDCP Compliance	HDCP 1.4 and HDCP 2.2		
Video Bandwidth	18 Gbps		
Video Resolution	up to		
	4K2K@50/60	Hz(YUV4:4:4),4K2K@30Hz,1080P@	
	120Hz, and 1	080P 3D@60Hz	
Color Space	RGB/YCbCr 4	:4:4, YCbCr 4:2:2	
Color Depth	10-bit, 12-bit		
HDMI Audio Formats	LPCM 2/5.1/	7.1CH, Dolby Digital, DTS 5.1, Dolby	
	Digital+,		
		D, DTS-HD Master Audio, Dolby Atmos,	
	DTS:X		
Optical Audio Formats	LPCM 2CH, L	PCM 5.1, Dolby Digital 2/5.1CH, DTS	
	2/5.1CH		
ESD Protection		model—±8kV (Air-gap discharge)	
	&±4kV		
	(Contact disc	harge)	
	Connections		
Transmitter	Inputs:	1x HDMI Type A [19-pin female]	
		1x IR INPUT [Phoenix jack]	
		1x RS-232 [Phoenix jack]	
	Outputs:	1x HDBaseT Out [RJ45]	
		1x IR OUTPUT [Phoenix jack]	
		1x RS-232 [Phoenix jack]	
Receiver	Input:	1x HDBaseT In [RJ45]	
		1x IR INPUT [3.5mm Stereo Mini-jack]	
		1x RS232 [Phoenix jack]	
	Dane	1x Service [Mini-USB jack]	
	Receiver:	1x HDMI Type A [19-pin female]	
		1x IR INPUT [3.5mm Stereo Mini-jack]	

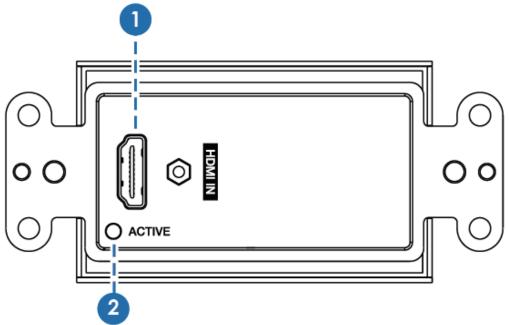
5



Mechanical	
Housing	Metal Enclosure
Color	Black
Dimensions	TX: 103.5mm [W] x 46mm [D] x 30mm [H] RX: 157mm [W] x90mm [D] x 20mm [H]
Weight	TX: 163g, RX: 330g
Power Supply	Input: AC100 - 240V 50/60Hz
	Output: DC 24V/1A (US/EU standards, CE/FCC/UL
	certified)
Power Consumption	9W (Max)
Operating Temperature	32 - 104°F / 0 - 40°C
Storage Temperature	-4 - 140°F / -20 - 60°C
Relative Humidity	20 - 90% RH (no condensation)

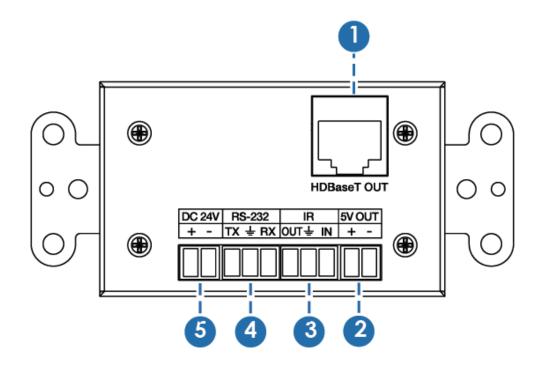
# 5. Operation Controls and Functions

#### **5.1 Front panel**



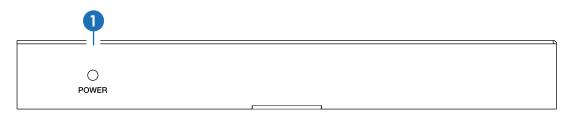
Number	Name	Function description
1	HDMI IN	Connect to HDMI source devices such as Blu-ray or PS4
		player.
2	ACTIVE	Green LED input signal indicator.

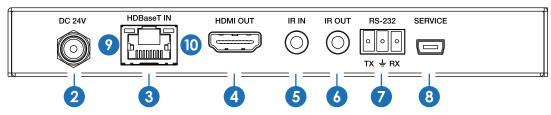
#### 5.2 Rear panel



Number	Name	Function description
1	HDBaseT OUT	HDBaseT output port. Connect HDBaseT receiver
		with a
		UTP cable.
2	5V OUT	Supply 5V power for external IR emitter.
3	IR IN/OUT	Use the phoenix jack for connect IR input or
		output.
4	RS-232	Use the phoenix jack for connect PC or control
		system to transmit RS-232 commands.
5	DC 24V	Use the phoenix jack for connect power supply.

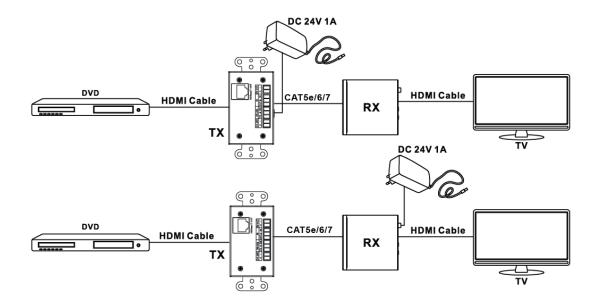
# 6. HDBaseT Receiver



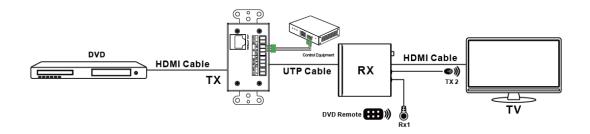


Number	Name	Function description
1	Power LED	System power indicator.
2	DC 24V	Connect 24V/1A adaptor to AC wall outlet for power supply.
3	HDBaseT In	Stanard HD BaseT signal input port. Connect HD BaseT Transmitter with a UTP cable following the standard of direct interconnection method.
4	HDMI Out	HDMI output port. This slot is where you connect the HDTV or monitor with HDMI cable.
5	IR In	Channel 1 IR Receiver. Connect with Wideband IR Rx.
6	IR Out	Channel 2 IR Transmitter. Connect with Wideband IR Tx.
7	RS-232	Phoenix jack provide Serial port control signal from receiver or to receiver.
8	Service	Manufacturer use only.
9	Connection Signal Indicator Lamp	<ul> <li>Illuminate: The Transmitter and Receiver are in good connections status.</li> <li>Flashing: The Transmitter and Receiver are in poor connections status.</li> <li>Dark: The Transmitter and Receiver are not connected.</li> </ul>
10	Data Signal Indicator Lamp	<ul><li>Illuminate: The HDMI signal with HDCP.</li><li>Flashing: The HDMI signal without HDCP.</li><li>Dark: No HDMI signal.</li></ul>

### **POC (Power over Cable) Application**

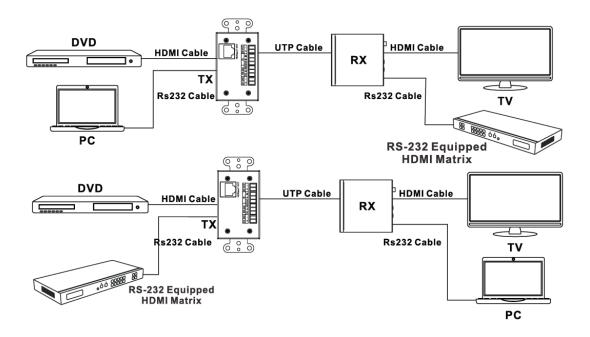


### **Bi- directional (Two-way) Infrared control Application**

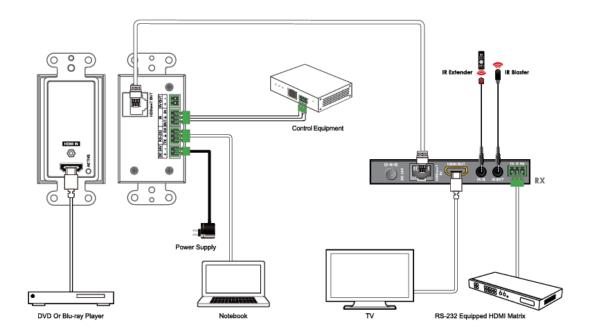




### Bi-directional (Two-Way) RS-232 Control Application



# 7. Typical connection diagram





#### **Support & Customer Care Guarantee**

The return of a product to our Customer Service implies the full agreement of the terms and conditions hereinafter. There terms and conditions may be changed without prior notice.

#### (1) Warranty

The limited warranty period of the product is fixed 3 (three) years.

#### ② Scope

These terms and conditions of Customer Service apply to the customer service provided for the products or any other items sold by authorized distributor only.

#### **③ Warranty Exclusions:**

Warranty expiration.

Factory applied serial number has been altered or removed from the product.

Damage, deterioration or malfunction caused by:

- ✓ Normal wear and tear.
- ✓ Use of supplies or parts not meeting our specifications.
- ✓ No certificate or invoice as the proof of warranty.
- ✓ The product model showed on the warranty card does not match with the model of the product for repairing or had been altered.
- ✓ Damage caused by force majeure.
- ✓ Servicing not authorized by distributor.
- ✓ Any other causes which does not relate to a product defect.

Shipping fees, installation or labor charges for installation or setup of the product.

#### 4 Documentation:

Customer Service will accept defective product(s) in the scope of warranty coverage at the sole condition that the defeat has been clearly defined, and upon reception of the documents or copy of invoice, indicating the date of purchase, the type of product, the serial number, and the name of distributor.

Remarks: For further assistance or solutions, please contact your local distributor or to support@kanexpro.com



# **Kanex**Pro

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