



DATA SHEET

HDMI HDBaseT + VGA, 3.5mm, and USB-B to A over Cat Extender Dual Gang Wall Plate Transmitter to Box Receiver - 4K 60Hz

Allows a 4K HDMI source to be extended up to 130ft to a 4K display using a single Cat6a Ethernet cable.

OVERVIEW

The HDMI HDBaseT + VGA, 3.5mm, and USB-B to A over Cat Extender Dual Gang Wall Plate Transmitter to Box Receiver - 4K 60Hz allows a 4K HDMI source to be extended up to 130ft to a 4K display using a single Cat6a Ethernet cable. This is an ideal solution where USB must be extended alongside HDMI video and audio to interactive whiteboards and displays in conference rooms, classrooms, lecture halls, and many other installation needs that are far beyond the length limitations of standard HDMI cabling.

The transmitter extends HDMI, VGA, Stereo Audio, and high speed USB 2.0 signals over a single Cat5e, Cat6 or Cat6a network patch cable. Extend 4K HDMI up to 115 feet and 1080p VGA up to 230 feet using a Cat5e or Cat6 cable. For longer 4K distances, extend 4K HDMI up to 130 feet using a Cat6a cable.

This HDMI HDBaseT Extender is HDCP 2.2 compliant, making sure that the connection between the source and display is secure. Automatic switching is supported by the transmitter, connecting to the last active source. One-way analog audio pass through is supported from the transmitter to the receiver. High-speed USB 2.0 pass through is supported over HDBaseT up to 230ft for KVM control of devices such as USB cameras, keyboards, mice, etc. With PoH support, the receiver can send power to the wall plate transmitter, so no additional power adapter is required, allowing for greater flexibility in installations. Support this HDBaseT system that is already deployed in the field by upgrading firmware through the Micro-USB port on front panel of the wall plate transmitter, and upgrade the firmware through the RS232 port on rear panel of the receiver.

Note: Ensure a solid reliable connection between the 4K HDMI HDBaseT Extender and critical equipment. We suggest using HDMI Cables with gripping connectors that provide greater port retention than standard HDMI connectors.

Note: Stranded Cat5e/6/6a patch cables may be used for HDMI extension applications up to 230ft. Shielded, solid conductor Cat6 or HDBaseT Certified Cat6a network cabling is recommended for applications where the category cable must be coiled, is run near other high-frequency signaling cables, or in high EMI/RFI environments. For best performance use an HDBaseT Certified Cat6a Patch Cable.

ITEM DESCRIPTION

C2G31012	HDMI HDBaseT + VGA, 3.5mm, and USB-B to A over Cat Extender Dual Gang Wall Plate Transmitter to Box Receiver - 4K 60Hz
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FEATURES

- Extend 4K at 60Hz (4:2:0) up to 130ft and 1080p at 60Hz up to 230ft with Cat 6a cable
- Extend 4K at 60Hz (4:2:0) up to 115ft and 1080p at 60Hz up to 200ft with Cat 5e/6 cable
- HDCP 2.2 compliant, to create a secure connection between the source and display
- The Transmitter supports automatic switching, following the last-in-first-out rule
- One-way analog audio pass through from wall-plate transmitter to receiver
- Supports USB 2.0 pass through over HDBT up to 230ft, connecting up to 4 USB devices to the receiver
- Supports CEC switch command sent by wall-plate
- One-way Power over HDBaseT (PoH), so that the wall plate can be powered by receiver
- The transmitter supports firmware upgrade and device control via the Micro USB port
- HDBaseT Chipset VS210, for simpler HDBaseT installations

SIGNAL SPECIFICATIONS

Transmitter

- Chipset: VS210
- Input / Output Ports: 1 x VGA IN (with stereo embedded analog audio IN); 1 x HDMI IN; 1 x AUDIO IN; 1 x HDBT OUT; 1 x USB HOST (Type-B); 1 x Micro USB UPDATE; 1 x DC 12V (2 pins phoenix female connector)
- Input Video Signal: HDMI with 4K@60Hz YUV 4:2:0, HDCP 2.2
- Video Output: 1 x HDBT OUT (RJ-45)
- Output Video Signal: HDBT 2.0
- Audio Format: HDMI: Supports multi-channel audio formats, including PCM 2.0/5.1/7.1, Dolby TrueHD, Dolby Atmos, DTS-HD Master Audio and DTS:X
- Audio In: Stereo
- USB Pass-through: USB 2.0
- USB Port Type: USB-B
- Maximum Pixel Clock: 340Mhz
- Control Method: Auto switching, front panel buttons, API commands

Receiver

- Chipset: VS210
- Video Input: 1 x HDMI; 1 x USB-C (Video Only, Data and Power Delivery not supported through USB-C port)
- Input / Output Ports: 1 x HDBT IN; 1 x HDMI OUT; 1 x RS232; 4 x USB DEVICE (Type-A); 2 x AUDIO OUT (one for audio pass-through, another one for de-embed); 1 x DC 12V IN
- Input Video Signal: HDBT 2.0
- Output Video Signal: HDMI with 4K@60Hz YUV 4:2:0, HDCP 2.2
- Input Video Level: 0.5~1.0V p-p
- Maximum Pixel Clock: 340MHz
- Video Impedance: 100 ohms
- Audio Format: HDMI OUT: Supports multi-channel audio formats, including PCM 2.0/5.1/7.1, Dolby TrueHD, Dolby Atmos, DTS-HD Master Audio and DTS:X
- Audio Out: Stereo
- Control Method: RS232

TRANSMISSION DISTANCE

- Cat 6a/7 cable, extends 4Kx2K@60Hz (4:2:0) signal up to 40m/130ft and 1080P@60Hz signal up to 70m/230ft
- Cat 5e cable, extends 4Kx2K@60Hz (4:2:0) signal up to 35m/115ft and 1080P@60Hz signal up to 60m/200ft

ELECTRICAL SPECIFICATIONS

Transmitter

- Power Supply: PoH, powered by receiver; or local power supply through the 12V phoenix connector
- Power Consumption (Max): 3.9W

Receiver

- Power Supply: DC 12V 3A
- Power Consumption (Max): 8W

PHYSICAL SPECIFICATIONS

- Operating Temperature: 0°C to 45°C (32°F to 113°F)
- Storage Temperature: -20°C to 70°C (-4°F to 158°F)
- Humidity: 10% to 90%, Non-Condensing
- ESD Protection: Human-body Model: ±8kV (Air-gap discharge) / ±4kV (Contact discharge)

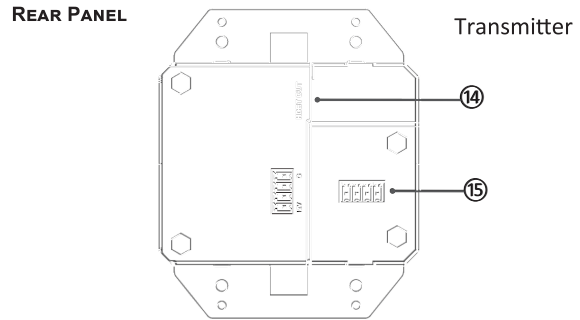
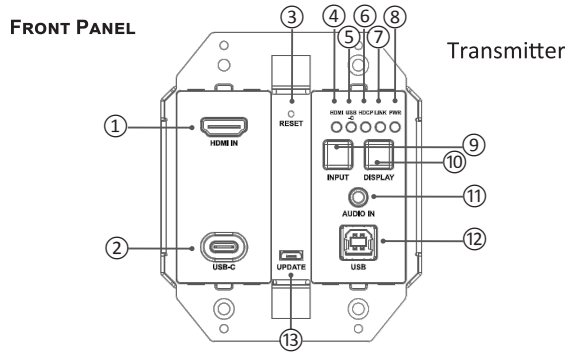
PHYSICAL CHARACTERISTICS

Transmitter

- Device Dimension (W x H x D): 89mm x 38.4mm x 105.6mm / 3.5" x 1.51" x 4.16"
- Product Weight: 0.3kg / 0.66lb

Receiver

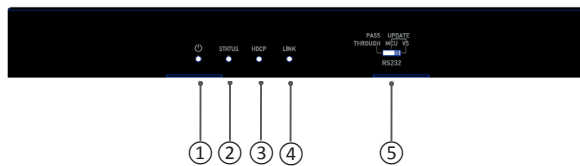
- Device Dimension (W x H x D): 210mm x 25mm x 90.2mm / 8.27" x 0.98" x 3.55"
- Product Weight: 0.46kg / 1.01lbs



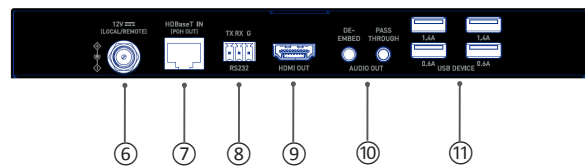
FRONT PANEL	DESCRIPTION	
1	HDMI IN	Connect to an HDMI source using an HDMI cable.
2	USB-C IN	Connect to a USB-C source using a USB-C cable.
3	Reset Button	Restore factory defaults. When the transmitter is powered on, use a pointed stylus to hold down button for five or more seconds and then release.
4/5	HDMI / USB-C LED	LED On: Only one light will be on at a time, indicating which input is selected.
6	HDCP LED	On: HDCP protected content is being transmitted. Blinking: Non-HDCP protected content is being transmitted. Off: No content is being transmitted.
7	Link LED	On: HDBT link is normal. Off/Blinking: No HDBT link or link error.
8	Power LED	On: Power is applied to the device. Off: No power is applied to the device.

9	INPUT Button	Short press: Switch input source.
10	DISPLAY Button	Short press: Turn display on. Long press: 3 seconds to turn off display.
11	AUDIO IN	Connect one-way analog audio pass through from wall-plate transmitter to receiver.
12	USB-B Host Port	Supports USB 2.0 pass through over HDBT.
13	USB Micro-B IN	Supports firmware updates or controlling the transmitter through API commands.
REAR PANEL		DESCRIPTION
14	HDBT OUT	Connect to the receiver via a Cat 5e/6/6a/7 cable.
15	Power	Pins 12V and G are used for local DC 12V input.

Receiver



Receiver



FRONT PANEL	DESCRIPTION	
1	Power LED	On: Power is applied to the device. Off: No power is applied to the device.
2	Status LED	Blinking: The device is working properly. Off: The device is not working properly.
3	HDCP LED	On: HDCP protected content is being transmitted. Blinking: Non-HDCP protected content is being transmitted. Off: No content is being transmitted.
4	Link LED	On: HDBT link is normal. Off/Blinking: No HDBT link or link error.
5	RS232 DIP Switch	Pass-through (default): For controlling the transmitter for input selection. MCU: For MCU firmware update. VS: For VS firmware update. Note: Transmitter and receiver must be updated individually.

REAR PANEL	DESCRIPTION	
6	DC 12V	DC 12V power input; connect to the power adapter provided.
7	HDBT IN	Connect to the transmitter via a Cat 5e/6/6a cable.
8	RS232	For RS232 pass-through or firmware upgrade, and can be set through DIP switch on front panel.
9	HDMI OUT	Connect to an HDMI display using an HDMI cable.
10	2x Audio Out	Unbalanced stereo audio output. De-embed: For audio de-embedding from the HDMI output. Pass-through: For audio pass-through from Audio In port on the transmitter to this port.
11	4x USB-A	Connect to USB devices such as keyboard, mouse, USB camera, etc. Note: USB ports support USB 2.0 standards with a maximum of 1.4A for the top two ports and 0.6A on the bottom two ports. USB cameras are recommended to be connected into one of the top two 1.4A ports.



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USA 800.506.9607 | c2g.com | legrandav.com | customer-service@c2g.com

EMEA +31 495 580 840 | c2g.com/uk | legrandav.com | c2g.emea@av.legrand.com

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