User Manual

AC-EX100WPP-UHD-T

Single Gang, Dual Input (HDMI/VGA) Auto Sensing Wall plate

Introduction

The AC-EX100WPP-UHD-T is a 100m HDBaseT Tx with the ability to be powered by the Rx. It features RS-232 & IR Pass-through inputs along side its auto sensing HDMI and VGA ports.

Key benefits of using AC-EX100WPP-UHD:

1) **ULTRA HIGH DEFINITION:** Our AC-EX100WPP-UHD supports 4K up to 70M (230FT) & HD up to 100M (330FT) with crystal clear 4K Resolution. **NOTE: High Quality CAT6a Shielded required for maximum performance.**

2) **DISTANCE:** By using AC-EX100WPP-UHD, the transmission distance for HD 1080P up to 100 meters (330') & 4K up to 70M (230')

3) **AUTO SENSING:** This wall plate is designed to be a "Set it & forget it" piece of hardware. When the user plugs in their device (BYOD), the wall plate automatically senses the signal and makes it active. If bot inputs are in use, there is a simple button on the front to toggle inputs.
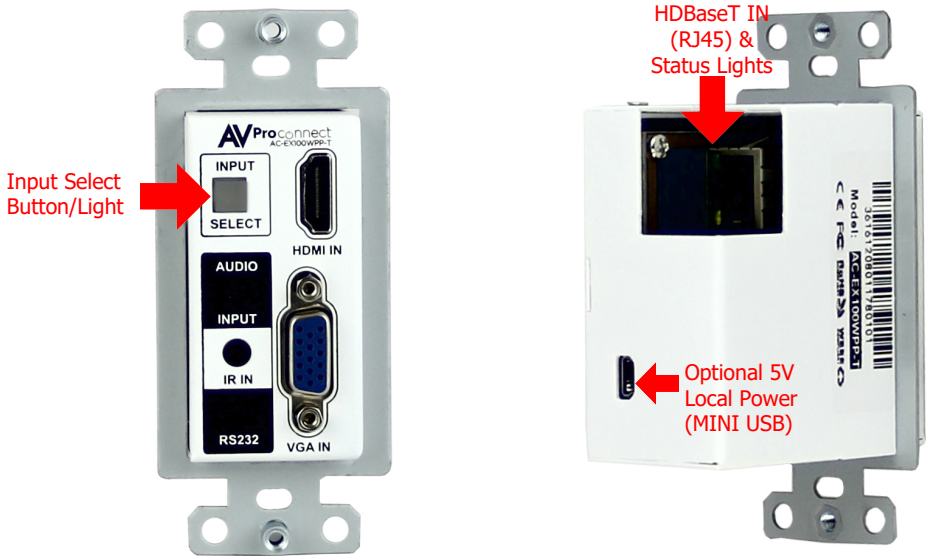
4) **CONTROL:** IR & RS-232 allow control of a rack or standalone projector or display.

5) **POWER:** No local power required when you use the AC-EX100-UHD-R2. Power is provided by ultra-stable PoE technology. Optionally you can power it locally for use with any HDBaseT Receiver.

6) **SINGLE GANG:** Save space and make a squeaky clean installation with the single gang configuration. This wall plate fits in more places than ever!

AC-EX100WPP-UHD-T

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Applications:

This unit is designed to work flawlessly with all PC, VESA and traditional resolutions up to and including 4K 60Hz 4:2:0 8-bit & HDR 4:2:2 12 BIT. VGA supports DCI 2K, 1080P, 1920x1200x60. In addition to its compact and robust design, it transmits the digital signal up to 100 meters (328') giving you ultimate flexibility, especially in large rooms like libraries or auditorium style rooms/classrooms. For a complete solution pair new wall plate transmitter (AC-EX100WPP-UHD-T) with the AC-EX100-UHD-R2 HDBaseT Receiver to power the wall plate transmitter from afar using PoE, thus eliminating the need for a power supply unit near the wall plate.

Input Select Button/Light

HDBaseT IN (RJ45) & Status Lights

Optional 5V Local Power (MINI USB)

AC-EX100WPP-UHD-T Indicator lights

There are only 3 indication lights on the AC-EX100WPP-UHD-T Wall-Plate. 2 near the HDBaseT RJ45 jack and 1 on the front labeled "Input Select"

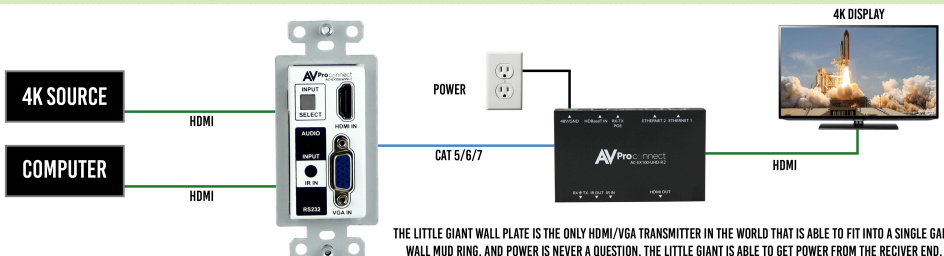| Port/Location	Color	Visual	State	Meaning
HDBaseT	Green		Flashing (Steady)	Power is present (PoE or local power)
HDBaseT	Amber		Solid	Indicates that Tx & Rx are communicating properly
"Input Select" Light	Green		Solid	Indicates VGA port is the active source (w/ 3.5mm Audio)
"Input Select" Light	Amber		Solid	Indicates HDMI port is the active source

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AC-EX100WPP-UHD-T

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Single Gang wall plate transmitter and No Compromises

■ Features

- HDMI 2.0 & VGA Inputs
- 4K 30 4:4:4, 4K60 4:2:0 HDMI Support
- HDR 4:2:2 12 Bit Support
- DCI 2K, 1080P, 1920x1080x60 VGA Support
- HDCP 2.2 & Earlier Supported
- 100M (330ft) 0n 1080P, Up to 70m (230ft) on 4K (Cat6a)
- No Local Power Necessary (Powered by AC-EX100-UHD-R)
- Single Gang, Low heat, Straight in rear RJ45 receptacle design.
- Rugged, long-life chassis
- Plug & Play auto input sensing
- Select-able input (If both are plugged in)
- Designed for the conference/classroom room so your customer can focus on their meetings, not their video system.
- 3.5mm Input for audio (with VGA input only)
- Single UTP/STP LAN cable (CAT-5E/6A) for all signals
- ESD protection circuitry (Inputs / Outputs) till 7KV.
- Single Gang Construction (Fits Decora Type USA single gang boxes and mud rings)
- Transfer IR & RS-232 signals from Tx to Rx (From Control Processor)
- I-Pass Feature for control system "pass-through"
- 3-20v protection circuit built in for safe IR transport
- Compatible with HDBaseT displays, projectors, AVR's
- Supports uncompressed PCM 2- Ch., 5.1, 7.1, Dolby Digital, DTS, Dolby TrueHD, DTS HD-Master Audio, Atmos.
- Can Cascade for ultra-long distance

LITTLE GIANT WALL PLATE CONNECTION

THE LITTLE GIANT WALL PLATE IS THE ONLY HDMI/VGA TRANSMITTER IN THE WORLD THAT IS ABLE TO FIT INTO A SINGLE GANG WALL MUD RING, AND POWER IS NEVER A QUESTION, THE LITTLE GIANT IS ABLE TO GET POWER FROM THE RECIVER END.

✍ Notice

AVProConnect reserves all the right to make changes in the hardware, packaging and any accompanying documentation without prior written notice.

⚠ **Warning**

To reduce the risk of fire, electric shock or product damage:

1. Do not expose this device to rain, moisture, dripping or splashing and ensure that no objects filled with liquids are placed on or near the devices.

6. Clean this device with a dry cloth only.

2. Do not install or place this unit in a bookcase, built-in cabinet or in another confined space. Ensure the unit is well ventilated.

7. Unplug this device during lightning storms or when unused for long periods of time.

3. To prevent risk of electric shock or fire hazard due to overheating, do not obstruct the unit's ventilation openings with newspapers, tablecloths, curtains, and similar items.

8. Protect the power cord from being walked on or pinched particularly at plugs.

4. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

9. Only use attachments / accessories specified by the manufacturer.

5. Do not place sources of naked flames, such as lighted candles, on the unit.

10. Refer all servicing to qualified service personnel.

AC-EX100WPP-UHD-T

■ What's In The Box?

AC-EX100WPP-UHD-KIT (Incl Tx Wall Plate & Rx)

- AC-EX100WPP-UHD-T (Transmitter)
- AC-EX100-UHD-R2 (Receiver, supplies power to wall plate)
- 3.5mm stereo plug to female DB9 for RS-232 to PC
- 48v Power Supply (For Rx, PoE is sent to Wall Plate)
- Mounitng Ears (For Rx)
- IR Emitter
- IR Receiver
- 3-Pin Terminal Plug
- 2 Mounting Screws
- Decora Wall Plate Cover (White)
- Operating Instructions

AC-EX100WPP-UHD (Tx Wall Plate Only for HDBaseT TV's & Projectors)

- AC-EX100WPP-UHD-T (Transmitter)
- 3.5mm stereo plug to female DB9 for RS-232 to PC
- 5v Power Supply (Mini USB)
- 2 Mounting Screws
- Decora Wall Plate Cover (White)
- Operating Instructions

NOTE: If the HDBaseT Input device you are using does not provide power, you will need to use the supplied power supply.

■ Specifications

Video Resolutions	Up to 4K60 4:2:0 & 4K30 4:4:4
VESA Resolutions	Up to 2560x2048 (QSXGA)
HDR Resolutions	4K24 4:2:2 12 bit, 4K24 4:2:0 10 bit
VGA Resolutions	Up to DCI 2K, 1080P 60, 1900x1080x60
Color Space	YUV, RGB (CSC: Rec. 601, Rec. 709, BT2020, DCI, P3 D6500)
Chroma Subsampeling	4:4:4, 4:2:2, 4:2:0 Supported
Deep Color	Up to 12 bit w/ 4K
Audio Formats Supported	Digtal, DTS 5.1, Dolby Digital Plus, Dolby TrueHD, DTS-HD Master Audio, Dolby Atmos
Distance 1080P	100M (330 Feet)
Distance 4K & HDR	70M (Best results with CAT6a/7)
Bandwidth	10.2 Gbps
CEC	Yes
HDCP	HDCP 2.2 and Earlier
Operating Temprature	23 to 125°F (-5 to 51°C)
Storage Temperature	-4 to 140°F (-20 to 60°C)
Humidity Range	5-90% RH (No Condensation)
Power Consumption	8 Watts (16.5 When Paired)
Power Supply	Input: AC 100-240V ~ 50/60Hz Output: DC 5V 2A (MINI USB)
Dimensions (Unit Only Height/Depth/Width)	mm: 70 x 65 x 31 inch: 2.75 x 2.55 x 1.22 (Without Wall Decora Cover)
Wall Space	Single Gang
Compatiable Box Types	Mud Rings, Stud Mount, Clamp mount, Metal & Plastic Boxes, LV Boxes
Weight (Unit)	.3lbs/.14kg
Weight (Packaged)	.8lbs/.36kg

*Specifications subject to change without notice. Mass & dimensions are approximate
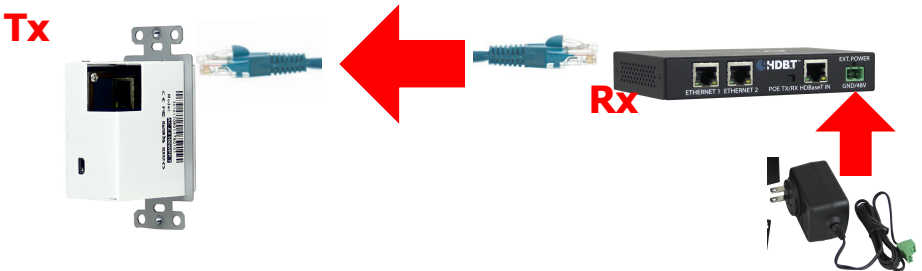
AC-EX100WPP-UHD-T

![AVProconnect logo]

■ Powering the AC-EX100WPP-UHD-T

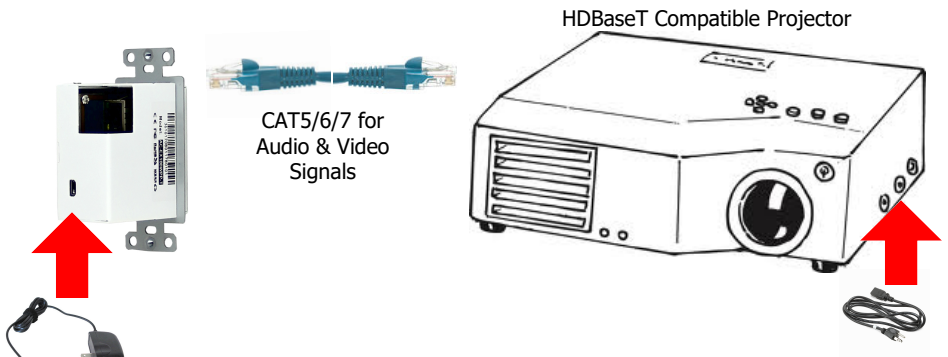There are 2 ways to power the unit:

1. Use a HDBaseT Receiver that provides up stream power. We recommend using the AC-EX100-UHD-R2.
2. If you will be using the unit directly into a NON PoE Provider (AVR, Projector, Display, or other HDBaseT receiver), you can power it using a 5V, 2A MINI USB Type power supply. We recommend the AC-PSU-5V-EX100WPP
NOTE: In these diagrams, arrows indicate the flow of POWER, not other signals.

OPTION 1: PoE From Receiver (AC-EX100-UHD-R2)

OPTION 2: Local power to work with other HDBaseT devices
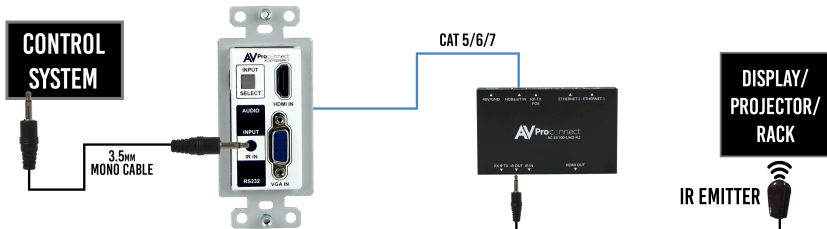
■ IR Configuration

The AC-EX100WPP-UHD-T has an IR input designed to work connected directly to control processors, or other IR signal generators like Global Cache, On Controls, etc... IR Signals are routed through the entire HDBaseT Link to the Rx (AC-EX100-UHD-R).
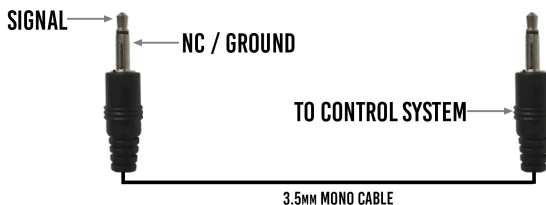This allows you to send control signals to:

1. The "Rack" to control and amplifier, matrix, AVR or similar for more advanced systems
2. Control power, volume, etc... of the remote projector/display connected to the Receiver
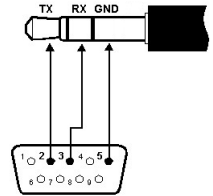
LITTLE GIANT WALL PLATE IR CONTROL

AC-EX100WPP-UHD-KIT

CONTROL SYSTEM

CAT 5/6/7

DISPLAY/ PROJECTOR/ RACK

3.5MM MONO CABLE

IR EMITTER

IR IN FOR AC-EX100WPP-UHD (WALLPLATE)

SIGNAL

NC / GROUND

TO CONTROL SYSTEM

3.5MM MONO CABLE

■ RS-232 Configuration

On 3.5 mm
Tip: Tx
Ring: Rx
Sleeve: Ground

TX   RX GND

9 pin RS232 plug
(female)
soldering side

The AC-EX100WPP-UHD-T has a Bi-Directional RS-232. RS-232 Signals are routed through the entire HDBaseT Link to the Rx (AC-EX100-UHD-R2).
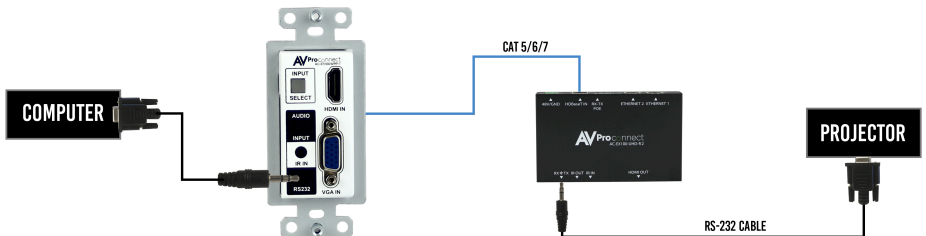
This allows you to send control signals to:

1. The "Rack" to control and amplifier, matrix, AVR or similar for more advanced systems
2. Control power, volume, etc... of the projector connected to the Receiver
   NOTE: In larger systems RS-232 is the recommended control method for maximum performance and longevity.

   Pre-made 3.5mm to DB9 Cables can be purchased from AVProStore

LITTLE GIANT WALL PLATE RS-232 CONTROL

AC-EX100WPP-UHD-KIT

COMPUTER

CAT 5/6/7

PROJECTOR

RS-232 CABLE

RS232 Commands on next page...

■ RS-232 Commands

Additionally the wall plate RS232 command bridge detects and scans commands from both the local RS232 port and the HDBaseT stream. As soon as a proper formatted command is detected, the command is executed internally in the wall plate. This means you can control/switch ports from a distance or from local RS232 with proper commands. Commands that are not listed below, get forwarded to the RS232 ports.

RS232 Commands for AV-EX100WPP-UHD-T	
Command	Action
@help	Shows Help File
@ver	Shoes Firmeare Version
@insel vga	Set Input Selection to VGA
@insel hdmi	Set Input Selection to HDMI
@insel status	Input Selection Status
@autosw on	Enable Auto Switch
@autosw off	Disable Auto Switch
@autosw status	View Autoswitch Status
@edid sink	Reads Downstream EDID
@default	Sets tostandard EDID (4K)
@status	Shows Ststus of Current EDID Selection

AC-EX100WPP-UHD-T

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■ Selecting the source

The Input is automatically set based on proprietary Auto-Sensing Technology. The source displayed will be from the LAST device plugged in. The auto sensing is based on the detection of +5V present in VGA / HDMI inputs. If this signal is missing or the source is in standby the auto-detection cannot work.

You also have the ability to select a source if VGA and HDMI are both occupied. Selecting the source is a single button press on the "Input Select" button on the front of the AC-EX100WPP-UHD-T. There are only 2 possible states:

1.   When the light is ORANGE/AMBER the HDMI source is active
2.   When the light is GREEN the VGA source is active

Continuing to press the button will toggle between both sources.

Indicator Colors:

HDMI Active

VGA Active

Input Select Button/ Indicator Light
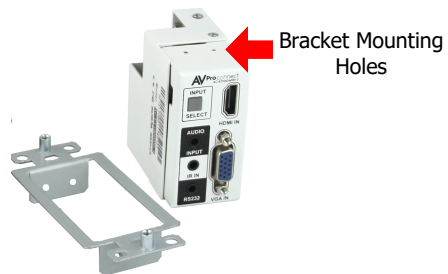
AC-EX100WPP-UHD-T

■ Mounting Options

The AC-EX100WPP-UHD-T has seemingly limitless mounting options.
While it comes with the metal bracket to affix it to any Single or multi-
gang Decora wall plate. The unique design with "Straight In" CAT RJ45
receptacle allows for unique mounting positions and low heat allows for
side by side configurations. The 3 primary mounting concepts are here,
with photos on the next page.

1. In a single-gang wall plate configuration
2. In a side-by-side configuration (dual-gang, quad gang, etc...)
3. Without the metal bracket, Velcro can easily be used for under table
    mounts, difficult positions etc..
    See the following page for mounting options!

To mount to a Decora wall
plate you must install the
metal bracket (Pictured Left)
To install the bracket:

1. Slide the metal bracket
    into place.
2. Use the 4 provided
    screws to fix the top and
    bottom into place

Bracket Mounting
Holes

After Bracket is installed it should look like these photos:

■ Sample Mounting Options

Multiple units: Due to the low heat design & straight in RJ45 receptacle, you can position up to 4 units together in a single wall box or mud ring. Allowing you to manage multiple display zones in a large hall, or you can route the signals to a matrix for even more control.

Desk: This compact design allows you to mount under tables, desks, student labs or anywhere you want.

■ Sample Mounting Options

Podium: Mount in a podium or desk for convenient content sharing from the instructor/presenter.

▪ Maintenance

To ensure reliable operation of this product as well as protecting the safety of any person using or handling this device while powered, please observe the following instructions.

- Use the power supplies provided. If an alternate supply is required, check voltage, polarity and that it has sufficient power to supply the device it is connected to.

- Do not operate these products outside the specified temperature and humidity range given in the above specifications.

- Ensure there is adequate ventilation to allow this product to operate efficiently.

- Repair of the equipment should only be carried out by qualified professionals as these products contain sensitive components that may be damaged by any mistreatment.

- Only use this product in a dry environment. Do not allow any liquids or harmful chemicals to come into contact with these products.

- Clean this unit with a soft, dry cloth. Never use alcohol, paint thinner or benzene to clean this unit.

▪ Damage Requiring Service

The unit should be serviced by qualified service personnel if:

- The DC power supply cord or AC adaptor has been damaged

- Objects or liquids have gotten into the unit

- The unit has been exposed to rain

- The unit does not operate normally or exhibits a marked change in performance

- The unit has been dropped or the housing damaged

▪ Support

Should you experience any problems while using this product, first, refer to the Troubleshooting section of this manual before contacting Technical Support. When calling, the following information should be provided:

- Product name and model number
- Product serial number
- Details of the issue and any conditions under which the issue is occurring

▪ Warranty

If your product does not work properly because of a defect in materials or workmanship, AVProConnect (referred to as "the warrantor") will, for the length of the period indicated as below, (Parts/Labor (10) Years), which starts with the date of original purchase ("Limited Warranty period"), at its option either (a) repair your product with new or refurbished parts, or (b) replace it with a new or a refurbished product. The decision to repair or replace will be made by the warrantor. During the "Labor" Limited Warranty period there will be no charge for labor. During the "Parts" warranty period, there will be no charge for parts. You must mail-in your product during the warranty period. This Limited Warranty is extended only to the original purchaser and only covers product purchased as new. A purchase receipt or other proof of original purchase date is required for Limited Warranty service.

This warranty extends to products purchased directly from AVPro or an authorized dealer. AVPro is not liable to honor this warranty if the product has been used in any application other than that for which it was intended, has been subjected to misuse, accidental damage, modification or improper installation procedures, unauthorized repairs or is outside of the warranty period. Please direct any questions or issues you may have to your local dealer before contacting AVPro.

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Thank you for choosing AVProConnect!

Please contact us with any questions. We are happy to be of service!