# HDBaseT<sup>TM</sup> Receiver Certified HDBaseT, POH Receiver



Vanco Part Number EVRXHD1

Certified HDBaseT™ POH Receiver



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

# This product is 100% inspected and tested in the United States to verify HDMI performance parameters.

#### WARNING

- 1. Do not expose this unit to water, moisture, or excessive humidity.
- Do not install or place this unit in a built-in cabinet, or other confined space without adequate ventilation.
- To prevent risk of electrical shock or fire hazard, due to overheating do not obstruct unit's ventilation openings.
- Do not install near any source of heat, including other units that may produce heat.
- 5. Do not place unit near flames.

- 6. Only clean unit with a dry cloth.
- Unplug unit during lightening storms or when not used for an extended period of time. A surge protector is strongly recommended.
- 8. Protect the power cord from being walked on or pinched, particularly at the plugs.
- 9. Use unit only with accessories specified by the manufacturer.
- 10. Refer all servicing to qualified personnel.

# CAUTION

HDMI is a very complex technology requiring continuous authentication of the signal and the same video resolution and audio settings on all electronic equipment in the system. When there are multiple sources and displays, the video resolution and audio setting on all connected units must be adjusted to correspond with that of the display having the lowest video and audio capability.

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#### FEATURES

# INTRODUCTION

The EVRXHD1 is a slim-line Certified HDBaseT receiver. HDBaseT technology is used to transmit high-resolution 1080p/4k signals from a matrix, splitter or transmitter to the receiver via a CAT5e/CAT6a cable at a distance of up to 70m for 1080p and up to 40m for 4K. The EVRXHD1 supports CEC, bi-directional RS232 & IR control, and unidirectional PoH (Power over HDBaseT) functions.

#### Certified HDBaseT<sup>TM</sup> POH Receiver Part # EVRXHD1

- Ultra-thin .6" (16mm) design
- Resolutions up to 4Kx2K/60Hz
- HDCP 2.2 compliant
- Maximum transmission distance is up to 131 ft (40m) for 4Kx2K, 230 ft (70m) for 1080p
- Features Power over HDBaseT (POH) when connected to POH, POC or POE supported products
- High bandwidth: 10.2Gbps
- Supports IR/RS232 pass-through
- LED indicators show work status

#### SPECIFICATIONS

| Input Signal      | 1 IR, 1 RJ-45 & 1 RS232       |
|-------------------|-------------------------------|
| Output            | . 1 HDMI, 1 IR, 1RS232        |
| Resolution Range  | 640x480@60Hz~4K×2K@60Hz       |
| Transmission      | HDBaseT 1080p @70m, 4k @40m   |
| Bandwidth         | . 10.2Gbps                    |
| HDMI Standard     | . Support HDMI2.0 and HDCP2.2 |
| Impedance         | 75                            |
| Temperature       | 20 ℃~70 ℃                     |
| Humidity          | 10~90 %                       |
| Dimensions (H)    | 4.5" W x .6" H x 3.3" D       |
| Weight            |                               |
| Power Consumption | . 6.5 W                       |

#### PACKAGE CONTENTS

- Certified HDBaseT POH Receiver EVRXHD1
- Mounting ears and screws
- RS232 cable
- Product Manual

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### PANEL DESCRIPTIONS





- 1. HDBT Link status indicator OFF: No Link, GREEN:Link Successful, Blinking GREEN: Link abnormal
- HDCP compliant indicator OFF: No HDMI traffic (no picture), GREEN: Traffic with HDCP, Blinking GREEN: Traffic without HDCP
- 3. Power Indicator OFF: No power; RED: DC power present.
- 4. RS232 IN
- 5. IR IN: Connect with 5V IR receiver (with carrier) to collect infrared signal, work with far-end IR OUT port
- 6. IR OUT: Connect with 5V IR Emitter to send infrared signal, work with far-end IR IN port
- 7. HDMI OUT: Connect with HDMI display
- 8. HDBT IN: Connect to the HDBT OUT socket of HDbaseT matrix, splitter or transmitter via CAT5e/ CAT6a cable.
- 9. DC 24V: Connect with power supply (Not necessary if used with compatible HDbaseT matrix, splitter or transmitter with power).



#### CONNECTION DIAGRAM



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#### CONNECT AND OPERATE

- With no power supplied to the system, connect HDMI source(s) such as Blue-ray DVD to HDMI IN port of the HDBaseT matrix, splitter or transmitter with a known working HDMI cable.
- Connect HDBT OUT port of the HDBaseT matrix, splitter or transmitter and HDBT IN port of the EVRXHD1 with a single CAT5e/CAT6a cable.
- 3. Connect HDMI display such as a HDTV to the HDMI OUT port of EVRXHD1 with HDMI cable.
- 4. OPTIONAL: Connect the IR cables to the appropriate ports depending on how IR is to be routed. To send IR from the receiver to sources: Use the provided IR cables that came with the products. Have the IR RX (receiver) connected to the IR IN port of the EVRXHD1. Have the IR TX (transmitter) connected to the IR OUT port of the HDBaseT matrix, splitter, or transmitter

NOTE: ensure IR voltage and pinout is compatible with the IR used in the EVRXHD1. To send IR from the sources to the receiver: Use the provided IR cables that came with the products. Have the IR TX (transmitter) connected to the IR OUT port of the EVRXHD1. Have the IR RX (receiver) connected to the IR IN port of the HDBaseT matrix, splitter, or transmitter.

NOTE: Ensure IR voltage and pinout is compatible with the IR used in the EVRXHD1

- 5. OPTIONAL: Connect the RS232 port of the devices to be controlled and the receiver or the transmitter.
- OPTIONAL: Connect with DC24V power adaptor(s). When being used with a compatible POH product, power does NOT need to be applied.

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#### SUPPORTED RESOLUTIONS

| Aspect Ratio | Resolution | Refresh Rate     |
|--------------|------------|------------------|
| 4Kx 2K       | 4096x2160  | 30Hz             |
|              | 3840x2160  | 24/25/30Hz       |
| 16:9         | 1920x1080  | 60Hz             |
|              | 1600x900   | 60Hz             |
|              | 1366x768   | 60Hz             |
|              | 1280x720   | 60Hz             |
|              | 1024x576   | 60Hz             |
| 16:10        | 1920x1200  | 60Hz             |
|              | 1680x1050  | 60Hz             |
|              | 1360x768   | 60Hz             |
|              | 1280x800   | 60Hz             |
| 4:3          | 1600x1200  | 60/65/70/75/85Hz |
|              | 1280x1024  | 60/75/85/96Hz    |
|              | 1024x768   | 60/70/75/85Hz    |
|              | 800x600    | 56/60/72/75/85Hz |
|              | 640x480    | 60/72/75Hz       |

IR

See voltage and pinout used for IR of the EVRXHD1. This is directly compatible with matrices such as the EVMX4K04 and EVMX4K08 and others. Please check to ensure IR voltage and pinout compatibility before splicing or connecting 3rd party cables.



# CAT5E/CAT6 CABLES

Products request normal CAT5e or CAT6 Ethernet cables, which must meet standard-TIA/EIA-568B, refer to below pin definition.



| Pin<br>1 | Wire color    |
|----------|---------------|
| 1        |               |
|          | Orange/ White |
| 2        | Orange        |
| 3        | Green/ White  |
| 4        | Blue          |
| 5        | Blue/ White   |
| 6        | Green         |
| 7        | Brown/ White  |
| 8        | Brown         |





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# SAFETY AND NOTICE

The EVRXHD1 has been tested for conformance to safety regulations and requirements, and has been certified for EVRXHD1 should be used with care. Please read and follow the safety instructions to protect yourself from possible injury and to minimize the risk of damage to the unit.

- Follow all instructions and warnings marked on this unit.
- Do not attempt to service this unit yourself, except where explained in this manual.
- Provide proper ventilation and air circulation and do not use near water.
- Keep objects that might damage the device and assure that the placement of this unit is on a stable surface.
- Use only the power adapter and power cords and connection cables designed for this unit.
- Do not use liquid or aerosol cleaners to clean this unit.
- Always unplug the power to the device before cleaning.

#### LIMITED WARRANTY

With the exceptions noted in the next paragraph, Vanco warrants to the original purchaser that the equipment it manufactures or sells will be free from defects in materials and workmanship for a period of two years from the date of purchase. Should this product, in Vanco's opinion, prove defective within this warranty period, Vanco, at its option, will repair or replace this product without charge. Any defective parts replaced become the property of Vanco. This warranty does not apply to those products which have been damaged due to accident, unauthorized alterations, improper repair, modifications, inadequate maintenance and care, or use in any manner for which the product was not originally intended.

Items integrated into Vanco products that are made by other manufacturers, notably computer hard drives and liquid crystal display panels, are limited to the term of the warranty offered by the respective manufacturers. Such specific warranties are available upon request to Vanco. A surge protector, power conditioner unit, or an uninterruptible power supply must be installed in the electrical circuit to protect against power surges.

If repairs are needed during the warranty period the purchaser will be required to provide a sales receipt/sales invoice or other acceptable proof of purchase to the seller of this equipment. The seller will then contact Vanco regarding warranty repair or replacement.

#### TECHNICAL SUPPORT

In case of problems, please contact Vanco Technical Support by dialing 1-800-626-6445. You can also email technical support issues to techsupport@vanco1.com.

When calling, please have the Model Number, Serial Number (affixed to the bottom of the unit) and Invoice available for reference during the call.

Please read this Instruction Manual prior to calling or installing this unit, since it will familiarize you with the capabilities of this product and its proper installation.

All active electronic products are 100% inspected and tested to insure highest product quality and trouble-free installation and operation. The testing process utilizes the types of high-definition sources and displays typically installed for entertainment and home theater applications.

For additional information, such as helpful installation videos, etc. please visit www.vanco1.com

# LIABILITY STATEMENT

Every effort has been made to ensure that this product is free of defects. The manufacturer of this product cannot be held liable for the use of this hardware or any direct or indirect consequential damages arising from its use. It is the responsibility of the user and installer of the hardware to check that it is suitable for their requirements and that it is installed correctly. All rights are reserved. No parts of this manual may be reproduced or transmitted by any form or means electronic or mechanical, including photocopying, recording or by any information storage or retrieval system without the written consent of the publisher.

Manufacturer reserves the right to revise any of its hardware and software following its policy to modify and/or improve its products where necessary or desirable. This statement does not affect the legal rights of the user in any way.

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