EVO-IP HDMI® OVER IP

Quick Start Guide

Vanco Part Numbers:

EVOIPTX1 Transmitter

EVOIPRX1 Receiver

EVOIPCTL1 Control Box

EVOLUTION BY VANCO

ADVANCING DIGITAL CONNECTIVITY

www.vanco1.com • 800.626.6445

DEAR CUSTOMER

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.

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.
2. Do not install or place this unit in a built-in cabinet, or other confined space without adequate ventilation.
3. To prevent risk of electrical shock or fire hazard, due to overheating do not obstruct unit's ventilation openings.
4. 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.
7. 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.

INTRODUCTION

The Evolution by Vanco EVO-IP HDMI over IP is a complete audio, video, and control product over ethernet system. As a whole, the system has the ability to send up to 1064 sources to 1064 displays along with IR and RS-232 pass-through, analog and digital audio breakouts on the send and receive ends, video up to 4K@60Hz and HDR10/Dolby Vision compatibility, with POE up to 330ft/100m when connected to a POE enabled switch off of a single Cat6 cable. The transmitter is also equipped with an HDMI loop-out that allows the system to incorporate other products such as Evolution tiling and Multi-view products easily with minimal additional programming. As a dedicated system, EVO-IP can also create and recall video walls using up to 25 displays, and can overlay text, pictures, and even albums which is perfect for digital signage! When connected to a network, the EVO-IP Cloud allows for additional features such as scheduling events or maintenance, remote monitoring of a system including diagnostics and troubleshooting, as well as voice control capabilities with Alexa enabled products! With an IP-less installation option as well as any new sources/displays being discovered automatically within the system, the EVO-IP HDMI over IP system is the fast, easy, and perfect solution for both residential and commercial installations.

HDMI® over IP

- Supports 4K@60Hz, 4:4:4 chroma
- System can support over 1000 transmitters and 1000 receivers
- HDR10 and Dolby Vision compatible
- Dolby/DTS/PCM audio formats supported
- HDCP 2.2/1.4
- POE or can be powered using provided power supply
- Manual dip switch configurable for a truly IP-Less installation
- Easy GUI automatically detects new devices in the system
- Customizable labels and names of sources and displays
- Setup through the GUI can be done without a computer even being on site
- Analog and Digital audio breakouts on TX and RX
- HDMI Loop-out on TX for cascading or monitoring
- Upscale to 4K@30Hz or downscale to 720p
- EDID preset/learning
- Video Wall mode supports up to 5x5 configuration
- OSD mode to display text, pictures, or logos on the screen (great for digital signage)
- Connects to the cloud to schedule events or to troubleshoot a situation remotely (opportunity for recurring revenue)
- iOS and Android end user app makes it easy to control switching within the system
- Able to be controlled with Alexa enabled products

SPECIFICATIONS

TECHNICAL SPECS - Transmitter and Receiver	
HDMI Compliance	HDMI
HDCP Compliance	Yes
Video Resolution	4K@60Hz, 4:4:4; 4K@60Hz, 4:2:0 HDR10; 4K@30Hz, 4:4:4 HDR10; 4K@30Hz, 4:2:2 HDR10 and Dolby Vision; 4K@24Hz, 4:4:4 HDR10 and Dolby Vision
Latency	2 frames (33ms) maximum
HDMI over UTP transmission (24-bit)	1Ultra HD (4K@60) up to 330ft/100m over Cat6
Audio Support	Surround sound (up to 7.1ch) PCM, DTS, Dolby
Input TMDS signal	1.2 Volts (peak-to-peak)
Input DDC signal	5 Volts (peak-to-peak, TTL)
ESD Protection	Human body model — ±15kV (air-gap discharge) & ±8kV (contact discharge)
IR Pass-Thru	Full-duplex bi-directional
RS-232 Support	Yes
IR Remote Control	Dual Band: 20-60kHz
HDMI Connector	Type A (19-pin female)
MECHANICAL SPECS - Transmitter and Receiver	
Housing	Metal enclosure
Dimensions	
Weight	
Fixedness	Wall-mounting case with screws
Power supply	5V 2A DC
Power consumption	6 Watts TX; 5Watts RX
Operation temperature	32~113F
Storage temperature	-4~140F
Relative humidity	20-90% RH (no condensation)

SPECIFICATIONS

TECHNICAL SPECS - Control Box

Role of Usage	Smart Controller
Input	1 x RJ-45
Output	1 X HDMI
HDMI Connector	Type A (19-pin female)
RJ-45 Connector	WE/SS 8P8C
USB (Female)	Reserved for future use

MECHANICAL SPECS - Control Box

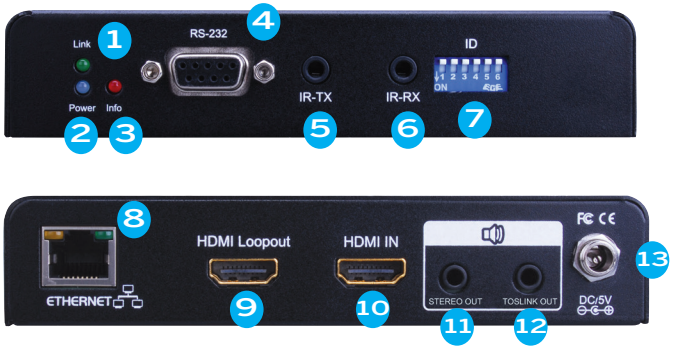
Housing	Metal enclosure
Dimensions	90 x 65 x 29mm (3.5" x 2.5" x 1.1")
Weight	
Fixedness	Rack-mount with ears
Power supply	5V DC
Power consumption	3.5 Watts (max)
Operation temperature	32~113F
Storage temperature	-4~140F
Relative humidity	20-90% RH (no condensation)

PACKAGE CONTENTS

- EVOIPTX1, EVOIPRX1, OR EVOIPCTL1 unit (each sold separately)
- IR Transmitter (with EVOIPTX1 and EVOIPRX1)
- IR Receiver (with EVOIPTX1 and EVOIPRX1)
- 5V Power Supply (optional, can be used as a redundant power with use of a POE switch)
- Set of mounting ears/screws
- Product Manual

PANEL DESCRIPTIONS

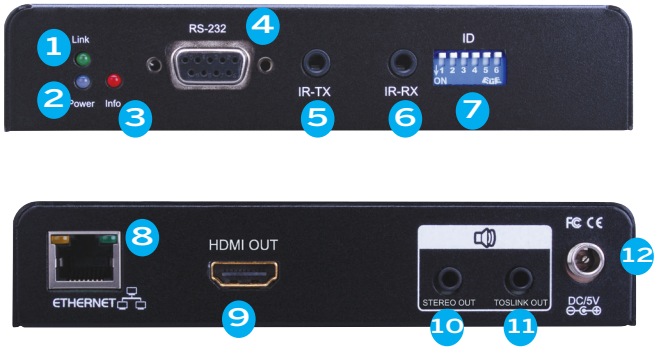
Transmitting Unit



1. Link Indicator Light (lights up when connected and transmitting signal to ethernet switch)
2. Power Indicator Light (lights up when powered up by PoE or included power supply)
3. Info Indicator Light (shows data is being sent/received over the Cat cable/RJ45 port)
4. DB9 connector for RS-232 Control Pass-Through
5. IR-TX port (connect included IR Transmitter cable for source control)
6. IR-RX port (connect included IR Receiver cable for display control)
7. Unit ID dip switches (disables browser based GUI for setting up and addressing units for IP-less setup)
8. RJ45 port (connect to ethernet switch)
9. HDMI Loop-out for cascading HDMI signal into other devices or to split out to additional display
10. HDMI IN (connect to a source)
11. Toslink Out (de-embeds/extracts digital audio from HDMI source using Toslink adapter)
12. Stereo Out (de-embeds/extracts analog audio from HDMI source using a stereo 3.5mm connector)
13. 5V Power Port (optional, connect included power supply if using a non-PoE ethernet switch or to use for redundant power)

PANEL DESCRIPTIONS

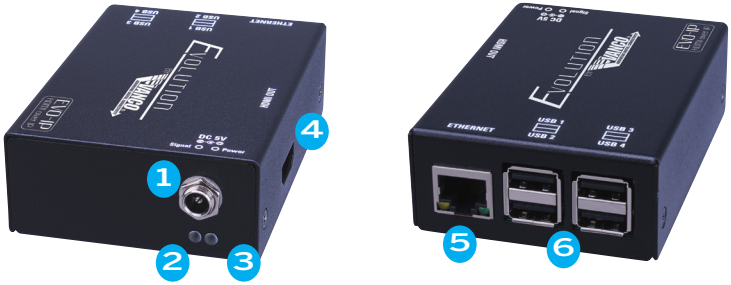
Receiving Unit



1. Link Indicator Light (lights up when connected and receiving signal from ethernet switch)
2. Power Indicator Light (lights up when powered up by PoE or included power supply)
3. Info Indicator Light (shows data is being sent/received over the Cat cable/RJ45 port)
4. DB9 connector for RS-232 Control Pass-Through
5. IR-TX port (connect included IR Transmitter cable for source control)
6. IR-RX port (connect included IR Receiver cable for display control)
7. Unit ID dip switches (disables browser based GUI for setting up and addressing units for IP-less setup)
8. RJ45 port (connect to ethernet switch)
9. HDMI OUT (connect to a display)
10. Toslink Out (de-embeds/extracts digital audio from HDMI source using Toslink adapter)
11. Stereo Out (de-embeds/extracts analog audio from HDMI source using a stereo 3.5mm connector)
12. 5V Power Port (optional, connect included power supply if using a non-PoE ethernet switch or to use for redundant power)

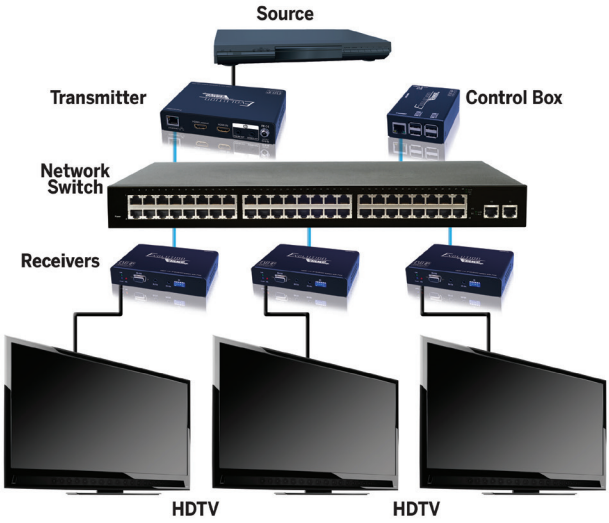
PANEL DESCRIPTIONS

Control Box



1. 5V Power Port (necessary as this unit requires external power)
2. Status Indicator Light (lights up when communicating with the system)
3. Power Indicator Light (lights up when powered up by included power supply)
4. HDMI OUT (connect to local display to show system IP information)
5. RJ45 port (connect to ethernet switch)
6. USB ports (reserved for future use)

CONNECTION DIAGRAM

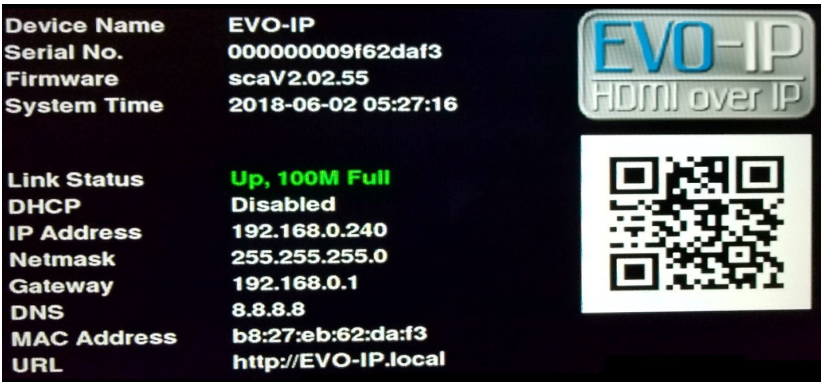


CONNECT AND OPERATE

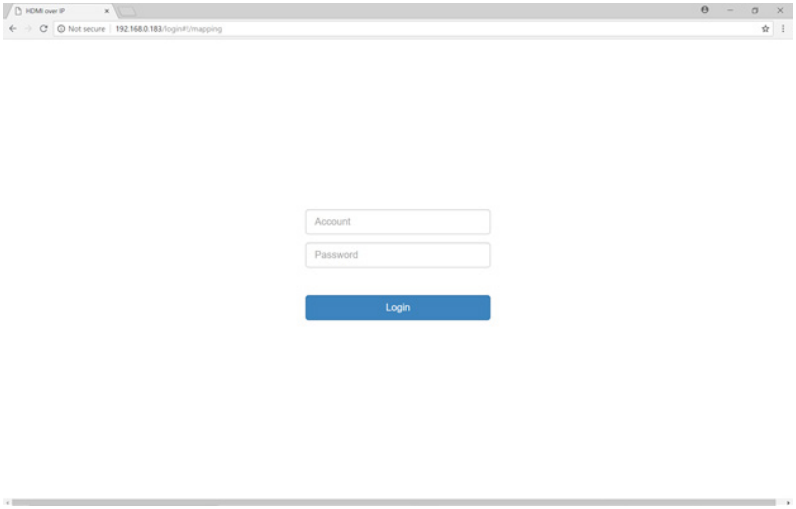
Before connecting and setting up the EVO-IP System, please enable settings within your ethernet switch that will allow you get the best performance possible. For additional information on which ethernet switches are compatible, please visit the product page at www.vanco1.com.

For best results, ensure your ethernet switch has IGMP Snooping, Jumbo Frames, and POE enabled.

1. Connect the EVOIPTX1 and EVOIPRX1 transmitters and receivers to the network switch with a well terminated Cat5e/6. Ensure there is 1 transmitter being used for every source/input and 1 receiver being used for every display/output in the system. ***Note: Vanco recommends using Cat6 for any 4K applications and to use one of the ethernet switches recommended on the product webpage found at www.vanco1.com.***
2. Connect the EVOIPCTL1 to the same network switch. ***Note: The EVO-IP System is automatically setup to DHCP network settings. To set up any EVO-IP device for a static IP, please refer to the Setup and Features Manual.***
3. Connect the HDMI output of the EVOIPCTL1 to a local display. This will provide you with the necessary network information to continue the setup.



4. Connect power to the EVOIPCTL1 and turn on the ethernet switch. If your ethernet switch is not capable of POE (power over ethernet), connect the provided 5v power supplies to each EVOIPTX1 and EVOIPRX1
5. Using a computer that is connected to the same network, type in www.evo-ip.local into a web browser to get to the GUI. You can also enter the GUI by typing the IP Address shown on the display connected to the HDMI output of the EVOIPCTL1, or by scanning the QR code found on the same screen using a phone, tablet, or computer connected to the same network

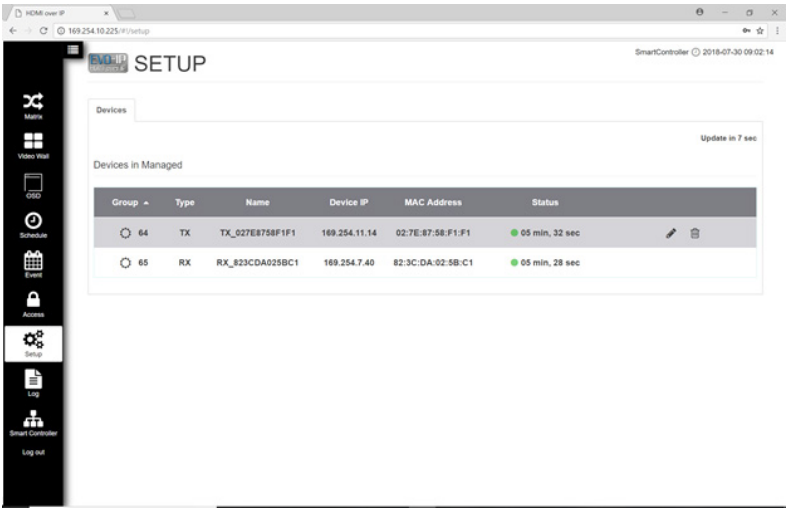


6. Type in the username and password for the system

   Installer: Username and password is admin (full access to settings)

   User: Username and password is user (limited access to settings)

7. Go to the SETUP tab to further customize the name and ID for each device



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.

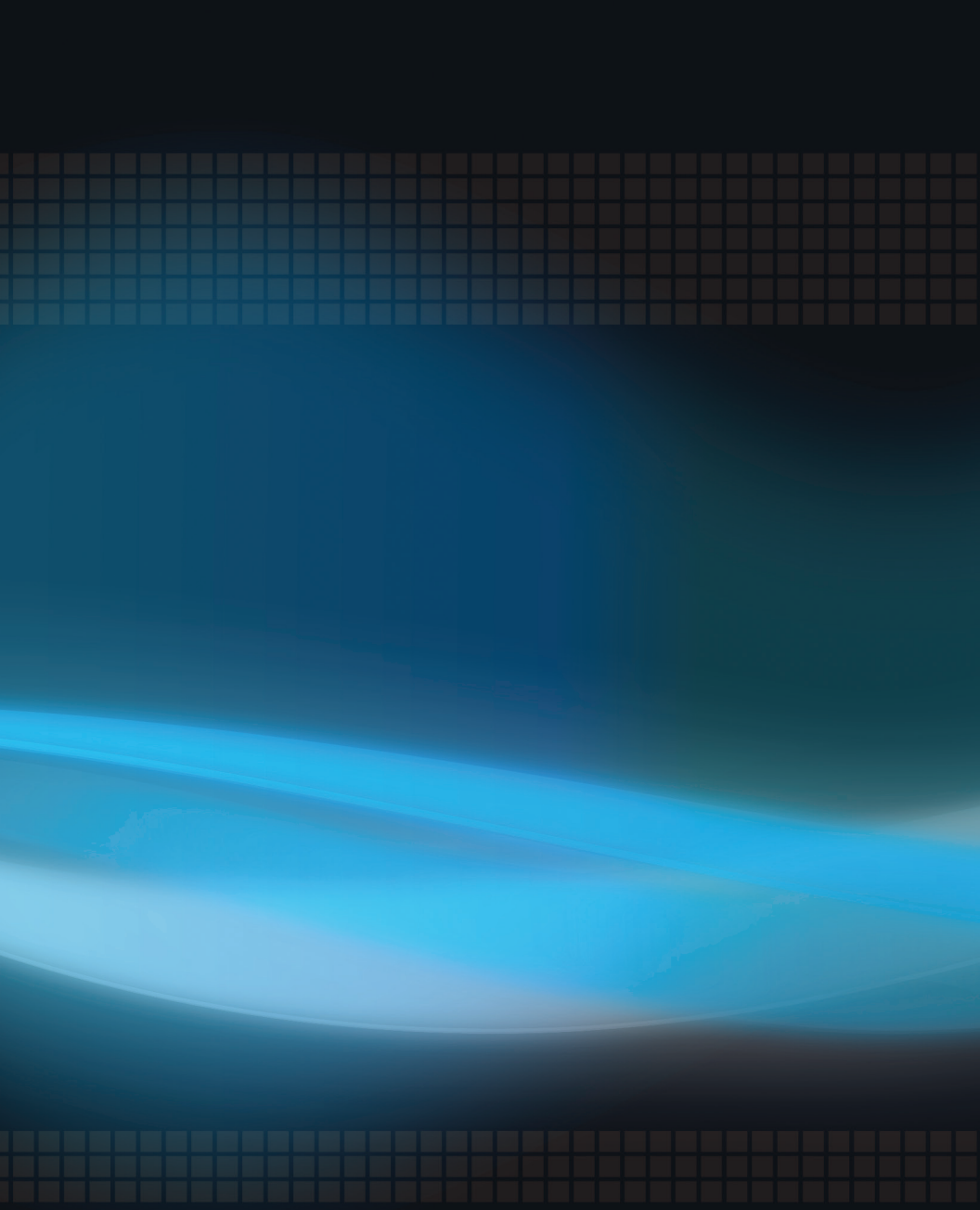
All active electronic products are 100% inspected and tested to insure highest product quality and trouble-free installation and operation. The testing process utilizes the types of high-definition sources and displays typically installed for entertainment and home theater applications.

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.



Vanco® International
506 Kingsland Drive
Batavia, Illinois 60510
call: 800.626.6445
fax: 630.879.9189
visit: www.vanco1.com