



HDMI® over Single Coax Cable Extender

Vanco Part Number: 280567

Technical Support
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# 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

- 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.
- 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.

#### **FEATURES**

The Vanco 280567 HDMl over Single Coax Cable Extender with IR extends high definition video and audio signals and IR, at a distance of up to 100m/328ft over a single RG6 coax cable. With only one cost effective Coax cable, high definition sources with HDMl outputs can be connected to high definition displays with HDMl inputs over long distances. Deep color video, and HDCP is supported and compatible with the 280567. In addition, the 280567 is also equipped with wideband IR pass-through which allows for controlling the source at the display location.

The 280567 includes two units: transmitting unit (280567-TX) and receiving unit (280567-RX). The transmitting unit is used to capture the HDMI input with IR signals and carries the signals via one cost effective Coax cable. The receiving unit is responsible for equalizing the transmitted HDMI signal and reconstructing IR and serial control signals. The 280567 offers the most convenient solution for HDMI extension over a single coax with long distance capability, and is a great solution for any application which already has coax cables installed within the walls.

# HDMI® over Single Coax Cable Extender Part # 280567

- Allows HDMI Audio/Video and IR signals to be transmitted over a single coax cable
- Wideband IR system that allows for controlling the source at the display location (1 IR RX and 1 IR TX included)
- Transmission Range: Extends 1080p resolution up to 100m/328ft over a single RG6 Coax cable; Extends 1080p resolution up to 60m/196ft over a single RG59 Coax cable
- Works with HDMI and HDCP compliant devices
- Supports up to 1080p High Definition resolution
- Compact design for an easy and flexible installation
- Power Supply: DC 5V
- Dimensions: 3.2" W x .98" H x 1.6" D



# **SPECIFICATIONS**

HDCP Compliance	. Yes
Video Bandwidth	. Single-link 225Mhz [3Gbps]
Video Support	. 720p/1080i/1080p @60
Audio Support	. PCM (up to 7.1 ch) 48KHz
Transmission Range	. HD [1080p 36-bit color] – up to 100m [328ft]
HDMI Equalization	. Auto
Input TMDS Signal	. 3.3 volts
Input DDC Signal	. 5.0 volts/P-P
ESD Protection: Human Body model	. +/- 8 kV (air-gap discharge)
+/- 4 kV (contact discharge)	
PCB stack-up	. 4 layouts
Input	. (TX) 1xHDMI; (RX) 1xBNC + 1x3.5mm
Output	. (TX) 1xBNC + 1x3.5mm; (RX) 1xHDMI
HDMI connector	. Type A 19 pin female
BNC connector	. BNC Jack
3.5mm connector	. (TX and RX) IR Receiver/IR Blaster
MECHANICAL SPECS	
Housing	. Metal enclosure
Power Supply	. (2) 5V1A DC
Power consumption	. 2 watts
Operation temperature	. 32~104 °F
Storage temperature	4 ~140 °F
Relative humidity	. 20~90 % RH (no condensation)

## PACKAGE CONTENTS

Before attempting to use this unit, please check the packaging and make sure the following items are contained in the shipping carton:

- (1) 280567 [TX & RX]
- (1) IR Blaster (TX)
- (1) IR Receiver (RX)
- (2) DC 5V in line power supply
- (1) Rack-mounting ear set or adhesive for mounting
- (1) User Manual

### PANEL DESCRIPTIONS

#### Transmitting Unit



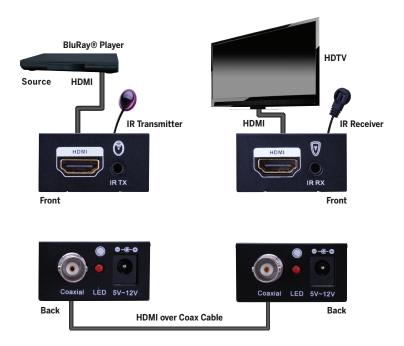
Receiving Unit



- 1. HDMI: Connect the HDMI source with an HDMI cable.
- 2. IR TX: Connect included IR TX blaster and assign to corresponding source for source control
- 3. Coaxial: Connect the coaxial cable to the HDMI Receiver
- 4. POWER LED: This red LED illuminates when the device is connected to the power supply
- 5. DC IN: Plug the 5V-12V DC power supply into the unit
- 6. Coaxial: Connect to the HDMI Transmitter with coaxial cable
- 7. POWER LED: This red LED illuminate when the device is connected with power supply
- 8. DC IN: Plug the 5V-12V DC power supply into the unit
- 9. HDMI OUT: Connect the HDMI display with an HDMI cable
- 10. IR RX: Connect included IR RX receiver to control source at the display



### CONNECT AND OPERATE



- Connect a source such as a Blu-Ray Player, game console, AV Receiver, Cable or Satellite Receiver, etc. to the HDMI input on the Transmitting unit.
- 2. Connect a display such as an HDTV or HD Projector to the HDMI output on the Receiving unit.
- 3. Connect a single RG6 coax up to 100m/328ft or a single RG59 up to 60m/196ft to the output of the Transmitting unit, and the other end to the input of the Receiving unit.
- 4. For power, plug into both the Transmitting unit and Receiving unit with the included power supplies.
- 5. Power on each device in the same sequence (receiver and transmitter will already be powered when either unit is plugged in

At this point the display connected should display the source signal connected to the extender set. If no signal is being displayed, connect a shorter Coax cable (jumper or patch cable). A 24 Hz vertical refresh rate may work better than 60 Hz or higher. Use the source remote at the receiver emitter to test IR functionality. If the IR remote function is not responding, check the emitters to ensure they are placed correctly and are plugged into the correct IR lacks on the Extender set of the receiving and transmitting units.

#### IR





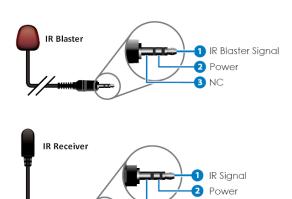


#### IR BLASTER (TX)

Plug IR Blaster into IR TX port of transmitter unit (280567-TX); place blaster in front of the IR eye of the source.

#### IR RECEIVER (RX)

Plug IR Receiver into IR RX port of receiver unit (280567-RX); place receiver at or near display.





#### NOTICE

- 1. Vanco HDMI and Coax cables are strongly recommended for use with this product to ensure best results.
- 2. Incorrect placement of IR Blaster and Receiver may result in the failure of the IR extenders. Please check carefully before plugging in the IR extender to the respective IR sockets.
- 3. The transmission length is largely affected by the type of Coax cables utilized, the type of HDMI sources, and the type of HDMI display.
- 4. The quality of Coax cables can have a major effect on how long the transmission limit can achieve and quality of picture, the actual transmission range is subject to the Coax cable utilized. For the best results, RG6 is recommended. Use only high quality crimp-on BNC connectors Do not use Type N to BNC Adapters.
- 5. If your HDMI display has multiple HDMI inputs, it is found that the first HDMI input [HDMI input #1] generally can produce better transmission performance among all HDMI inputs.

#### TROUBLE-SHOOTING

- Best results are usually achieved when the source and display resolutions are the same. If resolutions
  differ, the extenders will try to adjust the signal to match the resolution of the HDTV with the lowest
  resolution. This will result in a picture with a lower resolution on the other HDTV sets.
- If you do not get audio and video, access the "setup" menu on the TV to adjust the audio and video settings. If the HDMI control circuit cannot establish a handshake, then there usually will be no audio or video in addition to a blue or black screen with a statement similar to "this protocol not supported" or "weak signal".
- If the above mentioned messages display, reset the receiver by disconnecting the power supply. You can also disconnect all of the HDMI and power cables, wait 15 minutes for any voltages to decay and then reconnect all of the cables.
- 4. If you are still encountering issues, attempt the "hot-plug concept. With all of the HDMl cables disconnected, turn on the source and plug in the HDMl cable into it's output, then power up the Vanco unit and plug the HDMl cable into it's input, finally turn on the display and plug the HDMl cable from the receiver into it. This activates all of the devices in corresponding order and results in a signal being plugged into a device that is on and will attempt to connect the signal.
- 5. Most of the major source and display manufacturers employ a proprietary control channel to communicate between devices from the same manufacturer. Sometimes this can interfere with the HDMI control circuit or the authentication of the signal. Call the manufacturer if you experience this issue. Sometimes a player, an audio/video receiver, or a cable/satellite box may not have the latest software update, usually this can be downloaded from the manufacturer's website.
- 6. If you have problems with the IR control circuit, make sure that the IR RX pigtail is plugged into extender receiver and pointed at the display, and the IR TX pigtail is attached to the extender sender and pointed at the source

#### SAFETY AND NOTICE

The 280567 has been tested for conformance to safety regulations and requirements, and has been certified for international use. However, like all electronic equipments, the 280567 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.

#### 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.

### 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 troublefree 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, glossary of terms, etc. please visit vanco1.com

# Vanco® International

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