



HDMI® Audio & Video Scaler

Vanco Part Number:
280563

Technical Support

www.vanco1.com • techsupport@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.

FEATURES

This HDMI & Audio Scaler and Converter offers an easy and instant approach for converting digital HDMI to digital video (DVI-D) with either digital audio (S/PDIF) or analog stereo audio. With this module, HDMI based devices such as Blu-ray Disc players, PS3, DVD players, camcorders, or set-top boxes can readily connect to your PC LCD and PC speakers. This device also enables users to connect full digital video and audio to DVI enabled monitor and S/PDIF equipped audio receiver and amplifier, and make the highest compatibility to your home theater devices.

HDMI & Audio Scaler and Converter

Part # 280563

- HDMI Resolution Scaler with Audio Embedding/ De-embedding and Video Calibration
- Embeds an analog or digital audio signal onto the HDMI Output to combine Video and Audio sources onto a single display
- Allows for up to 50 different resolutions from an HDMI source to be scaled to 720P or 1080P
- De-embeds an analog or digital audio signal from the HDMI Input to connect to an external audio receiver or amplifier
- HDMI 1.3a compliant and DVI 1.0 compliant
- IR remote control, Remote control via mini-USB
- OSD control interface
- Maximum pixel rate : 165MHz
- Deinterlacer supported
- Supports noise reduction and video enhancement features
- Video enhancement support and calibration
- Over / Under scanning adjustable
- Video H/V mirror supported
- Active video area adjustment supported
- USB firmware upgradable for expanding compatibility
- Wall-mount housing design for easy installation

SPECIFICATIONS

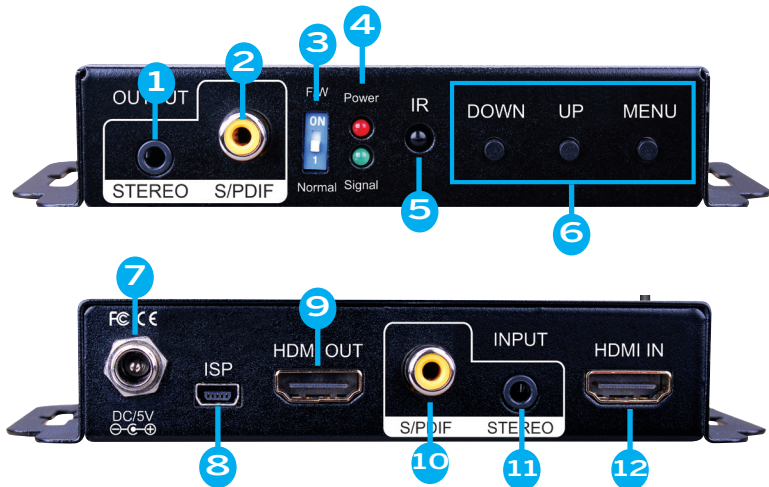
Role of usage.....	HDMI to HDMI Converter
HDMI compliance.....	HDMI 1.3a
Input Video Frequency bandwidth.....	225 MHz
Output Video Frequency bandwidth.....	165MHz
Audio support.....	Stereo PCM (48KHz)
ESD protection.....	[1] Human body model — $\pm 19\text{kV}$ [air-gap discharge] & $\pm 12\text{kV}$ [contact discharge]
[2] Core chipset —	$\pm 2\text{kV}$
PCB stack-up.....	4-layer board [impedance control — differential 100; single 50]
Firmware update.....	Feasible via USB Port
CEC Channel.....	N/A
Input.....	1x HDMI + 1x3.5mm(Stereo) + 1xRCA(S/PDIF)
Output.....	1x HDMI + 1x3.5mm(Stereo) + 1xRCA(S/PDIF)
HDMI connector.....	Type A [19-pin female]
BNC connector.....	1.5G 75 Ω inter-locked socket
USB connector.....	Mini B

PACKAGE CONTENTS

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

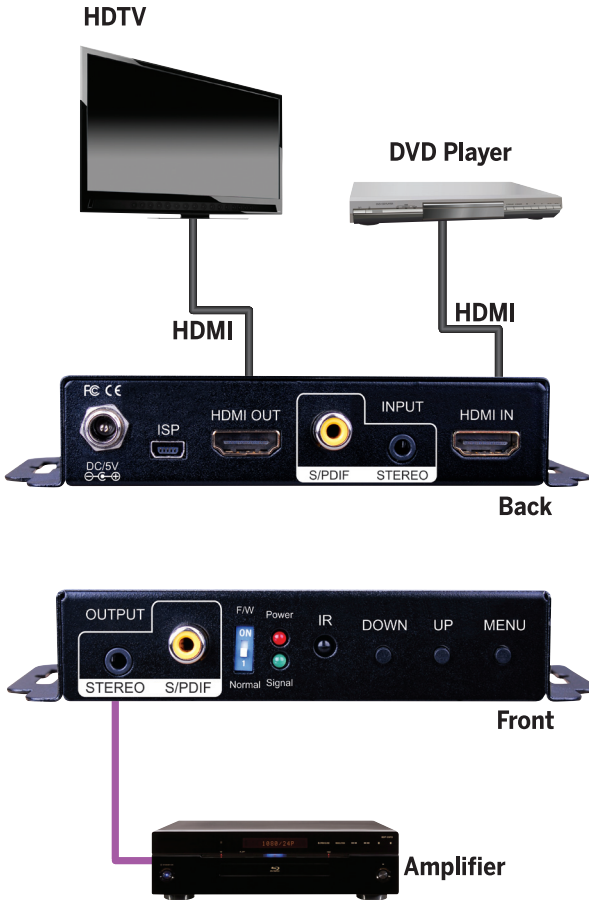
- Part # 280563 HDMI & Audio Scaler and Converter
- 5V/2A power supply unit
- Installation software CD
- Product Manual

PANEL DISCRIPTIONS



1. STEREO AUDIO OUT: connect to analog stereo audio component
2. S/PDIF AUDIO OUT: connect to digital S/PDIF audio component
3. DIP SWITCH: For firmware update:
ON (switch pointing up) firmware update mode
OFF (switch pointing down) normal mode
4. LED INDICATOR: (green): signal indicator LED (red): power indicator LED.
5. IR SENSOR: IR sensor for receiving the IR commands from IR remote
6. PUSH BUTTON: (LEFT): Down Button, (MID): Up Button, (RIGHT): Menu/Enter Button
7. +5V DC: Interlocking power jack for 5V DC power supply unit
8. Mini USB: for F/W update
9. HDMI OUT: connect to a HDMI display or HDMI input
10. S/PDIF AUDIO IN: connect from a digital S/PDIF audio source
11. STEREO AUDIO IN: connect from an analog stereo audio source
12. HDMI IN: Connect to a HDMI source

CONNECT AND OPERATE



1. Connect a source such as a Blu-Ray player, game console, Cable/Satellite receiver, etc. to the HDMI input.
2. Connect either a SPDIF digital coaxial audio cable or 3.5mm analog stereo cable from the source device to the SPDIF or Stereo Input ports on the unit. (OPTIONAL)
3. Connect a display such as an HDTV or Projector to the HDMI output.
4. Connect either a SPDIF digital coaxial audio cable or 3.5mm analog stereo cable from the device to the SPDIF or Stereo Input ports on an A/V receiver or distributed audio system as seen above.. (OPTIONAL)
5. Insert the 5v power supply provided with the unit and power on the connected devices.
6. Using the manual buttons, IR remote, or software modify audio/video settings

OSD MENU

1. Output Setup	Out Res.	
	Output Mode	RGB, YCbCr444, YCbCr422
	Default Pattern	Disable, White, Cross, Hatch, Color, Gray, Windows, H-Ramp, W-HRamp, W-VRamp, Diagonal
	Audio Source	Stereo, SPDIF
2. Image	Contrast	0~255 of Contrast Level
	Brightness	0~255 of Brightness Level
	Saturation	0~255 of Saturation Level
	Hue	0~255 of Hue Level
	B/W Extension	Off, On
	Color Tone	Off, Skin, Green
	Edge Enhance	Typ, Mid, Max, Off
3. Adjustment	Sharpness	0~127 of Sharpness Level
	Under/Over Scan	-50%~50% of Scan Level
	Aspect Ratio	16:9, 4:3
	H-Mirror	Off, On
	V-Mirror	Off, On
	H-Shift	-100~100 of H-Shift Level
4. System	V-Shift	-50~50 of V-Shift Level
	Input Res. Info	
	Firmware Version	

CONTROL

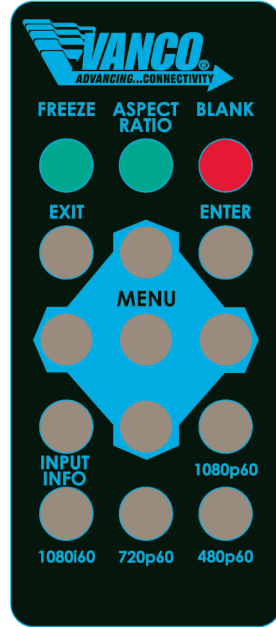
Method A: Push-in Button



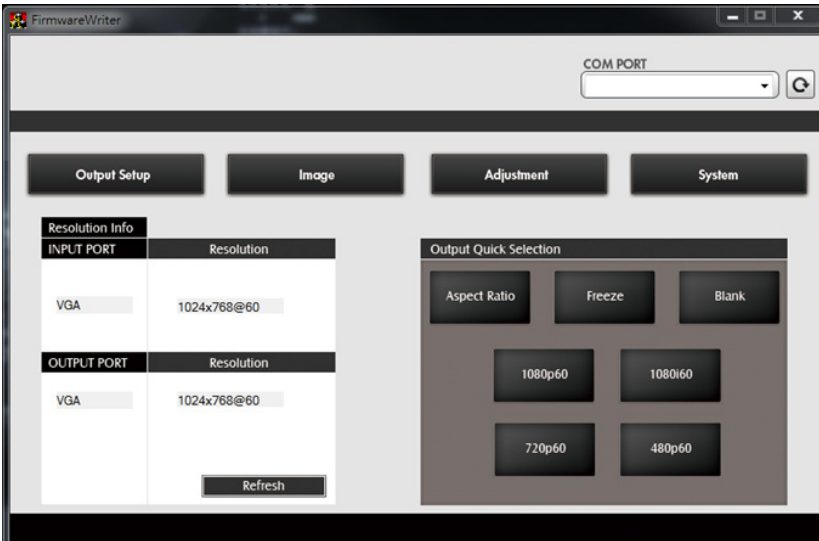
CONTROL CONTINUED

Method B: IR Remote Control

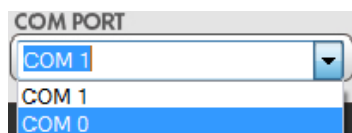
Button	Function
FREEZE	Freeze video
ASPECT RATIO	Aspect ratio change
BLANK	Blank video
EXIT	Exit OSD
ENTER	Enter key
UP	Up key
LEFT	Left key
RIGHT	Right key
DOWN	Down key
MENU	Menu on
INPUT INFO	Source resolution information
1080p60	Select 1080p60 output resolution
1080i60	Select 1080i60 output resolution
720p60	Select 720p60 output resolution
480p60	Select 480p60 output resolution



Method C: IR Remote Control through Mini-USB port



1. COM Port Selection - Please select the application



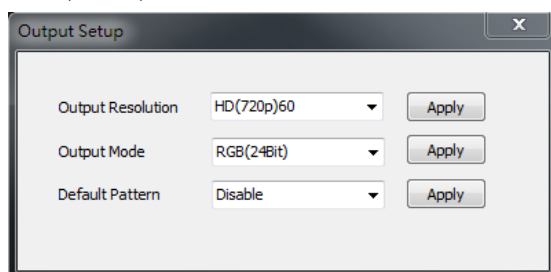
1	COM Port Selection
2	COM Port Detection Button
3	Output Setup Button
4	Image Button
5	Adjustment Button
6	System Button
7	Input / Output Resolution Info
8	Refresh Input / Output Resolution Info Button
9	Output Quick Selection Button

2. COM PORTCOM Port Detection Button

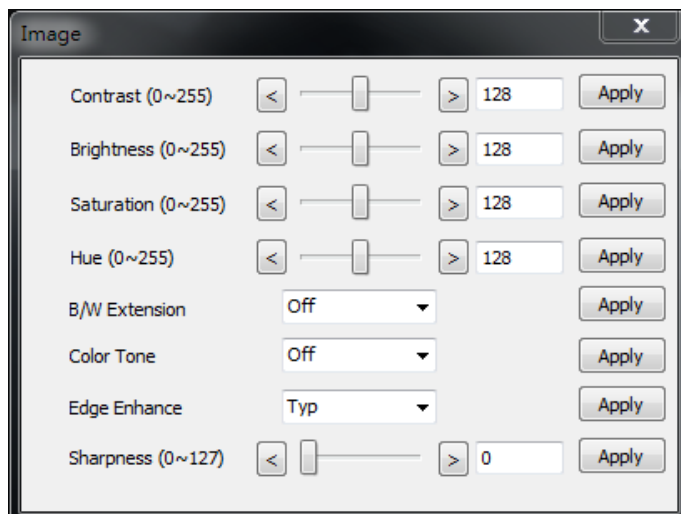


Click this button to detect the COM PORT

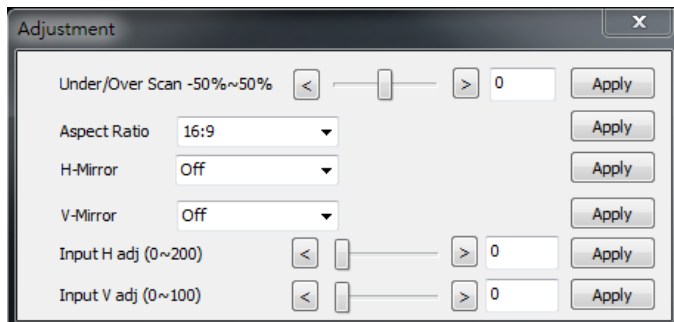
3. Output Setup Button



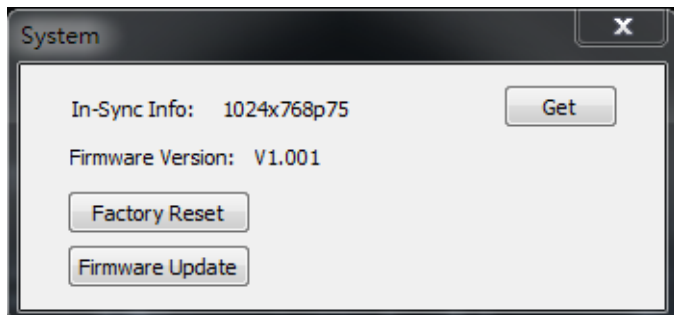
4. Image Button



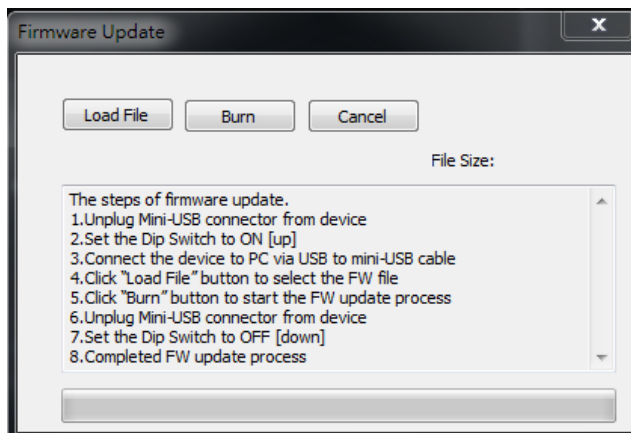
5. Adjustment Button



6. System Button



1. In-Sync Info: To view the current input resolution
2. Factory Reset Button
3. Firmware Update Button



The steps of firmware update:

1. Unplug Mini-USB connector from device
2. Set the Dip Switch to ON
3. Connect the device to PC via USB to mini-USB cable
4. Click the FW Update button on software
5. Click "Load File" button to select the FW file
6. Click "Burn" button to start the FW update process
7. Unplug Mini-USB connector from device
8. Set the Dip Switch to OFF
9. Completed FW update process

7. I/O Port and Resolution Info

To display the information about the I/O Port and the applied Resolution

8. Refresh Button

To refresh the status of the converter

9. Output Quick Selection Button

Common functions for quick setting

TROUBLE-SHOOTING

1. 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.
2. 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".
3. 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 HDMI cables disconnected, turn on the source and plug in the HDMI cable into it's output, then power up the Vanco unit and plug the HDMI cable into it's input, finally turn on the display and plug the HDMI 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 280563 has been tested for conformance to safety regulations and requirements, and has been certified for international use. However, like all electronic equipments, the 280563 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.

NOTICE

1. Vanco High Speed HDMI 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 unit. Please check carefully before plugging in the IR accessories into the respective IR sockets.
3. If your HDMI display has multiple HDMI inputs, it is found that the first HDMI input (HDMIinput #1) generally can produce better transmission performance among all HDMI inputs.

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

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.

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