



Helping you achieve your installation needs!

Direct Connect®

is one of the largest manufacturers of products specifically for the custom installation of audio, video, security, telecom and data networking industry.

Our extensive product line

offers items in the categories of bulk wire and cable, connectors, installation hardware, interconnect cables, distribution panels, a/v transceivers, cameras, media servers, baluns, mounts, tools and wall plates—virtually everything a custom installer needs!

Since 1996, DirectConnect®

has offered unique products that provide solutions to everyday installation headaches. How do we come up with these ideas? By listening to you, the professional, who battles in the field and is looking for someone on the front line he can rely on.

The Finest Name in Audio/Video Products and Accessories



DirectConnect®

Houston, Texas 77027

Phone 800.531.3224

Would it make your day to know that someone is waiting to hear from you?

We are. Your DirectConnect® representative is ready to take your call.

Or if you prefer, contact us online at ...

<http://www.directconnecthome.com>

VGA to HDMI™ Converter



DCCVTVGASA-H .18222

VGA TO HDMI™ CONVERTER

USER MANUAL



DirectConnect® has been working on solutions for custom installers / system integrators who need to connect older analog devices to be integrated seamlessly into modern Home Theater. This high-performance DirectConnect®

VGA to HDMI™ Converter converts VGA along with right and left audio inputs into HDMI™ allowing the end user to enjoy larger images on HDTV monitors.

This solution takes any VGA plus stereo audio (L&R) and encodes it onto the HDMI™ signal for the full HDMI™ digital and audio experience so that the legacy home theater devices can be easily connected to any HDMI™ display.

The use of this VGA to HDMI™ offers unlimited solutions for multiple HDTV display devices in digital entertainment centers, retail and show environments such as electronics stores, shopping malls, bars and restaurants, beauty salons, trade show sites, conference rooms, schools, and corporate training venues.

- Plug and play: Installs in seconds, no extensive configuring required
- Conversion: Converts PC's VGA video and R/L audio into complete HDMI™.
- Supports highest video resolution 1280x1024
- Video amplifier bandwidth: 165MHz/1.65Gbps per channel (4.95Gbps all channel)
- Supports 8-bit per channel (24bit all channel) deep color
- Supports highest video resolution 1080P, HDMI™ 1.2a. and IEEE-568B standard
- Supports uncompressed 2 channel audio such as LPCM
- HDMI™ compliance and HDCP pass-through

IMPORTANT: If you do not understand correct installation instructions, please consult your installation specialist.

Thank you for choosing DirectConnect® Products

Dear Customer

Thank you for purchasing this DirectConnect® 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.

Table of Content

1.0 Specifications	3
2.0 Features	4
2.1 Analog Video Input Front End Interface.....	4
3.0 Package Contents.....	4
4.0 Connect and Operate.....	5
4.1 Panel Descriptions.....	5
4.2 Connection Diagram	5
4.3 Connection Diagram	5
5.0 Troubleshooting.....	6
5.1 Non-HDCP Compliant Devices	6
6.0 Limited Warranty.....	7

Liability Statement

1. *Every effort has been made to ensure that this product is free of defects. DirectConnect® 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 of the hardware to check that it is suitable for his/her requirements and that it is installed correctly. All rights 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.*
2. *DirectConnect® 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.*
3. *All third-party trademarks and copyrights are recognized.*

IMPORTANT: If you do not understand correct installation instructions, please consult your installation specialist

* DirectConnect® is a registered trademark.

*HDMI™ is a registered trademark

*UL® is as registered trademark of Underwriters Laboratories.

6.0 LIMITED WARRANTY

Should any consumer product from DirectConnect® fail due to defects in materials or workmanship within two years from the date of the original sale to the end-user, DirectConnect® guarantees replacement of the defective product at no cost. Freight charges for the replacement unit will be paid by the customer. A copy of the invoice showing the item number and date of purchase (proof-of-purchase) must be submitted with the defective unit to constitute a valid in-warranty claim.

Units that fail after the warranty period has expired may be returned to the factory for repair at a nominal charge, if not damaged beyond the point of repair. All freight charges for out-of-warranty returns for repair are the responsibility of the customer. Units returned for repair must have a Return Authorization Number assigned by DirectConnect®.

This is a limited warranty and is not applicable for products which, in our opinion, have been damaged, altered, abused, misused, or improperly installed. DirectConnect® makes no other warranties either expressed or implied, including limitation warranties as to merchantability or fitness for a particular purpose. Additionally, there are no allowances or credits available for service work or installation performed in the field by the end user.



Thank you for choosing DirectConnect® products

IMPORTANT: If you do not understand correct installation instructions, please consult your installation specialist

* HDMI™ is a registered trademark.

* DirectConnect® is a registered trademark.

*DPL Rating™ is a registered trademark.

*UL® is as registered trademark of Underwriters Laboratories.

2.0 FEATURES

This high-performance DirectConnect® VGA to HDMI™ Converter has many benefits and features that enable it to perform in a superior manner. Among those benefits and features you will find:

- Easy to Use: Install in seconds with no extensive configuring
- Supports HDTV resolution up to 1080p, HDMI™ compliant, and HDCP pass-through
- This adapter connects any VGA devices to HDMI™ compliant devices and HDTV digital monitors.
- This adapter also takes digital audio and encodes it onto the HDMI™ signal for the full HDMI™ video and audio effect.
- Converts any PC's VGA video plus right and left stereo audio into complete HDMI™
- Plug and play: Installs in seconds, no extensive configuring required

2.1 ANALOG VIDEO INPUT FRONT END INTERFACE

- Compatible w/ VGA through SXGA RGB graphics signal /Input video mode status detection
- Hot Plug detection/Input video mode status detection/TMDS Clock Channel Plug detections
- HDCP 1.1/1.0, DVI 1.0, and HDMI™ compliant /Digital Video Input Front End Interface
- Triple ADC w/12-140MHz Sampling Rate and Inverse Gamma Correcting (De-Gamma)
- Supports video optional formats: EIA/CEA-861-B, IRGB 444, 8/10/12bits/channel, & 1/3 channel
- TMDS data link up to 20 G-bit/s each Channel including 3 data channel and 1 clock channel
- Horizontal Sync (HS) generator /Vertical Sync (VS) generator/Data Enable (DE) generator
- Fully Sync Processing & Multi-format digital input up to 200M Pixel/sec/Analog TMDS Interface
- Mid-Scale Clamping & Black/mid-level precision clamp and calibration
- Integrated line locked PLL generates pixel clock from HSYNC, 5-bit pixel clock phase adjustment for precise sample timing, clamp with timing generator (plus Brightness /Contrast), & precision voltage reference/ Digital Data Link Engine/ Video data input pins re-order function

3.0 PACKAGE CONTENTS

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

- DirectConnect® VGA to HDMI™ Converter
- 5 Volt DC Power Adapters
- User's Manual

Note: Please retain the original packing material in case you need to return the unit. If you find any items missing, contact DirectConnect® immediately (800.531.3224). Please have the model number, serial number, and invoice available for reference when you call.

4.0 CONNECTION AND OPERATUION

Before installation, please make sure all devices you wish to connect have been turned off.

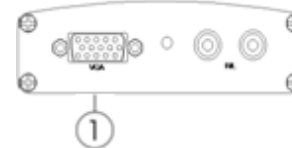
- 1) Connect the VGA video and right & left audio from computer (speakers if necessary) to this product. (Input cables are optional – VGA cable resolution must match devices)
* Please refer to connection diagram section below
- 2) Connect HDMI™ output from this product to the TV which has HDMI™ input.
- 3) Insert DC side of 5v power supply into this product and then connect the AC side of the power supply into the wall outlet (ideally the AC power should be surge suppressed and filtered).
- 4) Power on the computer and TV, choose the input of TV to its HDMI™ channel.
- 5) The image does not need to be adjusted. This Converter will position it automatically.

Attention: Insert/Remove cables gently & avoid twisting/kinking your HDMI™ cables.

4.1 PANEL DESCRIPTIONS

Please study the panel drawings below and become familiar with the signal input(s), output(s) and power requirements. Apply AC power via 5 volt power supply last.

VGA to HDMI™ Converter



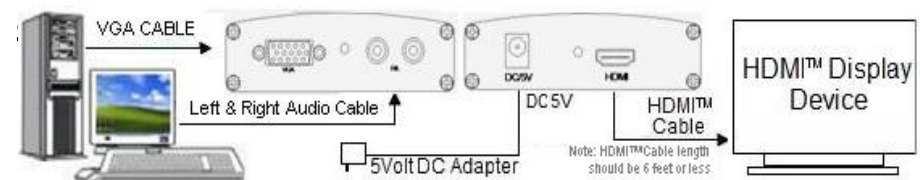
1 – VGA video & Audio from PC

Please Note: HDMI™ Cable length should be 6 feet or less



2 - HDMI™ Output to TV

3 – DC Input Power



5.0 TROUBLESHOOTING

If this DirectConnect® product does not appear to be functioning, please make certain that the source and the destination device connected to the unit are functioning correctly. If other problems exist please check the conditions below carefully.

In the event of problems, first make certain VGA cable is the correct resolution, same as monitor and source. Next, make certain that the HDMI™ Converter is receiving power.

If all is well in these areas, remember that HDMI™ devices communicate with one another so the source devices and destination device must be fully HDMI™ capable. If you experience problems using the HDMI™ Converter, you should attempt to determine what is wrong by attaching each of the source devices – one at a time – directly to the destination device using the same cables you are using with the expanded system. This is a way of determining if the problem is due to bad cables or a problem with the other devices. If you are unable to obtain a signal using this simplified path, double check the cables, the source device(s) and/or the destination device.

CONDITION	POSSIBLE SOLUTIONS
No display image/LED light on VGA to HDMI Converter is OFF	Is the power adapter connected? If a power strip is used, is the ON/OFF switch set to "ON" position?
No display image/LED light ON Converter are ON	Is the display unit turned on and set to the correct input? Are your HDMI™ cables damaged? Is your VGA cable the correct resolution? Please refer to the connection diagram.
Image without sound Note: Units connected with a DVI adapter will not have sound – DVI is a video-only connection Standard – separate R/L audio cables must be used.	1- Check the display unit's volume 2- Check that the R/L audio cables are connected to Converter 3- Turn off the PC source and power on again. If there is still no sound, then: 4- Unplug the power adapter on the Converter unit for 10 seconds and then plug in again. 5- Repeat step 3 again if still not working. Note: Some devices not HDMI™ certified may have compatibility problems.
Poor picture quality (snow, sparkles, banding, etc)	Examine the HDMI™ cable and replace with new cables if possible. HDMI™ cables with matching VGA resolutions (as PC and monitor) perform better. To ensure that the converter is operating correctly, test with the shortest HDMI™ cable possible. Longer or inferior/ damaged cables will compromise image quality.

DO NOT open the HDMI™ converter box. There are no user repairable parts inside. Once opened, DirectConnect® is not responsible. For other problems, please contact DirectConnect® at 800.531.3224. <http://www.directconnecthome.com>

5.1 NON-HDCP-COMPLIANT DEVICES

If a DVI device does not appear to work, make certain that the device is HDCP-compliant. A non-HDCP-compliant DVI device will not work with a signal that has HDCP encoding present.

Notice: DirectConnect® reserves the right to make changes in the hardware, packaging and/or any accompanying documentation without prior written notice.

1.0 SPECIFICATIONS



Signal Inputs/Output	
Input Video Signal	0.5-1.0 volts p-p
Input DDC Signal	5 volts p-p (TTL)
Output Video	HDMI™ + HDCP1.0/1.1
Video format supported	
VGA Resolution	640x480 60Hz 75Hz, 800x600 60Hz 75Hz 1024x768 60Hz 75Hz, 1280x720 60Hz 75Hz 1280x768 60Hz 75Hz, 1280x960 60Hz 75Hz 1280x1024 60Hz 75Hz
DTV/HDTV	480i/576i/480p/576p/720p/1080i/1080P
Digital Signal I/O	
HDMI™ Compliance	Yes - Standard
Operating Frequency	
Frequency	Up to 165MHz
Vertical Frequency Range	50/60Hz
Video Amplifier Bandwidth	1.65Gpbs/165MHz
Resolutions (HDTV)	
Interlaced(50&60Hz)	480i,576i,1080i
Progressive(50&60Hz)	480p,576p,720p,1080p
Mechanical	
Size(H-W-D)	1.77" x "0.98 x 3.19" (89 x 29 x 68mm)
Weight(Net)	24 oz. (0.68kgs)
Warranty	
Limited Warranty	2 Year Parts and Labor
Environmental	
Operating Temperature	32°F - 158°F (-0°C + 70°C)
Operating Humidity	10% to 85 % RH (no condensation)
Storage Temperature	14°F - 176°F (-10°C + 80°C)
Storage Humidity	5% to 90% RH (no condensation)
Power Requirement	
5 Volt DC Power Adapter	5V DC@1A Power Consumption: 5 Watts maximum
Accessories	
5 Volt DC Power Adapter UL,CE, & FCC	100-240v, 50-60Hz to 5.0vdc, 1000mA
User Manual	English Version

Note: Specifications are subject to change without notice