

## Welcome!

We greatly appreciate your purchase of the VP500-101 HDMI to VGA Converter. We are sure you will find it reliable and simple to use. Superior performance for the right price, backed by solid technical and customer support is what ALTINEX has to offer.

We are committed to providing our customers with Signal Management Solutions® to the most demanding audiovisual installations at competitive pricing and we welcome you to join the ranks of our many satisfied customers throughout the world.

## 1. Precautions and Safety Warnings

Please read this manual carefully before using your VP500-101. Keep this manual handy for future reference. These safety instructions are to ensure the long life of your VP500-101 and to prevent fire and shock hazards. Please read them carefully and heed all warnings.

### 1.1 General

- Qualified ALTINEX service personnel or their authorized representatives must perform all service.

### 1.2 Installation Precautions

- To prevent fire or shock, do not expose this unit to water or moisture. Do not place the VP500-101 in direct sunlight, near heaters or heat-radiating appliances, or near any liquid. Exposure to direct sunlight, smoke, or steam can harm internal components.
- Handle the switcher carefully. Dropping or jarring can cause damage.
- Do not pull any cables that are attached to the VP500-101.

## 2. Installation Procedures

Step 1. Remove the converter and all accessories from the shipping container.

NOTE: A typical setup may require video and audio adapter cables that are normally included with the purchase of the associated device: display, speakers, or amplifier. If needed, standard adapter cables can be purchased separately from ALTINEX:

Video: P/N CB412-003 VGA-to-VGA type cable (15-pin HD M-F)  
Audio: P/N CB445-006 Audio cable (3.5 mm M-M)

Step 2. A USB power cable is provided in the event the VGA source does not provide power or sufficient power for the converter. The external power is necessary when the source does not provide power or provides insufficient power to power the device.

Step 3. Connect the converter's output to the HDMI display. Use a short HDMI type cable is possible.

Step 4. Connect the converter's audio input to the audio output of the laptop or other source.

Step 5. Connect the source's VGA output to the input of the converter using the VGA cable provided. If the source is on and there is power on the VGA connector, the power LED on the top of the converter should be on and solid blue. This is typical for most VGA sources. After a few seconds, the VGA image appears on the HDMI display.

If the LED is off or the image is poor, it is necessary to use the external USB power cable provided. The USB power cable can be connected to the laptop or the display if the display has an unused USB port available. For example, some displays and TVs have multimedia USB ports to display photos directly from a USB drive.

Step 6. Hook & loop fastening tape is provided so the converter can be neatly attached to the back of the display and out of sight.

Step 7. Use the cable clamps provided to neatly route the cables and to provide strain relief.

Step 8. The VP500-101 Converter is now operational.

## 3. Limited Warranty/Return Policies

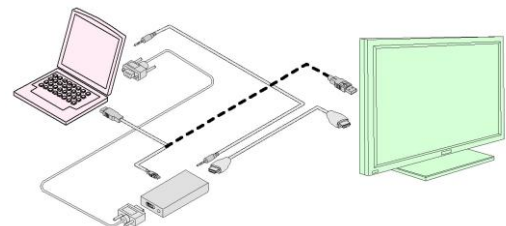
Please see the ALTINEX website at [www.altinex.com](http://www.altinex.com) for details on warranty and return policies.

## 1.3 Cleaning

- Clean only the connector area with a dry cloth. Never use strong detergents or solvents such as alcohol or thinner. Do not use a wet cloth or water to clean the card. Do not clean or touch any component or PCB.

## 1.4 FCC Notice

- This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
- This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions found herein, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.
- Any changes or modifications to the unit not expressly approved by ALTINEX, Inc. could void the user's authority to operate the equipment.



Note: If the display has an unused USB port, the VP500-101 can be powered from the USB port on the display as shown by the dashed connection.

## 4. Technical Specifications

Specifications are subject to change. See [www.altinex.com](http://www.altinex.com) for up-to-date information.

Features/Description	VP500-101
General	
Inputs	
Video Input	15-pin HD F (1)
Analog Audio	3.5 mm F (1)
Power	USB Mini Type-B F (1)
Outputs	
HDMI Video	HDMI Type-A F (1)
Compatibility	
Signal types	RGBHV
RGB resolutions	640x480@60Hz, 640x480@72Hz, 640x480@75Hz, 640x480@85Hz, 720x400@70Hz, 800x600@60Hz, 800x600@72Hz, 800x600@75Hz, 800x600@85Hz, 1024x768@60Hz, 1024x768@70Hz, 1024x768@75Hz, 1024x768@85Hz, 1152x864@75Hz, 1280x720@60Hz, 1280x768@60Hz, 1280x768@75Hz, 1280x768@85Hz 1280x800@60Hz, 1280x800@75Hz, 1280x800@85Hz, 1280x900@60Hz, 1280x1024@60Hz, 1280x1024@75Hz, 1360x768@60Hz, 1400x1050@60Hz, 1440x900@60Hz, 1600x1200@60Hz, 1680x1050@60Hz, 1920x1080@60Hz, 1920x1200@60Hz
Accessories Included	
USB Cable, M/M	Type-A to Mini Type-B
VGA Extension Cable, 15-pin HD M/F	CB412-003
Audio Cable, 3.5 mm M/M	CB445-006
Hardware	Cable clamps and hook & loop fasteners

Table 1. VP500-101 General

Mechanical	VP500-101
Material	Aluminum
Color	Black
Height	0.8 in (21 mm)
Width	2.8 in (71 mm)
Depth	1.8 in (46 mm)
Weight	0.2 lb (0.1 kg)
Shipping Weight (approximate)	0.9 lb (0.4 kg)
T° Operating	10°C to 35°C
T° Maximum	0°C to 50°C
Humidity	20-90% non-condensing
MTBF (calc.)	38,000 hrs

Table 2. VP500-101 Mechanical

Electrical	VP500-101
Input	
Analog Video (RGB)	1.0 Vp-p max.
Horiz. & Vert. Sync	TTL
Analog Audio	1.0 Vp-p max.
Output	
HDMI Video+Audio	HDMI Standard
Power	(from adapter or source)
+5 VDC (USB power)	400 mA, 2.0 W max. at 1920x1200

Table 3. VP500-101 Electrical

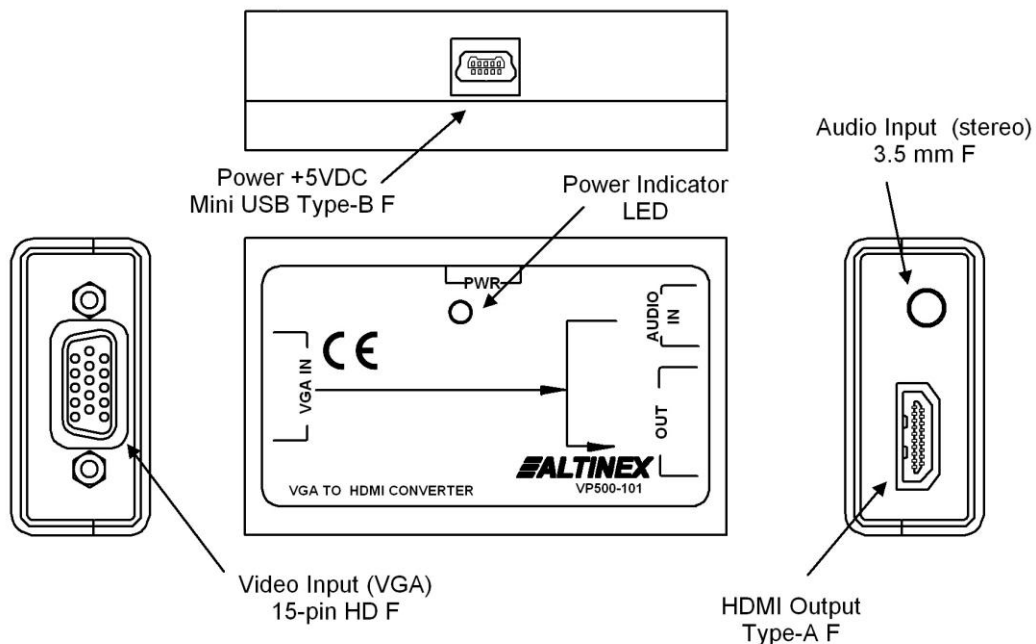
## 5. About Your VP500-101

- Connects directly to HDMI input on TV/monitor
- RGB resolutions up to 1920x1200/60Hz
- Analog stereo input converted to HDMI
- Compact form 2.8 in x 1.8 in x 0.8 in
- USB power cable included

The VP500-101 is a VGA to HDMI converter compliant with HDMI standards. The VGA input connector is a standard 15-pin HD M that connects directly to the output of the laptop, PC, or other VGA type generator. The video input supports resolutions up to 1920x1200/60Hz.

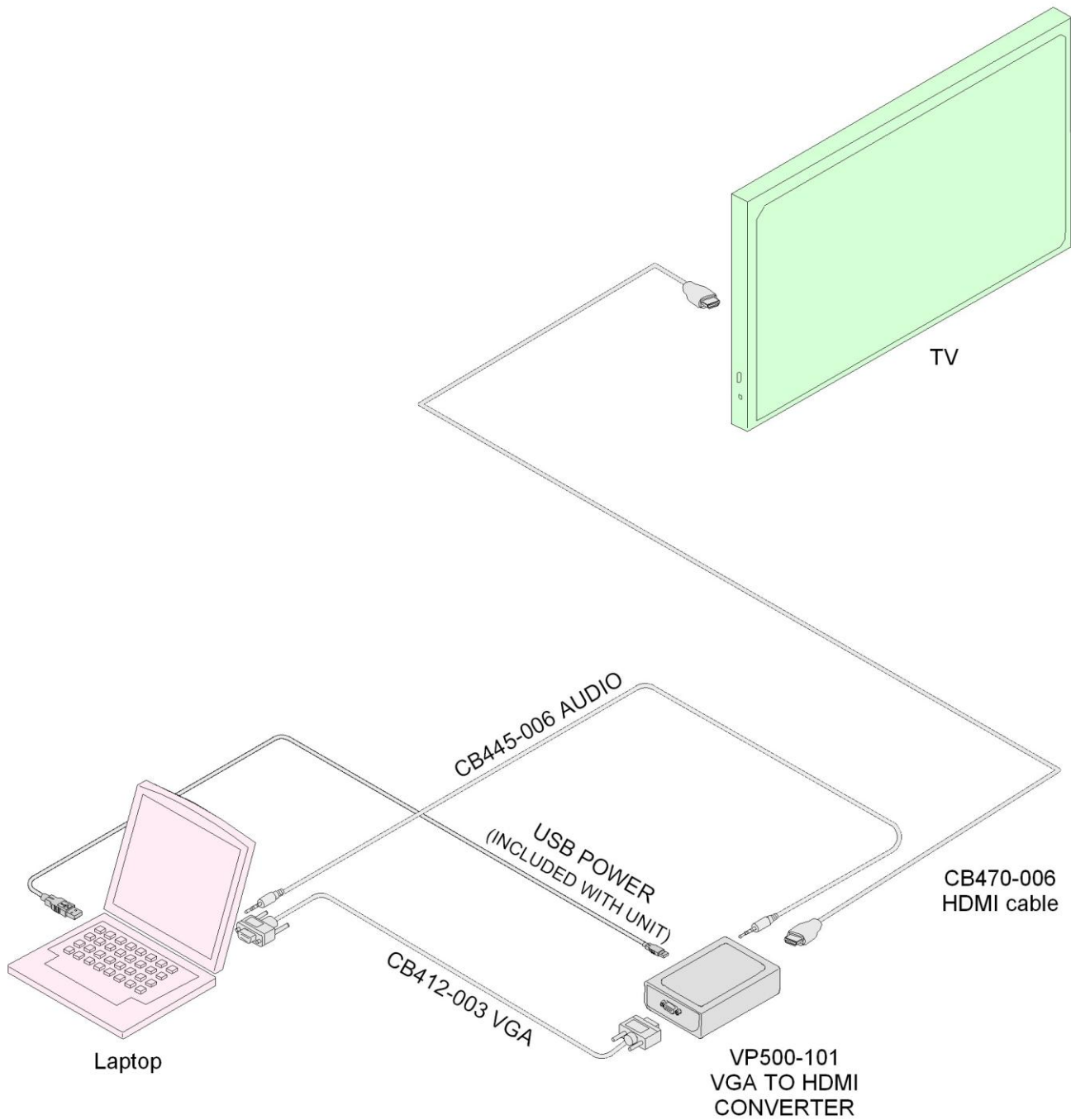
In addition to the VGA to HDMI video conversion, the VP500-101 also detects the audio from the analog source and converts it to digital format for output as part of the HDMI signal.

The VP500-101 is small and lightweight; it can easily be installed behind a display or connected directly to the display input. In most cases, the converter receives its power directly from the VGA source over the video cable. In the event the source does not supply power, or supplies insufficient power, a +5 VDC USB power cable is provided. The cable can be connected an unused USB connector on the laptop or PC. In the event the TV or display has a USB input connector, this USB input can be used to provide power to the VP500-101.



## 6. Application Diagrams

Diagram 1: Typical Setup



## 7. Operation

The VP500-101 requires no adjustments for optimal performance. Once set-up, the VP500-101 will work trouble-free without user intervention.

## 8. Troubleshooting Guide

We have carefully tested and have found no problems in the supplied VP500-101. However, we would like to offer suggestions for the following:

Converter	
Symptom	Resolution
Blue Power LED is OFF	1. There is not enough power or the source may not supply DC power. Connect the +5 VDC USB power cable provided with the unit to the VP500-101.
Blue Power LED is Blinking	1. The VP500-101 is receiving an HDMI signal but is not receiving sufficient power. Connect the +5 VDC USB power cable provided with the unit to the VP500-101.
No Display	1. Check the source and make sure there is a signal present. 2. Make sure the display has power and is turned on.
Poor Output Image	1. The source resolution may not be compatible with the display or other display device. Try other resolutions from the source. 2. There may be insufficient power to support the full resolution. Connect the +5 VDC USB power cable provided with the unit to the VP500-101.
No Sound	1. Make sure audio cable is connected between the source and VP500-101. The audio input is stereo analog and is located next to the HDMI connector. 2. Make sure the TV or other display device is not muted. 3. Check the volume level on the TV or other device. Set it to a reasonable level or about midrange.