

Welcome!

We greatly appreciate your purchase of the VP500-102 Scalar. 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 VP500-102. Keep this manual handy for future reference. These safety instructions are to ensure the long life of your VP500-102 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 VP500-102 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 unit carefully. Dropping or jarring can cause damage.
- Do not pull any cables that are attached to the VP500-102.

1.3 Cleaning

- Clean only with a dry cloth. Never use strong detergents or solvents such as alcohol or thinner. Do not use a wet cloth or water to.

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.

2. Installation Procedures

Note: Download and read the entire online manual for detailed specifications and instructions.

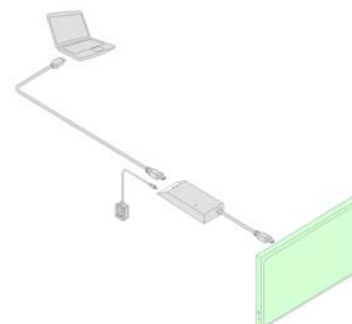
- Step 1. Remove all the accessories included with the VP500-102 universal scalar.
- Step 2. Select the AC plug adapter for your installation and snap into the power adapter. Plug in the power adapter and connect to the VP500-102; power LED turns ON.
- Step 3. Connect the output of the scalar to the display
- Step 4. Connect the cable from the source to the input of the scalar.
- Step 5. Set the scalar to a known starting resolution.
- Step 6. Use the MENU button and on-screen display to make further image property changes.

Menu Adjustments: Press MENU to view the on-screen menu.

Press again to move the highlighted property; selected value is highlighted.

The on-screen menu will timeout after a few seconds as well as converting to new highlighted property.

Note: If Info is selected, it will display latest firmware as well as input/output details.



3. Limited Warranty/Return Policies

Please see the ALTINEX website at www.altinex.com for details on warranty and return policies.

4. Technical Specifications

Specifications are subject to change. See www.altinex.com for up-to-date information.

Features/Description	VP500-102 Description
General	
Inputs	
Video Input	HDMI
Power, +5VDC	2.5 mm DC Jack
Outputs	
Video Output	HDMI
Compatibility	
Input Signal Types	See table on Page 7 for supported inputs
Output Resolutions	See table on Page 7 for supported outputs
Agency Approvals	
Power Supply	UL/CE/FCC
Scaler	CE/FCC
Accessories Included	
Power Adapter	+5 VDC, 1.2A

Table 1. VP500-102 General

Mechanical	VP500-102 Mechanical
Material/Color	Al/Black
Height	0.9 in (23 mm)
Width	2.7 in (68 mm)
Depth	6.0 in (152 mm)
Weight	0.66 lbs. (0.30 kg)
T° Operating	0°C-40°C
T° Maximum	75°C
Humidity	90% non-condensing
MTBF (calc.)	38,000 hrs

Table 2. VP500-102 Mechanical

Electrical	VP500-102 Electrical
Video Output Signals	
Signal Level	HDMI Standard
Power	(from adapter)
+5V	1.2 A max.
Total Power	7.5 W max.

Table 3. VP500-102 Electrical

5. About Your VP500-102

The VP500-102 Universal Digital Scalar is a HDMI to HDMI scalar designed to scale HDMI sources, either HD or PC resolution to an alternative HDMI resolution (HD or PC). The device is HDMI compliant and is perfect for the incorporation of sources where resolution and/or resolution type requires conversion. A simple on-screen display (OSD) allows the user to configure the device with simplicity.

- Convert and integrate HD resolution output to PC systems
- Convert and integrate PC resolution output to HD systems
- Downscale Full HD (1080p) resolution output for HD Ready displays
- Scale 24 fps Blu-ray input to standard 1080p

Features

- HDMI & HDCP compliant
- Upscale the video signal from an HDMI source up to 1080p@50/60
- Accepts a wide range of input resolutions of 480i to 1080p (HDTV) and VGA to WUXGA (PC)
- Supports audio sampling rate up to 192 kHz
- Motion adaptive 3D deinterlacing algorithm
- 3D noise reduction in both temporal and spatial domain
- Frame rate conversion
- Adaptive contrast enhancement
- Supports CEC bypass
- Native output resolution



6. Application Diagrams

Diagram 1: Typical Setup

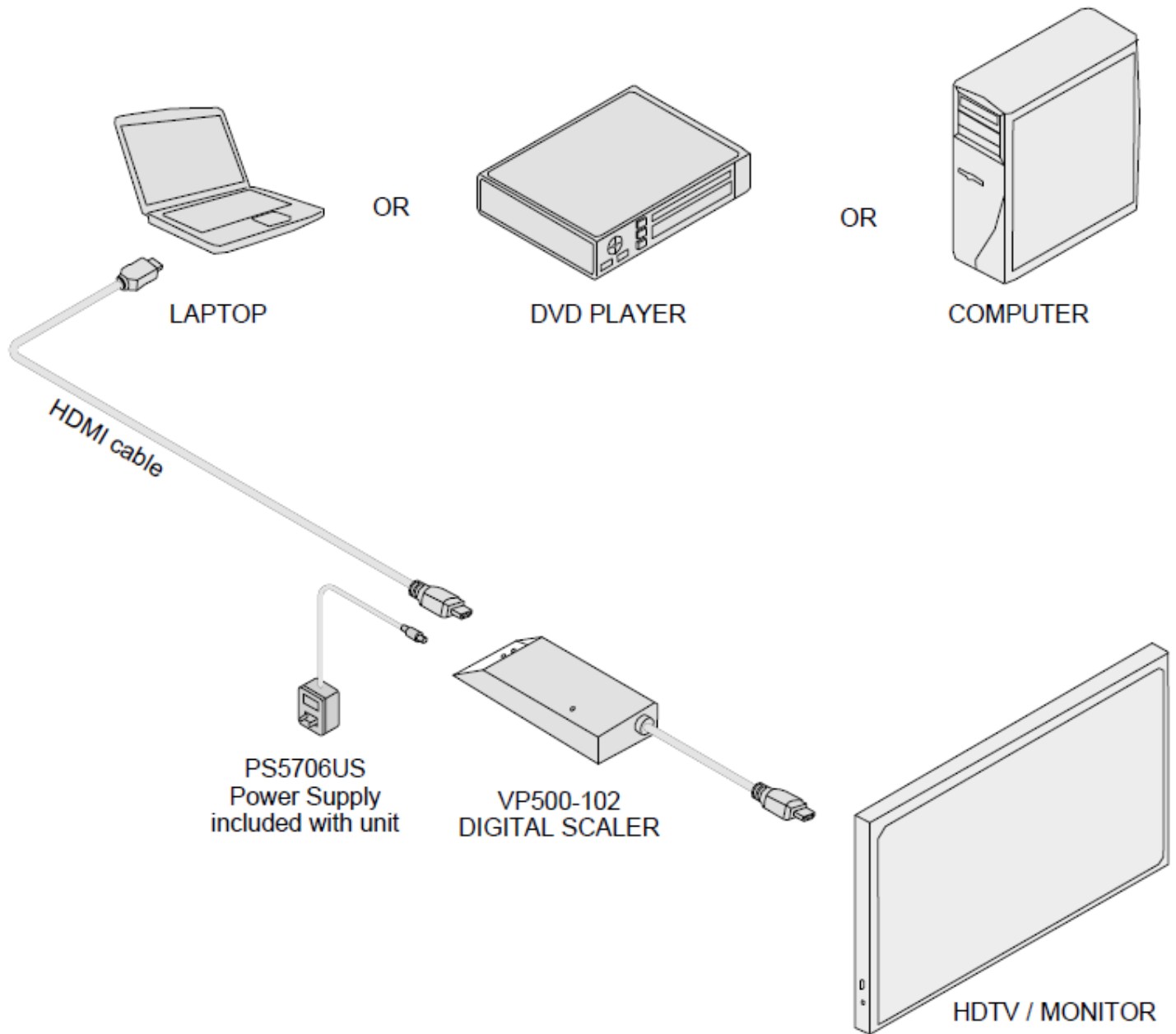


Diagram 2: Dimensions

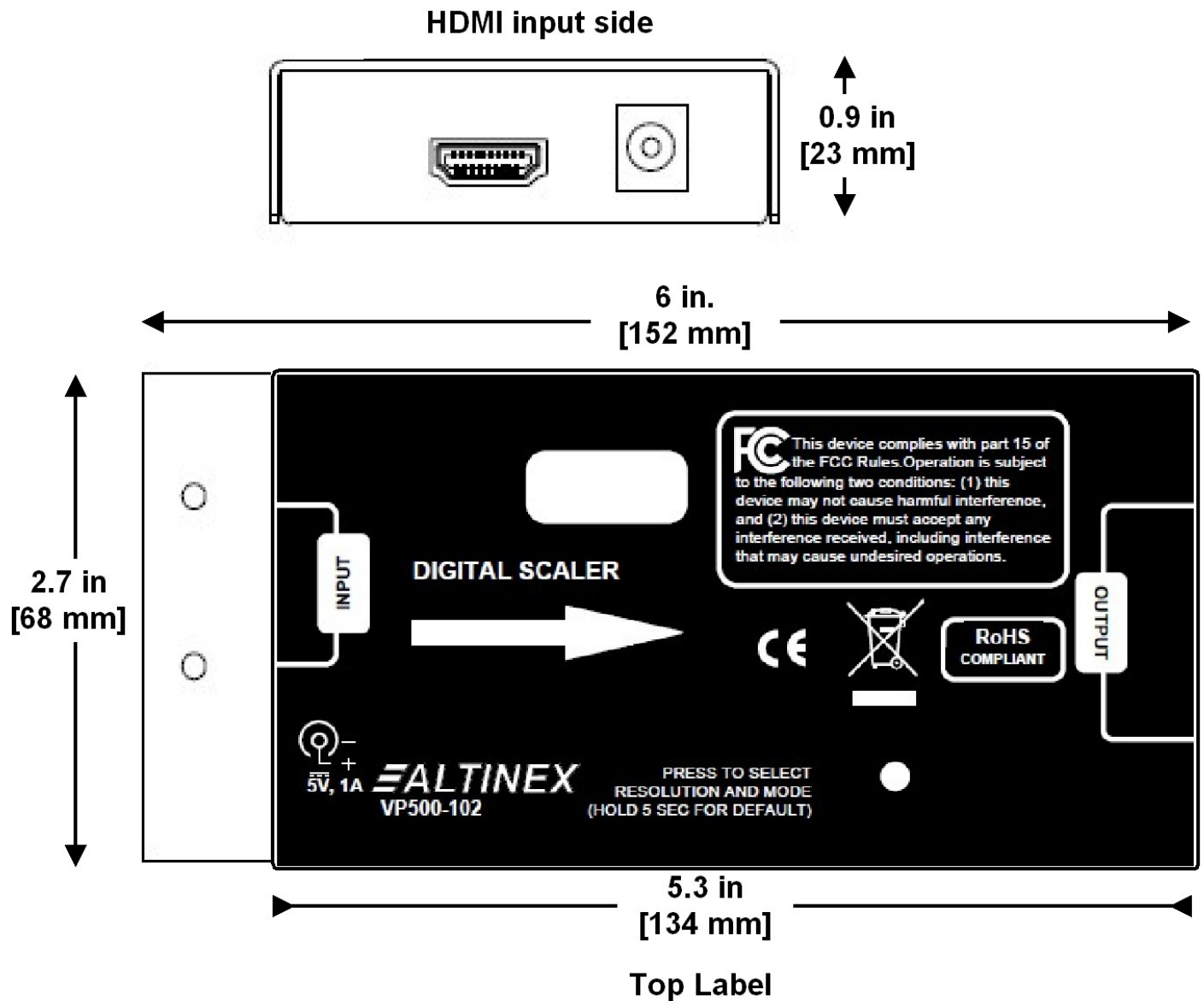
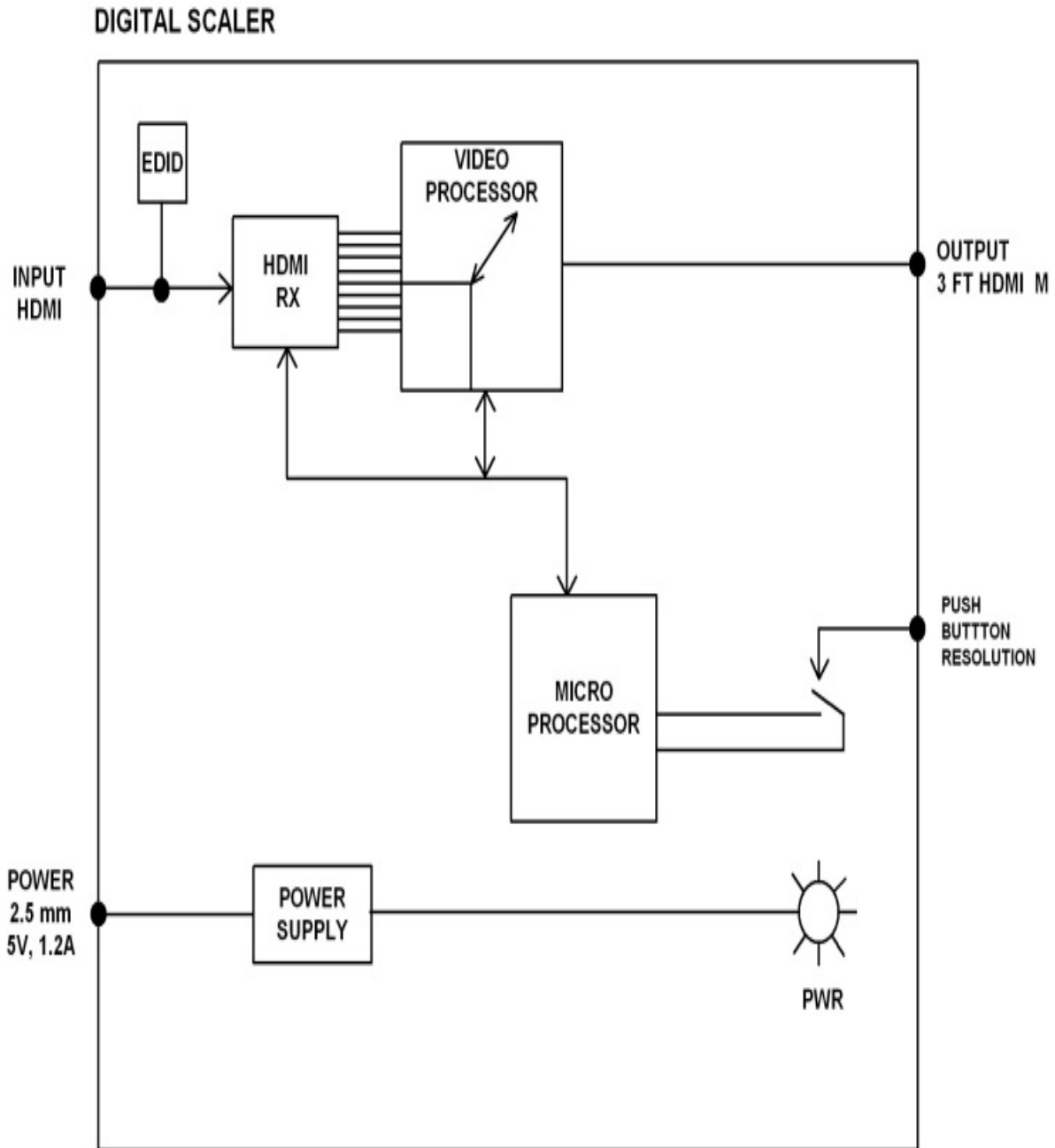


Diagram 3: Block Diagram



7. Operation

7.1 Getting Started

The VP500-102 ships with the output resolution set to default set resolution. If adjustments need to be made, use the menu button located on the front label.

7.2 On-Screen Display (OSD)

By pressing the button just once, will bring up the OSD on the extended display. Press again to move to the next selection. Selection will convert once OSD blanks out. To change resolution, bring back up OSD and press button until selected value is highlighted.

On-Screen Menu

Output Resolutions

Native (DFLT)
720p
1080i 50 60
1080p 50 60
1024x768
1280x800
1366x768
1600x900
1680x1050
1920x1200
* CONT (DFLT)
INTR (VC)
Info
Exit

7.3 Modes:

CONT: (continuous) Output keeps sending signal when the input signal is lost. This prevents annoying on screen messages from display for example; LOST SIGNAL.

INTR: (interrupted) Output won't send signal out when the input signal is lost.

7.4 Input Resolutions Supported:

INPUT RESOLUTIONS SUPPORTED	
RESOLUTIONS	FREQUENCY
480i	59
480p	60
576i	50
576p	50
720p	25, 30, 50, 60
1080i	50, 60
1080p	24, 25, 30, 50, 60
640x480	60, 72, 75, 85
720x400	70
800x600	56, 60, 72, 75, 85
1024x768	60, 70, 75, 85
1152x864	70, 75
1280x720	60 (CVT*)
1280x768	60 (RB), 60, 75
1280x800	60 (RB), 60, 75
1280x960	60
1280x1024	60x60 (CVT*), 75
1360x768	60
1366x768	60 (RB**), 60
1400x1050	60 (RB**), 60
1440x900	60 (RB**), 60, 75
1600x900	60 (RB**), 60
1600x900	60
1680x1050	60 (RB**), 60
1920x1200	60 (RB**), 60

*Coordinated Video Timing (CVT)

**Reduced Blanking (RB)

OUTPUT RESOLUTIONS	
HD RESOLUTIONS	PC RESOLUTIONS
	1024X768@60
	1280X800@60
720p@50/60	1366x768@60
1080i@50/60	1600x900@60 (RB**)
1080p@50/60	1680x1050@60
	1920x1200@60 (RB**)

7.5 Reset

To reset the universal scalar, press and hold button for 5 seconds to set to factory settings.



8. Troubleshooting Guide

We have carefully tested and have found no problems in the supplied VP500-102. However, we would like to offer suggestions for the following:

Switcher	
Symptom	Resolution
LED on Scaler Is OFF	<ol style="list-style-type: none">1. Make sure the unit is plugged into a working AC outlet and the DC plug is inserted all the way into the switcher.2. Use only the power adapter provided.
No Display on Projector	<ol style="list-style-type: none">1. Check the source and make sure there is a signal present.2. Make sure the projector has power and is turned on.3. Try resetting the output resolution of the scaler to NATIVE; press MENU button continuously.
Poor Output Image	<ol style="list-style-type: none">1. The scaler output resolution may not be set to the optimal resolution for the display. Press Menu button continuously until optimal sharpness/resolution is obtained.