HD-SCALER-VGA-E

High-Definition Video Scaler, VGA In, HDMI® Out

- > *Converts analog RGB, VGA, and component video signals to HDMI® or DVI[1]*
- > *Automatically scales the input signal to match the native resolution of your display*
- > *Supports a range of display resolutions up to Full HD 1080p and WUXGA*
- > *Perfect for adapting all kinds of video devices to handle any input resolution*
- > *Supports any input resolution up to Full HD 1080p and WUXGA[4]*
- > *Performs deinterlacing of NTSC, PAL, and 1080i sources*
- > *Supports analog RGBHV, RGBS, RGsB, and component sources[3]*
- > *Includes stereo analog audio input and output*
- > *Allows embedding of analog stereo audio to HDMI*
- > *Provides up to 150 ms lip-sync audio delay*
- > *Affords easy setup via on-screen display*
- > *Compact, low-profile surface mount design*
- > *Universal 100-240V external power pack included*

The HD-SCALER-VGA-E is a simple, cost-effective video scaler designed to enable an HD, SD, or computer display device to handle analog VGA, RGB, and component video signals with input resolutions up to Full HD 1080p or WUXGA. Its low-profile, surface-mountable design and set-and-forget simplicity allow the HD-SCALER-VGA-E to be installed discreetly in the back of an equipment rack, behind a flat panel display, or above a ceiling projector.

HD Scaler

When choosing a new display device, video switcher, processor, or codec, one might assume that that device should support whatever sources you connect to it. In fact, many modern displays and other devices just can't handle all the different formats and resolutions that you're likely to encounter day-to-day in a dynamic presentation environment — particularly analog formats like VGA, RGB, and component video. The HD-SCALER-VGA-E connects to an HDMI® or DVI input[1], enabling support for a variety of analog signals, and ensuring that every source displays reliably and beautifully. Fully automatic operation is achieved using the display's EDID[2] — just connect the HD-SCALER-VGA-E to the display and it intelligently converts and enhances the incoming signal for optimal appearance on the display.

The HD-SCALER-VGA-E handles standard and high-definition video sources with resolutions up to Full HD 1080p60 progressive and 1080i interlaced, as well as computer sources up to WUXGA 1920x1200. Whatever the source, the HD-SCALER-VGA-E is capable of scaling it up or down, deinterlacing it, reducing noise artifacts, and adjusting its aspect ratio to match the native resolution of your video display or computer monitor. A wide selection of display resolutions up to 1920x1200 can be supported, with auto-calibration ensuring a quick and easy setup and hands-off operation.

The HD-SCALER-VGA-E provides a single VGA type input and is compatible with RGB and component video sources.[3]

Audio Embedding

An analog audio input is provided on the HD-SCALER-VGA-E to accommodate the stereo signal from a line-level audio source, or the headphone output from a laptop or mobile device. The analog signal is converted to digital and routed to the scaler's HDMI output along with the video signal. An analog audio output is also included, allowing distribution of the audio signal to the display device, or to a sound bar, amplified speakers, or a separate sound system. Built-in delay processing allows the audio signal to be delayed up to 150 ms for lip-sync alignment.

On-Screen Display

Setup and diagnostics are facilitated through an on-screen display (OSD). The OSD appears right on the video display with navigation enabled using simple controls located on the scaler unit. The OSD displays detailed information about the connected source and display device, and includes settings for selecting the output resolution and aspect ratio, and for adjustment of the picture and color settings, audio delay, and other parameters.

Simple and Versatile

The HD-SCALER-VGA-E is well-suited for a wide range of applications including boardrooms and classrooms, home entertainment, rental and staging, and digital signage. Its simple set-and-forget nature and compact size let it go anywhere a high-quality video scaler is needed.

HD-SCALER-VGA-E High-Definition Video Scaler, VGA In, HDMI® Out

Bottom View

Top View

SPECIFICATIONS

Features

HD video scaler and deinterlacer, noise reduction, 3:2/2:2 pull-down detection and recovery, aspect ratio selection, VGA phase/clock & H/V position adjustments, picture and RGB color adjustments, OSD setup, analog audio embedding

Video

Input Signal Types: RGB/VGA (RGBHV, RGBS, RGsB), component (YPbPr) [3]
Output Signal Types: HDMI (DVI compatible [1])
Input Resolutions, RGB: 640x480@60/72/75/85Hz, 720x480@60Hz (480p), 720x576@50Hz (576p), 800x600@56/60/72/75/85Hz, 848x480@60Hz, 1024x768@60/70/75/85Hz, 1280x720@50/60Hz (720p50/60), 1280x768@60Hz, 1280x800@60Hz, 1280x960@60Hz, 1280x1024@60/75/85Hz, 1360x768@60Hz, 1366x768@60Hz, 1400x1050@60Hz, 1440x900@60Hz, 1600x1200@60Hz, 1680x1050@50/60Hz, 1920x1080@50/60Hz (1080p50/60), 1920x1200@60Hz[5], plus any other resolution up to 165MHz pixel clock
Input Resolutions, Component: 480i, 576i, 480p, 576p, 720p50, 720p60, 1080p24, 1080p30, 1080i50 (1125 lines), 1080p50 (1125 lines), 1080i60, 1080p60
Scaler Output Resolutions, Progressive: 640x480@60Hz, 720x480@60Hz (480p), 720x576@50Hz (576p), 800x600@60Hz, 1024x768@60Hz, 1280x720@50/60Hz (720p50/60), 1280x800@60Hz, 1280x1024@60Hz, 1400x1050@60Hz, 1440x900@60Hz, 1600x900@60Hz[5], 1600x1200@60Hz, 1680x1050@60Hz, 1920x1080@50/60Hz (1080p50/60), 1920x1200@60Hz[5], native
Scaler Output Resolutions, Interlaced: 1920x1080@50/60Hz (1080i50/60)
RGB Picture Settings: Contrast, brightness, phase, clock, h-position, v-position, auto-adjust, noise reduction, red, green, blue
Component Picture Settings: Contrast, brightness, hue, saturation, sharpness, noise reduction, red, green, blue
Size Selections: Aspect, full, overscan, underscan, letterbox, pan scan

Audio

Input Signal Types: Analog stereo
Output Signal Types: HDMI, analog stereo
Digital Formats: 2 channel PCM at up to 48 kHz
Analog Formats: Stereo 2-channel
Analog-To-Digital Conversion: 24-bit 48 kHz
Digital-to-Analog Conversion: 24-bit 48 kHz
Delay: 0, 40, 110, or 150 ms selectable
Mute: On/Off

Communications

HDMI: Responds to EDID from display device, copies EDID from display device to input
USB: For factory use only

Connectors

5V 1.2A: (1) 1.3 x 3.5 mm DC power connector;
5 Volt DC power input (PW-0510WU power pack included)

SERVICE: (1) USB Type A female;
For factory use only

AUDIO IN: (1) 3.5 mm TRS mini phone jack;
Unbalanced stereo line-level audio input;
Input Level: 2 Vrms maximum;
Input Impedance: 44k Ohms

VGA IN: (1) HD15 female;
RGB (VGA) or component video input [3];
Formats: RGBHV, RGBS, RGsB, YPbPr

HDMI OUT: (1) 19-pin Type A HDMI female;
HDMI digital video/audio output;
Also supports DVI [1]

HD-SCALER-VGA-E High-Definition Video Scaler, VGA In, HDMI® Out

AUDIO OUT: (1) 3.5 mm TRS mini phone jack;
Unbalanced stereo line-level audio output;
Output Level: 1 Vrms maximum;
Output Impedance: 100 Ohms

Controls & Indicators

5V 1.2A: (1) Green LED, indicates operating power supplied via power pack
MENU/ENTER: (1) Pushbutton, used to open the onscreen setup menu and enter settings
UP, DOWN: (2) Pushbuttons, used to navigate the on-screen setup menu and adjust settings

Power Requirements

Power Pack: 1.2 Amps @ 5 Volts DC;
100-240 Volts AC, 50/60 Hz power pack, model PW-0510WU included

Power Consumption: 4.8 Watts

Environmental

Temperature: 32° to 104° F (0° to 40° C)
Humidity: 20% to 90% RH (non-condensing)
Heat Dissipation: 16.4 BTU/hr

Enclosure

Chassis: Metal, black finish; with (2) integral mounting flanges
Mounting: Freestanding, surface mount, or attach to a single rack rail

Dimensions

Height: 6.08 in (155 mm)
Width: 5.22 in (133 mm)
Depth: 1.00 in (26 mm)

MODELS & ACCESSORIES

Available Models

HD-SCALER-VGA-E: High-Definition Video Scaler, VGA In, HDMI® Out

Included Accessories

PW-0510WU: Wall Mount Power Pack, 5VDC, 1.2A, 2.1mm, Universal (Qty. 1 included)

Available Accessories

CBL Series: Crestron® Certified Interface Cables

Notes:

1. The HDMI output requires an appropriate adapter or interface cable to accommodate a DVI signal. CBL-HD-DVI interface cables are available separately.
2. EDID (Extended Display Identification Data) is data embedded in an HDMI, DVI, or VGA signal that enables the display device to tell the scaler what resolutions and formats it can support, allowing the scaler to configure itself automatically to feed an optimal output signal to the display.
3. The VGA input can accept RGB and component video signals through an appropriate adapter (not included).
4. Supports any input resolution and scan rate that has a pixel clock of 165 MHz or lower.
5. With reduced blanking only.

This product may be purchased from an authorized Crestron dealer. To find a dealer, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/salesreps or by calling 800-237-2041.

The specific patents that cover Crestron products are listed online at: patents.crestron.com.

Certain Crestron products contain open source software. For specific information, please visit www.crestron.com/opensource.

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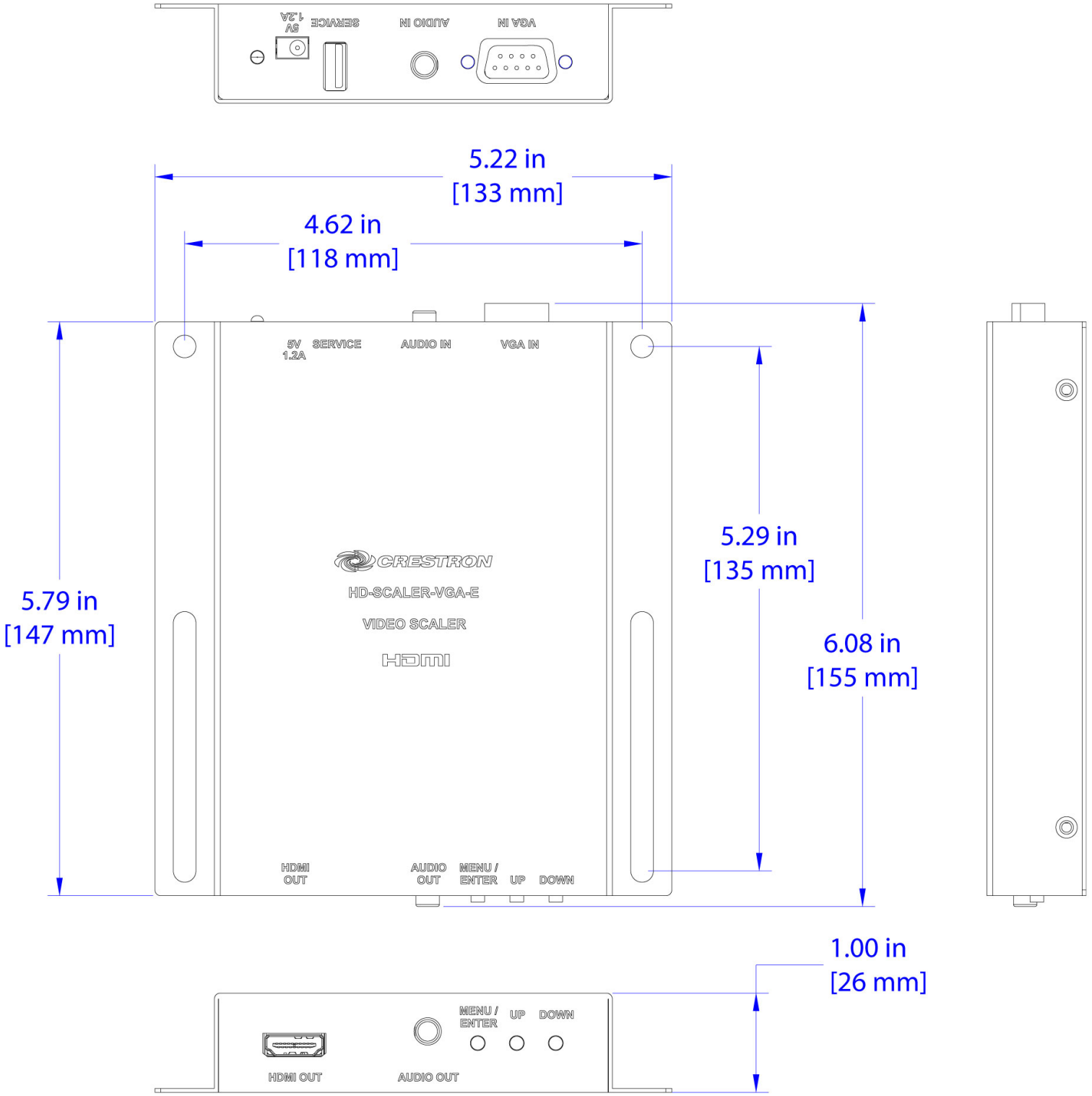

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