



## VP-429H2

4K60 4:4:4 HDMI, DP and VGA Scaler /  
Switcher Tool

| HDMI | 4K/60 UHD (4:4:4)



VP-429H2 is a 4K@60Hz (4:4:4) scaler / switcher tool for HDMI, DisplayPort, VGA, and unbalanced audio signals. The unit scales the signal and outputs it on HDMI. Step-In functionality provides easy plug-and-play collaboration when connected to a switcher that supports Step-in over HDMI. It also features convenient RS-232 control of monitor or projector activation and supports Ethernet, contact closure switches and RS-232 control

### FEATURES

**High-Performance Switcher/Scaler** - Scales signals of all standard resolutions up to 4K (4:4:4) HDMI HDCP 2.2 for output to the HDMI output. Constant output sync prevents signal disruption when switching between inputs and when no video is detected. Supports Deep Color, x.v.Color™ and 3D as specified in HDMI 2.0

**Superior Switching and Signal Control** - Select automatic switching options using live input detection, enable or disable HDCP per input, copy and save the EDID to the inputs (supported on HDMI and DisplayPort inputs), and define output refresh rate and aspect ratio

**Local Step-In Switching** - When used with a Step-In enabled switcher, just plug in your device and press the Step-In button or use the contact closure Step-In switch. Your device becomes the active signal on the main display

**Diverse Inputs** - 2 HDMI (4K@60Hz (4:4:4)), 1 DisplayPort and 1 VGA input

**Cost-Effective and Convenient Control Options** - Local control via front panel input selection buttons and setup DIP-switches, Ethernet with embedded web pages, RS-232 serial ports for control of the unit and of a display via the unit, and GPI controls

**Easy Installation** - Compact MegaTOOLS® fan-less enclosure for surface mounting or side-by-side mounting of 2 units in a 1U rack space with the recommended rack adapter



# KRAMER

## TECHNICAL SPECIFICATIONS

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Inputs	<p>2 HDMI: On female HDMI connectors</p> <p>1 DisplayPort: On a female DisplayPort connector</p> <p>1 VGA: On a 15-pin HD connector</p> <p>1 Stereo Analog Unbalanced Audio: On a 3.5mm mini jack</p>
Outputs	<p>1 HDMI: On a female HDMI connector</p> <p>1 Stereo Analog Unbalanced Audio: On a 3.5mm mini jack</p>
Ports	<p>1 Ethernet : On an RJ-45 connector</p> <p>1 RS-232 Control: On a 3-pin terminal block for unit control</p> <p>1 RS-232 Data: On a 3-pin terminal block for external device control</p> <p>Remote Contact Closure Switches : On a 5-pin terminal block for input selection, Step-In activation and audio volume control</p> <p>1 USB: On a mini USB connector for firmware upgrade</p>
Video	<p>Max Resolution: 4K@60Hz (4:4:4)</p> <p>Standards Compliance: HDMI, HDCP 2.2</p> <p>HDMI Support Deep Color, x.v.Color™ and 3D as specified in HDMI 2.0</p> <p>HDMI Input Resolutions: 640x350@85Hz, 640x400@85Hz, 640x480@30Hz, 640x480@60Hz, 640x480@75Hz, 640x480@85Hz, 720x400@85Hz, 720(1440)x480@60Hz, 2880x480@60Hz, 720(1440)x576@25Hz, 720(1440)x576@50Hz, 2880x576@50Hz, 720x576@50Hz, 720x576@100Hz, 800x600@60Hz, 800x600@75Hz, 800x600@85Hz, 1024x768@60Hz, 1024x768@75Hz, 1024x768@85Hz, 1280x720@50Hz, 1280x720@60Hz, 1280x768@60Hz, 1280x768@75Hz, 1280x768@85Hz, 1280x960@60Hz, 1280x960@85Hz, 1280x1024@60Hz, 1280x1024@75Hz, 1280x1024@85Hz, 1600x1024@60Hz, 1600x1200@60Hz, 1920x1080@24Hz, 1920x1080@25Hz, 1920x1080@30Hz, 1920x1080@50Hz, 1920x1080@60Hz, 1920x1200@60Hz, 3840x2160@24Hz, 3840x2160@30Hz, 3840x2160@60Hz</p> <p>DP Input Resolutions: 640x350@85Hz, 640x400@85Hz, 640x480@60Hz, 640x480@75Hz, 640x480@85Hz, 720x400@85Hz, 800x600@60Hz, 800x600@75Hz, 800x600@85Hz, 848x480@60Hz, 1024x768@60Hz, 1024x768@75Hz, 1024x768@85Hz, 1152x864@75Hz, 1280x720@60Hz, 1280x768@60Hz, 1280x768@75Hz, 1280x768@85Hz, 1280x960@60Hz, 1280x960@85Hz, 1280x1024@60Hz, 1280x1024@75Hz, 1280x1024@85Hz, 1366x768@60Hz, 1600x900@60Hz, 1600x1200@60Hz, 1600x1200@65Hz, 1600x1200@70Hz, 1600x1200@75Hz, 1680x1050@60Hz, 1792x1344@60Hz, 1856x1392@60Hz, 1920x1080@24Hz, 1920x1080@25Hz, 1920x1080@30Hz, 1920x1080@60Hz, 1920x1200@60Hz, 2048x1152@60Hz, 3840x2160@30Hz, 3840x2160@60Hz* (*Note: 3840x2160 is supported on the DP input, in MST format only)</p> <p>VGA Input Resolutions: 640x400@85Hz, 640x480@75Hz, 640x480@85Hz, 720x480@60Hz, 720x480@75Hz, 720x576@50Hz, 800x600@60Hz, 848x480@60Hz, 1024x768@60Hz, 1024x768@70Hz, 1024x768@75Hz, 1152x864@75Hz, 1280x720@50Hz, 1280x720@60Hz, 1280x768@60Hz, 1280x768@75Hz, 1280x768@80Hz, 1280x1024@60Hz, 1280x1024@75Hz, 1366x768@60Hz, 1600x1200@60Hz, 1600x1200@65Hz, 1600x1200@70Hz, 1600x1200@75Hz, 1680x1050@60Hz, 1792x1344@60Hz, 1856x1392@60Hz, 1920x1080@50Hz, 1920x1080@60Hz</p> <p>Output Resolutions: 800x600 (SVGA)@60Hz, 1024x768 (XGA)@60Hz, 1280x1024@60Hz, 1280x720 (WXGA)@50Hz, 1280x720 (WXGA)@60Hz, 1280x768 (WXGA)@60Hz, 1280x800 (WXGA)@60Hz, 1360x768@60Hz, 1366x768 (HD)@60Hz, 1400x1050@60Hz, 1440x900@60Hz, 1600x1200 (UXGA)@60Hz, 1600x900 (HD+)@60Hz, 1680x1050@60Hz, 1920x1080 (1080p)@50Hz,</p>

1920x1080 (1080p)@60Hz, 1920x1200 (WUXGA)@60Hz, 3840x2160 (4K)@30Hz, 3840x2160 (4K)@50Hz, 3840x2160 (4K)@60Hz

Switching Transition Time: <2.5 seconds

User Interface Controls: Input selection, Step-In and factory reset buttons, RS-232, Ethernet, remote dry-contact switches

Indicators: Power LED

Power Consumption: 1.1A

Source: 12V DC

Environmental Conditions Operating Temperature: 0° to +40°C (32° to 104°F)

Storage Temperature: -40° to +70°C (-40° to 158°F)

Humidity: 10% to 90%, RHL non-condensing

REGULATORY Safety: UL, CE

Environmental: FCC

Enclosure Size: MegaTOOLS®

Type Aluminum

Cooling Convection ventilation

Accessories Included Power adaptor, bracket set, rubber feet

Product Dimension 18.75cm x 11.50cm x 2.54cm (7.38" x 4.53" x 1.00" ) W, D, H

Product Weight 0.5kg (1.0lbs) approx

Shipping Dimension 34.50cm x 16.50cm x 5.20cm (13.58" x 6.50" x 2.05" ) W, D, H

Shipping Weight 1.1kg (2.4lbs) approx

