

# AV Bridge™ MATRIX PRO

## Vaddio™ A/V Room Solution for USB/IP Applications

Part Numbers: 999-8230-000 (North America), 999-8230-001 (International)

The AV Bridge MATRIX PRO combines the functionality of the AV Bridge encoder with IP and USB 2.0 (UVC & UAC) streaming, a four input seamless HD video presentation switcher, three (3) Quick-Connect™ Interfaces for Vaddio cameras with EZCamera™ Cat-5 connectivity, an 8 x 4 cross-point audio matrix with integrated AEC, four (4) EasyMic™ Ports for Vaddio ceiling or table mics with built-in echo cancellation and a web server for configuration programming, control and remote management. The AV Bridge MATRIX PRO replaces a rack full of gear, and then some.

The MATRIX PRO was designed for integrators in order to reduce the complexity of AV system design and implementation, while delivering the features and capabilities most sought after by today's sophisticated end user.



MATRIX PRO fits into many applications, which include UC and video conferencing, audio conferencing, lecture capture, local AV presentations and more! It's perfect for small, medium, and even large venues such as classrooms, boardrooms, auditoriums, lecture halls, and houses of worship or anywhere that high quality audio, video, network, streaming and control is mission critical. This 2-RU system-in-a-box pairs up with the EasyUSB™ MicPODs, Ceiling MicPODs and interfaces with ZoomSHOT™, WideSHOT™, and Vaddio HD PTZ cameras.

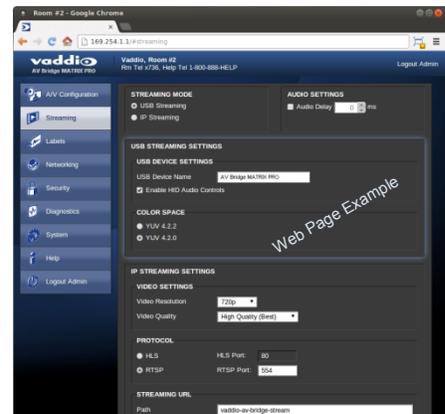
### KEY TECHNICAL FEATURES (VIDEO, AUDIO AND STREAMING)

Video	Audio	Audio and Video Streaming
<ul style="list-style-type: none"> <li>4 x 2 Video Switcher with Independent Program and Streaming Outputs</li> <li>10-Trigger inputs for auto-switching</li> <li>Three (3) Camera inputs with built-in Quick-Connect SR Interfaces and camera control, Cat-5 video, power and control connectivity up to 100' (30.48m)</li> <li>PC Input (HDMI/DVI &amp; RGBHV)</li> <li>One (1) HDMI (or DVI-D) Output</li> <li>One (1) HSDS™ Output to Quick-Connect Interfaces for remote display options</li> <li>Video processing includes PIP, Transitions, CCU &amp; Text Overlay</li> <li>Image controls include Iris, Gain, Chroma, Auto White Balance, Red/Blue Gain, BLC, Detail and CCU scene presets on a per camera basis</li> </ul>	<ul style="list-style-type: none"> <li>8 x 4 Audio Matrix Switcher with Cross Point Control</li> <li>Four (4) Mic or Line, Balanced or Unbalanced audio Inputs with Phantom power for condenser mics and Echo Cancellation per input channel</li> <li>Four (4) Line Level Balanced Outputs</li> <li>Four (4) EasyMic ports for EasyUSB MicPODs or Ceiling MicPODs with built-in AEC</li> <li>Audio configuration via Web Pages (integrated web server)</li> <li>Automatic Microphone Mixing</li> <li>Audio processing includes AEC and Noise Cancellation, AGC, Programmable Filters and EQ</li> <li>Individual controls per mic/line input</li> </ul>	<ul style="list-style-type: none"> <li>Simultaneous USB 2.0 and IP Streaming</li> <li>USB 2.0 Video Streaming with Universal Video Class (UVC) drivers, resolution up to 720p/30, MJPEG compression or YUY2, USB 2.0</li> <li>Audio Streaming with Universal Audio Class (UAC) drivers, PCM Audio</li> <li>Handles both USB Record and Playback Channels</li> <li>IP H.264 Compression with resolutions up to 1080p/30, RTSP or HLS IP Streaming and AAC Audio Encoding (transmit)</li> <li>Up to 5 simultaneous streaming clients</li> <li>Easy to understand controls for faster implementations</li> </ul>

### Control: Embedded Web Server and Simple User Interface

The user interface is provided with a built-in web server. Simply connect it to the network and the web pages are served up in an easy to use menu based system. The menus include Video and Audio Configuration, Matrix Mixing & Routing, Streaming (USB and IP simultaneously), Room Labels, Networking, Security, Diagnostics, Image Controls (per camera basis), System and Trigger Configuration, Help Menu and more!

The front panel's menu system combined with the large negative mode LCD display with blue LED backlight provides visibility to all pertinent AV Bridge MATRIX PRO configuration settings, including the IP network settings, USB streaming and configuration information. These settings can be viewed from the front panel quickly and easily. Video and audio mute buttons round out the front panel controls.



## WHAT'S INCLUDED

- One (1) AV Bridge MATRIX PRO (2-RU Enclosure)
- One (1) Pair of 2-RU Rack Mount Ears (shown in picture, right)
- One (1) 24VDC, 3.75 Amp Switching Power Supply with Power Cord Set
- One (1) 6' (1.83m) USB 2.0 Cable, Type-A Male to Type-B Female (black)
- Four (4) Rubber feet for the bottom of enclosure (if not rack mounted)
- One (1) Installation and User Guide

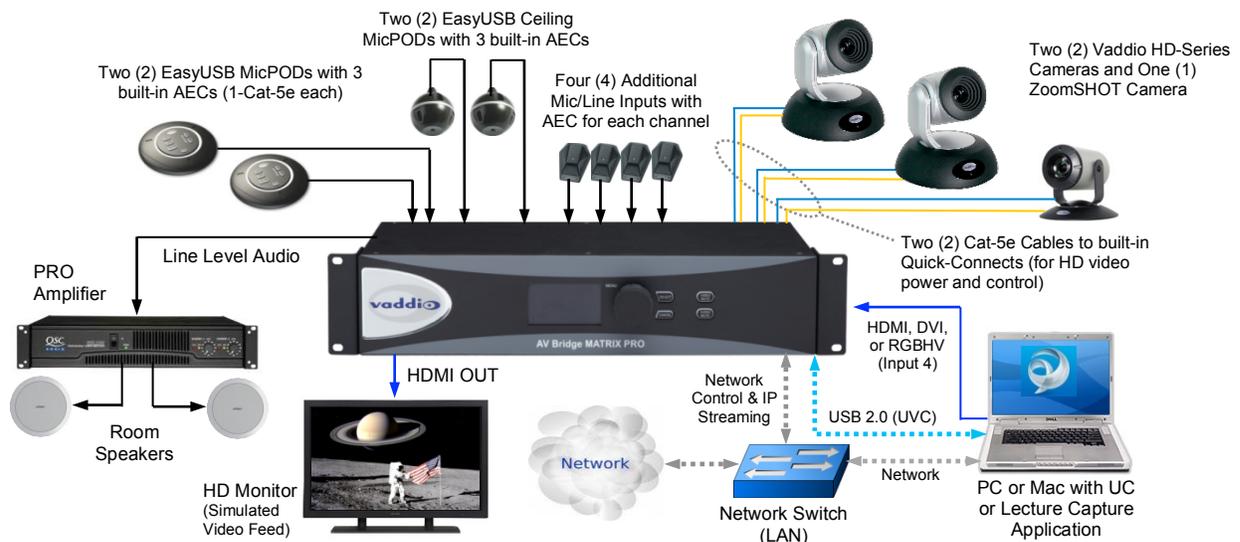


## TECHNICAL IMAGE



**Rear Panel Connections** - Top row left to right: RS-232 Port to support legacy controllers, 10-Trigger Inputs for preset activation, Four (4) EasyMic Ports for EasyUSB EasyMic table/ceiling mics with built-in AEC mics, four (4) Balanced or Unbalanced mic or line inputs (phantom power available for condenser mics), and four (4) individual line outputs. Bottom row left to right: Power Connector, Network RJ-45, USB 2.0 Type-B female, three (3) sets of EZCamera interfaces for Vaddio Cat-5 cameras with each input also providing an HDMI camera input, one (1) PC input with RGBHV on a DE-15 or HDMI or DVI with color space conversion, one EZIM™ output for use with any Quick-Connect™ interface, and an HDMI output.

## SYSTEM DRAWING



## GENERAL SPECIFICATIONS

<b>Part Numbers</b>	999-8230-000 (North America), 999-8230-001 (International)
<b>A/V Encoding</b>	Resolutions: IP (H.264 & AAC Audio) up to 1080p/30, USB 2.0 (MJPEG & PCM Audio) up to 720p/30 (limits of USB 2.0)
<b>Media Players</b>	Quick-Time, RealPlayer and VLC Media Player (for IP Streaming)
<b>Supported Input Resolutions</b>	<b>HDMI &amp; YPbPr:</b> 1080p/60/59.94/50/30/25 frames/s, 720p/60/59.94/50 frames/s, 1080i/59.94/50 fields/sec <b>RGBHV (VESA):</b> 1280 x 720@60Hz (16:9), 1280x768@60Hz (15:9)m, 1280x800@60Hz (16:10), 1360 x 768@60Hz (16:9), 1024 x 768@60Hz (4:3 centered in 16:9 frame) <b>DVI (on HDMI connector using sRGB color space):</b> 1080p/60/59.94/50frames/s, 720p/60/59.94/50Hz frames/s 1080i/59.94/50Hz, fields/s, 1440 x 900@60Hz, 1360 x 768@60Hz, 1280 x 800@60 Hz, 1280 x 768@60Hz, 1280 x 720@60Hz <b>EDID Supported Resolutions:</b> 1080p/60/59.94/50frames/s, 720p/60/59.94/50Hz frames/s, 1440 x 900@60Hz, 1360x768@60Hz, 1280x800@60 Hz
<b>Video/Audio DSP</b>	<b>Video:</b> Auto-scaling, Noise Filter and Deinterlacing. <b>Audio:</b> Compressor, Equalizer and Filters
<b>Audio I/O</b>	Four (4) EasyMic Ports, Four Mic/Line Inputs (with 4-AECs and phantom power for mics), Four (4) Line Outputs (8x4 Matrix Mixer)
<b>Control</b>	<b>Embedded Web Server</b> for configuration and administration, <b>Front Panel Controls</b> for viewing configurations and A/V muting, <b>Telnet</b> on the Network RJ-45 Port, <b>RS-232</b> Port (for support of legacy control products)
<b>USB and Network</b>	<b>USB:</b> Type-B USB 2.0 Compliant Connector, <b>Network:</b> Shielded RJ-45 10/100 Base-T
<b>IP Streaming</b>	RTSP or HLS (Apple's HTTP Live Streaming)
<b>Dimensions &amp; Weight</b>	18.93" (480.8mm) W (with Rack Ears) x 3.47" (88.14mm) H x 8.0" (203.2mm) D, Weight 5.55643 lbs. (2.5203543 kg)