

# 4 x 2 True 4K Presentation Matrix Switch with Scaling, DSP, and HDBaseT-Lite

## VP1421

- The ATEN VP1421 is a multi-in-one presentation switch that integrates a video matrix switch, 4K scaler, HDBaseT extender, audio DSP, and analog-to-digital converter functions into one compact device that easily mounts under a table or in a rack. With four analog/digital inputs to one HDBaseT and one HDMI True 4K outputs, it is designed to boost the efficiency and impact of professional presentations.

With streamlined control from front-panel pushbuttons, IR remote controller, RS-232, and web-based GUI via Ethernet, the VP1421 reduces not only system device count, but also lowers operation complexity. It is suitable for all meeting spaces and education environments, such as huddle rooms, classrooms, training rooms, or any other presentation setting, such as in exhibition galleries or hotels.




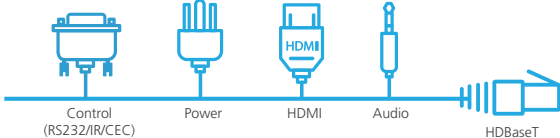
Front view



Rear view



# Highlights

|   |  |
|---|--|
| <p><b>Multi-format AV Switching</b></p> | <p>The switching among 4 inputs (1 VGA, 1 HDBaseT, and 2 HDMI) to 2 outputs (1 HDBaseT and 1 HDMI) and support of HDMI, stereo, and Microphone audio inputs to Toslink, Stereo, and HDMI audio outputs enable flexible interface/format conversion.</p>  |
| <p><b>True 4K Support with HDR</b></p>  | <p>Supports True 4K resolution with High Dynamic Range (HDR) technology that provides high-performance signal switching, routing and extension to deliver the ultimate visual experience with exceptional sharp and vibrant video quality.</p>          |
| <p><b>Extended AV Transmission</b></p>  | <p>The HDBaseT-Lite technology extends uncompressed video, audio as well as control signal and power over one Cat 6/6a cable up to 70 m.</p>   |
| <p><b>Built-in Audio DSP</b></p>        | <p>In addition to the audio embedding and de-embedding, the VP1421 supports microphone input with selectable 48V Phantom Power and allows microphone input to be mixed with program audio and embedded into display output.</p>                        |

## Features

### Analog/Digital AV Matrix Switching

- Supports multi-format 4 Inputs – 2 HDMI, 1 HDBaseT, and 1 VGA inputs
- 1 HDMI and 1 HDBaseT outputs
- Audio embedding – stereo audio can be embedded into display output or separated to stereo line out and optical audio outputs
- Audio de-embedding – HDMI/HDBaseT audio can be extracted to stereo line out
- Built-in Audio DSP – supports microphone input with selectable 48V Phantom Power and allows microphone input to be mixed with program audio and embedded into display output
- Automatically reduces program audio when a microphone signal is detected
- Auto switching – automatically detects and switches to a new source as soon as it is connected

### High-definition Video with Optimum Output

- Superior video quality – True 4K resolutions up to 4096 x 2160@60Hz (4:4:4) (HDMI) / 4096 x 2160@60Hz (4:2:0) (HDBaseT)
- Supports 4K HDR
- Scaler – supports video upscaling to 4K for display A and downscaling to 1080p for display B
- EDID Expert™ – automatically selects the optimum EDID settings for smooth power-up, high-quality display, and the best video resolution across connected devices
- HDMI 2.0 (3D, Deep Color, 4K); HDCP 2.2 compliant

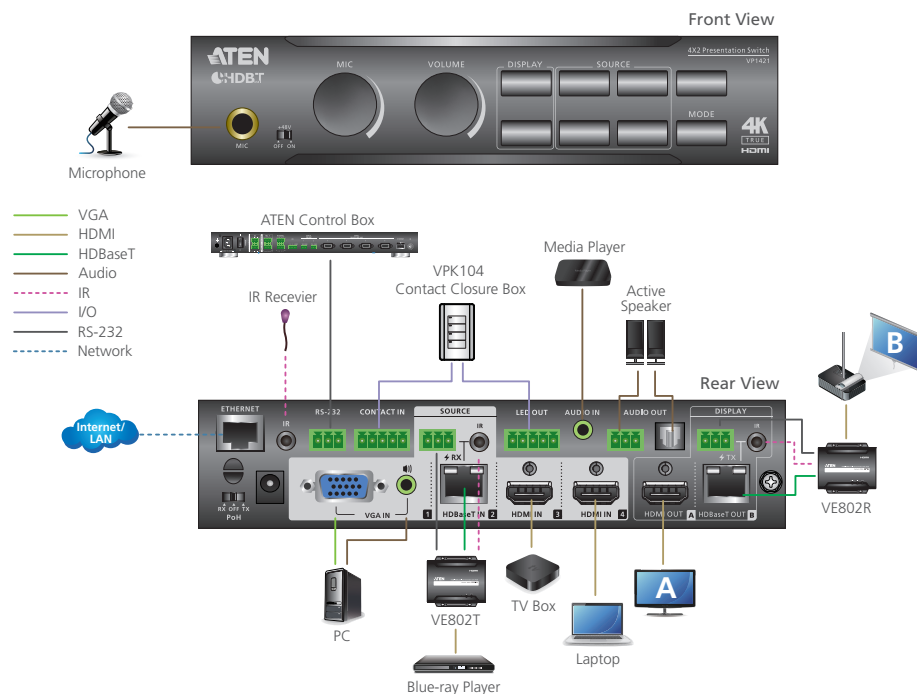
### Versatile, Streamlined Operation

- Multiple control options – flexible control via front-panel pushbuttons, IR remote control, RS-232, and web-based GUI through Ethernet
- Bi-directional RS-232 and IR channel – allows AV device control over HDBaseT connection without additional cabling
- Supports stand-by mode for power saving and fast waking up
- Consumer Electronics Control (CEC) support
- Built-in Contact in and LED out for keypad control using VPK104 Contact Closure Remote Pad

### Extended Transmission over One Cable

- Long-distance transmission – transmit digital AV signal, bi-directional RS-232, and IR control signals up to 140m\* via Cat 6/6a or ATEN 2L-2910 Cat 6 cables
- Power over HDBaseT (POH) – remote powering over existing communication cable with selectable powering device

**Note:** This is achieved using both the HDBaseT In and the HDBaseT Out ports on the VP1421, each extending the transmission up to 70m.



# Specifications

| Functions                   | VP1421   |
|-----------------------------|--|
| <b>Video Input</b>          |  |
| Interfaces                  | 2 x HDMI Type A female (Black); 1 x VGA (HDB-15) Female (Blue)<br>1 x HDBaseT (RJ-45) Female (Silver) with selectable PoH  |
| Max. Distance               | HDMI: 4K@60Hz (4:4:4) up to 3m; 4K@30Hz up to 10m; 1080p@60Hz up to 15m<br>VGA: 1920x1200@60Hz up to 15m<br>HDBaseT: 4K@30Hz up to 35m (Cat 5e/6) / 40m (Cat 6a/ATEN 2L-2910 Cat6); 1080p@60Hz up to 60m (Cat 5e/6) / 70m (Cat 6a/ATEN 2L-2910 Cat6) |
| <b>Video Output</b>         |  |
| Interfaces                  | 1 x HDMI Type A female (Black)<br>1 x HDBaseT (RJ-45) Female (Silver) with selectable PoH  |
| Max. Distance               | HDMI: 4K@60Hz (4:4:4) up to 3m; 4K@30Hz up to 10m; 1080p@60Hz up to 15m<br>HDBaseT: 4K@30Hz up to 35m (Cat 5e/6) / 40m (Cat 6a/ATEN 2L-2910 Cat6); 1080p@60Hz up to 60m (Cat 5e/6) / 70m (Cat 6a/ATEN 2L-2910 Cat6)                                  |
| <b>Video</b>                |  |
| Max. Resolution             | HDMI: Up to 4096 x 2160 / 3840 x 2160 @ 60Hz (4:4:4); VGA: Up to 1920x1200@60Hz<br>HDBaseT: Up to 4096 x 2160 / 3840 x 2160 @ 60Hz (4:2:0) ;<br>Up to 4096 x 2160 / 3840 x 2160 @ 30Hz (4:4:4)   |
| Compliance                  | HDMI 2.0 (3D, Deep Color, 4K); 4K HDR; HDCP 2.2 Compatible; Consumer Electronics Control (CEC)   |
| <b>Audio</b>                |  |
| Input                       | Stereo Audio (HDMI/HDBT): 1 x mini stereo Jack female (Green)<br>Stereo Audio (VGA): 1 x mini stereo Jack female (Green)<br>Microphone: 1 x 6.3mm Jack connector (with selectable phantom power)   |
| Output                      | Line Out (Unbalanced): 1 x Captive Screw Connector, 3-pole<br>Optical Audio: 1 x Toslink (Black)   |
| <b>Control</b>              |  |
| RS-232                      | 1 x Captive Screw Connector, 3-pole  |
| IR                          | 1 x Mini Stereo Jack Female (Black)  |
| Ethernet                    | 1 x RJ-45 Female (Silver)  |
| Contact In                  | 1 x Captive Screw Connector, 5-pole  |
| LED Out                     | 1 x Captive Screw Connector, 5-pole; LED out power: +5 VDC, 0.2 A  |
| IR Channel                  | HDBaseT In : 1 x Mini Stereo Jack Female (Black)<br>HDBaseT Out : 1 x Mini Stereo Jack Female (Black)  |
| RS-232 Channel              | HDBaseT In : 1 x Captive Screw Connector, 3-pole<br>HDBaseT Out : 1 x Captive Screw Connector, 3-pole  |
| <b>Switches</b>             |  |
| Power                       | 1 x Pushbutton (LED: Green / Orange); 1 x Slide Switch (+48V Phantom Power); 1 x Slide Switch (PoH)  |
| Video Input Port Selection  | 4 x Pushbutton (LED: Green)  |
| Video Output Port Selection | 2 x Pushbutton (LED: Orange)   |
| Selection                   | Mic: 1 x Knob; Volume: 1 x Knob; Mode / Unlock: 1 x Pushbutton   |
| <b>EDID Settings</b>        | EDID Mode: ATEN Default / Display A / Remix  |
| <b>Connectors</b>           |  |
| Power                       | 1 x DC Jack (Black)  |
| <b>Power Consumption</b>    | DC12V:14.93W   |
| <b>Environmental</b>        |  |
| Operating Temperature       | 0 - 40°C   |
| Storage Temperature         | -20 - 60°C   |
| Humidity                    | 0 - 80% RH, Non-Condensing   |
| <b>Physical Properties</b>  |  |
| Housing                     | Metal  |
| Weight                      | 1.16 kg  |
| Dimensions (L x W x H)      | 20.00 x 17.01 x 4.40 cm  |

Product information is subject to change without prior notice.

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