True 4K HDMI H.265 over IP Transceiver with PoE

VE8662

The ATEN VE8662 True 4K HDMI H.265 over IP Transceiver with PoE combines transmitter and receiver functions in one unit, offering flexible deployment and easy configuration for various AV solutions.

Powered by standard H.265 encoding and decoding technology for video compression, the VE8662 enables efficient transmission of 3840 x 2160 @ 60 Hz (4:4:4) HDMI video / audio, stereo audio, USB 2.0, and RS-232 signals over a single Ethernet cable for up to 100 meters (point-to-point), with built-in error correction for low latency and reduced bandwidth usage. It also supports embedded and de-embedded audio, allowing audio to be embedded in the HDMI stream or extracted and delivered separately.

The VE8662 also features AV matrix switching with both horizontal and vertical display configurations for video walls. The Transceiver enables seamless collaboration between workstations and video walls with functions such as "push" and "pull" for instant content sharing, boundless switching for easy switching between receivers, and On-Screen Display (OSD) for simple configuration of both units.

With dual power supplies, DC-in, and Power over Ethernet (PoE), the VE8662 ensures continuous operation, even during power failures, making it ideal for mission-critical applications. The transceiver offers multiple control options, including pushbuttons, web GUI, RS-232 and Telnet / Reslink. The user-friendly web GUI enables customizable background and layouts for intuitive management over all video inputs and outputs.

With limitless scalability and flexibility, the VE8662 is perfect for diverse scenarios such as video broadcasting, casinos, sports centers, and smart buildings where managing multiple video feeds over a network is essential and can transmit signals from building to building.

4K TRUE | HDMI HIGH-DEFINITION MULTIMEDIA INTERFACE | GOOD DESIGN

A/V In HDMI | A/V Out HDMI | RS-232 Channel | Over IP | Stereo Audio | Video Wall | PoE

VE8662

Front View

Rear View

Features

Advanced H.265 Compression with Low Latency

- Extends True 4K HDMI signals over IP with H.265 compression for low latency and improved bandwidth efficiency
- Delivers visually lossless high-quality video up to 3840 x 2160 @ 60 Hz (4:4:4)
- EDID Expert™ selects the optimum EDID settings for smooth power-up, high-quality display and the best video resolution across different screens
- Compatible with HDR and HDCP 2.3/2.2 compliant for content protection
- Supports individual stereo audio and HDMI audio format of PCM 2 channels
- Supports either PoE or DC-in; power redundancy when both are connected
- Supports H.265 / H.264 streams:
  - As a transmitter supports delivering H.265 streams to the ATEN VW754 Stream Decoder Input Card, H.265 Network Video Recorders (NVRs), and PC VLC players
  - As a receiver supports H.265 / H.264 streams from mainstream IP cameras compliant with ONVIF-S* and RTSP protocols

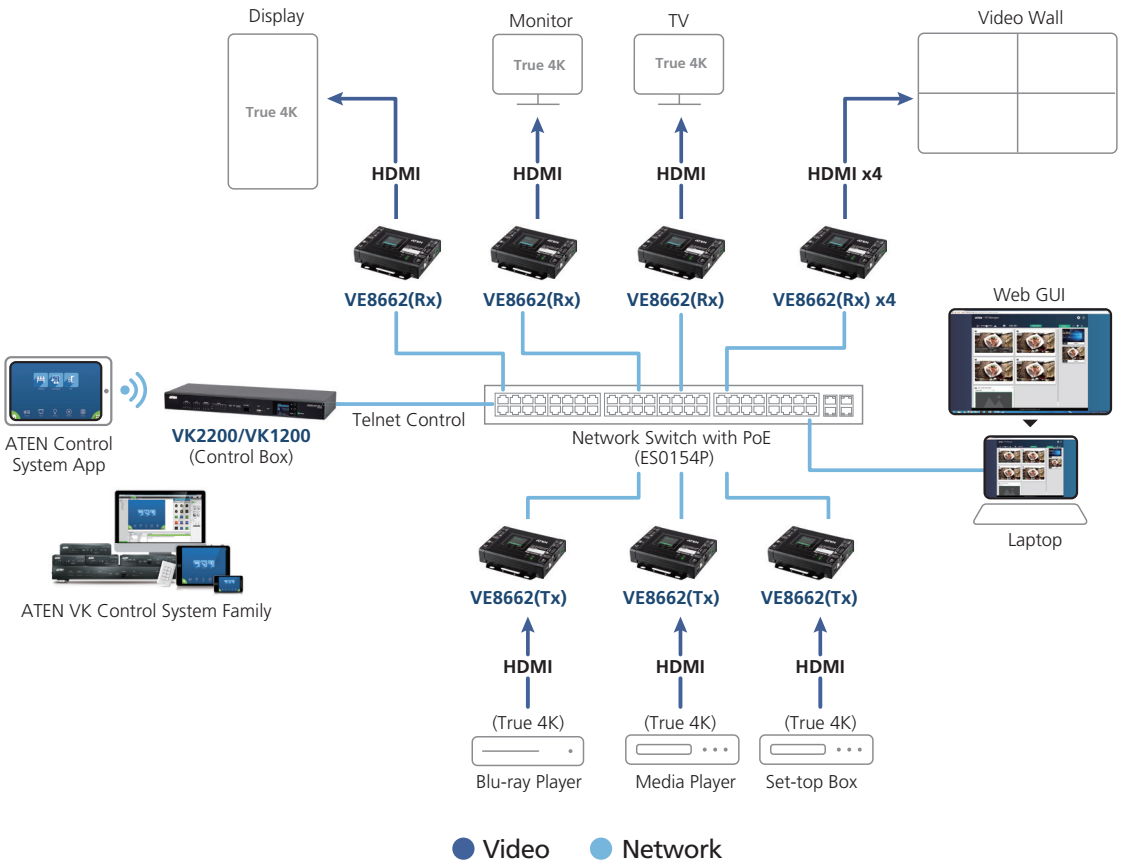
Note: VE8662 supports only audio/video streaming and device discovery under ONVIF-S.

Limitless Scalability and Flexibility

- Extends AV connections from a simple point-to-point to a multi-point to multi-point setup via up to 100 meters (point to point)
- Offers multiple functions for applications such as extenders, splitters, video walls, and matrix switches
- Built-in 8KV/15KV ESD protection
- Rack-mountable

Collaboration with ATEN Control System

- Integrated solution – compatible with ATEN Control System, allowing users to directly operate VE8662 via CLI Telnet, or RS-232 protocol
- Effortless operation – one click to effectively operate VE Manager, TV, projector, source player, and related equipment via touch panel and keypad

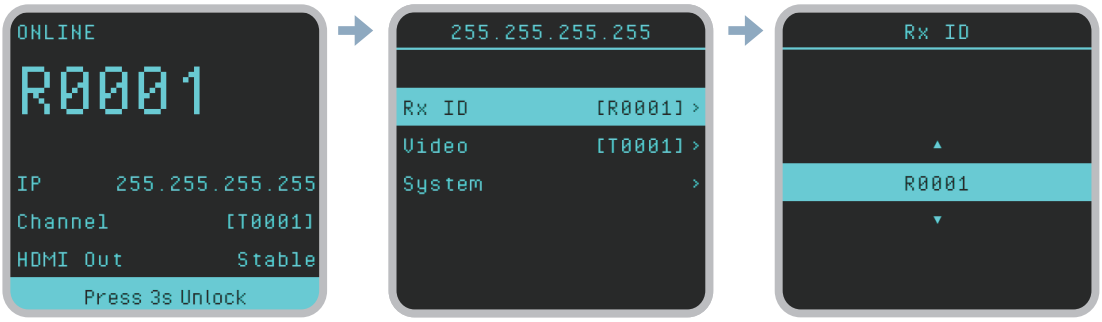


Note: VE8662 supports PoE and can be installed in combination with PoE network switches to reduce power cabling and additional power outlets. Before choosing the Network switch and installation, please refer to the Implementation Guide.

No Complicated IP Setup

- Simple configuration with no extensive IT experience or extra learning required
- Assign ID numbers for fast installation, no complex IP settings required
- Single DIP switch enables easy switching between transmitter / receiver, with 'T' or 'R' shown on the LCM and distinct backlighting for easy identification

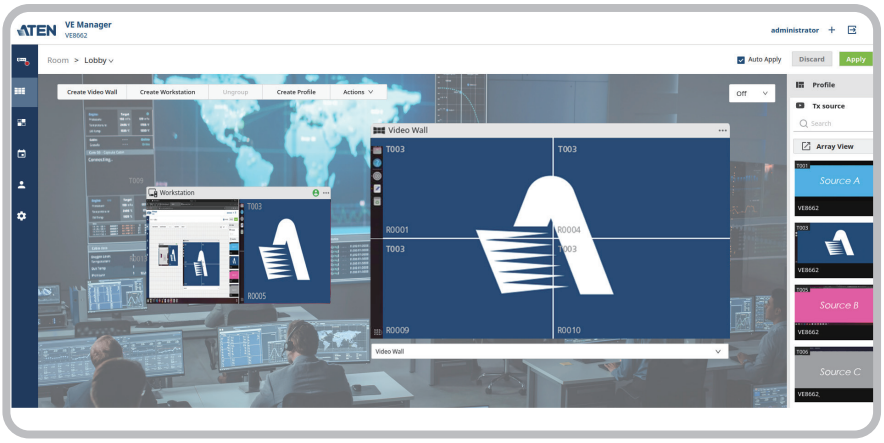
- Effortless source switching via pushbuttons



Web GUI-Based Management, No Additional Server PCs or Software Required

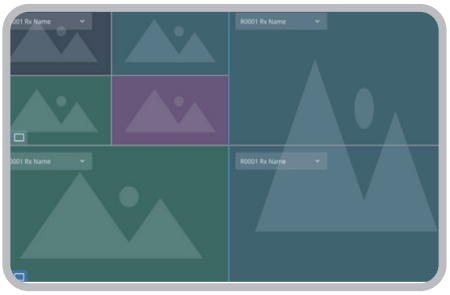
- Drag-and-drop video sources, preview sources, and monitor displays via intuitive web GUI
- Contextualized web GUI with environmental pictures for intuitive control
- Fast switching enables real-time video streams and stable signal transmission
- User authority control for high-security applications
- Workstation supports quad-view* functionality with boundless switching via keyboard and mouse controls

Note: Each of the four views supports 1080p resolution; the combined display of all four views supports up to 4K resolution.



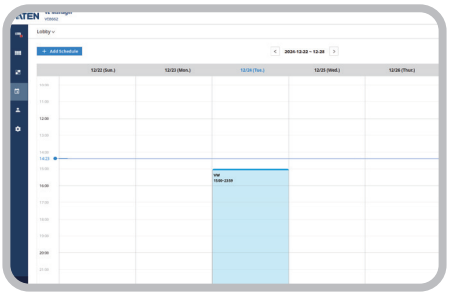
Video Wall Support

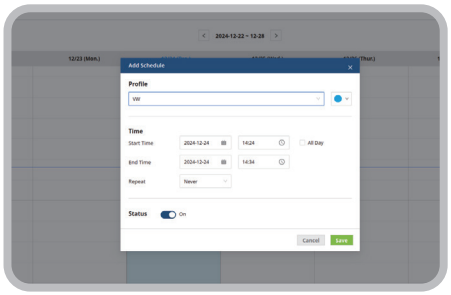
- Real-time video display with "What You See Is What You Get" functionality
- Supports horizontal and vertical display orientations (including 90° and 270° rotations)
- "Push" and "Pull" – shares content instantly to / from a single Rx or video wall by just one click
- Supports customized video wall layouts – users can "combine" multiple receiver screens into a single large display or "divide" them back into separate units, enabling flexible display configurations



Spontaneous Scheduling Management

- User-friendly scheduling management with minute-level event control
- Group VE8662 devices by receivers or video walls for content editing and playback
- Multiple profiles arranged to play in any order over a selected time period





Embedded / De-embedded Audio Support

- Separate audio signals can be embedded into the HDMI stream
- Audio stream can be extracted from the HDMI stream and delivered as a separate audio signal
- Supports Audio Matrix – routes audio from selected transmitters to selected receivers, allowing flexible setup based on different unit requirements

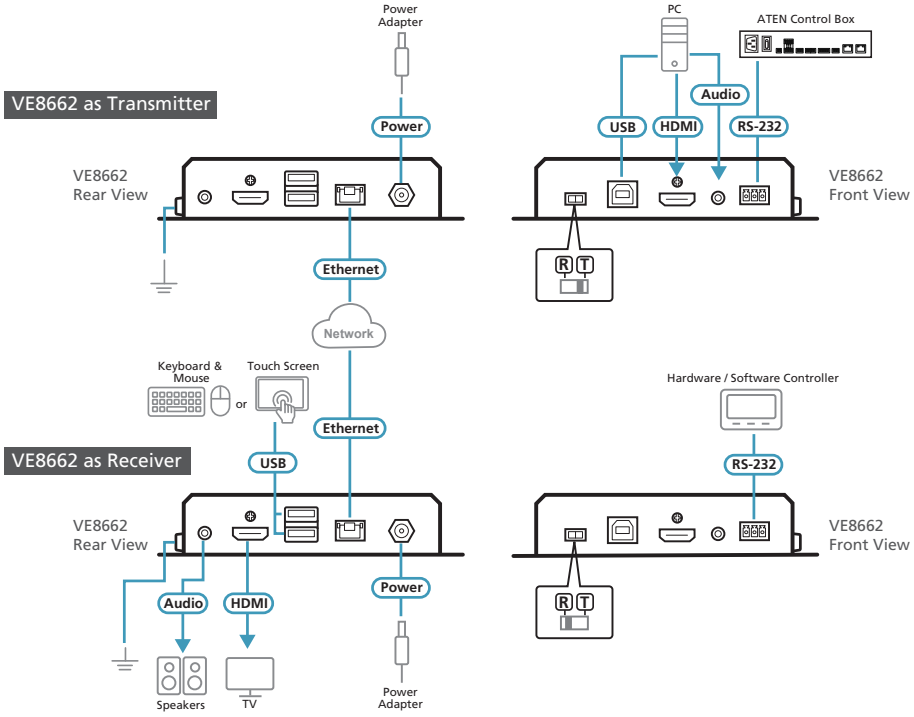
Multiple Control Channels

- LCD screen – top-panel LCD screen and pushbuttons allow for switching input, monitoring the ID & IP address and status of the extender
- Intuitive web GUI – software independent, simple to operate it on any PC or Notebook
- USB Connectivity – USB 2.0 ports allow for connection of devices such as keyboard, mouse and USB touch panels
- RS-232 Channel – bi-directional RS-232 serial port allows for connection of peripherals such as touch screens and barcode scanners
- Supports CLI access via Telnet, SSH, or a direct RS-232 serial connection for remote control and management
- Remote KVM control – hotkey switching (double-click the Ctrl key), OSD switching on the receiver, and boundless mouse switching

High-Security Protection

- Supports dynamic UDP media multicast ports
- AES-128 encryption for AV streaming in SRTP (Secure Real-time Transport Protocol)
- HTTPS for secure communication
- WSS for encrypted real-time data communication

Note: If you experience issues related to your network architecture, please refer to the ATEN HDMI over IP Video Extender System Implementation Guide or contact ATEN representatives for assistance.



Note: The illustrated diagram is based on two VE8662 units.

Specifications

	VE8662
Video Input	
Max. Distance	5m
Impedance	100 Ω
Interfaces	1 x HDMI Type A Female (Black)
Video Output	
Interfaces	1 x HDMI Type A Female (Black)
Impedance	100 Ω
Max. Distance	5m
Video	
Max. Data Rate	Average: 20 ~ 25 Mbps
Compliance	HDMI HDCP2.3 & HDCP2.2 Compatible
Max. Resolutions / Distance	Up to True 4K@100m (Cat 5e/6, point to point) *True 4K supported: 3840 x 2160 @ 60Hz (4:4:4)
Video Compression	H.265 Codec Latency: 3~5 frames
Audio	
Input	1 x HDMI Type A Female (Black) / 1 x Mini Stereo Jack Female (Green)
Output	1 x HDMI Type A Female (Black) / 1 x Mini Stereo Jack Female (Green)
Connectors	
Unit To Unit	1 x RJ-45 Female (with PoE)
Power	1 x DC Jack (Black) with locking or 1 x RJ-45 PoE PD (Power over Ethernet, Powered Device) port
Control	
RS-232	Connector: 1 x Terminal Block, 3 pole / Baud Rate: 115200 (Max), Data Bits:8 / Stop Bits:1, no parity and flow control
USB Channel	1 x USB Type-B Female (Host) / 2 x USB Type-A Female (Device)
Pushbuttons	
Operating Mode Selection	3 x Pushbuttons for LCM operation
Switches	
Selection Mode	1 x Slide Switch – T (Be a Transmitter) / R (Be a Receiver) selection
LEDs	
Power	1 x DC in LED (Green) / 1 x PoE LED (Green)
Power Consumption	DC12V:4.79W (Tx) / DC12V:4.98W (Rx)
Power over Ethernet (PoE)	IEEE 802.af PoE compliant / 5.99W(Tx) / 6.23W(Rx)
Environmental	
Operating Temperature	0 – 40°C
Storage Temperature	-20 – 60°C
Humidity	0 – 80% RH, Non-Condensing
Physical Properties	
Housing	Metal
Weight	0.51 kg
Dimensions (L x W x H) with bracket	14.02 x 12.30 x 3.00 cm
Dimensions (L x W x H) without bracket	13.60 x 10.10 x 2.90 cm

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