

# True 4K HDMI / USB HDBaseT 3.0 Transceiver

## VE1843

The VE1843 is ATEN's first video transceiver and integrates the functions of a transmitter and a receiver into one unit. This combination allows users to easily configure the unit to be a transmitter or receiver depending on their AV solution, and to enjoy more flexible deployment and effective use with video matrix switches, video splitters, etc.

Designed with HDBaseT 3.0 technology, the VE1843 not only extends True 4K uncompressed signals up to 100 m over a single Cat 6a cable with zero latency, but also transmits IR, RS-232, Ethernet, independent audio, and USB signals with the latest HDBaseT standards. For stable HDMI signal transmission, the VE1843 ensures high-quality visuals and reliable extension by supporting HDCP 2.2, 3D, Deep Color, and HDR. In addition, the VE1843 is equipped with HDMI audio embedded / de-embedded functions, enabling users to flexibly adapt suitable audio / video combinations based on different environments. To ensure non-stop operations, the fanless fin heat sink design prevents overheating and thus elevates its reliability.

Empowered by the above benefits, the VE1843 increases the potential of AV applications while also streamlining complex installations. This makes the VE1843 an ideal solution for conference halls, auditoriums, lecture halls, museums, exhibition rooms, and anywhere else that requires high-quality transmission and easy-to-use application.



Front View

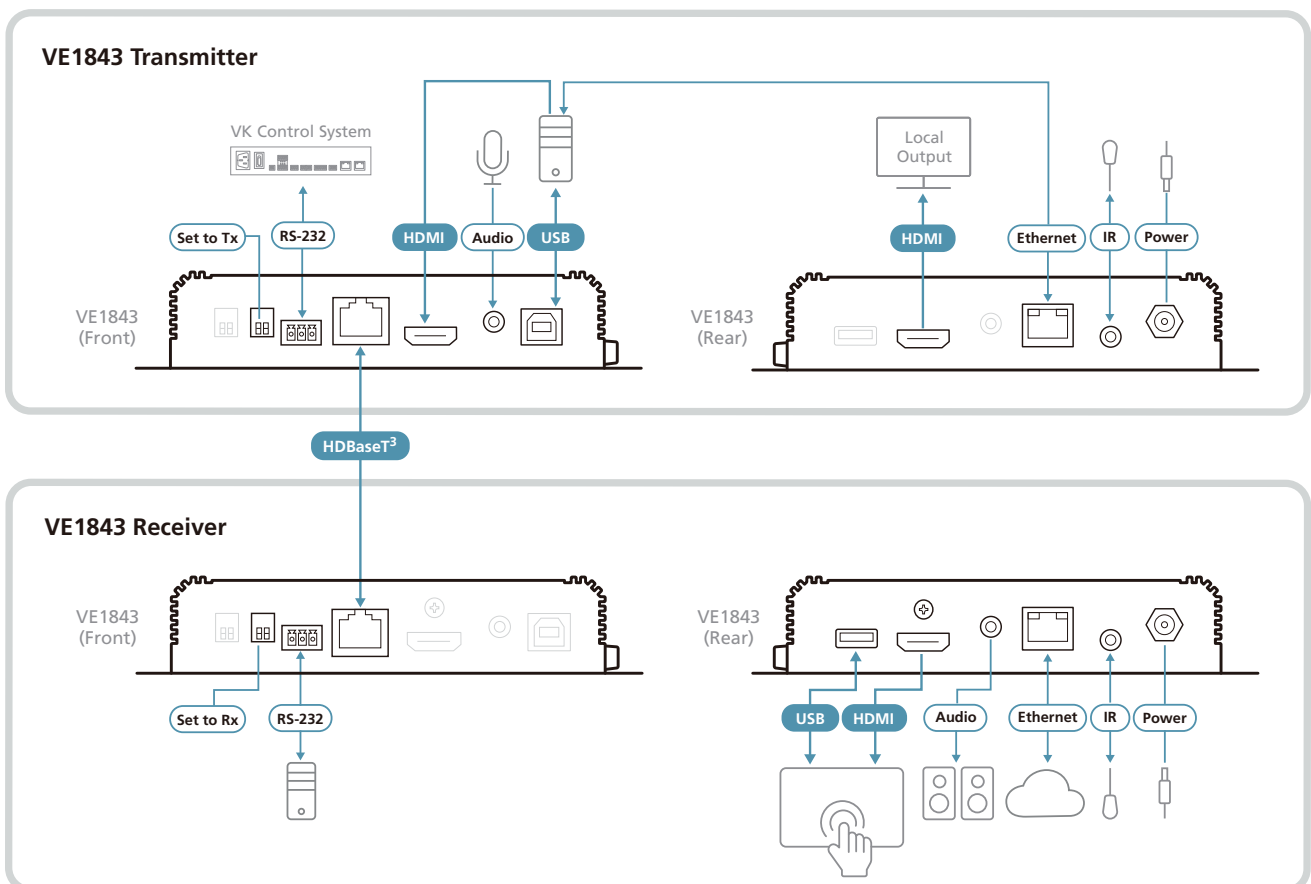


Rear View



## Features

- Extends uncompressed True 4K HDMI signals up to 100 m over a single Cat 6a cable (HDBaseT Certified Cat 6a cable) with zero latency
- Flexible for deployment — can be configured as a transmitter or receiver depending on the AV solution
- Compliant with HDBaseT 3.0 standards — transmits high-quality video, full range IR, bi-directional RS-232, Gigabit Ethernet, independent stereo audio and USB 2.0 signals channel bypass
- HDMI (3D, Deep Color, 4K/60Hz); HDCP 2.2 compliant
- Superior video quality — up to 4096 x 2160 @ 60 Hz (4:4:4); HDR supported
- Supports HDMI audio embedded / de-embedded functions
- Supports HDMI local output
- Compliant with the USB 2.0 standard for a wide range of USB peripherals compatibility
- LED indication of HDBaseT and HDMI signal status for easier recognition
- Fanless fin heat sink enclosure — elevates durability and reliability by preventing overheating, fan malfunctions, and noises
- Firmware upgradable
- Built-in 8KV / 15KV ESD protection
- Plug-and-play
- Rack-mountable



**Note:** The illustrated installation is based on two VE1843 units.

## Specifications

VE1843	
<b>Video Input</b>	
Interfaces	1 x HDMI Type A Female (Black)
Impedance	100 Ω
Max. Distance	5 m
<b>Video Output</b>	
Interfaces	1 x HDMI Type A Female (Black)
Impedance	100 Ω
Max. Distance	5 m
<b>Video</b>	
Max. Data Rate	18Gbps (6Gbps per lane)
Max. Pixel Clock	600 MHz
Compliance	HDMI (3D, Deep Color, 4K/60Hz); 4K HDR HDCP 2.2 Compliant
Max. Resolutions	4096 x 2160 @ 60Hz (4:4:4) 3840 x 2160 @ 60Hz (4:4:4)
Max. Resolutions / Distance	Up to 4K x 2K @ 60Hz (4:4:4) @ 100 m (HDBaseT <sup>3</sup> Certified Cat 6a cable / ATEN 2L-2920* Cat 6a cable) *2L-2920 Cat 6a cable will be coming soon. Please contact regional sales for any request.
<b>Audio</b>	
Input	1 x HDMI Type A Female (Black) 1 x Stereo Audio (mini stereo jack female, Green)
Output	1 x HDMI Type A Female (Black) 1 x Stereo Audio (mini stereo jack female, Green)
<b>Connectors</b>	
Unit to Unit	1 x RJ-45 Female
Power	1 x DC Jack (Black) with locking
<b>Control</b>	
RS-232 Channel	Connector: 1 x Terminal Block, 3 pole Baud Rate: 19200, Data Bits:8, Stop Bits: 1, no parity and flow control
IR Channel	1 x Mini Stereo Jack Female, (Bi-directional, Black) 30K – 56 KHz full range transmission
Ethernet Channel	1 x GbE (RJ-45 Female)
USB Channel	1 x USB Type B Female (White, Host) 1 x USB Type A Female (White, Device)
<b>Switches</b>	
Selection	1 x Slide Switch - Tx (Be a Transmitter) / Rx (Be a Receiver) selection
Mode Selection	1 x Slide Switch - HDMI Audio Embed or De-embed ON/OFF selection
Firmware Upgrade	1 x Slide Switch - ON/OFF
Long Reach Mode Switch	1 x Slide Switch - ON/OFF (Reserved)
<b>LEDs</b>	
Power	1 x Tx (Transmitter, Green) 1 x Rx (Receiver, Green) NOTE: When Tx (or Rx) Power LED On, it means VE1843 switch to Tx (or Rx)
Link	1 x Tx (Transmitter, Orange) 1 x Rx (Receiver, Orange)
Video Output	1 x Rx HDMI OUT (Receiver, Orange)
Video Input	1 x Tx HDMI IN (Transmitter, Orange)
<b>Power Consumption</b>	
DC12V: 6.45W: 40BTU	
<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	0.64 kg
Dimensions (L x W x H)	17.15 x 15.09 x 3.00 cm

### ATEN International Co., Ltd.

3F, No.125, Sec. 2, Datung Rd., Sijhih District., New Taipei City 221, Taiwan  
 Phone: 886-2-8692-6789 Fax: 886-2-8692-6767  
 www.aten.com E-mail: marketing@aten.com

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