VE816R

4K HDMI HDBaseT Receiver with Scaler (4K@100m) (HDBaseT Class A)

ATEN VE816R 4K HDMI HDBaseT Receiver with Scaler is designed to work with several ATEN HDBaseT Matrix Switches to extend 4K HDMI signals up to 100 m over a single Cat 5e/6/6a or an ATEN 2L-2910 Cat 6 cable, and at the same time, scales videos of different resolutions for optimal display.

Supporting bi-directional RS-232 channel and IR signaling pass-through, the VE816R provides users with the path to remotely control the compatible devices. When working with an ATEN HDBaseT Matrix, the VE816R features Frame Sync and Cable Quality Tester technologies to ensure smooth video and intuitive cable testing process.

When working with ATEN HDMI HDBaseT-Lite Matrix Switches or Modular Matrix Switches with HDBaseT output boards, the VE816R supports video wall integration and ATEN's Seamless Switch function, providing users with the ultimate AV experiences.

Features

- Extends HDMI, RS-232, and IR signals up to 100 m over a single Cat 5e/6/6a or ATEN 2L-2910 Cat 6 cable
- HDCP 2.2 compatible
- Superior video quality:
  - 4K up to 100 m
  - 1080p up to 150 m
- HDBaseT Long Reach Mode – activated by RS-232 commands, Long Reach Mode extends signals up to 150 m, 1080p, via a single Cat 5e/6 cable
- Scaler – scales videos of different resolutions to their optimal output for display and to avoid black screen*
- Video Wall – features video wall profiles that allows for custom screen layouts via an intuitive web GUI**
- Seamless Switch™ – close-to-zero second switching that provides continuous video streams, real-time switching, and stable signal transmissions**
- HDBaseT Anti-jamming – resists signal interference during high-quality video transmissions using HDBaseT technology
- Bi-directional RS-232 channel – allows for control using serial terminals or serial devices, such as touch screens and barcode scanners
- Bi-directional IR channel – IR transmission is processed one direction at a time***
- Cable Quality Tester – examines the category cable quality through signal level detection from HDBaseT Matrix Switches to the VE816R.
- FrameSync – prevents image tearing by synchronizing the scaler output frame rate to the input signal frame rate
- Remote Firmware upgrade
- Built- in 8KV / 15 KV ESD protection
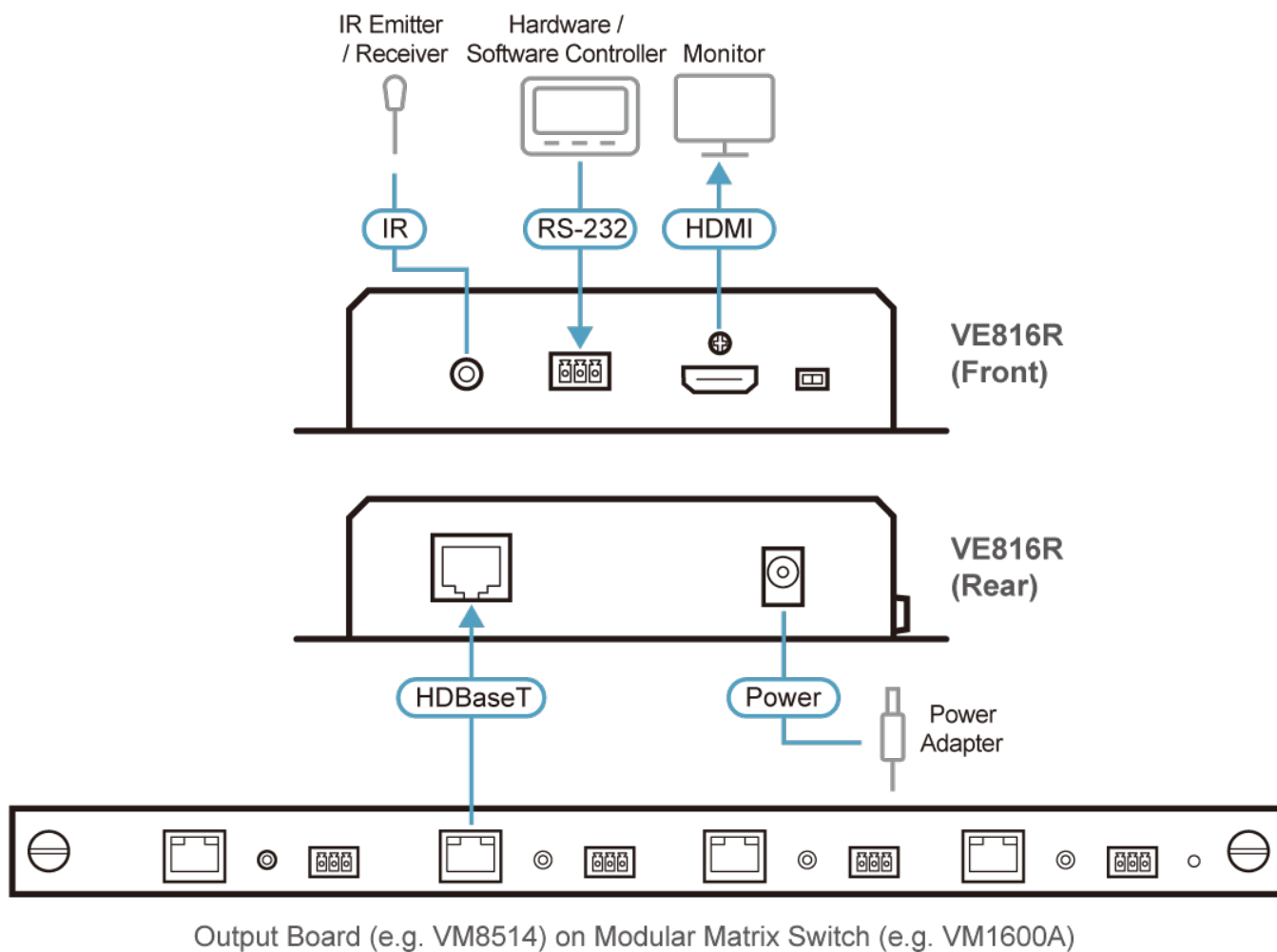- Plug-and-play
- Rack-mountable

Note:
1. Videos may not display within range when Seamless Switch™ or Video Wall is enabled, in which case please adjust the display settings on your device.
2. The Seamless Switch™ and video wall functionalities are available when the VE816R is used with ATEN HDBaseT Matrix. For further information, please see the compatible list below
3. Supports full-frequency IR signals from 30 KHz to 56 KHz.

Specifications

Video Input	
Interfaces	1 x RJ-45 Female (Silver)
Impedance	100 Ω
Video Output	
Interfaces	1 x HDMI Type A Female (Black)
Impedance	100 Ω
Max. Distance	3 m
Video	
Max. Data Rate	10.2 Gbps (3.40 Gbps per lane)
Max. Pixel Clock	340 MHz
Compliance	HDMI (3D, 4K, Deep Color) HDCP2.2 Compatible HDBaseT Compatible
Max. Resolutions / Distance	Up to 4K@70m (Cat 5e/6) / 100m (Cat 6a/ATEN 2L-2910 Cat6); 1080p@100m (Cat 5e/6/6a) *4K supported: 4096 x 2160 / 3840 x 2160 @ 60Hz (4:2:0); 4096 x 2160 / 3840 x 2160 @ 30Hz (4:4:4)
Connectors	
Unit To Unit	1 x RJ-45 Female
Power	1 x DC Jack (Sliver)
Control	
IR Channel	1 x Mini Stereo Jack Female (Black);
RS-232 Channel	1 x Terminal Block, 3 pole (Green)
Switches	
Firmware Upgrade	1 x Slide Switch - ON/OFF
Power Consumption	DC5V:9.09W:28BTU/h Note: ● The measurement in Watts indicates the typical power consumption of the device with no external loading. ● The measurement in BTU/h indicates the power consumption of the device when it is fully loaded.
Environmental	
Operating Temperature	0 - 40°C
Storage Temperature	-20 - 60°C
Humidity	0 - 80% RH, Non-Condensing
Physical Properties	
Housing	Metal
Weight	0.67 kg (1.48 lb)
Dimensions (L x W x H) with bracket	16.80 x 14.69 x 3.00 cm (6.61 x 5.78 x 1.18 in.)
Dimensions (L x W x H) without bracket	16.60 x 12.49 x 2.90 cm (6.54 x 4.92 x 1.14 in.)
Carton Lot	5 pcs

Diagram

IR Emitter / Receiver

Hardware / Software Controller

Monitor

IR

RS-232

HDMI

VE816R (Front)

VE816R (Rear)

HDBaseT

Power

Power Adapter

Output Board (e.g. VM8514) on Modular Matrix Switch (e.g. VM1600A)