4K HDMI HDBaseT Receiver with Scaler
VE816R

● 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 the path to remotely control the compatible devices. When working with 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 the ultimate A/V experiences.

VE816R Front View

VE816R Rear View

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[1]
- Video Wall – features video wall profiles that allows for custom screen layouts via an intuitive web GUI[2]
- Seamless Switch™ – close-to-zero second switching that provides continuous video streams, real-time switching, and stable signal transmissions[2]
- 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[3]
- 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
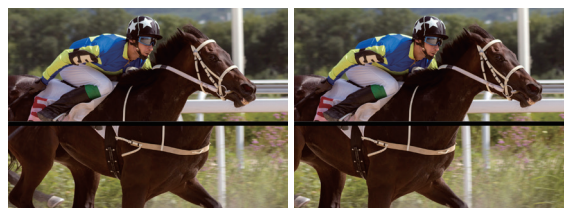- Plug-and-play
- Rack-mountable

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
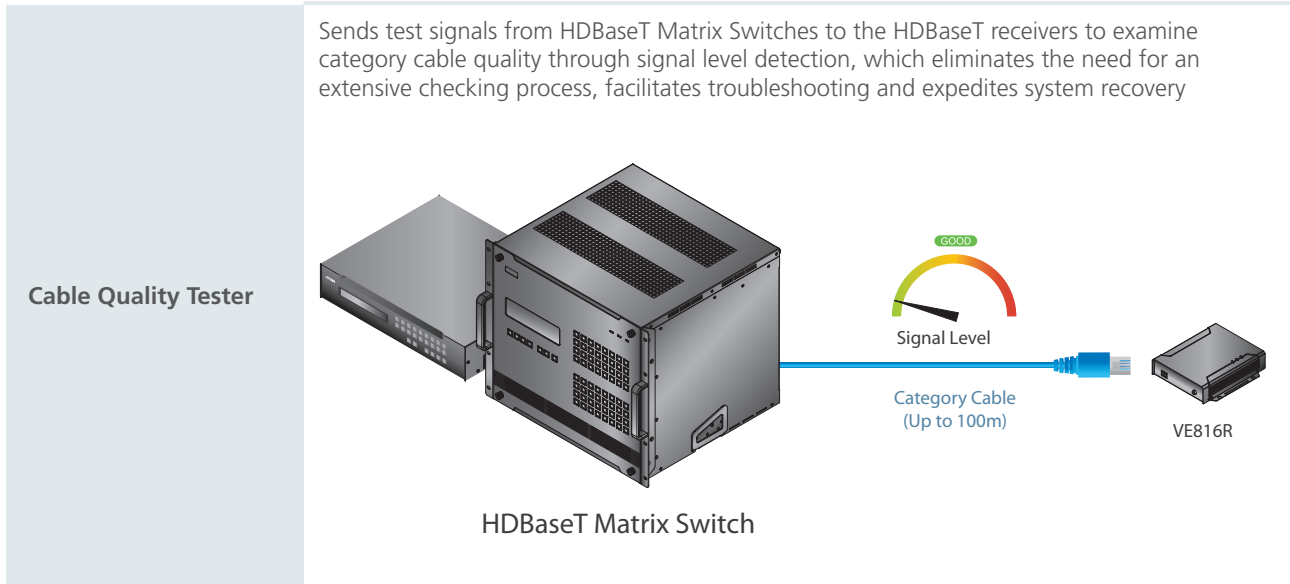3. Supports full-frequency IR signals from 30 KHz to 56 KHz.

Highlights

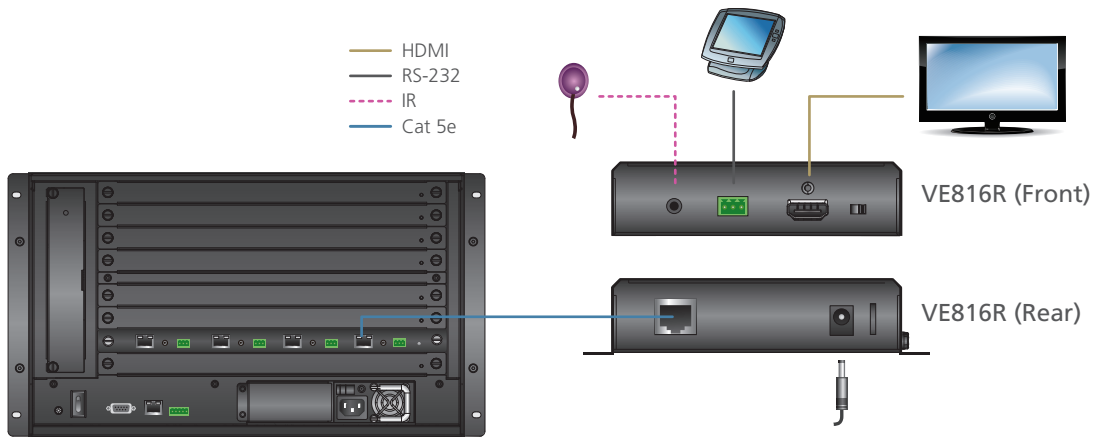|	In video wall mode, FrameSync prevents image tearing without adding or dropping frames by synchronizing the scaler output frame rate to the input signal frame rate and guarantees smooth video for high-motion elements, especially when a fast-moving object appears on the screen
FrameSync	 **Before** **After**

Cable Quality Tester

Sends test signals from HDBaseT Matrix Switches to the HDBaseT receivers to examine category cable quality through signal level detection, which eliminates the need for an extensive checking process, facilitates troubleshooting and expedites system recovery

GOOD

Signal Level

Category Cable
(Up to 100m)

VE816R

HDBaseT Matrix Switch

Compatible Products

Model	Description	Max. Distance	RS-232	IR	Seamless Switch	Video Wall
VM8514	4-Port HDBaseT Output Board	100 m / 150 m in Long Reach Mode	v	v	v	v
VM3404H	4 x 4 HDMI HDBaseT-Lite Matrix Switch	70 m	x	v	v	v
VM3909H	9 x 9 HDMI HDBaseT-Lite Matrix Switch	70 m	x	v	v	v

Note:
• VM8514 is compatible with VE816R when plugged into ATEN Modular Matrix Switches (VM1600 and VM3200).
• For a complete list of compatible ATEN products, please visit the VE816R product web page.

Optional Accessories

Description	Model
HDMI Cable	2L-7D02H-1 (2m), 2L-7D03H (3m), 2L-7D05H (5m), 2L-7D10H (10m),
Cat 6 Cable	2L-2910
Video Extender Rack Mount Kit	VE-RMK 1U

- HDMI
- RS-232
- IR
- Cat 5e

VE816R (Front)

VE816R (Rear)

Specifications

Functions	VE816R
Video Output	
Interfaces	1 x HDMI Type A Female (Black)
Impedance	100 Ω
Max. Distance	Up to 10 m
Video	
Max. Data Rate	10.2 Gbps (3.40 Gbps per lane)
Max. Pixel Clock	340 MHz
Compliance	HDMI (3D, 4K, Deep Color) HDCP 2.2 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
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	
Connectors	1 x DC Jack (Sliver)
Consumption	DC 5V, 9.09W
Environmental	
Operating Temperature	0° to 40° C
Storage Temperature	-20° to 60° C
Humidity	0 - 80% RH, Non-Condensing
Physical Properties	
Housing	Metal
Weight	0.67 kg
Dimensions (L x W x H) with bracket	16.80 x 14.69x 3.00 cm
Dimensions (L x W x H) without bracket	16.60 x 12.49 x 2.90 cm

Product information is subject to change without prior notice.

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