ATEN

Connect Further, Control Easier

HDBaseT Solutions

Contents

Contributor to the Next Generation of Connectivity

A longtime member of the HDBaseT™ Alliance, ATEN has over 30 qualified HDBaseT trainers and over 20 Pro AV solutions certified by HDBaseT™, including video matrix switches and high-definition definition video/KVM extenders and splitters.

In addition to new Contributor member privileges such as a dedicated company page in the HDBaseT Alliance's Installer Zone, ATEN will also be invited to share the benefits of 40 years of IT management and KVM control experience to define specifications for products that further accelerate the integration of AV and IT technologies, in turn helping both customers and solution partners to stay ahead of the curve.

ATEN HDBaseT Profile

▪ Since 2013
▪ Contributor member
▪ 30+ ATEN-HDBaseT trainers
▪ 20+ ATEN-HDBaseT products
  Modular Matrix Switches
  Video Matrix Switches
  Video Splitters
  Video Extenders
  KVM Extenders

Less is More with HDBaseT

HDBaseT technology is ideal for professional AV installations and provides a simple and cost-effective solution for transmitting 4K ultra high definition (UHD) signals up to 100 meters.

Simplified Cabling
Implements HDBaseT™ extension technology to connect transmitter and receiver units over one single Cat 6 / 6a cable

Long-Distance Transmission
Delivers uncompressed video & audio using one Cat 6/6a cable up to 100-150m

Flexible Control
Provides multiple control signals: CEC, RS–232, Ethernet, IR and USB 2.0

Ultra HD and High Quality Audio
Supports Full HD, 3D and 4K x 2K, Dolby True HD and DTS HD Master Audio

Anti-jamming Design
HDBaseT Anti–jamming technology resists signal interference during high–quality video transmissions

POH (Power over HDBaseT)
Supplies power from the Power Source Equipment (PSE) to the Power Device (PD) over long distances via one Cat 6 / 6a cable

USB	Control (RS232/IR/CEC)	Power	HDMI	Audio	Ethernet	HDBaseT

HDBaseT
KVM Extender
Series

Zero Latency Signal Extension

ATEN HDBaseT KVM Extenders allow you to connect and control keyboard, video, and mouse signals from computers located up to 150m away from your console. USB and RS-232 connectivity enables applications that require touch panel support and the integration of additional devices.

CE920
USB DisplayPort HDBaseT 2.0 KVM Extender

Long Reach Mode 4K

CE820
USB HDMI HDBaseT 2.0 KVM Extender

HDCP 2.2 Long Reach Mode 4K

CE624
USB DVI Dual View HDBaseT 2.0 KVM Extender

Long Reach Mode Dual View

CE620
USB DVI HDBaseT 2.0 KVM Extender

Long Reach Mode

CE611 Compact size
Mini USB DVI HDBaseT KVM Extender

CE610A
DVI HDBaseT KVM Extender with ExtremeUSB®

EXTREME USB®

Comparison

| Model	CE920	CE820	CE624	CE620	CE611	CE610A
Interface	DisplayPort / HDBaseT	HDMI / HDBaseT	DVI / HDBaseT			
Unit to Unit	Cat 5e / 6 / 6a x 1					
Inputs to Outputs	1 to 1		2 to 2	1 to 1		
Max. Resolution / Distance	4K@100m; 1080p@100m		1920 x 1200@100m; 1080p@100m			
HDCP	HDCP 1.4	HDCP 2.2	HDCP 1.4	N/A	N/A	HDCP 1.4
Long Reach Mode (1080p@150m)	Active enable	Active enable	Active enable	Active enable	N/A	Passive enable
Dual View	N/A	N/A	•	N/A	N/A	N/A
Audio	• (DP) • Mic in / Speaker out	• (HDMI) • Mic in / Speaker out	• Mic in / Speaker out	• Mic in / Speaker out	• Mic in / Speaker out	N/A
RS-232 Channel	•	•	•	•	•	N/A
Ethernet	•	•	N/A	N/A	N/A	N/A
USB Channel	•	•	•	•	•	• (40 Mbps)
POH	N/A	N/A	N/A	N/A	N/A	N/A

Healthcare – MRI Diagnostics

A hospital implemented a new, cutting-edge MRI-guided radiation therapy as part of their ongoing development of leading treatments for cancer and brain disorders. They required a reliable extension solution with high-precision video quality and accuracy that would meet the high demands of such critical medical and healthcare applications.

ATEN Solution

By adopting ATEN's HDBaseT KVM Extenders, MRI equipment is accessed and operated with zero latency while uncompressed video with pixel-to-pixel quality is reliably delivered to the operator's room for real-time diagnosis.

CE920 –

USB DisplayPort HDBaseT 2.0 KVM Extender (4K@100m)
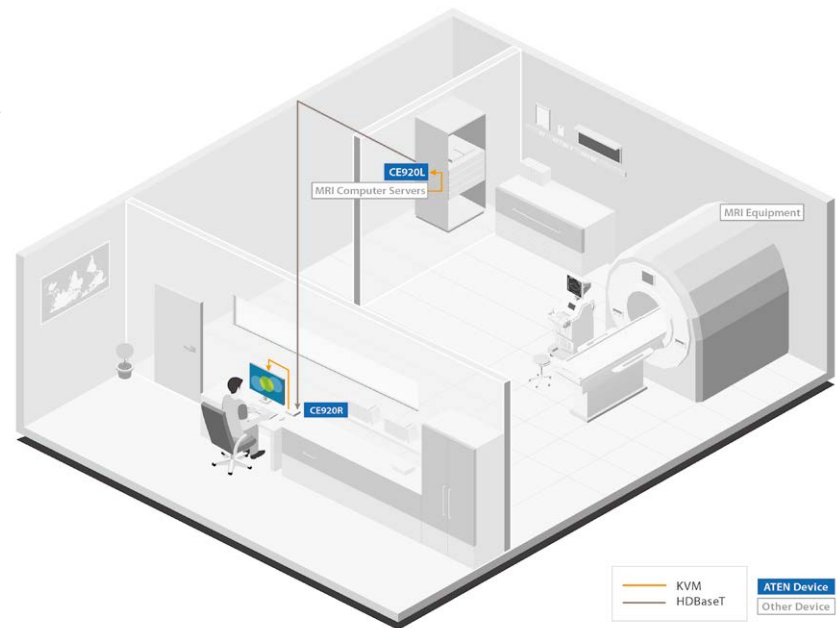
Retail – Self-Service Kiosk and Digital Signage

A multinational restaurant chain wanted to enhance its overall service and customer satisfaction by increasing related operational efficiency, reducing customer wait time, and improving the overall in-store experience. This involved the installation of self-service kiosks that automate the order and payment process, and the integration of a digital signage solution to offer interactive advertisements and order notifications.

ATEN Solution

ATEN's HDBaseT KVM Extenders, supporting touch and payment interfaces, allow flexible placement of self-service kiosks on the shop floor while extending to computers located in a secure room. Integration with a digital signage system enabled distribution of interactive content spread across multiple locations throughout the store.

CE820 –
USB HDMI HDBaseT 2.0 KVM Extender (4K@100m)
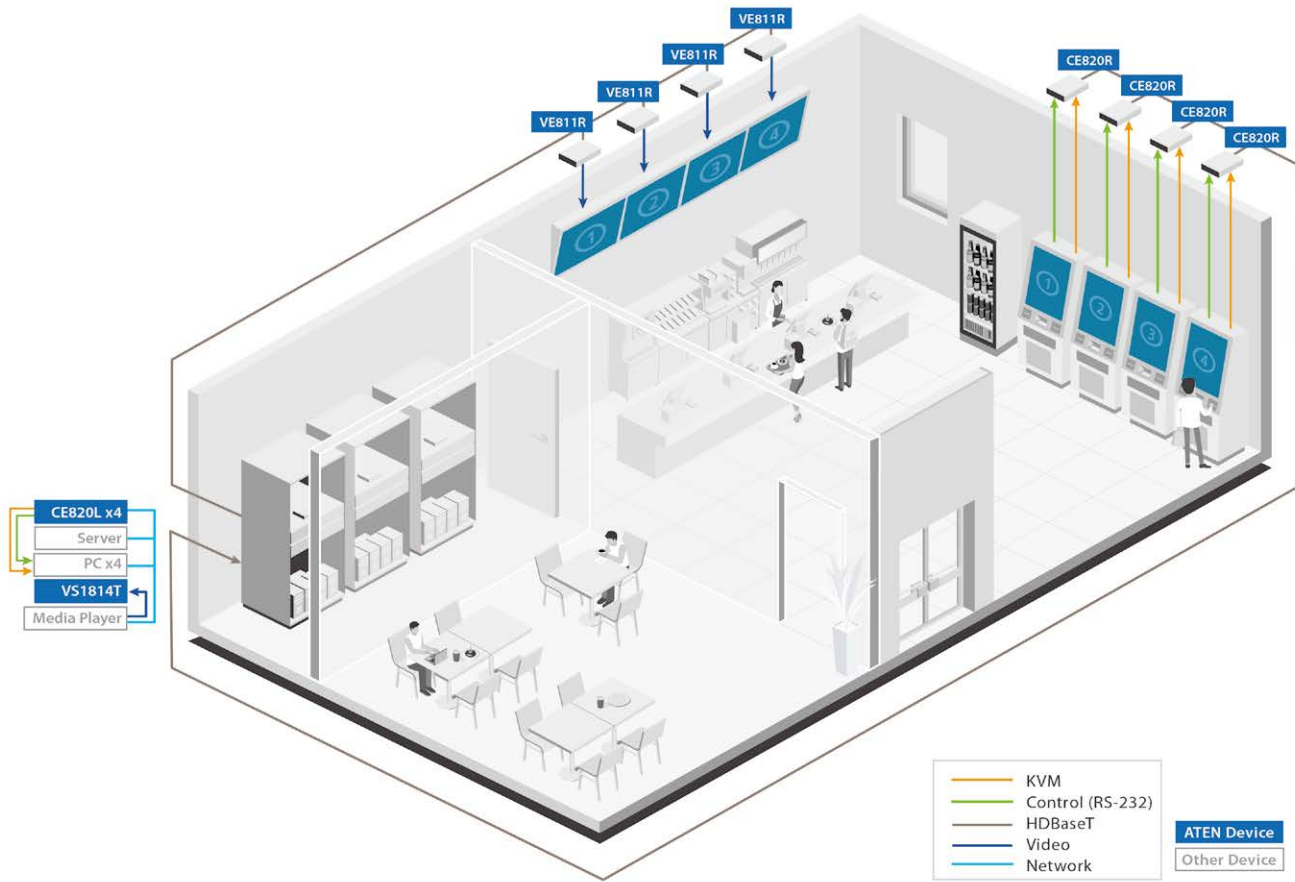VS1814T –
4-Port HDMI HDBaseT Splitter (HDBaseT Class A)
VE811R –
HDMI HDBaseT Receiver (4K@100m) (HDBaseT Class A)

VE811R
VE811R
VE811R
VE811R

CE820R
CE820R
CE820R
CE820R

① ② ③ ④

① ② ③ ④

CE820L x4
Server
PC x4
VS1814T
Media Player

	KVM
	Control (RS-232)
	HDBaseT
	Video
	Network

ATEN Device
Other Device

HDBaseT Matrix
with Video Wall
Solutions

Seamless, Tear-free Video Walls

ATEN HDBaseT Matrix switches and HDBaseT receivers with scaler ensure long distance video transmission and provide seamless switching and scaling functionality, giving a flawless video wall experience.

VM3200 / VM1600A
32x32 / 16x16 Modular Matrix Switch

VM7514 / VM8514
Compatible HDBaseT I/O Boards

VM3909H / VM3404H
9x9 / 4x4 HDMI HDBaseT-Lite Matrix Switch

VE805R
HDMI HDBaseT-Lite Receiver with Scaler

HDCP 1.4 | Video Wall | Seamless Switch

VE816R
4K HDMI HDBaseT Receiver with Scaler

HDCP 2.2 | Video Wall | Seamless Switch | FrameSync

Broadcasting & Media - Artear, Argentina

Artear, Argentina's most prolific television network, built a state-of-the-art newsroom to keep setting the pace for news broadcasting and creative, high-quality content. This involved centralized control of a 10x6 and 5x5 video wall from multiple devices, extension of video across long distances, as well as switching among different video wall layouts and contents with minimal lag. Power stability and redundancy for 24-7 operation was critical.

ATEN Solution

The support for extended HDBaseT transmission ensured that the solution was easily adaptable to the physical architecture of the newsroom while providing seamless switching and video wall functionality.

VM1600 – 16 x 16 Modular Matrix Switch
VM7404 – 4-Port 3G-SDI Input Board
VM8804 – 4-Port HDMI Output Board with Scaler
VM8514 – 4-Port HDBaseT Output Board
VE805R – HDMI HDBaseT-Lite Receiver with Scaler
VK2100 – ATEN Control System - Control Box
VS146 – 6-Port 3G-SDI Splitter
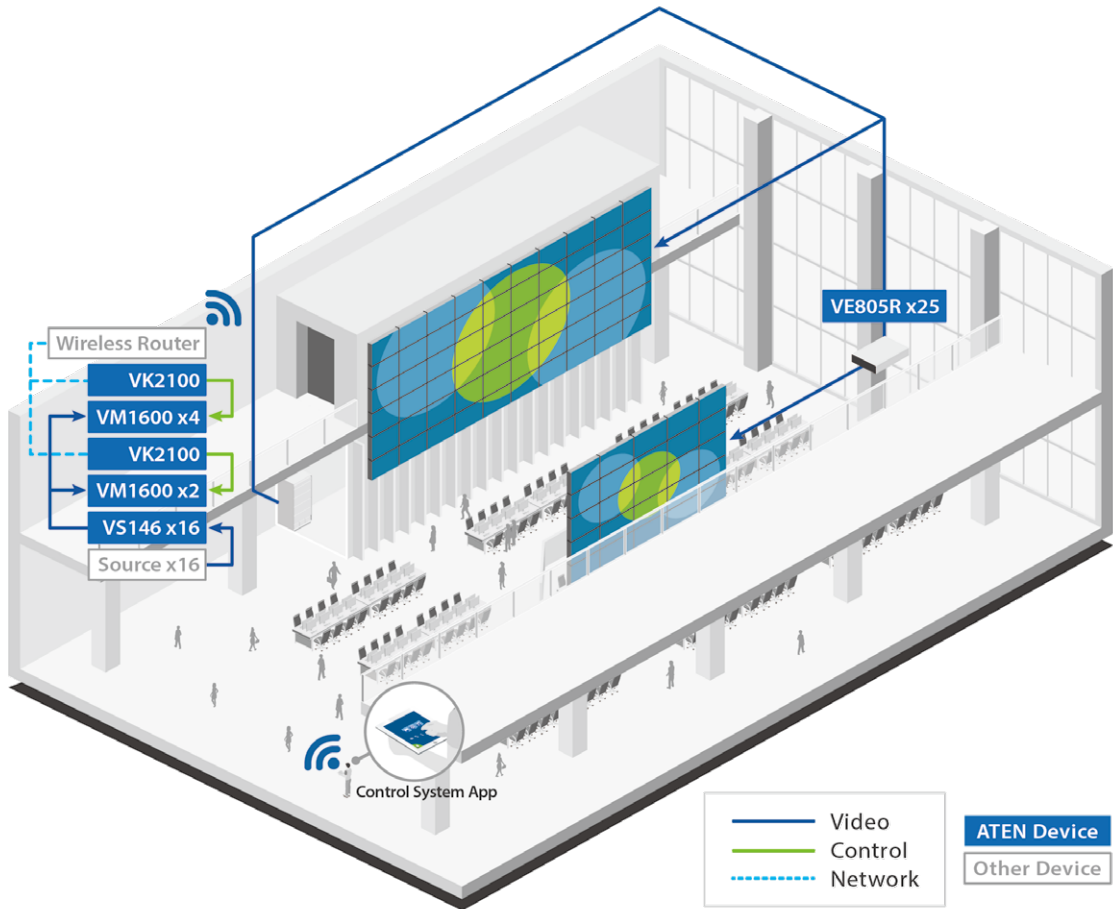
Wireless Router

VK2100

VM1600 x4

VK2100

VM1600 x2

VS146 x16

Source x16

VE805R x25

Control System App

——	Video	
——	Control	
----	Network	

ATEN Device

Other Device

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HDBaseT Media
Distribution
Solutions

High Quality Media Distribution

ATEN HDBaseT Media Distribution solutions are economical ways to send high-quality HDMI content over a Cat 5/6 cable to multiple displays over long distances from a single input source.

VS1814T / VS1818T

4-Port / 8-Port HDMI HDBaseT Splitter

4K

VE801R

HDMI HDBaseT-Lite Receiver (4K@40m)

HDCP 2.2 **4K**

VE812R

HDMI HDBaseT Receiver (4K@100m)

HDCP 2.2 **4K**

VE811R

HDMI HDBaseT Receiver (Supports Long Reach Mode – up to 150m)

HDCP 2.2 Long Reach Mode **4K**
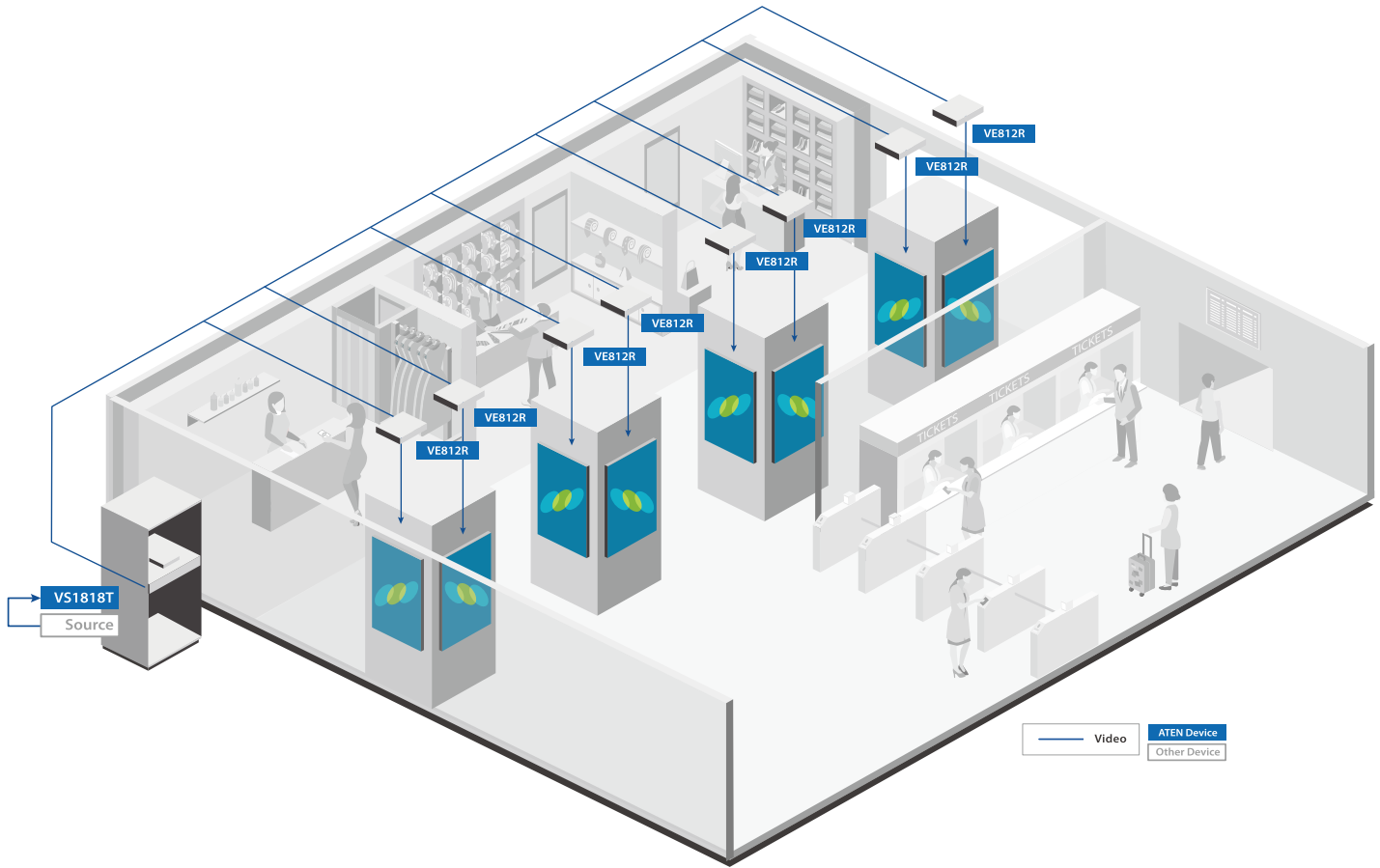
Transportation – Train Station, Japan

One of the biggest transportation hubs in the city of Osaka, Japan wanted to distribute eye-catching advertisements and important scheduling information to as many passengers as possible. To achieve this effectively they required 4K content broadcasted to multiple displays mounted vertically on pillars throughout the station, with transmission cloned simultaneously to more than 30 screens that are up to 100 meters apart. The solution needed to be centrally managed.

ATEN Solution

Utilizing HDBaseT technology to ensure long distance transmission, the ATEN solution reduced the number of signage players required in the installation by broadcasting one input source to multiple destinations simultaneously while also reducing heavy cabling.

VS1818T – 8-port HDMI HDBaseT Splitter
VE812R – HDMI HDBaseT Receiver (4K@100m)

VE812R

VE812R

VE812R

VE812R

VE812R

VE812R

VE812R

VE812R

VS1818T

Source

Video

ATEN Device

Other Device

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HDBaseT Video Extender Series

HDBaseT Class A (Up to 100M)

VE2812T
HDMI & VGA
HDBaseT Transmitter

HDCP 2.2 | Auto Switching
Long Reach Mode

4K

VE2812R
HDMI HDBaseT Receiver
with Audio De-Embedding

HDCP 2.2 | Long Reach Mode

4K

VE1812
HDMI HDBaseT Extender
with POH

HDCP 2.2 | Long Reach Mode
POH

4K

VE816R
4K HDMI HDBaseT
Receiver with Scaler

HDCP 2.2 | Video Wall
Seamless Switch | FrameSync

4K

VE814A
HDMI HDBaseT Extender
with Dual Output

HDCP 2.2 | Long Reach Mode

4K

VE813A
HDMI / USB HDBaseT
Extender

HDCP 2.2 | EXTREME USB®

4K

VE812
HDMI HDBaseT Extender

HDCP 2.2

4K

VE811 Compact size
HDMI HDBaseT Extender

HDCP 2.2 | Long Reach Mode

4K

HDBaseT Class B (Up to 70M)

VE1830 `Coming Soon`

True 4K HDMI HDBaseT-Lite Extender

HDCP 2.2 | 4K TRUE | HDR

VE901

DisplayPort HDBaseT-Lite Extender

HDCP 1.4 | 4K

VE805R

HDMI HDBaseT-Lite Receiver with Scaler

HDCP 1.4 | Video Wall | Seamless Switch

VE802

HDMI HDBaseT-Lite Extender with POH

HDCP 2.2 | POH | 4K

VE801

HDMI HDBaseT-Lite Extender

HDCP 2.2 | 4K

VE601

DVI HDBaseT-Lite Extender

HDCP 1.4

Comparison

Model	VE2812T	VE2812R	VE1812	VE816R	VE814A	VE813A	VE812	VE811
Video Interface	HDMI & VGA	HDMI	HDMI	HDMI	HDMI x 2	HDMI	HDMI	HDMI
HDBaseT Class	HDBaseT 1.0 Class A							
Max. Resolution / Distance	4K@100m; 1080p@100m							
HDR	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
HDCP	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Long Reach Mode (1080p@150m)*	• (Active)	• (Active)	• (Active)	• (Passive)	• (Active)	• (Passive)	• (Passive)	• (Active)
Local Output	N/A				•	N/A		
Audio	• (HDMI / Stereo)	• (HDMI / Stereo / Coaxial)	• (HDMI)	• (HDMI)	• (HDMI)	• (HDMI)	• (HDMI)	• (HDMI)
RS-232	•	•	•	•	•	N/A	N/A	N/A
IR	•	•	•	•	•	N/A	N/A	N/A
USB 2.0	N/A	N/A	N/A	N/A	N/A	•	N/A	N/A
Ethernet	N/A	N/A	N/A	N/A	•	N/A	N/A	N/A
POH	N/A	N/A	•	N/A	N/A	N/A	N/A	N/A
Scaler	N/A	N/A	N/A	•	N/A	N/A	N/A	N/A

* Models marked 'Active' provide Long Reach Mode support which can be activated via a switch on the unit.

Comparison

Model	VE1830	VE901	VE802	VE801	VE805R	VE601
Video Interface	HDMI	DisplayPort	HDMI	HDMI	HDMI	DVI
HDBaseT Class	HDBaseT 1.0 Class B					
Max. Resolution / Distance	True 4K@35m; 1080p@70m	4K@40m; 1080p@70m			1080p@70m	1920 x 1200@40m; 1080p@70m
HDR	•	N/A	N/A	N/A	N/A	N/A
HDCP	2.2	1.4	2.2	2.2	1.4	1.4
Long Reach Mode (1080p@150m)*	N/A					
Local Output	N/A					
Audio	• (HDMI)	• (DP)	• (HDMI)	• (HDMI)	• (HDMI)	N/A
RS-232	•	N/A	•	N/A	•	N/A
IR	N/A	N/A	•	N/A	•	N/A
USB 2.0	N/A	N/A	N/A	N/A	N/A	N/A
Ethernet	N/A	N/A	N/A	N/A	N/A	N/A
POH	N/A	N/A	•	N/A	N/A	N/A
Scaler	N/A	N/A	N/A	N/A	•	N/A

* Models marked 'Active' provide Long Reach Mode support which can be activated via a switch on the unit.

Hospitality – Elevens Bar & Grill, UK

Elevens Bar & Grill, a new sports bar launched by Wales and Real Madrid footballer Gareth Bale, desired a state-of-the-art solution to offer guests an unparalleled sports viewing experience in a stylish and modern setting, with 20 flat screens over two floors which broadcast the biggest live sporting events from around the world in stunning 4K. The solution needed to be simple enough for staff to use for staff to use, while maintaining the option to expand the number of video sources or displays at a later stage.
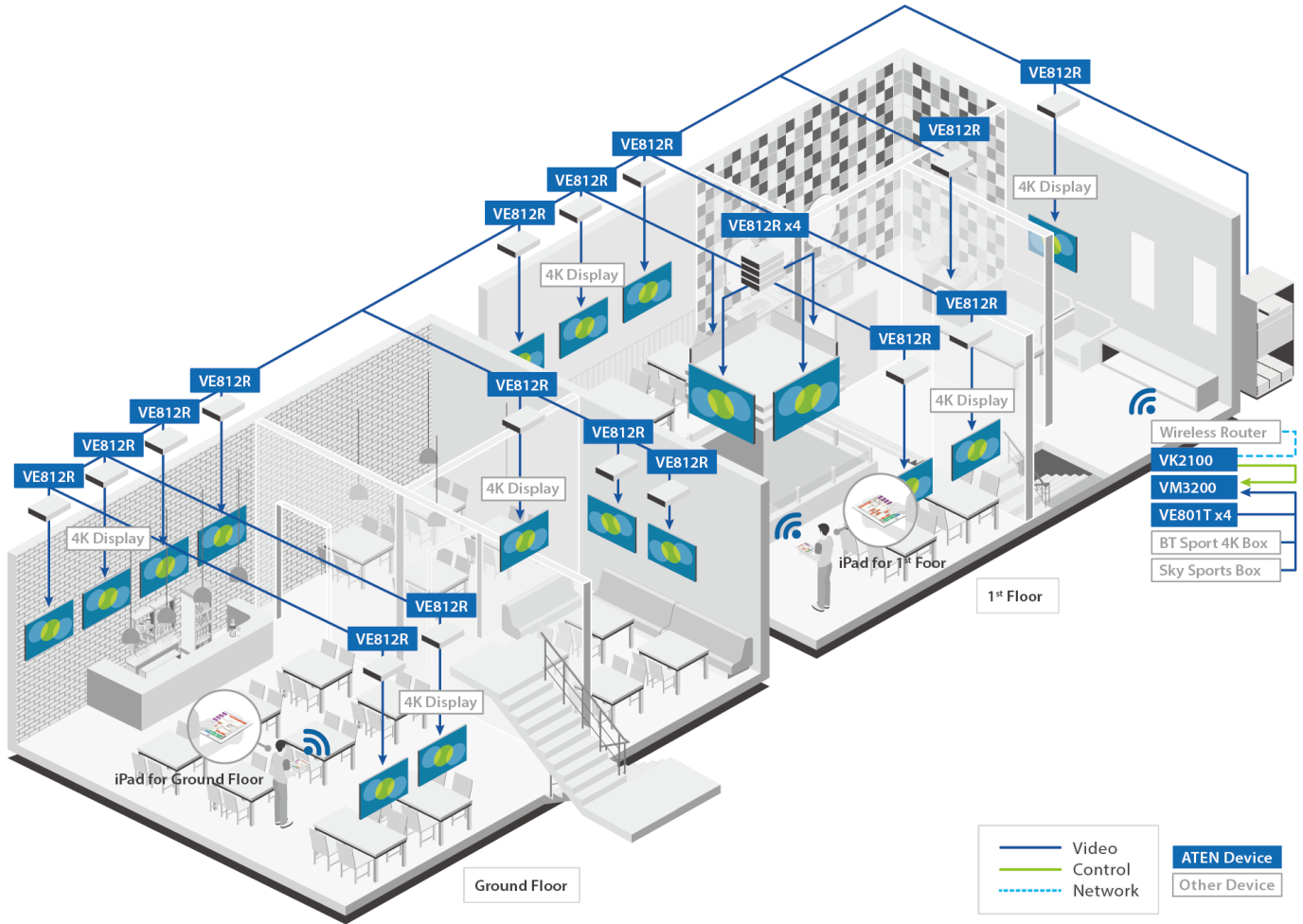
ATEN Solution

Taking full advantage of its modular matrix switch's full interoperability with HDBaseT technology, ATEN provided the perfect solution to guarantee to smooth distribution of 4K content while also allowing the staff access to easy-to-use content control capabilities for non-technical users via iPad.

VM3200 – 32 x 32 Modular Matrix Switch
VK2100 – ATEN Control System - Control Box
VE801T – HDMI HDBaseT-Lite Transmitter
VE812R – HDMI HDBaseT Receiver

VE812R

VE812R

VE812R

VE812R x4

VE812R

4K Display

VE812R

VE812R

4K Display

VE812R

VE812R

VE812R

VE812R

VE812R

4K Display

VE812R

VE812R

VE812R

4K Display

4K Display

4K Display

Wireless Router

VK2100

VM3200

VE801T x4

BT Sport 4K Box

Sky Sports Box

iPad for 1st Foor

1st Floor

VE812R

4K Display

iPad for Ground Floor

Ground Floor

	Video
	Control
	Network

ATEN Device

Other Device

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HDBaseT Wall Plate Extender Series

More Interfaces, Less Hassle

Conceal cabling and conveniently place extension inputs and outputs exactly where they are needed, on tables or walls, complimentary of any room décor, with ATEN's HDBaseT Wall Plate Extenders that feature these benefits:

Convenient Installation
Support for US / decora, EU / MK wall plates offers comprehensive options across different regions

Superior Video Quality
Delivers superior video quality of up to 4K video, 4096 x 2160 / 3840 x 2160 @ 60Hz (4:2:0)

HDBaseT Support
Ensures high quality long distance video transmission of up to 4K@100m and 1080p@150m via single Cat 6 cable

Interface Conversion
Convert inputs to support popular digital output interfaces such as DVI, HDMI, DP

VE2812UST / VE2812EUT

HDMI & VGA HDBaseT Transmitter with US / EU Wall Plate

Long Reach Mode | HDCP 2.2 | 4K

VE1801UST / VE1801EUT

HDMI HDBaseT-Lite Transmitter with US / EU Wall Plate

HDCP 2.2 | 4K

Suggested ATEN Receivers

| Model	VE2812R	VE1812R	VE814AR	VE811R	VE801R	VE802R	VE601R	VE901R
Video Output	HDMI	HDMI	HDMI x 2	HDMI	HDMI	HDMI	DVI	DisplayPort
IR / RS-232	•	•	•	N/A	N/A	•	N/A	N/A
HDBaseT Class	HDBaseT 1.0 Class A				HDBaseT 1.0 Class B			
Transmission Distance	4K up to 100m; 1080p up to 150m (Long Reach mode enable)				4K up to 40m; 1080p up to 70m			
Long Reach Mode	•				N/A			

Comparison

Model	VE2812UST	VE2812EUT	VE1801UST	VE1801EUT
Type	US	MK / EU	US	MK / EU
Video Interface	HDMI & VGA		HDMI	
HDBaseT Class	Class A		Class B	
Max. Resolution / Distance	4K@100m; 1080p@100m		4K@40m; 1080p@70m	
HDCP	2.2		2.2	
Long Reach Mode (1080p@150m)*	• (Active)		N/A	
Audio	• (HDMI / Stereo)		• (HDMI)	
RS-232 Channel	•		•	
IR Channel	•		N/A	

* Models marked 'Active' provide Long Reach Mode support which can be activated via a switch on the unit.

Accessories

2L-2910
305M HDBaseT SF/UTP Cat 6 Cable
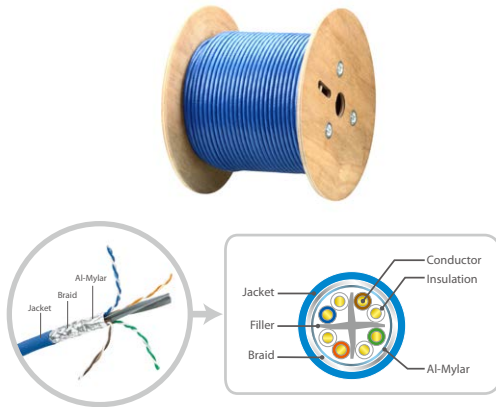
- Designed to reduce cross talk
- Optimized for distributing multiple digital signals – HD video, audio, Ethernet, power and control
- Verified to meet performance requirements set by HDBaseT Alliance
- Supports sweep frequency up to 400 MHz
- Supports up to 4K data transmission

2L-7D05H / 2L-7D03H
5 m / 3 m High Speed HDMI Cable with Ethernet

2L-7D02H
1.8 m High Speed HDMI Cable with Ethernet

HDBaseT Installation Guide

For a problem-free HDBaseT installation experience, be sure to get the Implementation Guide.

ATEN

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