

Product Data Sheet

VX1000 Series Extenders—4K, HDMI, HDBaseT, USB



VX-1001-TX



VX-1001-RX



VX-1002-TX



VX-1003-RX

Overview

The VX-1001-TX is an HDMI transmitter with USB-HID* and PoH (Power over HDBaseT). It is compatible with the VX-1001-RX and VX-1003-RX receivers.

The VX-1001-RX is an HDMI receiver with USB-HID* and PoH (Power over HDBaseT). It is compatible with the VX-1001-TX and VX-1002-TX transmitters.

*Supports keyboard and mouse only.

The VX-1002-TX is a 2-to-1 wallplate HDBaseT transmitter with one HDMI input, one VGA input, and one HDBaseT output. It is compatible with the VX-1001-RX and VX-1003-RX receivers.

The VX-1003-RX is a scaling receiver and is compatible with the Presentation Switchers (see the table on page 2)..

Features

- Via CAT6a/7 cables, the extenders support 3840 x 2160 @ 60 Hz 4:2:0 8-bit or 1080p @ 60 Hz up to 328 feet (100 meters).
- Via CAT5e or higher cables, the extenders support 3840 x 2160 @ 60 Hz, 4:2:0, 8-bit output up to 224 feet (70 meters), and 1080p @ 60 Hz up to 328 feet (100 meters).
- Offers a single CATx cable solution that transmits HD Audio/Video, RS-232, Ethernet, and electrical power.
- Complies with HDMI 1.4 with 4K @ 60 Hz chroma subsampling 4:2:0, 8-bit only, and HDCP 2.2.
- VX-1002-TX simplifies installation and also creates a clean seamless look with the décor.
- Receiver can send power to an HDBaseT Transmitter via 48-VDC PoH.
- VX-1003-RX scales the video from an HDBaseT Transmitter or Switch to a pre-defined resolution.

VX1000 Series Extenders Data Sheet

Comparison Chart for Switchers and Extenders

	Switchers*		Extenders			
	AVSC-0401H	AVSC-0802H	VX-1001-TX	VX-1002-TX	VX-1001-RX	VX-1003-RX
HDMI in	2	3	√	√		
HDMI out	1	1			√	√
HDBaseT in		2			√	√
HDBaseT out	1	1	√	√		
VGA in	1	2		√		
DisplayPort in	1	1				
USB (HID)		√	√	√	√	√
Ethernet Passthrough	√	√	√	√	√	√
Ethernet Control		√				√**
CEC control	√	√				√
IR	√	√		√		√
Built-in scaling	√***	√				√
Auto switching	√			√		
RS-232 passthrough	√	√	√	√	√	√
RS-232 control	√	√				√
Analog audio	√	√		√		√
S/PDIF audio						√
PoH PSE (Power Sourcing Equipment)	√	√			√	√
PoH PD (Powered Device)			√	√	√	

*For more details about the Presentation Switchers, see the Presentation Switchers Product Data Sheet.

**Telnet only.

***HDMI output only.

VX1000 Series Extender Transmitter - 4K, HDMI, HDBaseT, USB (VX-1001-TX)



Transmitter front panel.



Transmitter back panel.

Transmitter (VX-1001-TX) Specifications

General	
Connectors	Input: (1) HDMI In, supports 0.5-1.0 Vp-p video and stereo, LPCM 5.1 LPCM 7.1, Dolby true HD, DTS-HD master audio, Output: (1) RJ-45 for HDBaseT, (1) RJ-45 for Ethernet passthrough
Input Signal Type	HDMI 1.4 w/HDCP 2.2 passthrough
Input/Output Resolution Support	Maximum 3840 x 2160 (UHD)
Maximum Distance	Via CAT6a/7 cables: Up to 328 feet (100 m) at 3840 x 2160 @60 Hz, 4:2:0, 8-bit output resolution or 1080p @60 Hz output resolution; Via CAT5e cables: Up to 224 feet (70 m) at 3840 x 2160 @60 Hz, 4:2:0, 8-bit output resolution; Up to 328 feet (100 m) at 1080p @60 Hz resolution
Maximum Pixel Clock	297 MHz
Supported Audio Format	LPCM 5.1 LPCM 7.1, Dolby true HD, DTS-HD master audio
Output Signal Type	HDBaseT
Environment	
Operating Temperature	32 to 113° F (0 to 45° C)
Storage Temperature	-4 to +158° F (-20 to +70° C)
Humidity	10 to 90%, noncondensing
ESD Protection	Human-body model: ±8 kV (air-gap discharge)/4 kV (contact discharge)
Power	
Power Supply	12 VDC, 1.5 A with US, EU, UK, and AU power clips
Power Consumption (Maximum)	1080p @ 60 Hz: 13.08 W (pair); 3840 x 2160 @ 60 Hz: 13.2 W (pair)
Mechanical	
Dimensions	0.98"H x 8.66"W x 3.67"D (2.5 x 22 x 9.3 cm)
Weight	1.1 lb. (0.5 kg)

VX1000 Series Extenders Data Sheet

VX1000 Series Extender Receiver - 4K, HDMI, HDBaseT, USB (VX-1001-RX)



Receiver front panel.



Receiver back panel.

Receiver (VX-1001-RX) Specifications

General	
Connectors	Input: (1) RJ-45 for HDBaseT, (1) RJ-45 for Ethernet passthrough; Output: (1) HDMI In, supports 0.5-1.0 Vp-p video and stereo
Output Signal Type	HDBaseT
Input/Output Resolution Support	Maximum 3840 x 2160 (UHD)
Maximum Distance	Via CAT6a/7 cables: Up to 328 feet (100 m) at 3840 x 2160 @60 Hz, 4:2:0, 8-bit output resolution or 1080p @60 Hz output resolution; Via CAT5e cables: Up to 224 feet (70 m) at 3840 x 2160 @60 Hz, 4:2:0, 8-bit output resolution; Up to 328 feet (100 m) at 1080p @60 Hz resolution
Maximum Pixel Clock	297 MHz
Supported Audio Format	LPCM 5.1 LPCM 7.1, Dolby true HD, DTS-HD master audio
Environment	
Operating Temperature	32 to 113° F (0 to 45° C)
Storage Temperature	-4 to +158° F (-20 to +70° C)
Humidity	10 to 90%, noncondensing
ESD Protection	Human-body model: ±8 kV (air-gap discharge)/4 kV (contact discharge)
Power	
Power Supply	12 VDC, 1.5 A with US, EU, UK, and AU power clips
Power Consumption (Maximum)	1080p @ 60 Hz: 13.08 W (pair); 3840 x 2160 @ 60 Hz: 13.2 W (pair)
Mechanical	
Dimensions	0.98"H x 8.66"W x 3.67"D (2.5 x 22 x 9.3 cm)
Weight	1.1 lb. (0.5 kg)

VX1000 Series Wallplate Transmitter - HDMI, VGA, HDBaseT (VX-1002-TX)



Wallplate Transmitter front panel.



Wallplate Transmitter back panel.

Wallplate Transmitter (VX-1002-TX) Specifications

General	
Connectors	Input: (1) HDMI IN, (1) VGA IN, (1) Audio IN, (1) 3.5-mm mini jack, stereo audio binding with VGA input; Output: (1) RJ-45 for HDBaseT, (1) RJ-45 for Ethernet, (1) 2-position terminal block for power in, (1) 2-position terminal block for power out, (1) 3-position terminal block for serial, (1) 2-position terminal block for IR out
Input Signal Type	HDMI 1.4 w/HDCP 2.2
Resolution Support	VGA: 1920 x 1200, 1920 x 1080, 1680 x 1050, 1600 x 1200, 1600 x 900, 1400 x 1050, 1440 x 900, 1366 x 768, 1280 x 1024, 1280 x 800, 1280 x 768, 1280 x 720, 1024 x 768, 800 x 600, 640 x 480 @60 Hz; HDMI: Up to 3840 x 2160
Maximum Distance	Via CAT6a/7 cables: Up to 328 feet (100 m) at 3840 x 2160 @60 Hz, 4:2:0, 8-bit output resolution or 1080p @60 Hz output resolution; Via CAT5e cables: Up to 224 feet (70 m) at 3840 x 2160 @60 Hz, 4:2:0, 8-bit output resolution; Up to 328 feet (100 m) at 1080p @60 Hz resolution
Maximum Pixel Clock	297 MHz
Supported Audio Format	HDMI: Stereo, LPCM 5.1 LPCM 7.1, Dolby True HD, DTS-HD Master Audio; VGA: 3.5-mm Analog Stereo
Environment	
Operating Temperature	32 to 113° F (0 to 45° C)
Storage Temperature	-4 to +158° F (-20 to +70° C)
Humidity	10 to 90%, noncondensing
ESD Protection	Human-body model: ±8 kV (air-gap discharge)/4 kV (contact discharge)
Power	
Power Supply	12 VDC, 1.5 A/PoH
Power Consumption (Maximum)	3.36 W, powered by HDBaseT receiver with POH
Mechanical	
Dimensions	4.16"H x 3.58"W x 1.16"D (10.56 x 9.1 x 2.94 cm)
Weight	0.48 lb. (0.22 kg)
Approvals	CE, FCC, RoHS, PoH

VX1000 Series Extenders Data Sheet

VX1000 Series Presentation Switcher Scaling Receiver (VX-1003-RX)



Scaling Receiver front panel.



Scaling Receiver back panel.

Scaling Receiver (VX-1003-RX) Specifications

Video	
Connectors	Input: (1) RJ-45 HDBaseT, (1) 3.5-mm IR, (2) RJ-45 (Ethernet) for passthrough or control, (1) 3-position Phoenix connector (RS-232 (TX, RX, GND), (1) USB Type A female (front); Output: (1) HDMI Out, (1) 3.5-mm IR, (1) RCA S/PDIF, (1) 3-position Phoenix audio (left, right, ground)
Input/Output Resolution Support	Maximum 3840 x 2160 (UHD)
Maximum Distance	Via CAT6a/7 cables: Up to 328 feet (100 m) at 3840 x 2160 @60 Hz, 4:2:0, 8-bit output resolution or 1080p @60 Hz output resolution; Via CAT5e cables: Up to 224 feet (70 m) at 3840 x 2160 @60 Hz, 4:2:0, 8-bit output resolution; Up to 328 feet (100 m) at 1080p @60 Hz resolution
Indicators	
LEDs	(6) front-panel LEDs: (1) Power, (1) Scaler, (1) Status, (1) HDCP, (1) Link LED for HDBaseT; (1) back-panel LED: (2) Link and Status LEDs for Ethernet
Environment	
Operating Temperature	32 to 113° F (0 to 45° C)
Storage Temperature	-4 to +158° F (-20 to +70° C)
Humidity	10 to 90%, noncondensing
Power	
Power Input	100–240 VAC, 50/60 Hz, 1.5 A
Input Connector Type	IEC320, C14
Power Output	12 VDC, 3.0 A
Power Supply Cord Length	6 ft. (1.8 m)
Mechanical	
Dimensions	0.98"H x 9.21"W x 5.67"D (23.4 x 14.4 x 2.5 cm)

Ordering Information

Item	Code
VX1000 Series Extenders	
Transmitters	
Transmitter - 4K, HDMI, HDBaseT, USB	VX-1001-TX
Wallplate Transmitter - HDMI, VGA, HDBaseT	VX-1002-TX
Receivers	
Receiver - 4K, HDMI, HDBaseT, USB	VX-1001-RX
Presentation Switcher Scaling Receiver	VX-1003-RX

Disclaimer:

Black Box Network Services shall not be liable for damages of any kind, including, but not limited to, punitive, consequential or cost of cover damages, resulting from any errors in the product information or specifications set forth in this document and Black Box Network Services may revise this document at any time without notice.

About Black Box:

Black Box is a leading technology product solutions provider that helps customers build, manage, optimize, and secure their networks. The Black Box quality management system is ISO 9001:2008 certified, and the company has received numerous industry recognitions. Black Box provides its customers with free, 24/7 pre- and post-sales technical support. The Black Box catalog and Web site offer an extensive range of infrastructure products including Cabling, Cabinets & Racks, Data Center Cooling Solutions, Power & Surge Protection, and Environmental Monitoring.

© Copyright 2016. Black Box Corporation. All rights reserved. Black Box® and the Double Diamond logo are registered trademarks of BB Technologies, Inc. Any third-party trademarks appearing in this publication are acknowledged to be the property of their respective owners.