Product Data Sheet

VX1000 Series Extenders—4K, HDMI, CATx, 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 CATx).It is compatible with the VX-1001-RX and VX1003-RX receivers.

The VX-1001-RX is an HDMI receiver with USB-HID* and PoH (Power over CATx). 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 CATx transmitter with one HDMI input, one VGA input, and one CATx 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 a CATx Transmitter via 48-VDC PoH.

• VX-1003-RX scales the video from a CATx Transmitter or Switch to a pre-defined resolution.

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			√	√
CATx in		2			√	√
CATx 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, CATx, USB (VX-1001-TX)
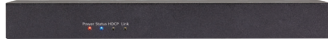
Transmitter front panel.   Transmitter back panel.

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 CATx, (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	CATx
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, CATx, USB (VX-1001-RX)

Receiver front panel.

Receiver back panel.

Receiver (VX-1001-RX) Specifications

General	
Connectors	Input: (1) RJ-45 for CATx, (1) RJ-45 for Ethernet passthrough; Output: (1) HDMI In, supports 0.5-1.0 Vp-p video and stereo
Output Signal Type	CATx
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)

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

Wallplate Transmitter front panel.   Wallplate Transmitter back panel.

Wallplate Transmitter (VX-1002-TX) Specifications

General	
Connnectors	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 CATx, (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 seral, (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 CATx 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 CATx, (1) 3.5-mm IR, (2) RJ-45 (Ethernet) for passthrough or control, (1) 3-posiiton 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 CATx; (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)

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Ordering Information

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

About Black Box:

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