## DATA SHEET

KVXLCH-100, KVXLCHF-100

# **KVX SERIES 4K HDMI KVM-IP EXTENDERS**

24/7 TECHNICAL SUPPORT AT 877.877.2269 OR VISIT BLACKBOX.COM





#### KVX SERIES 4K HDMI KVM-IP EXTENDERS DATA SHEET

#### INTRODUCTION

The KVX Series are the Black Box® low-cost 4K HDMI KVM-IP extenders. In a point-to-point configuration, they enable you to locally use amn HDMI monitor, USB keyboard/mouse/other devices, speaker and microphone to operate a remote computer, server, or other IT device.

In a plug-and-play based Unicast application, either GUI or serial control setup is required.

Two versions are available:

- KVX Series 4K HDMI KVM-IP CATx Extender (KVXLCH-100)
- KVX Series 4K HDMI KVM-IP Fiber Extender (KVXLCHF-100)

#### **FEATURES**

- OFFERS HDMI INPUT/OUTPUT VIDEO QUALITY UP TO 4K @ 30 HZ
- VIDEO/USB/RS-232/AUDIO BASIC EXTENSION DISTANCE IS 330 FEET (100 METERS) OVER CAT5E/6 OR UP TO 3300 FEET (1000 M) VIA GIGABIT ETHERNET SWITCH DAISYCHAINING
- VIDEO/USB/RS-232/AUDIO BASIC EXTENSION DISTANCE IS UP TO 18.6 MILES (30 KM) USING A SINGLE-MODE SFP TRANSCEIVER MODULE OR MULTIMODE SFP FOR SHORTER DISTANCES
- THE HDMI KVM CONSOLE EXTENDER LETS YOU CONTROL A SERVER, OR COMPUTER OVER SINGLE-MODE OR MULTIMODE FIBER OPTIC CABLE AT DISTANCES OF UP TO 30 KM (DEPENDING ON THE SFP USED, FIBER TYPE, AND FIBER BANDWIDTH\*)
- SUPPORTS TRANSPARENT USB EXTENSION VIA TWO USB 2.0 PORTS PLUS TWO USB 1.1 PORTS FOR USB HUBS OR USB HIDS SUCH AS TOUCHSCREENS, PRINTERS, BARCODE READERS, KEYBOARDS AND MICE
- SUPPLIES BIDIRECTIONAL ANALOG LINE-IN/LINE-OUT EXTENSION
  AND SERIAL RS-232 EXTENSION
- SUPPORTS 4K HDMI LOCAL VIDEO OUTPUT

\*NOTE: Reference the supported SFP chart on page 4.

FEATURES COMPARISON CHART				
	KVXLCH-100	KVXLCHF-100		
AUDIO	YES	YES		
RS-232	YES	YES		
LOCAL OUT CONNECTOR	YES	YES		
POE	NO	NO		
MEDIA	TWISTED-PAIR	FIBEROPTIC		
MAXIMUM DISTANCE	328 FEET (100 M)	UP TO 18.6 MILES (30 KM), DEPENDING ON SFP USED		
IR EXTENSION	NO	NO		
LEVEL	ENTRY-LEVEL	ENTRY-LEVEL		

## **COMPARISON CHART**

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## **SPECIFICATIONS**

#### KVX SERIES HDMI KVM-IP CATX EXTENDERS (KVXLCH-100)



#### WHAT'S INCLUDED WITH THE KVXLCH-100

- (1) HDMI KVM-IP CATX EXTENDER TRANSMITTER
- (1) HDMI KVM-IP CATX EXTENDER RECEIVER
- (2) POWER SUPPLIES (INCLUDES US, EU, UK AND AU PLUG TYPES)
- (1) HDMI CABLE (6-FT./1.8-M)
- (1) 3.5MM AUDIO CABLE (6-FT./1.8-M)
- (1) USB-B TO USB-A CABLE (6-FT./1.8-M)

SPECIFICATIONS FOR KVX SERIES HDMI KVM-IP CATX EXTENDER (KVXLCH-100)			
SPECIFICATION	CATX TRANSMITTER	CATX RECEIVER	
CONNECTORS	Host connection: Video Input: (1) HDMI female Serial Control Port: (1) DB9 female Link Port: (1) RJ-45 female USB: (1) USB Type B female Audio: (1) Line in, (1) Line out; Local Video Output: (1) HDMI female	Console connection: Video Output: (1) HDMI female Serial Control Port: (1) DB9 male Link Port: (1) RJ-45 female USB: (4) USB Type A female Audio: (1) Mic In, (1) Speaker Out	
DISTANCE	CATx cable: Up to 328 ft. (100 m)	CATx cable: Up to 328 ft. (100 m)	
INDICATORS	(1) Power LED (red), (1) Link LED (green)	(1) Power LED (red), (1) Link LED (green)	
MAXIMUM RESOLUTION	4K @ 30 Hz, 3840 x 2160 @ 30 Hz	4K @ 30 Hz, 3840 x 2160 @ 30 Hz	
DDC SUPPORTED	DDC, DDC2, DDC2B	DDC, DDC2, DDC2B	
HOUSING MATERIAL	Metal chassis	Metal chassis	
OPERATING SYSTEM	OS independent	OS independent	
ENVIRONMENTAL	Operating Temperature: 32 to 122° F (0 to 50° C); Storage Temperature: -4 to +140° F (-20 to +60° C); Operating Humidity: 0 to 80%, noncondensing	Operating Temperature: 32 to 122° F (0 to 50° C); Storage Temperature: -4 to +140° F (-20 to +60° C); Operating Humidity: 0 to 80%, noncondensing	
POWER	External 5-VDC, 2-A power supply	External 5-VDC, 2-A power supply	
DIMENSIONS	0.83" H x 3.27" W x 7.09" D (2.1 x 8.3 x 18 cm)	0.83" H x 3.27" W x 7.09" D (2.1 x 8.3 x 18 cm)	
WEIGHT	0.82 lb. (0.372 kg)	0.83 lb. (0.378 kg)	



## SPECIFICATIONS

#### KVX SERIES HDMI KVM-IP FIBER EXTENDERS (KVXLCHF-100)



- (1) HDMI KVM-IP FIBER EXTENDER TRANSMITTER
- (1) HDMI KVM-IP FIBER EXTENDER RECEIVER
- (2) POWER SUPPLIES (INCLUDES US, EU, UK AND AU PLUG TYPES)
- (1) HDMI CABLE (6-FT./1.8-M)
- (1) 3.5MM AUDIO CABLE (6-FT./1.8-M)
- (1) USB-B TO USB-A CABLE (6-FT./1.8-M)

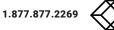
NOTE: SFP not included, must be ordered separately. See the chart below.

SPECIFICATIONS FOR KVX SERIES HDMI KVM-IP FIBER EXTENDER (KVXLCHF-100)			
SPECIFICATION	FIBER TRANSMITTER	FIBER RECEIVER	
CONNECTORS	Host connection: Video Input: (1) HDMI female Serial Control Port: (1) DB9 female Link Port: (1) SFP cage USB: (1) USB Type B female Audio: (1) Line in, (1) Line out; Local Video Output: (1) HDMI female	Console connection: Video Output: (1) HDMI female Serial Control Port: (1) DB9 male Link Port: (1) SFP cage USB: (4) USB Type A female Audio: (1) Mic In, (1) Speaker Out	
DISTANCE	Fiberoptic cable: Up to 18.6 miles (30 km), depending on SFP used	Fiberoptic cable: Up to 18.6 miles (30 km), depending on SFP used	
INDICATORS	(1) Power LED	(1) Power LED	
MAXIMUM RESOLUTION	4K @ 30 Hz, 3840 x 2160 @ 30 Hz	4K @ 30 Hz, 3840 x 2160 @ 30 Hz	
DDC SUPPORTED	DDC, DDC2, DDC2B	DDC, DDC2, DDC2B	
HOUSING MATERIAL	Metal chassis	Metal chassis	
OPERATING SYSTEM	OS independent	OS independent	
ENVIRONMENTAL	Operating Temperature: 32 to 122° F (0 to 50° C); Storage Temperature: -4 to +140° F (-20 to +60° C); Operating Humidity: 0 to 80%, noncondensing	Operating Temperature: 32 to 122° F (0 to 50° C); Storage Temperature: -4 to +140° F (-20 to +60° C); Operating Humidity: 0 to 80%, noncondensing	
POWER	External 5-VDC, 2-A power supply	External 5-VDC, 2-A power supply	
DIMENSIONS	0.83" H x 3.27" W x 7.09" D (2.1 x 8.3 x 18 cm)	0.83" H x 3.27" W x 7.09" D (2.1 x 8.3 x 18 cm)	
WEIGHT	0.82 lb. (0.372 kg)	0.83 lb. (0.378 kg)	

#### NOTE: SFP not included, must be ordered separately. See the chart below.

COMPATIBLE SFP MODULES			
PART NUMBER	DESCRIPTION	DISTANCE	
1-GBPS CONNECTIONS			
LFP441	SFP 1.25-Gb, 850-nm Multimode Fiber, LC	550 m	
LFP442	SFP 1.25-Gb, 1310-nm Single-mode Fiber, LC	20 km	
LFP412	SFP with Extended Diagnostics - 1250-Mbps Multimode Fiber, 1310-nm	2 km	
LFP413	SFP with Extended Diagnostics - 1250-Mbps Single-Mode Fiber, 1310-nm	10 km	
LFP414	SFP with Extended Diagnostics - 1250-Mbps, Singlemode Fiber, 1310-nm	30 km	
LFP416	SFP 1250-Mbps, Extended Diagnostics, 10/100/1000BASE-T, SGMII Interface, RJ-45	100 m	

NOTE: Other SFPs may work but have not been validated by Black Box, we recommend you use the suggested SFPs to avoid technical incompatibilities.





## **ORDERING INFORMATION**

ITEM	CODE
KVX HDMI KVM-IP CATx Extenders	
Transmitter and Receiver Kit	KVXLCH-100
KVX HDMI KVM-IP Fiber Extenders	
Transmitter and Receiver Kit	KVXLCHF-100
Accessories	
Rackmount Kit	KVXLC-RMK
Spare Power Supply	KVXLC-PS
NOTE: Kits contain (1) Transmitter and (1) Receiver	

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#### **ABOUT BLACK BOX**

Black Box is a world leading technology solutions provider specializing in complete high-performance KVM, professional A/V signal distribution and extension and switching solutions for mission-critical applications. Black Box is dedicated to delivering superior project engineering, technical support, and 24/7 customer service you can rely on for your most critical operations.

Every day, our customers trust us to design, integrate, and maintain reliable control room solutions for broadcasting, post-production, stadiums & arenas, medical, air traffic control, oil & gas, government & military, and utility industries. Leave the tech to us and our comprehensive technology solutions will deliver secure connections, fast-response times, real-time collaboration and more.

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