

# DATA SHEET

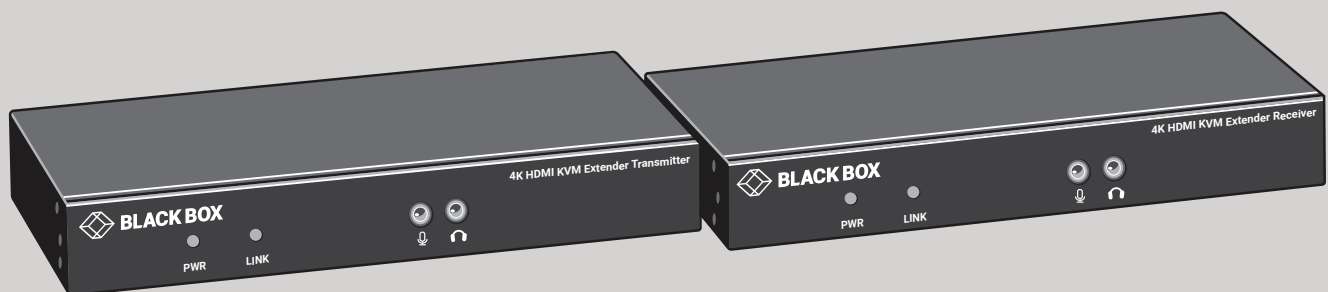
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KVXLCH-100, KVXLCHF-100

# KVX SERIES 4K HDMI KVM-IP EXTENDERS

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24/7 TECHNICAL SUPPORT AT 877.877.2269 OR VISIT [BLACKBOX.COM](http://BLACKBOX.COM)



# OVERVIEW

## 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.

## COMPARISON CHART

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



# SPECIFICATIONS

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

FRONT VIEW



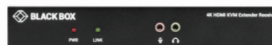
CATx Transmitter

BACK VIEW



CATx Transmitter

FRONT VIEW



CATx Receiver

BACK VIEW



CATx Receiver

### 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
<b>CONNECTORS</b>	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
<b>DISTANCE</b>	CATx cable: Up to 328 ft. (100 m)	CATx cable: Up to 328 ft. (100 m)
<b>INDICATORS</b>	(1) Power LED (red), (1) Link LED (green)	(1) Power LED (red), (1) Link LED (green)
<b>MAXIMUM RESOLUTION</b>	4K @ 30 Hz, 3840 x 2160 @ 30 Hz	4K @ 30 Hz, 3840 x 2160 @ 30 Hz
<b>DDC SUPPORTED</b>	DDC, DDC2, DDC2B	DDC, DDC2, DDC2B
<b>HOUSING MATERIAL</b>	Metal chassis	Metal chassis
<b>OPERATING SYSTEM</b>	OS independent	OS independent
<b>ENVIRONMENTAL</b>	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
<b>POWER</b>	External 5-VDC, 2-A power supply	External 5-VDC, 2-A power supply
<b>DIMENSIONS</b>	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)
<b>WEIGHT</b>	0.82 lb. (0.372 kg)	0.83 lb. (0.378 kg)



# SPECIFICATIONS

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



### WHAT'S INCLUDED WITH THE 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
<b>CONNECTORS</b>	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
<b>DISTANCE</b>	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
<b>INDICATORS</b>	(1) Power LED	(1) Power LED
<b>MAXIMUM RESOLUTION</b>	4K @ 30 Hz, 3840 x 2160 @ 30 Hz	4K @ 30 Hz, 3840 x 2160 @ 30 Hz
<b>DDC SUPPORTED</b>	DDC, DDC2, DDC2B	DDC, DDC2, DDC2B
<b>HOUSING MATERIAL</b>	Metal chassis	Metal chassis
<b>OPERATING SYSTEM</b>	OS independent	OS independent
<b>ENVIRONMENTAL</b>	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
<b>POWER</b>	External 5-VDC, 2-A power supply	External 5-VDC, 2-A power supply
<b>DIMENSIONS</b>	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)
<b>WEIGHT</b>	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
<b>1-GBPS CONNECTIONS</b>		
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.



