BLACK BOX®
THE GLOBAL LEADER IN KVM

KVM EXTENDERS AND SWITCHES

1.877.877.2269 ◆ BLACKBOX.COM/KVM

Black Box® has developed and manufactured industry-leading KVM technology for over 25 years. Today, Black Box has become the global leader in KVM in terms of KVM product range, revenue, employees and global coverage. The broad portfolio of KVM products allows you to build a complete solution that fully benefits your application. Our team of technical experts can help you choose high-quality KVM extenders, KVM switches, networking components, AV equipment, and accessories for your solution. From the desktop and data centre to medical environments and mission-critical control rooms, we will help your team simplify IT administrator and operator processes, improve workflows and increase productivity.
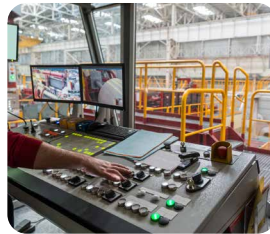
Ideal for a Wide Range of Industries

KVM switching and extension technology enhances user workflows in many industries, such as broadcasting and media production, air traffic control, control rooms, data centres, and other collaborative environments.

Command and Control Rooms

Broadcast and Post-Production

Industrial

Air Traffic Control and Transportation

Healthcare
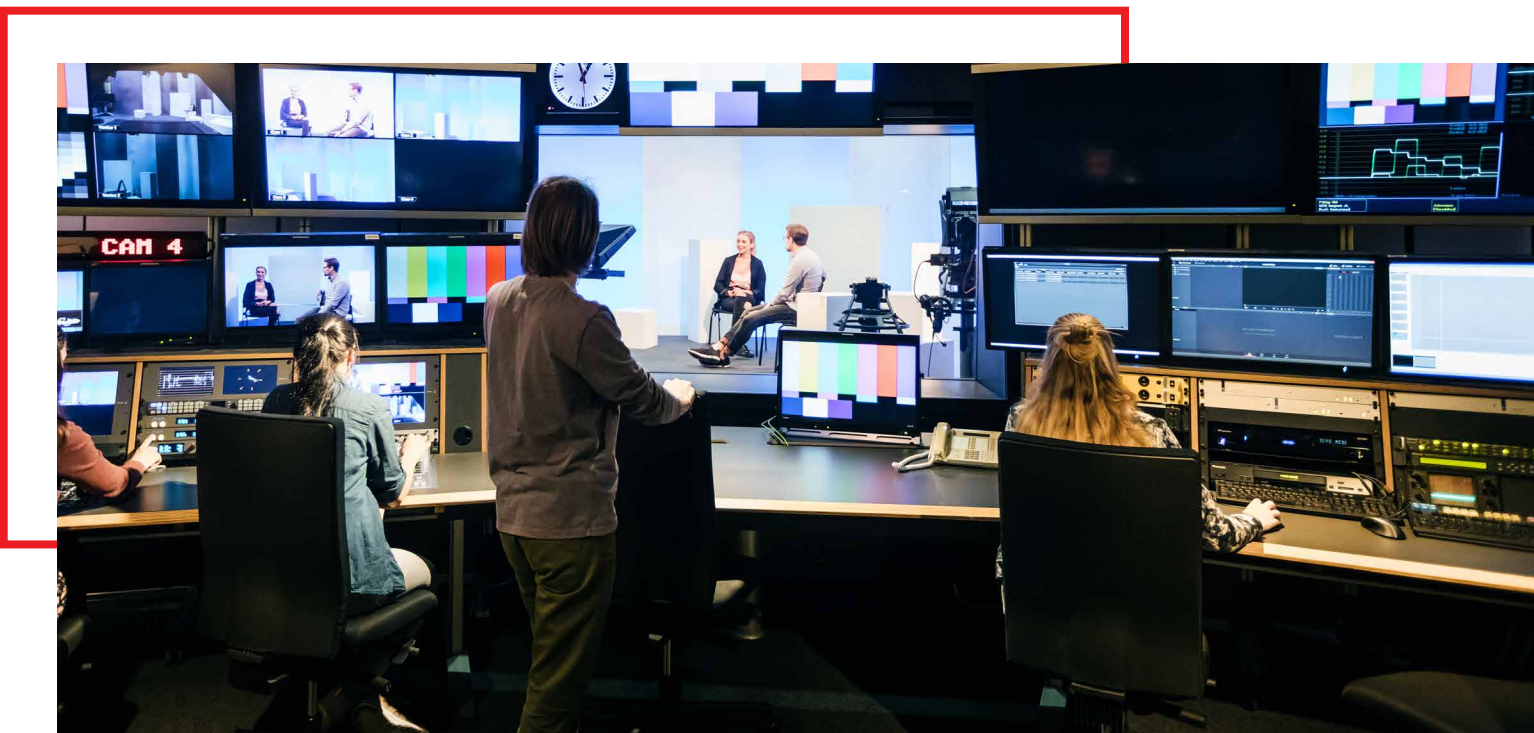
Government

Utilities

Education

Enterprise

Small/Home Office

What Is KVM Extension and Switching?

KVM Extension

KVM extension technology enables point-to-point extension of computer signals. It extends signals up to 150 meters over CATx and even farther over fiber or IP. KVM extension allows a user to access remote computers from a single keyboard, monitor, and mouse. The technology is commonly used wherever users need to perform tasks remotely without any computing heat or noise. It is also perfect for applications that need access to computers stored in secure and isolated areas.

KVM Switching

KVM switching allows users to operate and switch between multiple computers or virtual machines from a single keyboard, mouse, and one or multiple monitors. There are different types of KVM switches on the market today, including desktop KVM switches (one user can access multiple sources) and KVM matrix switches (multiple users can access multiple sources).

Benefits of KVM Technology

Multisystem Remote Access

Control multiple remote computers and operating systems from any workspace and improve productivity with efficient multitasking. Support for multimonitor workspaces and USB peripherals, such as graphic tablets.

Extend Your Range

Extend up to pixel-perfect 4K video, high-speed USB 2.0/3.1, and audio signals as far as you need them to go over CATx, fiber, IP, or even the internet.

Lightning-Fast Switching

Our KVM technology allows you to switch between PCs, servers, and virtual machines with ease. Use buttons, hotkeys, serial devices, control systems, or touch panels to make switching even more intuitive.

Protect Critical Hardware

Store computers in cleaner, quieter, and more secure locations than a user workspace and limit access to critical hardware to selected users.

Award-Winning KVM Management

Centrally manage your complete enterprise KVM network, monitor bandwidth consumption, control user access, and receive automated system alerts all from your preferred web browser.

Virtual Machine Access and Sharing

Get BIOS-level, high-speed KVM access to virtual machines with support for PCoIP (Ultra), VMware®

and Microsoft® virtual machines. Benefit from point-to-point or point-to-multipoint VM access and VM sharing letting multiple users working on the same VM.

Black Box® Solutions for KVM Switching and Extension

KVM Extenders

- CATx KVM extenders
- Fiber KVM extenders
- IP-based KVM extenders
- Modular extenders

KVM Switches

- Desktop KVM switches
- Secure KVM switches
- KM switches
- KVM multiviewers

KVM Matrix Switching

- Emerald® 4K KVM over IP
- DKM Modular KVM Matrix
- DCX Compact Matrix
- Boxilla® KVM Manager

KVM Console Drawers and Adapters
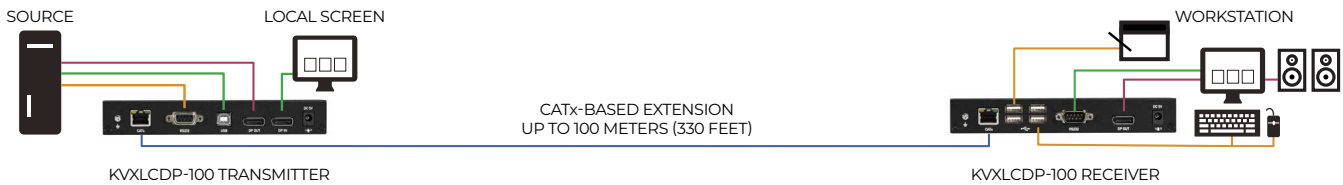

- LCD console drawers
- Crash cart adapters

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| **<u>KVM Extenders</u>**

KVM extenders enable long-distance point-to-point remote connections between user stations and computers. To make a link, connect the source computer's interfaces (video, peripherals, USB, audio, etc.) to a transmitter unit, the user station's peripherals and monitor to a receiver unit, and connect the transmitter and receiver through a network cable. Depending on your application and infrastructure, choose a CATx extender (lower range), fiber extender (higher range), or even use an IP network or a WAN to establish a fast and reliable connection. KVM extenders are OS agnostic and do not require you to install any drivers or additional software on the source computer. The following products are only a selection of our full product range available at <u>black-box.eu/kvmextenders</u>

CATx KVM Extender Kits

- Transmit signals up to 100 meters (330 feet) over UTP or STP CAT5/6 cable.

- Use inexpensive CAT5e, CAT6, or higher shielded and unshielded cable.

- Extend video (DisplayPort, HDMI or DVI), audio, USB HID, USB 1.1, USB 2.0 transparent, and PS/2.

- Support one, two or four monitors (Quad models utilize DisplayPort MST-technology).

- Local video port loopback for monitoring at computer location.

- Optional kits for desk-, DinRail- and 19" rack-mounting.

- Compatible with Black Box® KVM Switches (call our tech support to learn which switches work best with our extender kits).

DVI-I Extender Kit
(KVXLC-100-R2)

SOURCE LOCAL SCREEN WORKSTATION

CATx-BASED EXTENSION
UP TO 100 METERS (330 FEET)

KVXLCDP-100 TRANSMITTER KVXLCDP-100 RECEIVER

KVM extenders transmit video, audio, and peripheral signals beyond the five-meter limit of direct-connect cable

Product Code	Max Distance	Supported Monitors	Max Resolution	USB Support	Link Port	Audio/Serial
KVXLCDP-100	100 m (330 ft.)	(1) DisplayPort 1.2	4k at 30 Hz, 3840 x 2160	(2) USB 2.0 (2) USB HID	RJ-45	(2) 3.5-mm audio jack, (1) DB9 serial
KVXLC-100-R2	100 m (330 ft.)	(1) DVI	1920 x 1200 at 60 Hz	(2) USB 2.0 (2) USB HID	RJ-45	(2) 3.5-mm audio jack, (1) DB9 serial
KVXLCH-100	100 m (330 ft.)	(1) HDMI 1.3	4k at 30 Hz, 3840 x 2160	(2) USB 2.0 (2) USB HID	RJ-45	(2) 3.5-mm audio jack, (1) DB9 serial
KVXLCDP-200	100 m (330 ft.)	(2) DisplayPort 1.2	4k at 30 Hz, 3840 x 2160	(2) USB 2.0 (2) USB HID	RJ-45	(2) 3.5-mm audio jack, (1) DB9 serial
KVXLCH-200	100 m (330 ft.)	(2) HDMI 1.3	4k at 30 Hz, 3840 x 2160	(2) USB 2.0 (2) USB HID	RJ-45	(2) 3.5-mm audio jack, (1) DB9 serial
KVXLC-200-R2	100 m (330 ft.)	(2) DVI	1920 x 1200 at 60 Hz	(2) USB 2.0 (2) USB HID	RJ-45	(2) 3.5-mm audio jack, (1) DB9 serial
KVXHP-100	100 m (330 ft.)	(1) DisplayPort 1.2	4k at 60 Hz, 4096 x 2160 4:4:4 x2 using fiber	(2) USB 2.0 (2) USB HID	RJ-45	(2) 3.5-mm audio jack, (1) RJ-12 serial
KVXHP-200	100 m (330 ft.)	(2) DisplayPort 1.2	4k at 60 Hz, 4096 x 2160 4:4:4 x2 using fiber	(1) USB 2.0 192Mbps (2) USB HID	RJ-45	(2) 3.5-mm audio jack, (1) RJ-12 serial
KVXHP-400	100 m (330 ft.)	(4) DisplayPort 1.2	4 x 1920 x 1200 via MST	(2) USB 2.0 (2) USB HID	RJ-45	(2) 3.5-mm audio jack, (1) RJ-12 serial

Fiber KVM Extender Kits

- Transmit signals up to 30 kilometers (18.6 miles) over fiber cable.
- Use single-mode or multimode fiber.
- Models that support DVI, DisplayPort, HDMI, stereo audio, USB HID, USB 1.1, USB 2.0 transparent and serial signal extension are available.
- Support one, two or four monitors (Quad models utilize MST-technology).
- Optional kits for desk-, DinRail- and 19" rack-mounting.
- Local video port loopback for monitoring at computer location.

DVI Fiber Extender Kit
(KVXLCF-100-R2)

SOURCE LOCAL SCREEN WORKSTATION

FIBER/SFP-BASED EXTENSION
UP TO 30 KILOMETERS (18.6 MILES)

KVXLCF-100-R2 TRANSMITTER KVXLCF-100-R2 RECEIVER

Product Code	Max Distance	Supported Monitors	Max Resolution	USB Support	Link Port	Audio/Serial
KVXLCF-100-R2	up to 30 km (18.6 mi.) over Singlemode	(1) DVI	1920 x 1200 at 60 Hz	(2) USB 2.0 (2) USB HID	SFP	(2) 3.5-mm audio jack, (1) DB9 serial
KVXLCDPF-100	up to 30 km (18.6 mi.) over Singlemode	(1) DisplayPort 1.2	4k at 30 Hz, 3840 x 2160	(2) USB 2.0 (2) USB HID	SFP	(2) 3.5-mm audio jack, (1) DB9 serial
KVXLCHF-100	up to 30 km (18.6 mi.) over Singlemode	(1) HDMI 1.3	4k at 30 Hz, 3840 x 2160	(2) USB 2.0 (2) USB HID	SFP	(2) 3.5-mm audio jack, (1) DB9 serial
KVXLCF-200-R2	up to 30 km (18.6 mi.) over Singlemode	(2) DVI	1920 x 1200 at 60 Hz	(2) USB 2.0 (2) USB HID	SFP	(2) 3.5-mm audio jack, (1) DB9 serial
KVXLCDPF-200	up to 30 km (18.6 mi.) over Singlemode	(2) DisplayPort 1.2	4k at 30 Hz, 3840 x 2160	(2) USB 2.0 (2) USB HID	SFP	(2) 3.5-mm audio jack, (1) DB9 serial
KVXLCHF-200	up to 30 km (18.6 mi.) over Singlemode	(2) HDMI 1.3	4k at 30 Hz, 3840 x 2160	(2) USB 2.0 (2) USB HID	SFP	(2) 3.5-mm audio jack, (1) DB9 serial
KVXLCHDPF-200	up to 30 km (18.6 mi.) over Singlemode	(2) DP 1.2, or (2) HDMI 1.3, or (1) DP + (1) HDMI	4k at 30 Hz, 3840 x 2160	(2) USB 2.0 (2) USB HID	SFP	(2) 3.5-mm audio jack, (1) DB9 serial
KVXHP-100	up to 4 km (2.5 mi.) over Singlemode	(1) DisplayPort 1.2	4k at 60 Hz, 4096 x 2160 4:4:4	(2) USB 2.0 (2) USB HID	RJ45 + SFP	(2) 3.5-mm audio jack, (1) RJ-12 serial
KVXHP-200	up to 4 km (2.5 mi.) over Singlemode	(2) DisplayPort 1.2	4k at 60 Hz, 4096 x 2160 4:4:4 x2 using fiber	(1) USB 2.0 192Mbps (2) USB HID	RJ45 + SFP	(2) 3.5-mm audio jack, (1) RJ-12 serial
KVXHP-400	up to 4 km (2.5 mi.) over Singlemode	(4) DisplayPort 1.2 MST	4 x 1920 x 1200 via MST	(2) USB 2.0 (2) USB HID	RJ45 + SFP	(2) 3.5-mm audio jack, (1) RJ-12 serial

IP-Based KVM Extender Kits

- Transmit signals via CATx up to 100 meters or via fiber up to 10 kilometers over a dedicated or existing IP connection. You can extend signals even farther by adding an IP switch to your setup.
- Models that support DisplayPort, DVI-D, stereo audio, and USB signal extension are available.

Emerald® 4K Extender Kit
(EMD4000-KIT)

Product Code	Max Distance	Video Heads	Max Resolu-tion	USB Support	Link Port	Audio/ Serial	Other
EMD4000-KIT	100 m over CATx, 10 km over fiber, or farther using an IP network switch	(1) DP 1.2	4096 x 2160 at 60 Hz	(4) USB 2.0	(2) SFP+	(2) 3.5-mm audio jack	Build out to a KVM matrix switching system. Kit includes two SFP+ modules.
EMD2000PE-K EMD2002PE-K	100 m (330 ft.) over CATx, 10 km (6.2 mi.) over fiber, or farther using an IP network switch	(1) DVI-D (2) DVI-D	1920 x 1080 at 60 Hz	(4) USB 2.0	(1) RJ45, (1) SFP	(2) 3.5-mm audio jack,	Build out to a KVM matrix switching system. Receivers support PoE

Modular KVM Extenders

- Mix and match modular interfaces to support your application. We offer more than 50 cards that extend DisplayPort, DVI, HDMI, VGA, SDI, USB, serial, and audio signals.
- Choose from a variety of chassis (2, 4, 6, or 21 slots) to populate your transmitter or receiver interface cards.
- Our tech support team can help you configure your individual extender kit. Give them a call today.
- To see our full range of components, visit black-box.eu/modext.

DKM Modular Extender 4-Slot Chassis (ACXMODH4R-R2)

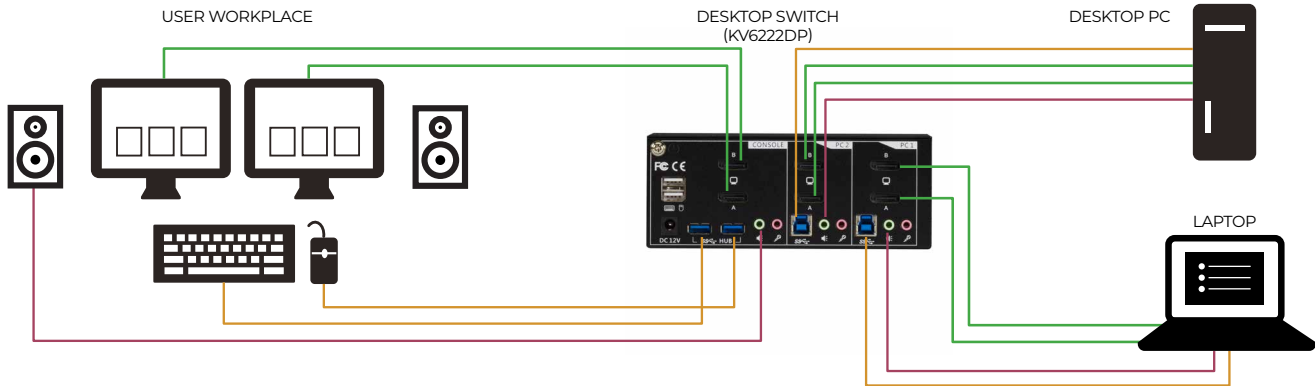| Product Code	Description
ACXMODH4R-R2	DKM FX Modular KVM Extender that features a four-slot chassis and an ext. power supply with redundancy option.
ACXMODH6R-R2	DKM FX Modular KVM Extender that features a six-slot chassis an int. and optional ext. power supply.
ACX1MT-DHID-C	DKM FX Modular KVM Extender Transmitter Interface Card that features DVI-D, USB HID, and a CATx port.
ACX1MR-AR	DKM FX Modular KVM Extender Receiver Interface Card that features bidirectional analogue audio and a serial RS-232 port.
ACX2MR-DPH-SM	DKM FX Modular KVM Extender Receiver Interface Card that features a dual DisplayPort interface, USB HID, and single-mode fiber port.

| KVM Switches

A KVM switch allows a user to access multiple computers from a single keyboard, mouse, and monitor, eliminating the need for extra peripherals and enabling fast access to critical applications. KVM switches are OS agnostic and therefore provide access to various operating systems, such as Mac OS®, Linux, and Microsoft® Windows®. There are multiple types of switches on the market, including desktop KVM switches, fully certified secure KVM switches, KM switches (for multimonitor or multisource applications), and KVM multiviewers. KVM matrix switches that allow cross switching between multiple users and computers are listed separately on pages 12-17. The following products are only a selection of our full product range available at black-box.eu/kvmswitches.

Desktop KVM Switches

- Provide a single user with access to two, four, or eight computers from a single keyboard, mouse, and monitor.
- Desktop KVM switches help you save space by removing double keyboards, mice, and other peripheral devices from user workstations.
- We offer switches that support DisplayPort, HDMI, DVI, VGA, USB 3/2/1, USB-C, stereo audio and serial.

2-Port HDMI Desktop Switch
(KVD200-2H)

Selected Desktop KVM Switches

Product Code	Number of Computers	Video Interfaces (per Source)	Max Resolution	USB Support	Audio	Other
KVMC4K-2P	2-Port	(1) DisplayPort 1.2	4k at 60 Hz, 3840 x 2160 4:4:4 chroma	(4) USB HID/2.0 (2) USB 3.0 (5 Gbps)	-	Computer connections with DisplayPort Alt-Mode over USB-C
KV6222DP	2-Port	(2) DisplayPort 1.2	4k at 60 Hz, 3840 x 2160	(2) USB HID, (2) USB 3.0 (5 Gbps)	(2) 3.5-mm audio jack	Hotkeys, audio channels can switch independent from computer selection 4-port model (KV6224DP) also available
KV6222H	2-Port	(2) HDMI 2.0	4k at 60 Hz, 3840 x 2160	(2) USB HID, (2) USB 3.0 (5 Gbps)	(2) 3.5-mm audio jack	Hotkeys, audio channels can switch independent from computer selection
KVD200-2H	2-Port	(2) DisplayPort 1.2	4k at 60 Hz, 3840 x 2160 4:4:4 chroma	(2) USB 3.2 Gen1, (5 Gbps) (1) USB-C, (2) USB HID/2.0	-	Features (2) DisplayPort and (2) HDMI inputs, Hotkey switching
KV4404A	4-Port	(4) DisplayPort 1.2	4k at 60 Hz, 3840 x 1440, 2048 x 2048	(2) USB HID, (2) USB 2.0	(1) 3.5-mm audio jack	Hotkeys, RS232 control, audio and USB channels can switch independent from computer selection, 2-port model (KV4402A) also available
KV6224DPH	4-Port	(2) DP 1.2 (2) HDMI 2.0 (1) DP + (1) HDMI	4k at 60 Hz, 3840 x 2160	(2) USB HID, (2) USB 3.0 (5 Gbps)	(2) 3.5-mm audio jack	Supports mixed DP/HDMI graphic cards, hotkeys, independent audio switching
KV4404A	4-Port	(4) Display Port 1.2	4K at 60 Hz 3840 x 2160, 3D	(2) USB HID, (2) USB 2.0	(2) 3.5-mm audio jacks	Supports medical monitors Hotkey, serial, audio/USB channels can switch independent from computer selection

Secure Desktop KVM Switches

- Desktop switches with channel isolation that allow you to control computers connected to networks of differing security classifications.
- Offered in 2-, 4-, 8-, and 16-port models.
- Support DVI, HDMI, DisplayPort, Flexport, USB, and audio.
- Models that support CAC are also available.
- Mechanical, electrical, and optical signal isolation prevent hacking and data leakage for absolute isolation and zero data leakage between secure ports and the outside world.
- NIAP PP PSD v 4.0 certified, the highest Common Criteria level.
- NIAP PP PSD V 3.0- and TEMPEST-certified models are also available.
- Made, tested and certified in the U.S.A., TAA compliant.
- To learn more about our complete range of secure switches, visit black-box.eu/securekvm

4-Port Secure KVM Switch with
Flexport connector accepting
HDMI/DisplayPort video
(KVS4-1004HV)

Selected Secure Desktop KVM Switches NIAP PP 4.0

Product Code	Number of Ports	Video Interfaces (per Source)	Max Resolution	USB Support (per Source)	Audio (per Source)	Other
KVS4-1002HV	(2)	(1) FlexPort HDMI/DP	4K 3840 x 2160 @ 30 Hz	(2) USB 1.1	(1) 3.5-mm audio jack	also available with CAC support (KVS4-1002HVX); DVI via adapter
KVS4-2002HV	(2)	(2) FlexPort HDMI/DP	4K 3840 x 2160 @ 30 Hz	(2) USB 1.1	(1) 3.5-mm audio jack	also available with CAC support (KVS4-2002HVX); DVI via adapter
KVS4-1004HV	(4)	(1) FlexPort HDMI/DP	4K 3840 x 2160 @ 30 Hz	(2) USB 1.1	(1) 3.5-mm audio jack	also available with CAC support (KVS4-1004HVX); DL DVI via adapter
KVS4-2004HV	(4)	(2) FlexPort HDMI/DP	4K 3840 x 2160 @ 30 Hz	(2) USB 1.1	(1) 3.5-mm audio jack	also available with CAC support (KVS4-2004HVX); DL DVI via adapter
KVS4-8001VX	(1)	(1) DisplayPort 1.2	4K 3840x2160 @ 30 Hz	(2) USB 1.1	(1) 3.5-mm audio jack	CAC support
KVS4-8001HX	(1)	(1) HDMI 1.4	4K 3840x2160 @ 30 Hz	(2) USB 1.1	(1) 3.5-mm audio jack	CAC support
KVS4-8001DX	(1)	(1) DVI	2560 x 1600 @ 60 Hz	(2) USB 1.1	(1) 3.5-mm audio jack	CAC support

KVM Multiviewers

- Control and monitor four computers on a single screen.
- Real-time, reliable switching of digital 4k or HD video, USB, and audio signals.
- Multiple display modes: full screen, quad, picture-in-picture (PiP), PoP, and windows mode (free scaling and transparent positioning).

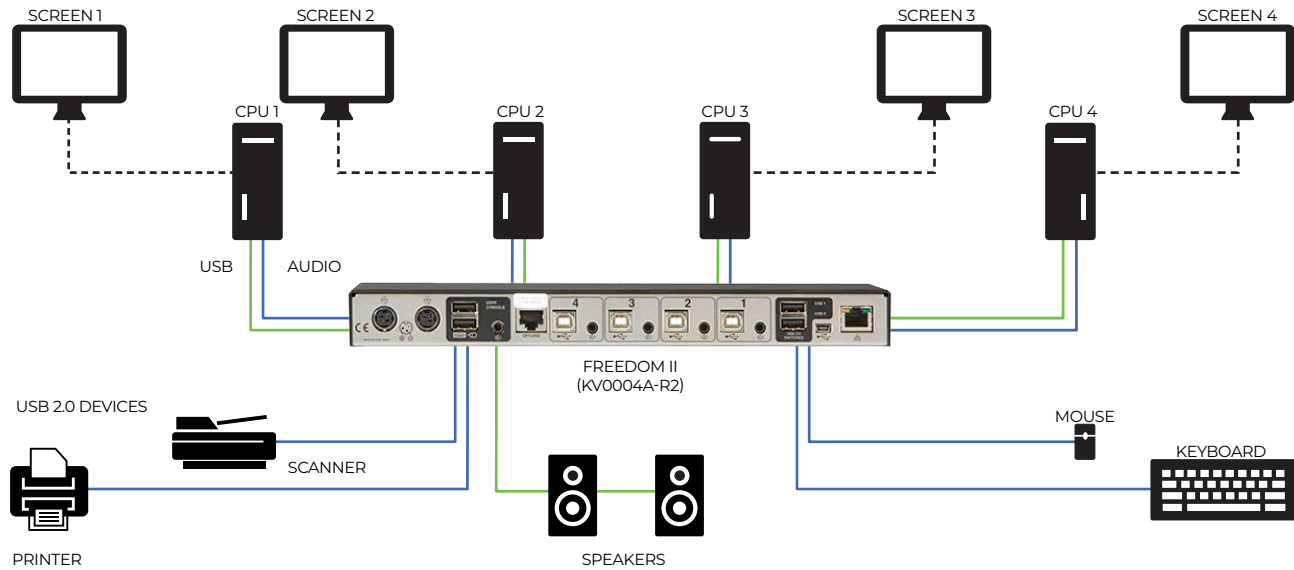Display up to four sources on a single screen
(KVP4004A)

KVM Multiviewers

Product Code	Number of Ports	Video Interfaces (per Source)	Max Resolution	USB Support	Audio/Serial
KVP4004A	(4)	(1) DVI-I	1920 x 1200 at 60 Hz	(1) PS/2 and (1) USB HID (per source), (4) USB 2.0	(1) 3.5-mm audio jack (per source), (1) RJ-45 for serial RS-232
KVP4000A-R3	(4)	(1) DVI-I	1920 x 1200 at 60 Hz	(1) USB HID and (1) PS/2 (per source) (4) USB 2.0	(1) RJ-45 for serial RS-232
EMD4010DP-VUE	(4)	(2) DisplayPort 1.2	4K 4:4:4 4096 x 2160 at 60 Hz	(1) USB HID (per source) and (4) USB 2.0	(2) 3.5-mm audio jack, (1) USB-C, GPIO, (1) RJ-45

KM Switches

- KM switches enable you to switch between up to eight computers by moving your mouse cursor from monitor to monitor.
- With only one keyboard and mouse required to operate four or eight computer systems, desk space becomes more ergonomically effective.
- Monitors keep direct computer connection. Only USB and audio switch between source PCs.
- Require no additional software or drivers on your critical computers.

Freedom II 4-Port KM Switch
(KV0004A-R2)

KM switches allow you to switch between four or eight PCs by moving a mouse cursor from screen to screen
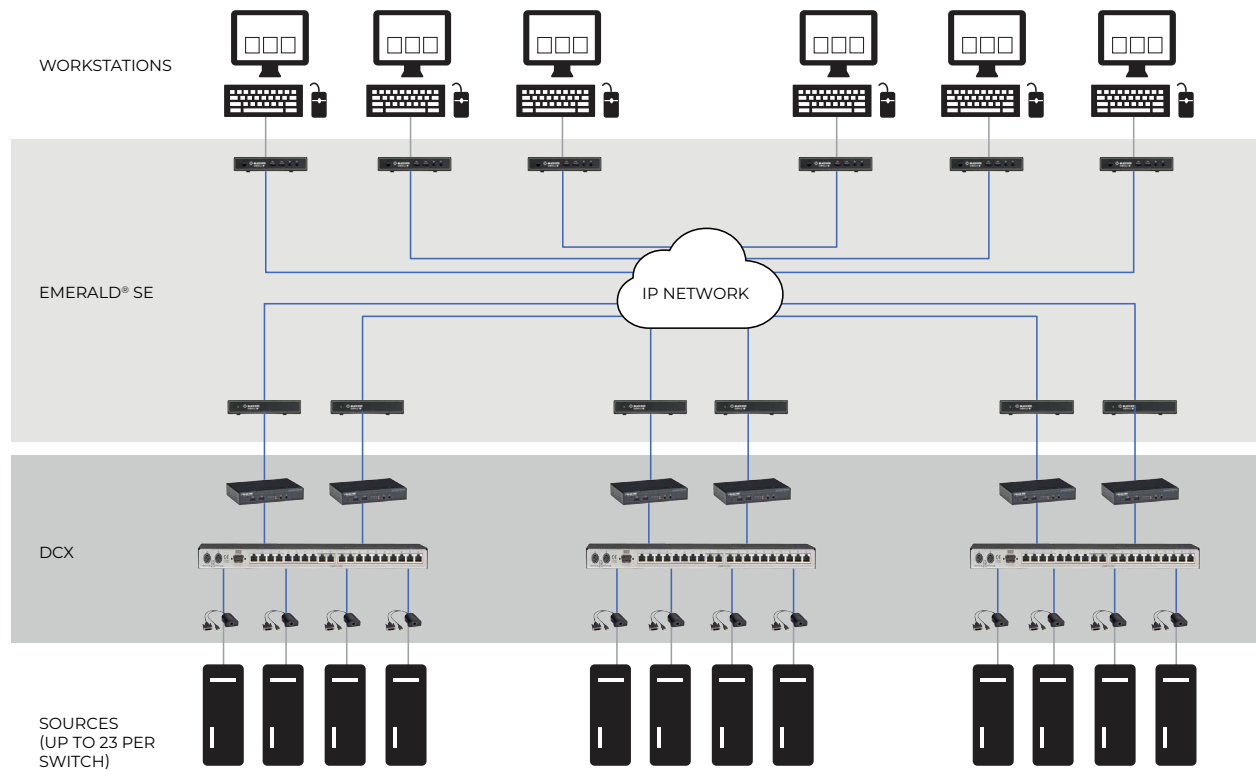
Selected KM Switches

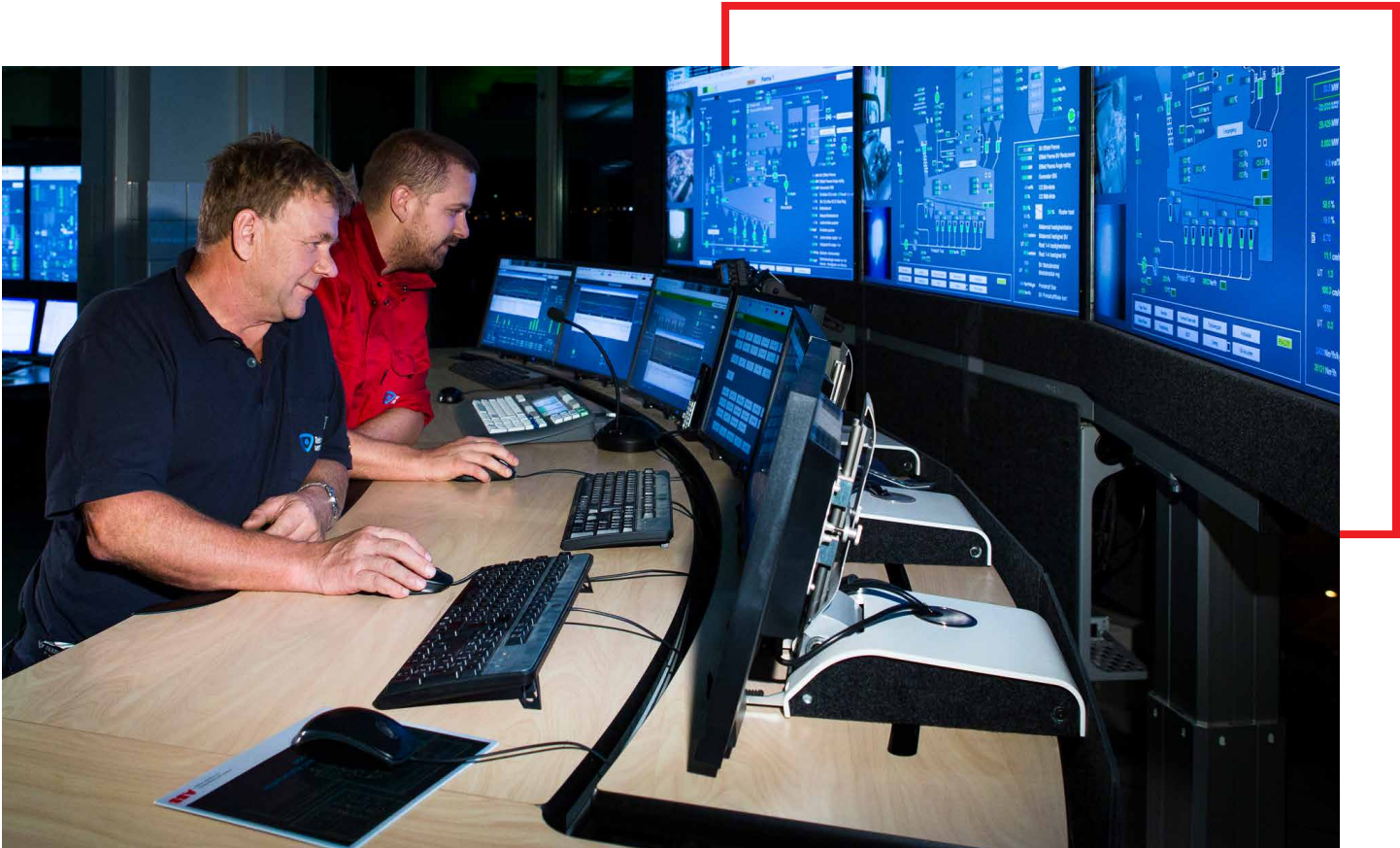| Product Code	Number of Ports	USB Support	Audio/Management	Other
KV0004A-R2	(4)	(2) USB HID, (2) USB 2.0	(1) 3.5-mm audio jack (per source), (1) RJ-45 (management), (1) Mini USB (management)	Also available in an 8-Port model (KV0008A-R2).
ACX1004A-U23	(4)	(2) USB HID, (2) USB 2.0	(1) Mini USB (management)	Also available in an 8-Port model with USB HID (ACX1008A-HID2)
KVS4-1004KX	(4)	(2) USB HID/2.0	(1) 3.5-mm audio jack (per source), (1) USB for CAC	Secure NIAP 4.0 KM Switch; also available in an 8-Port model (KVS4-1008KX)

Product Code	Description
KV0004A-LED	KM Switch LED Identification Kit that indicates active monitor and computer. Compatible with KV0004A-R2, KV0008A-R2, and ACX1004A-U23.
Firmware 2.1 App	Free, optional upgrade with copy/paste feature. Call us or visit black-box.eu/freedom Compatible with KV0004A-R2 and KV0008A-R2.

KVM Matrix Switching

KVM matrix switching technology connects multiple users with multiple sources, like PCs, servers, and virtual machines. With this technology, users can access multiple sources within one managed KVM network, creating a matrix of various switchable endpoints. Different KVM matrix switching systems are available, such as central (fixed port) matrix switches, modular (interface card-based) solutions, and zero-client-based (KVM-over-IP) systems that do not require a proprietary central switching unit. Supported interfaces and signal formats include analogue and digital video, peripheral, serial, infrared as well as analogue and digital audio. To learn more about our full range of matrix switching solutions, visit black-box.eu/kvm.

WORKSTATIONS

EMERALD® SE

IP NETWORK

DCX

SOURCES
(UP TO 23 PER
SWITCH)

Combined matrix switching application with Emerald and DCX

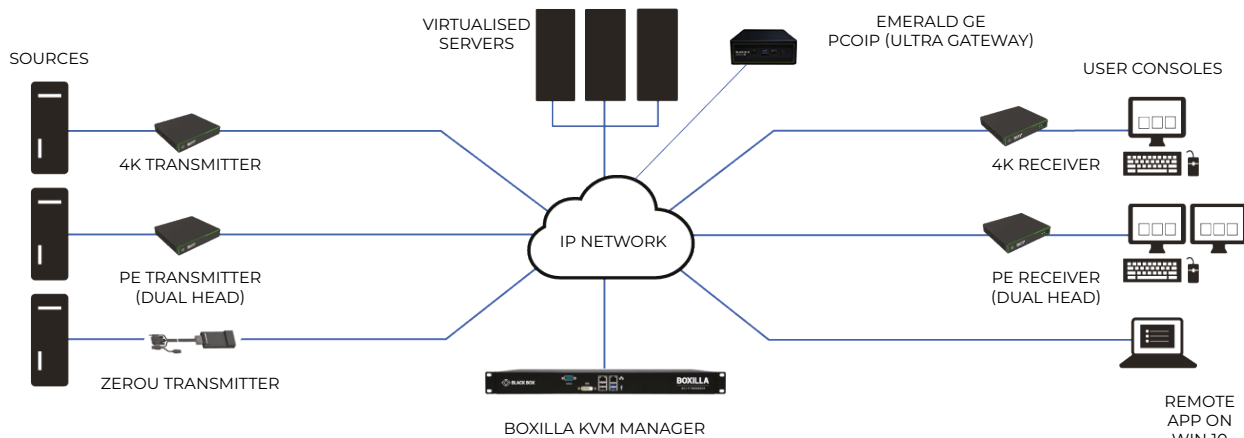**1.877.877.2269**   **BLACKBOX.COM/KVM**

Emerald Unified KVM over IP

Emerald® Unified KVM is an award-winning zero-client-based KVM extension and matrix switching platform that supports both point-to-point extension and IP-based KVM matrix switching for an unlimited number of users and computers. Distributing HD or pixel-perfect 4K video signals, high-speed USB 2.0, and bidirectional analogue audio, it can connect users with both physical computers and virtual machines. Use managed IP switches to connect all end points and provide fast and reliable remote computer access as far as your network reaches – or even over the internet. Add Emerald GE to give multiple users simultaneous access to the same virtual machine. Use the Emerald Remote App to turn any Windows® 10 device into a software KVM receiver, eliminating the need for additional hardware receivers. To learn more about Emerald, visit black-box.eu/emerald.
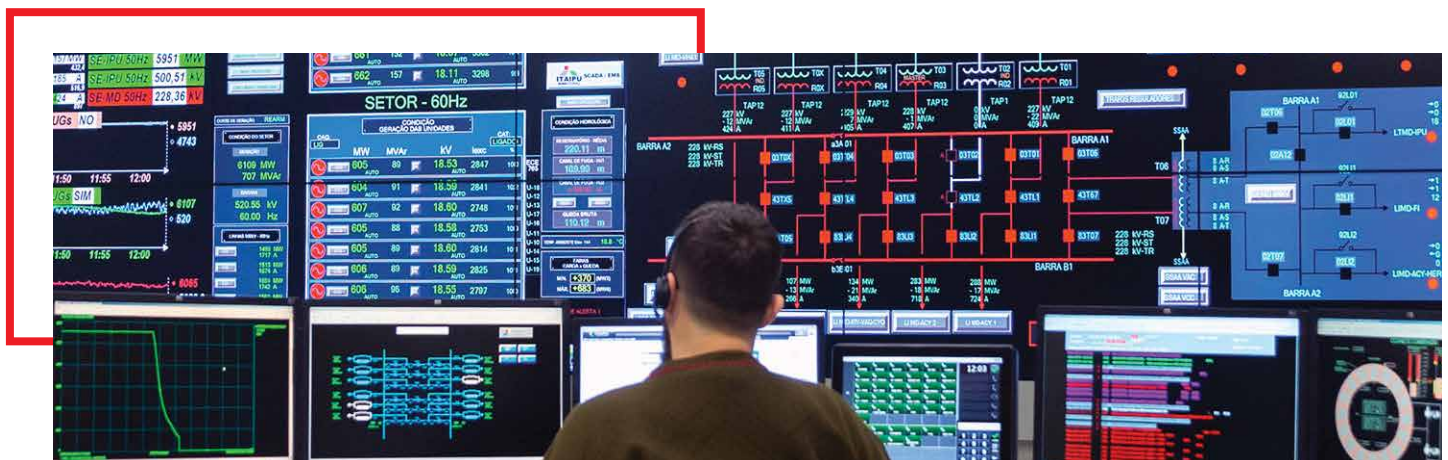
- Switch and extend HD or pixel-perfect 4K video, bidirectional analogue audio, and up to four USB 2.0 devices.
- Create a KVM matrix that supports up to 32 end points through the built-in management interface, or use the Boxilla® KVM Manager to construct matrices with hundreds of users and servers.
- Use Black Box®-tested or third-party standard IP switches to build a KVM over IP matrix.
- Real-time virtual machine access via RDP 8.1/RemoteFX or PCoIP (Ultra).
- Dual network ports for fail-safe operation (Emerald 4K, Emerald PE).

Emerald Unified KVM

Emerald KVM matrix switching setup that connects multiple source PCs, virtual machines, and user workstations

Selected Emerald System Components

Product Code	Description
EMD4000T/R	Emerald 4K Transmitter and Receiver that feature DisplayPort 1.2 (4096 X 2160 at 60 Hz), USB 2.0, bidirectional analogue stereo audio, and redundant network ports (SFP+).
EMD2000PE-T/R-P and EMD2002PE-T/R-P	Emerald PE Transmitter and Receiver that feature DVI (1920 X 1200 at 60 Hz), single or dual head functionality, USB 2.0, bidirectional analogue stereo audio, redundant network ports (SFP/CATx), supports Power-over-Ethernet (PoE).
EMD2000SE-T/R and EMD2002SE-T/R	Emerald SE Transmitter and Receiver that feature DVI (1920 x 1200 at 60 Hz), single or dual head functionality, USB 2.0, bidirectional analogue stereo audio, and an RJ-45 network connector. Also available as dual-head TX/RX.
EMD200DV-T and EMD200DP-T	Emerald ZeroU Transmitter offers a small form factor and supports DVI or DisplayPort (1920 x 1200). It's compatible with all Emerald Receivers.
EMDRM5-LIC	Emerald Remote App software license for five connections (requires Boxilla KVM Manager). Licenses for 1, 5, 10, or 20 connections are available.
EMD3000GE	Emerald GE PCoIP/PCoIP Ultra Gateway for virtual machine (VM) sharing.
EMS1G48	Emerald Gigabit Ethernet Network Switch with 48 10/100/1,000-Mbps twisted-pair ports
EMS10G28	Emerald 10-Gigabit Ethernet Network Switch with 28 SFP+ ports and two 100-Gbps QSFP28 ports
LFP443	SFP module that supports 1,250 Mbps and distances up to 100 m. It features an SGMII interface and an RJ-45 port.
LSP441	SFP+ module that supports 10 Gbps and distances up to 300 m. It features an 850-nm multimode fiber port and an LC port.

Boxilla KVM Manager

Boxilla® is a centralised KVM management appliance that enables remote management and monitoring of your complete enterprise KVM network. Boxilla features a user-friendly web-based GUI that allows administrators to auto-detect and connect new end points, update firmware, adjust bandwidth consumption, set up automated security alerts, and much more. Boxilla offers multiple license types to accommodate different KVM network sizes. To learn more about Boxilla, visit black-box.eu/boxilla.

- Manage deployments and user access rights, monitor KVM status, upgrade firmware, facilitate troubleshooting, and provide network security – all from one central command centre dashboard.
- Features auto device discovery and advanced user authentication.
- Supports Active Directory for user authentication and mapping to groups.
- Enables connections between multiple Black Box® KVM systems, such as DKM and Emerald®.
- Redundant network connections for maximum uptime.
- Add redundant Boxilla devices to a KVM matrix for enhanced network security.

Boxilla KVM Manager

Product Code	Description
BXAMGR-R2	KVM management platform that supports 25 end points.
BXAMGR-R2-X*	KVM management platform that supports 75, 125, 225, 325 or unlimited end points.
BXAMGR-LIC-X*	Licenses for 25, 100, 200, 300, or unlimited additional end points. on top of what manager already supports.
BXAMGR-LICBAK-X**	Licenses for 25, 100, 200, or 300 additional active and standby end points on top of what manager already supports.

*X = 75, 125, 225, 325, ULT (Unlimited)
**X = 25, 100, 200, 300. ULT

DKM – Digital KVM Matrix Switch

DKM is a proprietary (non-IP) high-performance KVM matrix switching platform that allows cross-point switching and extension of up to 4K video, peripheral, audio, and serial signals. Choose from chassis-based matrix switches in multiple sizes (DKM FX), compact 1G or 3G CATx and fiber switches (DKM FX Compact II), and (modular) DKM extenders. The multilevel redundancy of the DKM family offers high reliability for 24/7 operation in critical environments, such as control rooms. DKM supports full redundant power and hot-swappable modules so you can perform field upgrades without interrupting signal flow. The following components are only a selection of our full product range available at black-box.eu/dkm.

- DKM FX Matrix Switch chassis with 48, 80, 160, 288, or 576 ports.
- DKM FX Compact II Switches with 8 up to 160 ports, 1G or 3G, with CATx and/or fiber support.
- Select from a variety of I/O cards for the switch or extender chassis to fit your application's requirements.
- Use preconfigured or modular extender units to connect sources/switches and switches/user stations.
- Supports multiple signal types, including DisplayPort, DVI, HDMI, VGA, digital or analogue audio, USB 1/2/3, and serial.
- Manage via Controller Card and Java Management Tool.

DKM FX Modular Chassis

Selected DKM System Components

Product Code	Description
ACXC16-1G *	DKM Compact II KVM Matrix Switch with 16 ports and CATx support
ACXC64F-1G **	DKM Compact II KVM Matrix Switch with 64 ports and fiber support
ACXC24F16-1G-2RU ***	DKM Compact II KVM Matrix Switch with 24 copper ports and 16 fiber ports
ACX288-R2	DKM FX Enterprise Matrix Switch Chassis with 288 ports
ACXMODH2R-P48	DKM Modular Extender Chassis with 2 slots, int. 48-VDC power supply, and a redundancy option
ACXMODH4R-R2	DKM Modular Extender Chassis with 4 slots, ext. power supply, and a redundancy option
ACX1MT-DHID-C	Basic Link Module Card with a CATx port, single link DVI-D, and two USB HID ports
ACX1MR-DHID-C	Basic Link Module Card with a CATx port, receiver, single link DVI-D, and two USB HID ports
ACX2MT-DP4KHS-2S	Basic Link Module Card with a fiber port, transmitter, DisplayPort 1.2 (4K 60), and two USB HID ports
ACX2MR-DP4KHS-2S	Basic Link Module Card with a fiber port, receiver, DisplayPort 1.2 (4K 60), and two USB HID ports
ACX1R-123-C	DKM Compact Extender Receiver with a CATx (140 m) port, single link DVI-D, two USB HID ports, and four USB 2.0 ports
ACX1T-123-C	DKM Compact Extender Transmitter with a CATx (140 m) port, single link DVI-D, two USB HID ports, and four USB 2.0 ports

* available with 8, 24, 24, 32, 40, 48, 64, 120, 128, 144, or 160 ports, 1G or 3G options

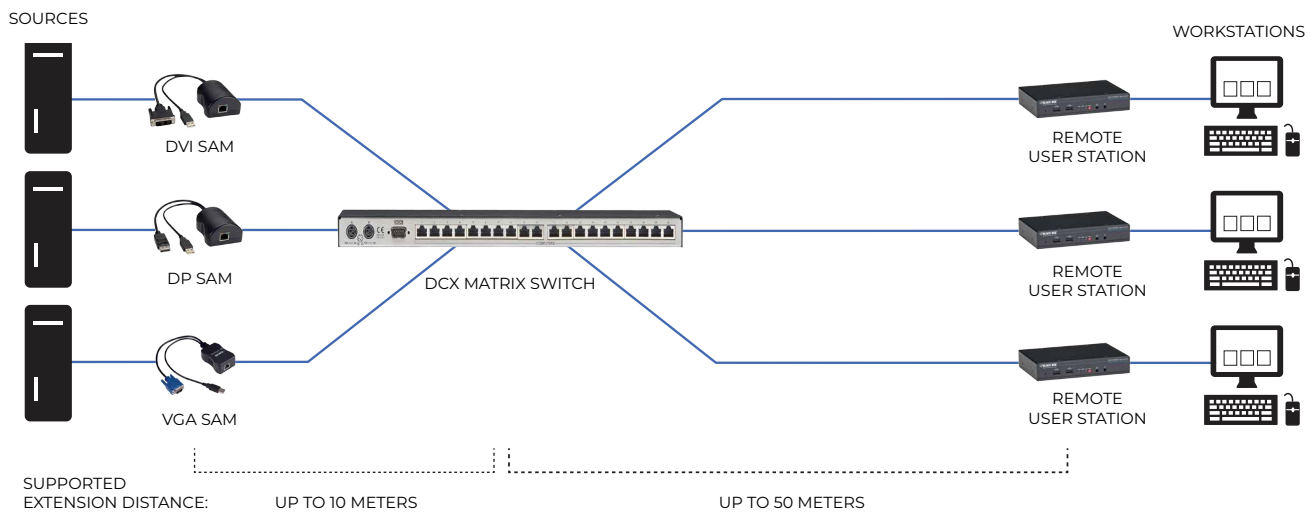** available with 8, 24, 32, 40, 48, 64, 80, 120, 128, 140, 144 or 160 ports, 1G or 3G options

*** available with 40,64, 80, 120, 160

DCX – Compact Matrix Switches

DCX is a flexible KVM matrix switching solution designed for small- and medium-sized applications where fast and reliable switching of uncompressed HD video, audio, and USB is essential. DCX offers 10 or 30 configurable ports that support any combination of users and servers (30-port model: maximum of 23 computer connections). A thumbnail preview of all connected sources provides an instant overview of all connected sources and enables intuitive, fast switching. Interface-powered Server Access Modules connect to sources, and Remote User Stations link to each workplace to extend DVI, DisplayPort, or VGA signals and USB over shielded CAT6 cabling. To learn more about the DCX matrix switching solution visit black-box.eu/dcx.

- Cost-effective digital KVM matrix switching for up to 30 endpoints.
- Features a multiview thumbnail OSD so you can preview all systems at the same time.
- Zero compression and zero latency with pixel-perfect video up to 1920 x 1200 at 60 Hz.
- Supports single-, dual- or multi-head video operation.
- Add computers with DVI, DisplayPort, or VGA video ports and USB interfaces using compact Server Access Modules.
- Convenient server and user connections over shielded CAT6 (or higher) cable. Supports 10-meter server-to-switch connections and 50-meter switch-to-console connections

Compact 30-Port KVM Matrix Switch
(DCX3000)

SOURCES

DVI SAM

DP SAM

DCX MATRIX SWITCH

VGA SAM

WORKSTATIONS

REMOTE
USER STATION

REMOTE
USER STATION

REMOTE
USER STATION

SUPPORTED
EXTENSION DISTANCE: UP TO 10 METERS   UP TO 50 METERS

DCX Compact KVM Matrix setup that connects multiple source PCs and user workstations

Product Code	Description
DCX1000	DCX Digital CATx KVM Matrix Switch with 10 Ports
DCX3000	DCX Digital CATx KVM Matrix Switch with 30 Ports
DCX3000-DVR	DCX Remote User Station (connect to user workstation)
DCX3000-DPT	DCX Server Access Module with DisplayPort video (connect to source)
DCX3000-DVT	DCX Server Access Module with DVI video (connect to source)
DCX-VGA	DCX Server Access Module with VGA video (connect to source)

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KVM Console Drawers and Adapters

KVM console drawers provide local access to servers in data centres, server rooms, or central equipment rooms. The rackmountable consoles reduce clutter and save space in work areas. They also make it easy to centrally maintain hardware and update software without additional peripherals or access through an external laptop. They feature a keyboard, monitor, and touchpad so you can get work done effectively. These consoles only consume 1U of rack space in a 19-inch rack. They are also extremely simple to access: When it's time to work, just slide out the drawer and open the flat-screen monitor. When you're done, just slide it back into the rack. To learn more about our full range of KVM console drawers, visit black-box.eu/kvmconsoles.

LCD Console Drawer

- Complete LCD tray with a 17/19-inch screen, full keyboard, and touchpad.
- Consumes only 1U of a standard 19-inch cabinet.
- Supports HDMI, DisplayPort, DVI or VGA video input.
- PS/2 or USB for keyboard and mouse support.
- Models with integrated KVM switching modules are available with up to 16 ports. These models also support IP, proprietary, or CATx cable connections.
- Available with multiple keyboard layouts (listed product codes refer to standard U.S. keyboard layout).

LCD Console Drawer
(KVT417A-8UV-R2)

Product Code	Description
KVT419A-8UV-R2	ServTray Complete 19" LCD Console Drawer that features VGA (1280 x 1024), PS/2, and USB. It includes an 8-port KVM Switch. Models are available with VGA and PS/2 or USB ports. Sixteen-port KVM switch models are also available.
KVT417A-8UV-R2	ServTray Complete 17" LCD Console Drawer that features VGA (1280 x 1024), PS/2, and USB. It includes an 8-port KVM Switch. Models are available with VGA and PS/2 or USB ports. Sixteen-port KVM switch models are also available.
KVT517A-8DV-WIDE	ServView 17" Widescreen LCD Console Drawer with DVI (1920 x 1200), USB, and an 8-port KVM Switch.
KVT617A-US	ServView HD17" LCD Console Drawer with HDMI, DisplayPort, VGA (1920x1080/1080p), and USB. Connects to a variety of KVM Switches.

Crash Cart Adapter

- Convert your laptop to a mobile crash cart or KVM console and gain access to any VGA or USB server or computer to troubleshoot a system after a crash.
- Handheld adapter plugs into the server on one end and your laptop on the other.
- Software installed on the laptop emulates a full KVM console.
- No drivers to install on the target computer.

Laptop Crash Cart Adapter
(KVT100A)

Product Code	Description
KVT100A	Laptop Crash Cart Console Adapter with VGA video (1920 x 1200 at 60 Hz) and USB

Global Leader in KVM

Why Black Box

Expertise
Black Box project engineers can assist with system assessment, design, deployment and training.

Breadth
Black Box offers the most comprehensive suite of engineered KVM solutions in the industry.

Support
Reflecting our commitment to complete satisfaction, our dedicated team of highly trained support technicians is available by phone free of charge, 24 hours a day, every day of the year.

Product Live Demonstrations
Black Box maintains several state-of-the-art demo rooms around the globe. Come see our solutions in action, schedule a networking event, or request an in-house demo.

Warranties
Multi-year warranties with multi-year extensions and replacement options are available.

Experience
Providing leading technology solutions since 1976, Black Box helps more than 175,000 customers in 150 countries build, manage, optimize and secure IT infrastructures.

Center of Excellence
Black Box offers a Center of Excellence featuring professional services and support agreements that help optimize customers' systems and maximize uptime.

Service Level Agreements
Our Service Level Agreements give customers access to technical support, product training, dedicated application engineers and more.

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