BLACK BOX®

MCX

Next-Generation AV over IP

MCX is the next-generation AV-over-IP solution from Black Box. MCX distributes 4K 60 Hz video and audio over IP and is made for modern network infrastructures. This robust video distribution system allows AV and data payloads to exist on the same IT network, which reduces network management time and costs. MCX is also the first commercially available AV-over-IP system to incorporate Dante® audio transport.

Education **Government** **eSports** **Hospitality** **Restaurants** **Corporate**

Ideal for a Wide Range of Industries

Because MCX is an IP-based solution, it can manage an infinite number of connected devices. This makes it perfect for a wide range of applications, such as bars and restaurants, enterprise, control rooms and operations centers, digital signage, receptions and entryways, conference rooms and boardrooms, education and more.

Benefits of MCX

Delivers up to 4K 60 Hz 4:4:4 Video
MCX delivers the video quality high-end AV applications require to display eye-catching content: It extends up to 4K 60 Hz 4:4:4 video to an unlimited number of displays without sacrificing latency, video quality or bandwidth. Even better, it supports up to 10-bit HDR using Software-Defined Video over Ethernet (SDVoE) – the latest software-based AV-over-IP platform for extension and control of AV systems on Ethernet or fiber networks.

Easy, Flexible Deployment
Adding other network AV solutions to your IT infrastructure can be a challenge. Not MCX. This video extension system is designed to work with any modern network, making installation simple. MCX can be deployed on 10G networks over Ethernet, fiber or both.

Advanced Video Wall Capabilities
MCX allows you to display your video wall content any way you want. It offers advanced video scaling options, such as multi-view, picture-in-picture, split screen and more, that increase versatility in video wall deployments.

Zero Source to Display Latency
Overcome source to display latency with MCX. This robust video distribution system's glass-to-glass encoding and decoding happen in real time (0.03 milliseconds). This means you never deal with annoying lag that complicates your operation.

Seamless Switching
MCX switches between video sources in less than 100 milliseconds with no artifacts or screen blink. This means you can switch video content super-fast without any noticeable distortion to your image — a must for professional AV applications.

Complete Control
You can control MCX with two powerful but easy-to-use tools:

- The MCX Control App makes deployment, configuration, management and system monitoring easy.

- Take command of your MCX AV-over-IP system with the tap of a button or the swipe of a touch panel with Black Box ControlBridge™ or the third-party control platform of your choice.

Comprehensive Connectivity
You can connect every essential AV distribution device to your MCX through its variety of ports: discrete RS-232, IR, secondary audio channel plus a separate 1-GbE connection to independently route, embed and de-embed up to three separate audio streams.

Developed with Industry-Leading Technologies

SDVoE™ (Software Defined Video over Ethernet)
SDVoE technology optimizes MCX. SDVoE distributes AV over modern networks without negatively affecting performance, functionality or capability.

Powered by Dante® Audio
MCX is the first commercially available AV-over-IP solution to incorporate Dante audio transport. Dante audio allows you to extend network audio to other Dante-enabled receiving devices, like mixers and power amplifiers. This gives you more control over your feeds and the ability to matrix switch audio in addition to video.

Choose the MCX that Maximizes AV in Your Application

MCX S7

Multicast AV signals to an unlimited amount of remote displays without issue.
Deploys on any modern network over Ethernet, fiber or both.

- Transmits up to 4K 60 Hz 4:4:4 uncompressed video
- Zero source to display latency and seamless switching
- Ideal for high-performance AV applications that do not require video scaling options
- Supports HDMI 2.0 over IP

MCX-S7-DEC

MCX S9

Distribute and extend up to 4K 60 Hz 4:4:4 video and audio from any source
to any screen over your network. Easily control how your content displays on every screen.

- Advanced scaling options for multi-view, PiP, split screen and more — perfect for video walls
- USB support for audio, webcam, Flash drive, keyboard and mouse
- Transmits up to 4K 60 Hz 4:4:4 uncompressed video
- Supports HDMI 2.0 and DisplayPort 1.2 over IP
- Dante®-enabled model delivers two channels of Dante network audio


MCX-S9-DEC
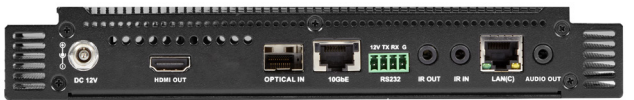
MCX-S9C-DEC

MCX Control

MCX gives you total control over your AV system, so you can display your content exactly how you want.

- The MCX Controller lets you manage and monitor AV content with ease.
- Take command of your MCX AV-over-IP system with the tap of a button or the swipe of a touch panel with Black Box ControlBridge™ or the third-party control platform of your choice.
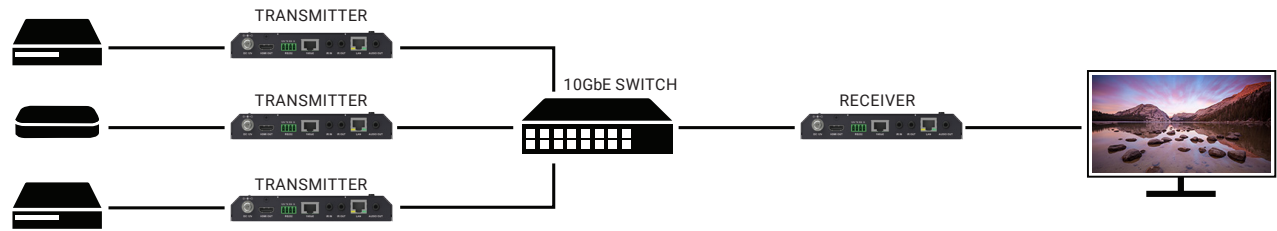

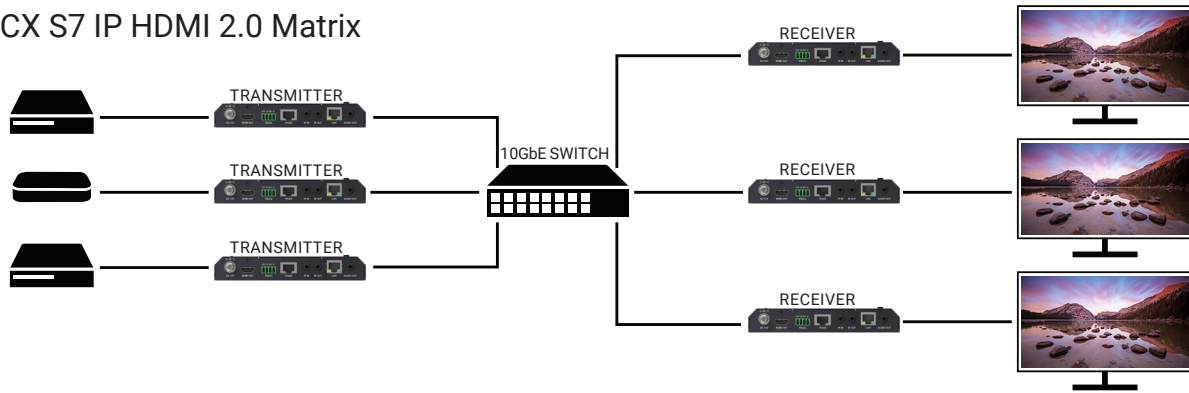ControlBridge
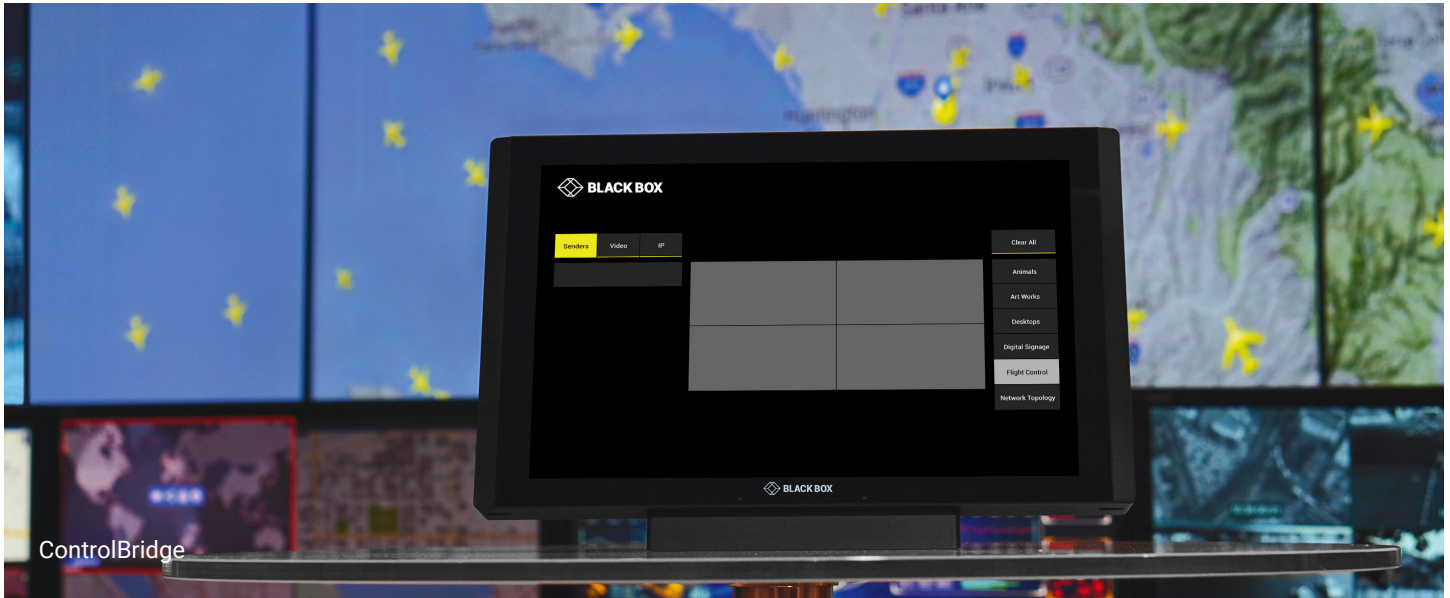
MCX Product Family Comparison Chart

	Input Type	Connectivity	SDVoE 4K 60 Hz	Scaling	Dante® Audio	USB
MCX-S7-DEC	HDMI 2.0	10-GbE Copper	Yes	No	No	No
MCX-S7-ENC						
MCX-S7-FO-DEC	HDMI 2.0	10-GbE Fiber	Yes	No	No	No
MCX-S7-FO-ENC						
MCX-S9C-DEC	HDMI 2.0	10-GbE Copper	Yes	Yes	No	No
MCX-S9C-ENC						
MCX-S9-DEC	HDMI 2.0, DP1.2a	10-GbE Copper or Fiber	Yes	Yes	No	Yes
MCX-S9-ENC						
MCX-S9D-ENC	HDMI 2.0, DP1.2a	10-GbE Copper or Fiber	Yes	Yes	Yes	Yes

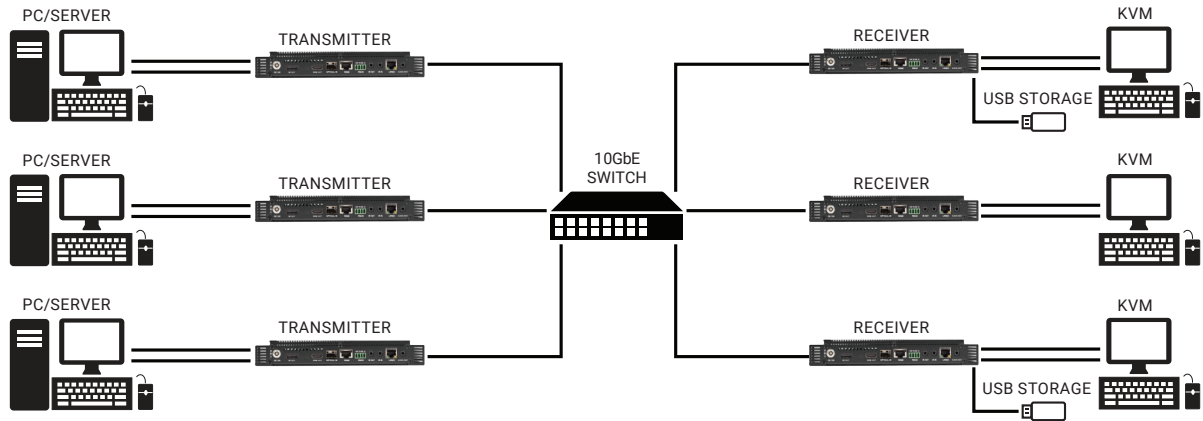# MCX Application Diagrams

MCX S7 HDMI 2.0 Distribution

TRANSMITTER
TRANSMITTER
TRANSMITTER
10GbE SWITCH
RECEIVER

MCX S7 IP HDMI 2.0 Matrix

TRANSMITTER
TRANSMITTER
TRANSMITTER
10GbE SWITCH
RECEIVER
RECEIVER
RECEIVER

MCX S9 HDMI 2.0/DP1.2 KVM

PC/SERVER
TRANSMITTER
RECEIVER
IWB
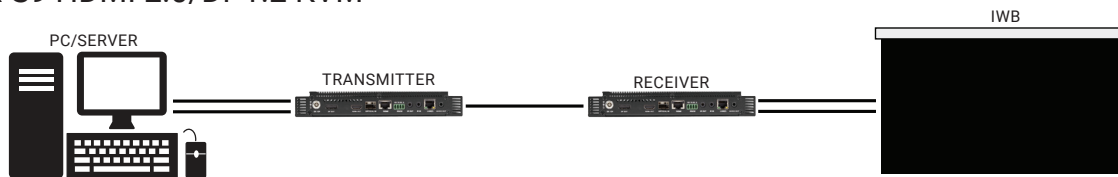
MCX S9 IP HDMI 2.0/DP1.2 KVM Switching

PC/SERVER
TRANSMITTER
PC/SERVER
TRANSMITTER
10GbE SWITCH
RECEIVER
KVM
PC/SERVER
TRANSMITTER
USB STORAGE
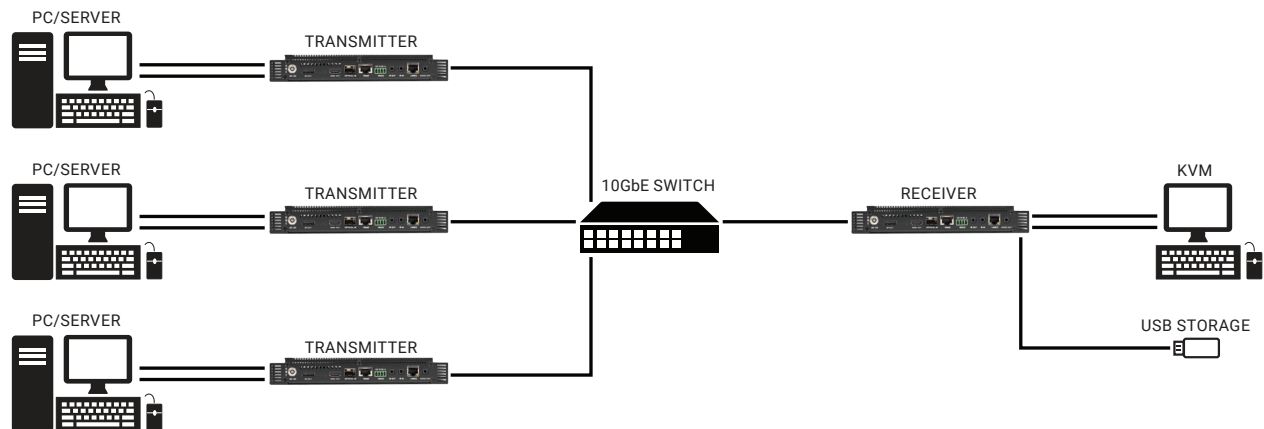
MCX S9 HDMI 2.0/DP1.2 KVM Matrix

PC/SERVER

TRANSMITTER

RECEIVER

KVM

USB STORAGE

PC/SERVER

TRANSMITTER

10GbE
SWITCH

RECEIVER

KVM

PC/SERVER

TRANSMITTER

RECEIVER

KVM

USB STORAGE

MCX S9 IP HDMI 2.0/DP1.2 with Failover Redundancy

TRANSMITTER

10GbE SWITCH

RECEIVER

COPPER

FIBER
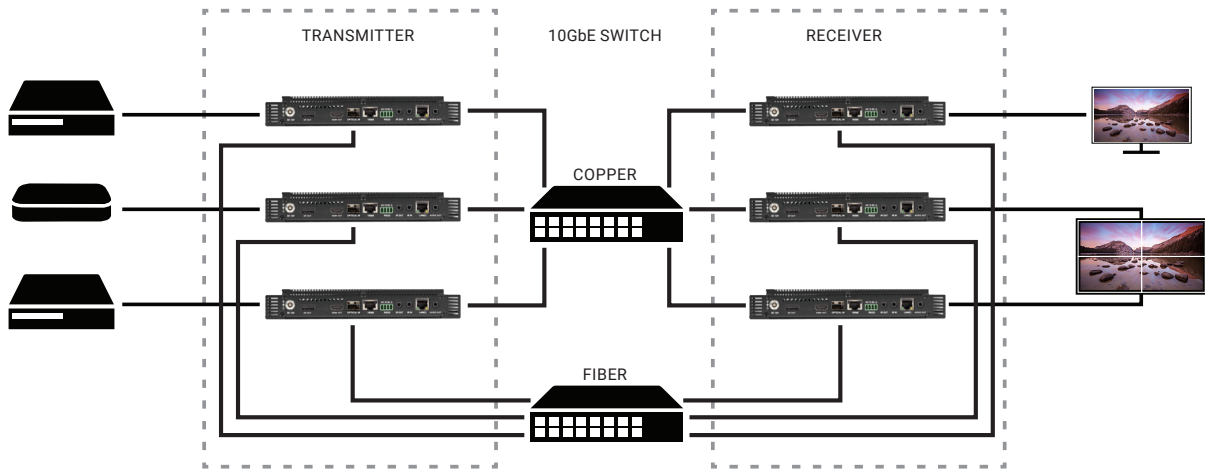
MCX S7 and S9 Interoperability

S7 ENCODERS

S7 DECODERS

10GbE
SWITCH

S9 DECODERS

S9 ENCODERS
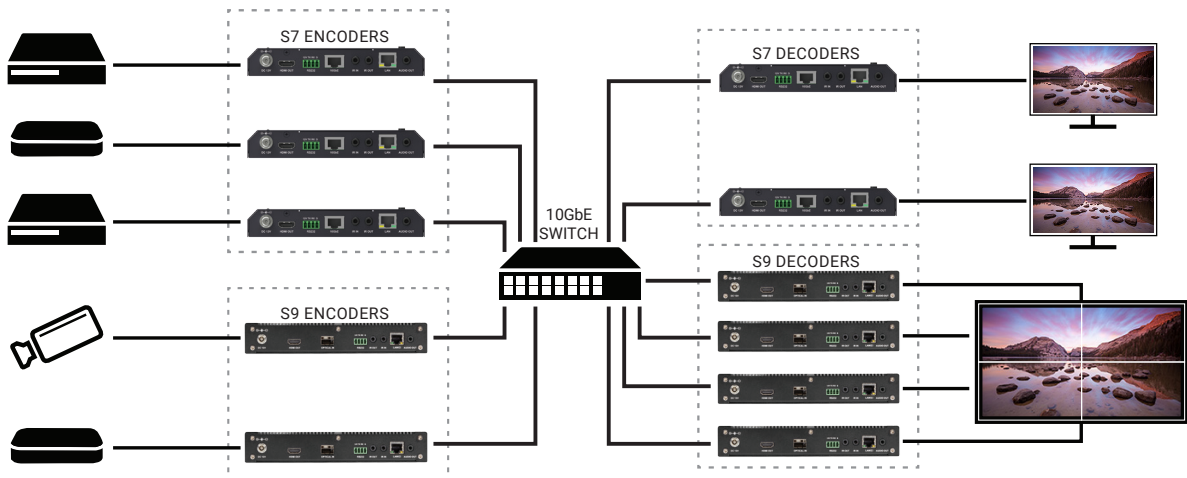
WHY BLACK BOX

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

Breadth
Black Box offers the most comprehensive suite of engineered AV and infrastructure 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, every day of the year.

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.

Contributing Member of the SDVoE Alliance
Black Box is committed to developing AV-over-IP technology and educating end users about its advantages. That is why we have become a contributing member of the SDVoE Alliance. The alliance is bringing top AV companies together around a standardized hardware and software platform to benefit consumers.

BLACK BOX