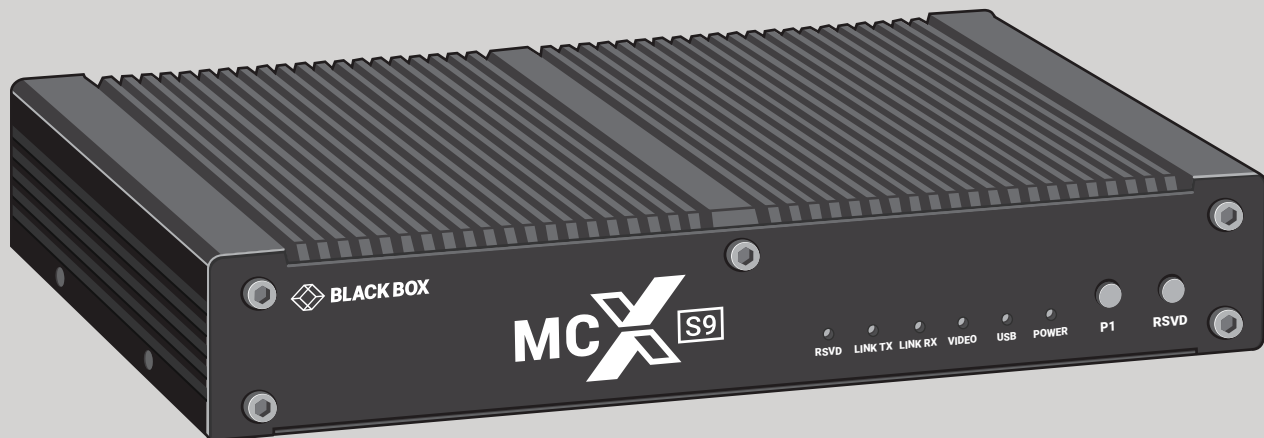


DATA SHEET

MCX-S7, MCX-S9 SERIES

MCX S7 AND S9 NETWORK AV VIDEO ENCODERS AND DECODERS

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



OVERVIEW

MCX S7 AND S9 NETWORK AV VIDEO ENCODERS AND DECODERS DATA SHEET

INTRODUCTION

MCX S7 and S9 Network AV Video Encoders and Decoders are the next generation of the Black Box renowned AVoIP product line, MediaCento. MCX is designed for modern network infrastructures using 10G SDVoE technology. It delivers up to 4K 60 Hz 4:4:4 resolutions plus HDR in point-to-point, point-to-multipoint, advanced video walls, and Multiview applications with zero source to screen latency and <100 ms switching time. Additionally, MCX has the ability to extend audio over the AV network or encode 2-channels of Dante audio.

End users can use the tactile interface of the ControlBridge Desktop Touch Panel. Using the MCX API, users can set up layouts and environments for fast and easy switching. Or, let Black Box do it for you with our programming professional services.

Two S7 Encoders and two S7 Decoders are available:

- HDMI 2.0 OVER IP ENCODER AND DECODER, 10G ETHERNET (MCX-S7-ENC AND MCX-S7-DEC)
- HDMI 2.0 OVER IP ENCODER AND DECODER, 10G SFP+ FIBER (MCX-S7-FO-ENC AND MCX-S7-FO-DEC)

Three S9 Encoders and two S9 Decoders are available:

- HDMI 2.0 & DISPLAYPORT 1.2 OVER IP ENCODER, 10G ETHERNET AND FIBER CONNECTIVITY, USB WITH SCALING (MCX-S9-ENC)
- HDMI 2.0 OVER IP DECODER, 10G ETHERNET AND FIBER CONNECTIVITY, USB WITH SCALING (MCX-S9-DEC)
- HDMI 2.0 & DISPLAYPORT 1.2 OVER IP ENCODER, 10G ETHERNET WITH SCALING, COMPACT (MCX-S9C-ENC)

- HDMI 2.0 OVER IP DECODER, 10G ETHERNET WITH SCALING, COMPACT (MCX-S9C-DEC)
- HDMI 2.0 & DISPLAYPORT 1.2 OVER IP ENCODER, DANTE AUDIO ENCODING, 10G ETHERNET AND FIBER CONNECTIVITY, USB WITH SCALING (MCX-S9D-ENC)

Also available is a software controller:

- MCX SOFTWARE CONTROLLER - ADDS VIDEO WALL CONTROL FUNCTIONALITY AND MANAGEMENT. VM, LINUX OR WINDOWS (MCX MGMT)

FEATURES

- **RESOLUTION MATTERS – DELIVERING UP TO 4K 60 HZ 4:4:4 PLUS UP TO 10-BIT HDR UNCOMPRESSED USING SDVOE**
- **FLEXIBLE DEPLOYMENT OPTIONS – DEPLOY ON 10G NETWORKS OVER ETHERNET, FIBER OR BOTH**
- **GO BEYOND THE BEZEL – ADVANCED SCALING OPTIONS ALLOW FOR MULTI-VIEW, PIP, AND MORE VERSATILITY IN VIDEO WALL DEPLOYMENTS**
- **DANTE SPOKEN HERE – 2 CHANNELS OF DANTE NETWORK AUDIO**
- **ZERO LATENCY – ZERO SOURCE TO DISPLAY LATENCY**
- **SEAMLESS SWITCHING - <100 MS WITH NO ARTIFACTS**
- **INTUITIVE CONTROL – INTUITIVE WEB UI AND TOUCH APPLICATION FOR EASY CONTROL. DISCRETE RS-232, IR, SECONDARY AUDIO CHANNEL PLUS A SEPARATE 1GBE CONNECTION TO INDEPENDENTLY ROUTE, EMBED, AND DE-EMBED UP TO 3 SEPARATE AUDIO STREAMS FEATURE**
- **SWITCH MATRIXING - SEAMLESS MATRIX SWITCH CAPABILITY**
- **VIDEO WALLS - CREATE VIDEO WALLS UP TO 256 SCREENS IN SIZE**



COMPARISON CHART

FEATURE COMPARISON CHART			
FEATURE	MCX S9 ENCODER/DECODER	MCX S9 COMPACT ENCODER/DECODER	MCX S7 ENCODER/DECODER
VIDEO INPUT	ENCODER: (1) HDMI 2.0, (1) DISPLAYPORT 1.2A	ENCODER: (1) HDMI 2.0, (1) DISPLAYPORT 1.2A	ENCODER: (1) HDMI 2.0
COMPRESSION	UNCOMPRESSED	UNCOMPRESSED	UNCOMPRESSED
SOURCE TO SCREEN LATENCY	0.3 MS 1080P/0.6 MS 4K @ 60 HZ	0.3 MS 1080P/0.6 MS 4K @ 60 HZ	0.3 MS 1080P/0.6 MS 4K @ 60 HZ
VIDEO INPUT RESOLUTION	UP TO 4096 X 2160 @ 60 HZ, 3840 X 2160 @ 60 HZ (4:4:4), AND 3840 X 2160 @ 60 HZ (4:2:0 10-BIT HDR), DETAILS IN SUPPORT INPUT		
HDMI CLOCK RATE	UP TO 594 MHZ	UP TO 594 MHZ	UP TO 594 MHZ
ENCODING OUTPUT CONNECTOR	10G ETHERNET AND 10G FIBER	10G ETHERNET	10G ETHERNET OR 10G FIBER
FAILOVER REDUNDANCY	YES	NONE	NONE
VIDEO OUTPUT RESOLUTION	UP TO 4096 X 2160 @ 60 HZ, 3840 X 2160 @ 60 HZ (4:4:4), AND 3840 X 2160 @ 60 HZ		
AUDIO INPUT	UNBALANCED STEREO 3.5-MM AUDIO	UNBALANCED STEREO 3.5-MM AUDIO	UNBALANCED STEREO 3.5-MM AUDIO
DANTE AUDIO OUTPUT	MCX-S9D-ENC ONLY	NONE	NONE
IR INPUT	3.5-MM JACK CONNECTOR	3.5-MM JACK CONNECTOR	3.5-MM JACK CONNECTOR
CONTROL	(1) RS-232 CONNECTS DEVICES FOR UPGRADING HARDWARE AND FOR BI-DIRECTIONAL COMMUNICATION WITH AN RS-232 CONNECTED DEVICE. (1) LAN CONNECTS TO A SWITCH, ROUTER OR PC FOR UPGRADING AND FOR MATRIX SWITCHING VIA MCX CONTROL		
USB	BUILT-IN EXTREMEUSB MODULE FOR USB 2.0 CONNECTIVITY	NONE	NONE
SUPPORTED AUDIO IN	LPCM, 2.0/5.1/7.1 @ 44.1/48/96/192 KHZ, DOLBY TRUEHD UP TO 7.1 192 KHZ, DTS-HD MASTER UP TO 7.1 192 KHZ, DOLBY DIGITAL AC-3, DTS V1, UNBALANCED STEREO AUDIO		
SUPPORTED AUDIO OUT	DANTE AUDIO 2-CH, 2-CH PCM, LPCM, 2.0/5.1/7.1 @ 44.1/48/96/192 KHZ, DOLBY TRUEHD UP TO 7.1 192 KHZ, DTS-HD MASTER UP TO 7.1 192 KHZ, DOLBYDIGITAL AC-3, DTS V1, UNBALANCED STEREO AUDIO; NOTE: ONLY MCX-S9D-ENC MODEL SUPPORTS DANTE AUDIO	2-CH PCM, LPCM, 2.0/5.1/7.1 @ 44.1/48/96/192 KHZ, DOLBY TRUEHD UP TO 7.1 192 KHZ, DTS-HD MASTER UP TO 7.1 192 KHZ, DOLBYDIGITAL AC-3, DTS V1, UNBALANCED STEREO AUDIO	2-CH PCM, LPCM, 2.0/5.1/7.1 @ 44.1/48/96/192 KHZ, DOLBY TRUEHD UP TO 7.1 192 KHZ, DTS-HD MASTER UP TO 7.1 192 KHZ, DOLBYDIGITAL AC-3, DTS V1, UNBALANCED STEREO AUDIO
VIDEO WALL SUPPORT	YES, UP TO 256 SCREENS	YES, UP TO 256 SCREENS	NONE
MULTIVIEW SUPPORT	YES	YES	NONE
VIDEO MATRIX SWITCHING	YES	YES	YES
VIDEO MATRIX SWITCH TIME	<100 MS	<100 MS	<100 MS
KVM APPLICATIONS	YES	NONE	NONE
USB ROUTING	YES	NONE	NONE
KVM EXTENSION	DIRECT CONNECT KVM EXTENSION. 4K @ 60 HZ UP TO 100M. USB 2.0 EXTENSION COMPATIBLE WITH USB KEYBOARD, MOUSE, STORAGE, ETC., 0.3 MS LATENCY END TO END	NONE	NONE
KVM WITHIN MULTIVIEW	YES	NONE	NONE
KVM MATRIX SWITCHING	YES	NONE	NONE
SUPPORTED VIDEO RESOLUTION	640 x 480 ³ , 800 x 600 ³ , 1024 x 768 ³ , 1280 x 1024 ³ , 1360 x 768 ³ , 1440 x 900 ³ , 1440 x 1050 ³ , 1600 x 1200 ³ , 720 x 480 ⁷ (480i59), 720 x 480 ⁷ (480p59), 720 x 576 ⁶ (576i50), 720 x 576 ⁶ (576p50), 1280 x 720 ⁵ (720p50), 1280 x 720 ⁷ (720p59), 1280 x 720 ⁸ (720p60), 1920 x 1080 ⁶ (1080i50), 1920x1080 ⁷ (1080i59), 1920 x 1080 ⁶ (1080i60), 1920 x 1080 ¹ (1080p23), 1920 x 1080 ² (1080p24), 1920x1080 ³ (1080p25), 1920 x 1080 ⁴ (1080p29), 1920 x 1080 ⁵ (1080p30), 1920 x 1080 ⁶ (1080p50), 1920x1080 ⁷ (1080p59), 1920x1080 ⁸ (1080p60), 1920 x 1080 ¹⁰ , 2560 x 1440 ⁸ , 3840 x 2160 ¹ (2160p23), 3840 x 2160 ² (2160p24), 3840 x 2160 ⁴ (2160p25), 3840 x 2160 ⁴ (2160p29), 3840 x 2160 ⁵ (2160p30), 3840 x 2160 ⁶ (2160p60), 4096 x 2160 ⁵ , 4096 x 2160 ⁸		
	1 = at 23.98 Hz, 2 = at 24 Hz, 3 = at 25 Hz, 4 = at 29.97 Hz, 5 = at 30 Hz, 6 = at 50 Hz, 7 = at 59.94 Hz, 8 = 60 Hz, 9 = 75 Hz, 10 = 120 Hz		



SPECIFICATIONS

MCX S7 NETWORK AV VIDEO ENCODERS AND DECODERS



WHAT'S INCLUDED WITH THE ENCODERS

- (1) S7 ENCODER
- (1) 12-VDC, 2-A POWER ADAPTER (WITH US/UK/EU/AU PLUG)
- (1) 3.5-MM, 4-PIN PHOENIX CONNECTOR
- (1) IR EMITTER
- (2) MOUNTING EARS (WITH SCREWS)

WHAT'S INCLUDED WITH THE DECODERS

- (1) S7 DECODER
- (1) 12-VDC, 2-A POWER ADAPTER (WITH US/UK/EU/AU PLUG)
- (1) 3.5-MM, 4-PIN PHOENIX CONNECTOR
- (1) IR WIDEBAND RECEIVER (30 TO 50 KHZ)
- (2) MOUNTING EARS (WITH SCREWS)

S7 SERIES SPECIFICATIONS (MCX-S7-ENC, MCX-S7-DEC, MCX-S7-FO-ENC, MCX-S7-FO-DEC)

MODEL	ENCODER	DECODER
VIDEO		
INPUT CONNECTORS	MCX-S7-ENC, MCX-S7-FO-ENC: (1) HDMI 2.0	MCX-S7-DEC: (1) RJ-45 10GBASE-T; MCX-S7-FO-DEC: (1) SFP+
SUPPORTED INPUT	640 x 480 ⁸ , 800 x 600 ⁸ , 1024 x 768 ⁸ , 1280 x 1024 ⁸ , 1360 x 768 ⁸ , 1440 x 900 ⁸ , 1440 x 1050 ⁸ , 1600 x 1200 ⁸ , 720 x 480 ⁷ (480i59), 720 x 480 ⁷ (480p59), 720 x 576 ⁶ (576i50), 720 x 576 ⁶ (576p50), 1280 x 720 ⁵ (720p50), 1280 x 720 ⁷ (720p59), 1280 x 720 ⁸ (720p60), 1920 x 1080 ⁶ (1080i50), 1920x1080 ⁷ (1080i59), 1920 x 1080 ⁸ (1080i60), 1920 x 1080 ¹ (1080p23), 1920 x 1080 ² (1080p24), 1920x1080 ³ (1080p25), 1920 x 1080 ⁴ (1080p29), 1920 x 1080 ⁵ (1080p30), 1920 x 1080 ⁶ (1080p50), 1920x1080 ⁷ (1080p59), 1920x1080 ⁸ (1080p60), 1920 x 1080 ¹⁰ , 2560 x 1440 ⁸ , 3840 x 2160 ¹ (2160p23), 3840 x 2160 ² (2160p24), 3840 x 2160 ⁴ (2160p25), 3840 x 2160 ⁴ (2160p29), 3840 x 2160 ⁵ (2160p30), 3840 x 2160 ⁶ (2160p60), 4096 x 2160 ⁵ , 4096 x 2160 ⁸ 1 = at 23.98 Hz, 2 = at 24 Hz, 3 = at 25 Hz, 4 = at 29.97 Hz, 5 = at 30 Hz, 6 = at 50 Hz, 7 = at 59.94 Hz, 8 = 60 Hz, 9 = 75 Hz, 10 = 120 Hz	
OUTPUT CONNECTORS	MCX-S7-ENC: (1) RJ-45 10GBASE-T; MCX-S7-FO-ENC: (1) SFP+	MCX-S7-DEC, MCX-S7-FO-DEC: (1) HDMI 2.0
SUPPORTED OUTPUT	640 x 480 ⁸ , 800 x 600 ⁸ , 1024 x 768 ⁸ , 1280 x 1024 ⁸ , 1360 x 768 ⁸ , 1440 x 900 ⁸ , 1440 x 1050 ⁸ , 1600 x 1200 ⁸ , 720 x 480 ⁷ (480i59), 720 x 480 ⁷ (480p59), 720 x 576 ⁶ (576i50), 720 x 576 ⁶ (576p50), 1280 x 720 ⁵ (720p50), 1280 x 720 ⁷ (720p59), 1280 x 720 ⁸ (720p60), 1920 x 1080 ⁶ (1080i50), 1920x1080 ⁷ (1080i59), 1920 x 1080 ⁸ (1080i60), 1920 x 1080 ¹ (1080p23), 1920 x 1080 ² (1080p24), 1920x1080 ³ (1080p25), 1920 x 1080 ⁴ (1080p29), 1920 x 1080 ⁵ (1080p30), 1920 x 1080 ⁶ (1080p50), 1920x1080 ⁷ (1080p59), 1920x1080 ⁸ (1080p60), 1920 x 1080 ¹⁰ , 2560 x 1440 ⁸ , 3840 x 2160 ¹ (2160p23), 3840 x 2160 ² (2160p24), 3840 x 2160 ⁴ (2160p25), 3840 x 2160 ⁴ (2160p29), 3840 x 2160 ⁵ (2160p30), 3840 x 2160 ⁶ (2160p60), 4096 x 2160 ⁵ , 4096 x 2160 ⁸ 1 = at 23.98 Hz, 2 = at 24 Hz, 3 = at 25 Hz, 4 = at 29.97 Hz, 5 = at 30 Hz, 6 = at 50 Hz, 7 = at 59.94 Hz, 8 = 60 Hz, 9 = 75 Hz, 10 = 120 Hz	
AUDIO		
INPUT CONNECTORS	MCX-S7-ENC, MCX-S7-FO-ENC: (1) HDMI, (1) 3.5-mm jack	None
SUPPORTED INPUT	HDMI: LPCM, 2.0/5.1/7.1 channel, 44.1/48/96/192 kHz Dolby True HD, up to 7.1, 192 kHz DTS-HD Master, up to 7.1, 192 kHz Dolby Digital AC-3 (DVD format) DTS version 1 (DVD format); 3.5 mm jack: Unbalanced stereo audio	None



SPECIFICATIONS

MCX S7 NETWORK AV VIDEO ENCODERS AND DECODERS

S7 SERIES SPECIFICATIONS (MCX-S7-ENC, MCX-S7-DEC, MCX-S7-FO-ENC, MCX-S7-FO-DEC) (CONTINUED)		
MODEL	ENCODER	DECODER
AUDIO (CONTINUED)		
OUTPUT CONNECTORS	None	MCX-S7-DEC, MCX-S7-FO-DEC: (1) HDMI 2.0, (1) 3.5-mm jack
SUPPORTED OUTPUT	None	HDMI: LPCM, 2.0/5.1/7.1 channel, 44.1/48/96/192 kHz Dolby True HD, up to 7.1, 192 kHz DTS-HD Master, up to 7.1, 192 kHz Dolby Digital AC-3 (DVD format) DTS version 1 (DVD format); 3.5 mm jack: Unbalanced stereo audio
CONTROL		
IR INPUT	(1) 3.5 mm jack connector, connects to an IR receiver for IR communication with an IR transmitter connecting to another device.	
IR OUTPUT	(1) 3.5 mm jack connector, connects to an IR transmitter for IR communication with an IR receiver connecting to another device.	
CONTROL CONNECTORS	(1) 3.5mm 4-pin phoenix connector: for RS-232 communication; (1) RJ-45, 10/100/1000BASE-T Ethernet port	
CONTROL METHOD	Ethernet: PC software: for configuring, controlling and upgrading Web browser: for controlling API set: for integrating with the 3rd party control system RS-232: PC software: for testing and upgrading the device itself Common RS-232 device: for bi-directional communication with an RS-232 device connected to another device	
GENERAL		
OPERATING TEMPERATURE	32 to 104° F (0 to 40° C)	32 to 104° F (0 to 40° C)
STORAGE TEMPERATURE	-4 to +158° F (-20 to +70° C),	-4 to +158° F (-20 to +70° C),
HUMIDITY	10% to 90%, non-condensing	10% to 90%, non-condensing
PRODUCT WEIGHT	3.35 lb. (1.52 kg)	3.35 lb. (1.52 kg)
POWER SUPPLY	12 VDC	12 VDC
TRANSPORT DISTANCE	MCX-S7-ENC: 98.4 ft. (30 m) with CAT6 cable, 328 ft. (100 m) with CAT6a or CAT7 cable MCX-S7-FO-ENC: Depends on SFP+ installed	MCX-S7-DEC: 98.4 ft. (30 m) with CAT6 cable, 328 ft. (100 m) with CAT6a or CAT7 cable MCX-S7-FO-DEC: Depends on SFP+ installed
DIMENSIONS	0.98" H x 6.3" W x 6.7" D (2.5 x 16 x 17.2 cm)	0.98" H x 6.3" W x 6.7" D (2.5 x 16 x 17.2 cm)
ESD PROTECTION	Human-body Model: ±8 kV (Air-gap discharge)/±4 kV (Contact discharge)	



SPECIFICATIONS

MCX S9 NETWORK AV VIDEO ENCODERS AND DECODERS



WHAT'S INCLUDED WITH THE ENCODERS

- (1) S9 ENCODER
- (1) 12-VDC, 3-A POWER ADAPTER (WITH US/UK/EU/AU CORD)
- (1) 3.5-MM, 4-PIN PHOENIX CONNECTOR
- (1) IR EMITTER
- (2) MOUNTING EARS (WITH SCREWS)

WHAT'S INCLUDED WITH THE DECODERS

- (1) S9 DECODER
- (1) 12-VDC, 3-A POWER ADAPTER (WITH US/UK/EU/AU CORD)
- (1) 3.5-MM, 4-PIN PHOENIX CONNECTOR
- (1) IR WIDEBAND RECEIVER (30 TO 50 KHZ)
- (2) MOUNTING EARS (WITH SCREWS)

S9 SERIES SPECIFICATIONS (MCX-S9-ENC, MCX-S9-DEC, MCX-S9D-ENC)

MODEL	ENCODER	DECODER
VIDEO		
INPUT CONNECTORS	(1) HDMI 2.0, (1) DisplayPort 1.2a	(1) RJ-45 10GBASE-T, (1) SFP+
SUPPORTED INPUT	640 x 480 ⁸ , 800 x 600 ⁸ , 1024 x 768 ⁸ , 1280 x 1024 ⁸ , 1360 x 768 ⁸ , 1440 x 900 ⁸ , 1440 x 1050 ⁸ , 1600 x 1200 ⁸ , 720 x 480 ⁷ (480i59), 720 x 480 ⁷ (480p59), 720 x 576 ⁶ (576i50), 720 x 576 ⁶ (576p50), 1280 x 720 ⁵ (720p50), 1280 x 720 ⁷ (720p59), 1280 x 720 ⁸ (720p60), 1920 x 1080 ⁴ (1080i50), 1920x1080 ⁷ (1080i59), 1920 x 1080 ⁸ (1080i60), 1920 x 1080 ¹ (1080p23), 1920 x 1080 ² (1080p24), 1920x1080 ³ (1080p25), 1920 x 1080 ⁴ (1080p29), 1920 x 1080 ⁵ (1080p30), 1920 x 1080 ⁶ (1080p50), 1920x1080 ⁷ (1080p59), 1920x1080 ⁸ (1080p60), 1920 x 1080 ¹⁰ , 2560 x 1440 ⁸ , 3840 x 2160 ¹ (2160p23), 3840 x 2160 ² (2160p24), 3840 x 2160 ⁴ (2160p25), 3840 x 2160 ⁴ (2160p29), 3840 x 2160 ⁵ (2160p30), 3840 x 2160 ⁵ (2160p60), 4096 x 2160 ⁵ , 4096 x 2160 ⁸	
	1 = at 23.98 Hz, 2 = at 24 Hz, 3 = at 25 Hz, 4 = at 29.97 Hz, 5 = at 30 Hz, 6 = at 50 Hz, 7 = at 59.94 Hz, 8 = 60 Hz, 9 = 75 Hz, 10 = 120 Hz	
OUTPUT CONNECTORS	(1) RJ-45 10GBASE-T, (1) SFP+	(1) HDMI 2.0
SUPPORTED OUTPUT	640 x 480 ⁸ , 800 x 600 ⁸ , 1024 x 768 ⁸ , 1280 x 1024 ⁸ , 1360 x 768 ⁸ , 1440 x 900 ⁸ , 1440 x 1050 ⁸ , 1600 x 1200 ⁸ , 720 x 480 ⁷ (480i59), 720 x 480 ⁷ (480p59), 720 x 576 ⁶ (576i50), 720 x 576 ⁶ (576p50), 1280 x 720 ⁵ (720p50), 1280 x 720 ⁷ (720p59), 1280 x 720 ⁸ (720p60), 1920 x 1080 ⁴ (1080i50), 1920x1080 ⁷ (1080i59), 1920 x 1080 ⁸ (1080i60), 1920 x 1080 ¹ (1080p23), 1920 x 1080 ² (1080p24), 1920x1080 ³ (1080p25), 1920 x 1080 ⁴ (1080p29), 1920 x 1080 ⁵ (1080p30), 1920 x 1080 ⁶ (1080p50), 1920x1080 ⁷ (1080p59), 1920x1080 ⁸ (1080p60), 1920 x 1080 ¹⁰ , 2560 x 1440 ⁸ , 3840 x 2160 ¹ (2160p23), 3840 x 2160 ² (2160p24), 3840 x 2160 ⁴ (2160p25), 3840 x 2160 ⁴ (2160p29), 3840 x 2160 ⁵ (2160p30), 3840 x 2160 ⁵ (2160p60), 4096 x 2160 ⁵ , 4096 x 2160 ⁸	
	1 = at 23.98 Hz, 2 = at 24 Hz, 3 = at 25 Hz, 4 = at 29.97 Hz, 5 = at 30 Hz, 6 = at 50 Hz, 7 = at 59.94 Hz, 8 = 60 Hz, 9 = 75 Hz, 10 = 120 Hz	
AUDIO		
INPUT CONNECTORS	(1) HDMI, (1) DisplayPort 1.2a, (1) 3.5-mm jack	None
SUPPORTED INPUT	HDMI/DP: LPCM, 2.0/5.1/7.1 channel, 44.1/48/96/192 kHz Dolby True HD, up to 7.1, 192 kHz DTS-HD Master, up to 7.1, 192 kHz Dolby Digital AC-3 (DVD format) DTS version 1 (DVD format); 3.5 mm jack: Unbalanced stereo audio	None



SPECIFICATIONS

MCX S9 NETWORK AV VIDEO ENCODERS AND DECODERS

S9 SERIES SPECIFICATIONS (MCX-S9-ENC, MCX-S9-DEC, MCX-S9D-ENC) (CONTINUED)		
MODEL	ENCODER	DECODER
AUDIO (CONTINUED)		
OUTPUT CONNECTORS	None	(1) HDMI 2.0, (1) 3.5-mm jack
SUPPORTED OUTPUT	None	HDMI: LPCM, 2.0/5.1/7.1 channel, 44.1/48/96/192 kHz Dolby True HD, up to 7.1, 192 kHz DTS-HD Master, up to 7.1, 192 kHz Dolby Digital AC-3 (DVD format) DTS version 1 (DVD format); 3.5 mm jack: Unbalanced stereo audio
USB		
CONNECTORS	(1) USB Type B	(2) USB Type A
CONTROL		
IR INPUT	(1) 3.5 mm jack connector, connects to an IR receiver for IR communication with an IR transmitter connecting to another device.	
IR OUTPUT	(1) 3.5 mm jack connector, connects to an IR transmitter for IR communication with an IR receiver connecting to another device.	
CONTROL CONNECTORS	(1) 3.5-mm 4-pin Phoenix connector for RS-232 communication; (1) RJ-45 10/100/1000BASE-T Ethernet port	
CONTROL METHOD	Ethernet: PC software: for configuring, controlling and upgrading Web browser: for controlling API set: for integrating with the 3rd party control system RS-232: PC software: for testing and upgrading the device itself Common RS-232 device: for bi-directional communication with an RS-232 device connected to another device	
GENERAL		
OPERATING TEMPERATURE	32 to 104° F (0 to 40° C)	32 to 104° F (0 to 40° C)
STORAGE TEMPERATURE	-4 to +158° F (-20 to +70° C),	-4 to +158° F (-20 to +70° C),
HUMIDITY	10% to 90%, non-condensing	10% to 90%, non-condensing
PRODUCT WEIGHT	3.31 lb. (1.50 kg)	3.31 lb. (1.50 kg)
POWER SUPPLY	12 VDC	12 VDC
TRANSPORT DISTANCE	Twisted-Pair: 98.4 ft. (30 m) with CAT6 cable, 328 ft. (100 m) with CAT6a or CAT7 cable; Fiber: Depends on SFP+ installed	Twisted-Pair: 98.4 ft. (30 m) with CAT6 cable, 328 ft. (100 m) with CAT6a or CAT7 cable; Fiber: Depends on SFP+ installed
DIMENSIONS	MCX-S9-ENC, MCX-S9D-ENC: Including brackets: 1.8" H x 10.4" W x 5.5" D (4.5 x 23 x 13.9 cm) Without brackets: 1.4" H x 9.1" W x 5.5" D (3.5 x 23 x 13.9 cm)	MCX-S9-DEC: Including brackets: 1.8" H x 10.4" W x 5.5" D (4.5 x 23 x 13.9 cm) Without brackets: 1.4" H x 9.1" W x 5.5" D (3.5 x 23 x 13.9 cm)
ESD PROTECTION	Human-body Model: ±8 kV (Air-gap discharge)/±4 kV (Contact discharge)	



SPECIFICATIONS

MCX S9 COMPACT NETWORK AV VIDEO ENCODERS AND DECODERS

FRONT VIEW



MCX-S9C-ENC

BACK VIEW



MCX-S9C-ENC

FRONT VIEW



MCX-S9C-DEC

BACK VIEW



MCX-S9C-DEC

WHAT'S INCLUDED WITH THE ENCODER

- (1) S9 COMPACT ENCODER
- (1) 12-VDC, 3-A POWER ADAPTER WITH US/UK/EU/AU CORD
- (1) PHOENIX PORT (MALE, 3.5-MM, 4 PINS)
- (1) IR EMITTER
- (2) MOUNTING EARS

WHAT'S INCLUDED WITH THE DECODER

- (1) S9 COMPACT DECODER
- (1) 12-VDC, 3-A POWER ADAPTER WITH US/UK/EU/AU CORD
- (1) PHOENIX PORT (MALE, 3.5-MM, 4 PINS)
- (1) IR WIDEBAND RECEIVER (30 TO 50 KHZ)
- (2) MOUNTING EARS

S9 COMPACT SERIES SPECIFICATIONS (MCX-S9C-ENC, MCX-S9C-DEC)

MODEL	ENCODER	DECODER
VIDEO		
INPUT CONNECTORS	(1) HDMI 2.0, (1) DisplayPort 1.2a	(1) RJ-45 10GBASE-T
SUPPORTED INPUT	640 x 480 ⁸ , 800 x 600 ⁸ , 1024 x 768 ⁸ , 1280 x 1024 ⁸ , 1360 x 768 ⁸ , 1440 x 900 ⁸ , 1440 x 1050 ⁸ , 1600 x 1200 ⁸ , 720 x 480 ⁷ (480i59), 720 x 480 ⁷ (480p59), 720 x 576 ⁶ (576i50), 720 x 576 ⁶ (576p50), 1280 x 720 ⁵ (720p50), 1280 x 720 ⁷ (720p59), 1280 x 720 ⁸ (720p60), 1920 x 1080 ⁶ (1080i50), 1920x1080 ⁷ (1080i59), 1920 x 1080 ⁸ (1080i60), 1920 x 1080 ¹ (1080p23), 1920 x 1080 ² (1080p24), 1920x1080 ³ (1080p25), 1920 x 1080 ⁴ (1080p29), 1920 x 1080 ⁵ (1080p30), 1920 x 1080 ⁶ (1080p50), 1920x1080 ⁷ (1080p59), 1920x1080 ⁸ (1080p60), 1920 x 1080 ¹⁰ , 2560 x 1440 ⁸ , 3840 x 2160 ¹ (2160p23), 3840 x 2160 ² (2160p24), 3840 x 2160 ⁴ (2160p25), 3840 x 2160 ⁴ (2160p29), 3840 x 2160 ⁵ (2160p30), 3840 x 2160 ⁶ (2160p60), 4096 x 2160 ⁵ , 4096 x 2160 ⁸	
	1 = at 23.98 Hz, 2 = at 24 Hz, 3 = at 25 Hz, 4 = at 29.97 Hz, 5 = at 30 Hz, 6 = at 50 Hz, 7 = at 59.94 Hz, 8 = 60 Hz, 9 = 75 Hz, 10 = 120 Hz	
OUTPUT CONNECTORS	(1) RJ-45 10GBASE-T	(1) HDMI 2.0
SUPPORTED OUTPUT	640 x 480 ⁸ , 800 x 600 ⁸ , 1024 x 768 ⁸ , 1280 x 1024 ⁸ , 1360 x 768 ⁸ , 1440 x 900 ⁸ , 1440 x 1050 ⁸ , 1600 x 1200 ⁸ , 720 x 480 ⁷ (480i59), 720 x 480 ⁷ (480p59), 720 x 576 ⁶ (576i50), 720 x 576 ⁶ (576p50), 1280 x 720 ⁵ (720p50), 1280 x 720 ⁷ (720p59), 1280 x 720 ⁸ (720p60), 1920 x 1080 ⁶ (1080i50), 1920x1080 ⁷ (1080i59), 1920 x 1080 ⁸ (1080i60), 1920 x 1080 ¹ (1080p23), 1920 x 1080 ² (1080p24), 1920x1080 ³ (1080p25), 1920 x 1080 ⁴ (1080p29), 1920 x 1080 ⁵ (1080p30), 1920 x 1080 ⁶ (1080p50), 1920x1080 ⁷ (1080p59), 1920x1080 ⁸ (1080p60), 1920 x 1080 ¹⁰ , 2560 x 1440 ⁸ , 3840 x 2160 ¹ (2160p23), 3840 x 2160 ² (2160p24), 3840 x 2160 ⁴ (2160p25), 3840 x 2160 ⁴ (2160p29), 3840 x 2160 ⁵ (2160p30), 3840 x 2160 ⁶ (2160p60), 4096 x 2160 ⁵ , 4096 x 2160 ⁸	
	1 = at 23.98 Hz, 2 = at 24 Hz, 3 = at 25 Hz, 4 = at 29.97 Hz, 5 = at 30 Hz, 6 = at 50 Hz, 7 = at 59.94 Hz, 8 = 60 Hz, 9 = 75 Hz, 10 = 120 Hz	
AUDIO		
INPUT CONNECTORS	(1) HDMI, (1) 3.5-mm jack	None
SUPPORTED INPUT	HDMI/DP: LPCM, 2.0/5.1/7.1 channel, 44.1/48/96/192 kHz Dolby True HD, up to 7.1, 192 kHz DTS-HD Master, up to 7.1, 192 kHz Dolby Digital AC-3 (DVD format) DTS version 1 (DVD format); 3.5 mm jack: Unbalanced stereo audio	None



SPECIFICATIONS

MCX S9 COMPACT NETWORK AV VIDEO ENCODERS AND DECODERS

S9 COMPACT SERIES SPECIFICATIONS (MCX-S9C-ENC, MCX-S9C-DEC) (CONTINUED)		
MODEL	ENCODER	DECODER
AUDIO (CONTINUED)		
OUTPUT CONNECTORS	None	(1) HDMI 2.0, (1) 3.5-mm jack
SUPPORTED OUTPUT	None	HDMI: LPCM, 2.0/5.1/7.1 channel, 44.1/48/96/192 kHz Dolby True HD, up to 7.1, 192 kHz DTS-HD Master, up to 7.1, 192 kHz Dolby Digital AC-3 (DVD format) DTS version 1 (DVD format); 3.5 mm jack: Unbalanced stereo audio
CONTROL		
IR INPUT	(1) 3.5 mm jack connector, connects to an IR receiver for IR communication with an IR transmitter connecting to another device.	
IR OUTPUT	(1) 3.5 mm jack connector, connects to an IR transmitter for IR communication with an IR receiver connecting to another device.	
CONTROL CONNECTORS	(1) 3.5-mm 4-pin Phoenix connector for RS-232 communication; (1) RJ-45, 10/100/1000BASE-T Ethernet port	
CONTROL METHOD	Ethernet: PC software: for configuring, controlling and upgrading Web browser: for controlling API set: for integrating with the 3rd party control system RS-232: PC software: for testing and upgrading the device itself Common RS-232 device: for bi-directional communication with an RS-232 device connected to another device	
GENERAL		
OPERATING TEMPERATURE	32 to 104° F (0 to 40° C)	32 to 104° F (0 to 40° C)
STORAGE TEMPERATURE	-4 to +158° F (-20 to +70° C),	-4 to +158° F (-20 to +70° C),
HUMIDITY	10% to 90%, non-condensing	10% to 90%, non-condensing
PRODUCT WEIGHT	3.31 lb. (1.50 kg)	3.31 lb. (1.50 kg)
POWER SUPPLY	12 VDC	12 VDC
TRANSPORT DISTANCE	98.4 ft. (30 m) with CAT6 cable, 328 ft. (100 m) with CAT6a or CAT7 cable	98.4 ft. (30 m) with CAT6 cable, 328 ft. (100 m) with CAT6a or CAT7 cable
DIMENSIONS	1.38" H x 8.27" W x 5.47" D (3.51 x 21.01 x 13.89 cm)	1.38" H x 8.27" W x 5.47"- D (3.51 x 21.01 x 13.89 cm)
ESD PROTECTION	Human-body Model: ±8 kV (Air-gap discharge)/±4 kV (Contact discharge)	



ORDERING INFORMATION

ITEM	CODE
MCX S7 Series Network AV Video	
HDMI 2.0 over IP Encoder, 10G Ethernet	MCX-S7-ENC
HDMI 2.0 over IP Decoder, 10G Ethernet	MCX-S7-DEC
MCX S7 Series Network AV Video, Fiber	
HDMI 2.0 over IP Encoder, 10G SFP+ Fiber	MCX-S7-FO-ENC
HDMI 2.0 over IP Decoder, 10G SFP+ Fiber	MCX-S7-FO-DEC
MCX S9 Series Network AV Video	
HDMI 2.0 & DisplayPort 1.2 over IP Encoder, 10G Ethernet and Fiber Connectivity, USB with Scaling	MCX-S9-ENC
HDMI 2.0 over IP Decoder, 10G Ethernet and Fiber Connectivity, USB with Scaling	MCX-S9-DEC
HDMI 2.0 & DisplayPort 1.2 over IP Encoder, Dante Audio Encoding, 10G Ethernet and Fiber Connectivity, USB with Scaling	MCX-S9D-ENC
MCX S9 Compact Series Network AV Video	
HDMI 2.0 & DisplayPort 1.2 over IP Encoder, 10G Ethernet with Scaling	MCX-S9C-ENC
HDMI 2.0 over IP Decoder, 10G Ethernet with Scaling	MCX-S9C-DEC
MCX Software Controller - Adds Video Wall Control functionality and management. VM, Linux or Windows	MCX-MGMT
ControlBridge Desktop Touch Panel, 7"	CB-TOUCH7-T
ControlBridge Desktop Touch Panel, 12"	CB-TOUCH12-T

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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.

FILENAME: MCX-S7-ENC_DEC_DS_REV2.PDF

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