DATA SHEET

MCXG2 SERIES

MCX G2 ENCODERS AND DECODERS

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

BLACK BOX

OVERVIEW

MCX G2 ENCODERS AND DECODERS

INTRODUCTION

To extend AV, IR, RS-232, USB 2.0, and Ethernet signals, choose the MCX G2, Black Box-designed, TAA-compliant encoder/decoder set with additional HDMI 2.0 loop out. With this loop through/out, the system can show the input source on a separate monitor. For example, during a live event, the user can view the source and sample that video on a loop, then pass it down to the network to compare latency.

The encoders/decoders are ideal for government control rooms, point-to-point secure video conferencing, hotel or convention center displays, multi-monitor broadcasts, distributed video matrix or video wall systems, and remote KVM system control.

Choose Copper or Fiber Versions to Suit Your Application
The encoders/decoders are designed for high-quality, IP-routable, AV extension with virtually zero latency. Fiber and copper versions are available.

HDMI 2.0 and DisplayPort Encoding and Decoding
You can connect every essential device to your MCX G2 through its variety of ports. Multiple control and data signals may also be transmitted along with the audio and video, including IR, RS-232, and Ethernet.

3-Port USB with USB-C Connectivity
The integrated USB hub of each decoder (receiver) can be configured to be in USB Host or Device Mode and can function as a simple point-to-point KVM extension, freely routed between any two endpoints. It also can be configured into a special "Simultaneous" mode, allowing up to 7 Host Mode units to extend their USB ports to a single Device Mode unit. This type of USB KVM routing flexibility enables a wide range of multi-user, control room, or on-demand installation scenarios.

Data Transfer Delay is Virtually Undistinguishable
This high-quality, IP-routable encoder pair provides AV extension with virtually zero latency. The pair transmits AV and other data for long extension, enhancing the flexibility of any video distribution installation.

Create Ergonomic Workflows for Operators
This video extension system is easy to install and use on a modern network. The units' front-panel configuration buttons and On-Screen Display (OSD) streamline daily workflows.

Works with MCX Gen2 Controller
Combined with the optional MCX Gen2 Controller or control software, the functionality of the encoders/decoders expands exponentially. Multiple encoders/decoders may be combined with one or more 10-Gigabit fiber Ethernet switches, and the units can be used together to form a distributed video matrix, a multi-viewer system, or a video wall system. This AV network capacity provides flexibility in large event installations.

FEATURES

- PROVIDES AV, IR, RS-232, USB 2.0, AND ETHERNET EXTENSION
- HDMI 2.0 AND DVI 1.0 COMPATIBLE
- HDCP 2.2 AND HDCP 1.4 COMPLIANT
- MULTIPLE INPUT/OUTPUT OPTIONS:
  ENCODER VIDEO: (1) HDMI, (1) HDMI LOOP-THROUGH, AND (1) TYPE C; DECODER: (1) HDMI VIDEO OUTPUT;

  USB CONNECTIONS: ENCODER: (1) TYPE C; DECODER: (3) TYPE A;

  OTHER CONNECTIONS: ENCODER: (1) 3.5MM PHONE JACK INPUT; DECODER (1) 3.5MM PHONE JACK OUTPUT; COPPER MODEL: (1) 10G RJ-45 INPUT OR OUTPUT, FIBER MODE: (1) SFP+ INPUT OR OUTPUT
- IP SWITCHABLE WITH VIRTUALLY ZERO LATENCY (REQUIRES OPTIONAL MCX G2 CONTROLLER OR CONTROL SOFTWARE)
- OPTIONAL LOSSLESS COMPRESSION TO ALLOW VIDEO TRANSFER WITHIN LIMITED BANDWIDTH
- EXTENDS UP TO 30 KM OVER FIBER (MAXIMUM DISTANCE DEPENDS ON THE SFP+ MODULE AND TYPE OF FIBER USED)
- SUPPORTS INDEPENDENT BREAKAWAY A/V MATRIX SWITCHING WITH MINIMUM LATENCY, VIDEO WALL GENERATION, AND MULTI-VIEW COMPOSITING (REQUIRES OPTIONAL IP MASTER CONTROLLER/CONTROL SOFTWARE)
- FACILITATES PASS THROUGH OF 10/12-BIT HDR SOURCES (POINT-TO-POINT AND GENLOCK MODES ONLY)
- ENABLES PASS THROUGH OF AUDIO FORMATS INCLUDING LPCM (UP TO 8 CHANNELS), BITSTREAM AND HD BITSTREAM FROM HDMI OR DP SOURCES
- INTERFACES WITH 10-GIGABIT ETHERNET SWITCHES VIA XFI (IEEE 802.3AE) COMPATIBLE SFP+ FIBER MODULES
- BASIC CONFIGURATION VIA FRONT PANEL BUTTONS WITH AN OSD
- WORKS WITH AN EXTERNAL CONTROL CENTER (IP MASTER CONTROLLER) OR CONTROL SOFTWARE TO PROVIDE EXPANDED FUNCTIONALITY (CONTACT BLACK BOX FOR MORE INFORMATION.)

NOTE: A transcoder model is also available. It is detailed in its own section in this data sheet.

SPECIFICATIONS

MCX G2 COPPER NETWORK AV VIDEO ENCODERS AND DECODERS

FRONT VIEW

MCXG2EC01

BACK VIEW

MCXG2EC01

FRONT VIEW

MCXG2DC01

BACK VIEW

MCXG2DC01

WHAT'S INCLUDED WITH THE ENCODERS

- **(1) UHD+ COPPER TRANSMITTER**
- **(1) 12-V/3-A DC POWER ADAPTER**
- **(1) POWER CORD**
- **(1) IR EMITTER**
- **(1) 3-PIN TERMINAL BLOCK**

WHAT'S INCLUDED WITH THE DECODERS

- **(1) UHD+ COPPER RECEIVER**
- **(1) 12-V/3-A DC POWER ADAPTER**
- **(1) POWER CORD**
- **(1) IR RECEIVER**
- **(1) 3-PIN TERMINAL BLOCK**

COMPARISON CHART

MCX G2 COPPER NETWORK AV VIDEO ENCODERS AND DECODERS

COPPER ENCODER AND DECODER FEATURE COMPARISON CHART		
FEATURE	**MCXG2EC01 ENCODER**	MCXG2DC01 DECODER
HDMI VERSION	HDMI 2.0b	
10GBE BANDWIDTH	10 Gbps	
INPUT PORTS	(1) HDMI Type A (1) USB Type C	None
OUTPUT PORTS	(1) HDMI Type A	
BI-DIRECTIONAL PORT	(1) Stereo Audio (3.5mm)	
PASS-THROUGH PORTS	(1) 10GbE LAN (RJ-45); (2) IR (3.5mm); (1) RS-232 (3-pin Terminal Block); (1) LAN (RJ-45)	(1) 10GbE LAN (RJ-45); (2) IR (3.5mm); (1) RS-232 (3-pin Terminal Block); (1) LAN (RJ-45); (3) USB 2.0 (Type A)
IR FREQUENCY	38kHz	
BAUD RATE	57600 (Default), up to 115200 bps	
POWER SUPPLY	12V/3A DC (US/EU standards, CE/FCC/UL certified)	
ESD PROTECTION (HBM)	±8kV (Air Discharge) ±4kV (Contact Discharge)	
DIMENSIONS (W X H X D)	8.5" x 1.0" 4.3" (215mm × 25mm ×108mm) [Case Only] 8.5" x 1.0" x 4.6" (215mm × 25mm × 116.7mm) [All Inclusive]	
WEIGHT	2.0 lb. (916g)	
CHASSIS MATERIAL	Metal (Steel)	
CHASSIS COLOR	Black	
OPERATING TEMPERATURE	32˚ to 104˚F (0 to 40˚C)	
STORAGE TEMPERATURE	-4˚ to 140˚F (-20 to +60˚C)	
RELATIVE HUMIDITY	20 – 90% RH (Non-condensing)	
POWER CONSUMPTION	14.3 W	
SUPPORTED VIDEO RESOLUTION	720 × 400p@70/85, 640 × 480p@60/72/75/85, 720 × 480i@60, 720 × 480p@60, 720 × 576i@50, 720 × 576p@50, 800 × 600p@56/60/72/75/85, 848 × 480p@60, 1024 × 768p@60/70/75/85, 1152 × 864p@75, 1280 × 720p@50/60, 1280 × 768p@60/75/85, 1280 × 800p@60/75/85, 1280 × 960p@60/85, 1280 × 1024p@60/75/85, 1360 × 768p@60, 1366 × 768p@60, 1400 × 1050p@60, 1440 × 900p@60/75, 1600 × 900p@60RB, 1600 × 1200p@60, 1680 × 1050p@60, 1920 × 1080i@50/60, 1920 × 1080p@24/25/30, 1920 × 1080p@50/60, 1920 × 1200p@60RB, 2560 × 1440p@60RB, 2560 × 1600p@60RB, 2048 × 1080p@24/25/30, 2048 × 1080p@50/60, 3840 × 2160p@24/25/30, 3840 × 2160p@50/60 (4:2:0), 3840 × 2160p@24, HDR10, 3840 × 2160p@50/60 (4:2:0), HDR10, 3840 × 2160p@50/60, 4096 × 2160p@24/25/30, 4096 × 2160p@50/60 (4:2:0), 4096 × 2160p@24, HDR10, 4096 × 2160p@50/60 (4:2:0), HDR10, 4096 × 2160p@50/60	

SPECIFICATIONS

MCX G2 COPPER NETWORK AV VIDEO ENCODERS AND DECODERS

COPPER ENCODER AND DECODER FEATURE COMPARISON CHART CONTINUED		
FEATURE	**MCXG2EC01 ENCODER**	**MCXG2DC01 DECODER**
DIGITAL AUDIO		
HDMI	Input	Output
	LPCM: Max channels: 8 channels, sampling rate (kHz): 32, 44.1, 48 Bitstream: standard and high definition	
CAT5E/6/7 FIBER	Output	Input
	LPCM: Max channels: 8 channels, sampling rate (kHz): 32, 44.1, 48 Bitstream: standard and high definition	
ANALOG AUDIO		
INPUT	Max Audio Level: 1Vrms Impedance: 10kΩ Type: Unbalanced	
OUTPUT	Max Audio Level: 1Vrms THD+N: < −80 dB@0dBFS 1kHz (A wt) SNR: >80 dB@0dBFS Frequency Response: < ±1 dB@20Hz~20kHz Crosstalk: < −80 dB@10kHz Impedance: 470Ω Type: Unbalanced	

COPPER ENCODER AND DECODER CABLE LENGTH SPECIFICATIONS				
CABLE LENGTH	**1080P**		**4K30**	4K60
	8-bit	12-bit	(4:4:4) 8-bit	(4:4:4) 8-bit
HIGH SPEED HDMI CABLE				
HDMI INPUT (ENCODER ONLY)	15m	10m	5m	3m
HDMI OUTPUT	15m	10m	5m	3m
CATEGORY CABLE				
CAT. 5E/6	100m		70m	
CAT. 6A/7	100m			

SPECIFICATIONS

MCX G2 FIBER NETWORK AV VIDEO ENCODERS AND DECODERS

FRONT VIEW

MCXG2EF01-T-R2

BACK VIEW

MCXG2EF01-T-R2

FRONT VIEW

MCXG2DF01

BACK VIEW

MCXG2DF01

WHAT'S INCLUDED WITH THE ENCODERS

- **(1) UHD+ FIBER TRANSMITTER**
- **(1) 12-V/3-A DC POWER ADAPTER**
- **(1) POWER CORD**
- **(1) IR EMITTER**
- **(1) 3-PIN TERMINAL BLOCK**

WHAT'S INCLUDED WITH THE DECODERS

- **(1) UHD+ FIBER RECEIVER**
- **(1) 12-V/3-A DC POWER ADAPTER**
- **(1) POWER CORD**
- **(1) IR RECEIVER**
- **(1) 3-PIN TERMINAL BLOCK**

COMPARISON CHART

MCX G2 FIBER NETWORK AV VIDEO ENCODERS AND DECODERS

FIBER ENCODER AND DECODER FEATURE COMPARISON CHART		
FEATURE	**MCXG2EF01-T-R2 ENCODER**	**MCXG2DF01 DECODER**
HDMI VERSION	HDMI 2.0b	
10GBE BANDWIDTH	10 Gbps	
INPUT PORTS	(1) HDMI Type A (1) USB Type C	None
OUTPUT PORTS	(1) HDMI Type A	
BI-DIRECTIONAL PORT	(1) Stereo Audio (3.5mm)	
PASS-THROUGH PORTS	(1) 10GbE LAN (SFP+); (2) IR (3.5mm); (1) RS-232 (3-pin Terminal Block); (1) LAN (RJ-45)	(1) 10GbE LAN (SFP+); (2) IR (3.5mm); (1) RS-232 (3-pin Terminal Block); (1) LAN (RJ-45); (3) USB 2.0 (Type A)
IR FREQUENCY	38kHz	
BAUD RATE	57600 (Default), up to 115200 bps	
POWER SUPPLY	12V/3A DC (US/EU standards, CE/FCC/UL certified)	
ESD PROTECTION (HBM)	±8kV (Air Discharge) ±4kV (Contact Discharge)	
DIMENSIONS (W X H X D)	8.5" x 1" x 4.3" (215mm × 25mm × 108mm) [Case Only] 8.5" x 1" x 4.6" (215mm × 25mm × 116.7mm) [All Inclusive]	
WEIGHT	2.0 lb. (916g)	
CHASSIS MATERIAL	Metal (Steel)	
CHASSIS COLOR	Black	
OPERATING TEMPERATURE	32 to 104˚F (0 to 40˚C)	
STORAGE TEMPERATURE	-4 TO +140˚F (-20 TO +60˚C)	
RELATIVE HUMIDITY	20 – 90% RH (Non-condensing)	
POWER CONSUMPTION	18.51 W	
SUPPORTED VIDEO RESOLUTION	720 × 400p@70/85, 640 × 480p@60/72/75/85, 720 × 480i@60, 720 × 480p@60, 720 × 576i@50, 720 × 576p@50, 800 × 600p@56/60/72/75/85, 848 × 480p@60, 1024 × 768p@60/70/75/85, 1152 × 864p@75, 1280 × 720p@50/60, 1280 × 768p@60/75/85, 1280 × 800p@60/75/85, 1280 × 960p@60/85, 1280 × 1024p@60/75/85, 1360 × 768p@60, 1366 × 768p@60, 1400 × 1050p@60, 1440 × 900p@60/75, 1600 × 900p@60RB, 1600 × 1200p@60, 1680 × 1050p@60, 1920 × 1080i@50/60, 1920 × 1080p@24/25/30, 1920 × 1080p@50/60, 1920 × 1200p@60RB, 2560 × 1440p@60RB, 2560 × 1600p@60RB, 2048 × 1080p@24/25/30, 2048 × 1080p@50/60, 3840 × 2160p@24/25/30, 3840 × 2160p@50/60 (4:2:0), 3840 × 2160p@24, HDR10, 3840 × 2160p@50/60 (4:2:0), HDR10, 3840 × 2160p@50/60, 4096 × 2160p@24/25/30, 4096 × 2160p@50/60 (4:2:0), 4096 × 2160p@24, HDR10, 4096 × 2160p@50/60 (4:2:0), HDR10, 4096 × 2160p@50/60	

SPECIFICATIONS

MCX G2 FIBER NETWORK AV VIDEO ENCODERS AND DECODERS

FIBER ENCODER AND DECODER FEATURE COMPARISON CHART CONTINUED		
FEATURE	**MCXG2EF01-T-R2 ENCODER**	MCXG2DF01 DECODER
DIGITAL AUDIO		
HDMI	Input	Output
	LPCM: Max channels: 8 channels, sampling rate (kHz): 32, 44.1, 48 Bitstream: standard and high definition	
FIBER	Output	Input
	LPCM: Max channels: 8 channels, sampling rate (kHz): 32, 44.1, 48 Bitstream: standard and high definition	
ANALOG AUDIO		
INPUT	Max Audio Level: 1Vrms Impedance: 10kΩ Type: Unbalanced	
OUTPUT	Max Audio Level: 1Vrms THD+N: < −80 dB@0dBFS 1kHz (A wt) SNR: >80 dB@0dBFS Frequency Response: < ±1 dB@20Hz~20kHz Crosstalk: < −80 dB@10kHz Impedance: 470Ω Type: Unbalanced	

FIBER ENCODER AND DECODER CABLE LENGTH SPECIFICATIONS				
CABLE LENGTH	**1080P**		**4K30**	**4K60**
	8-bit	12-bit	(4:4:4) 8-bit	(4:4:4) 8-bit
HIGH SPEED HDMI CABLE				
HDMI INPUT (ENCODER ONLY)	15m	10m	5m	3m
HDMI OUTPUT	15m	10m	5m	3m
FIBER CABLE				
MULTI-MODE FIBER (OM3)	300m			
MULTI-MODE FIBER (OM4)	550m			

OVERVIEW

MCX G2 DISPLAYPORT COPPER/FIBER TRANSCODER

INTRODUCTION

To extend AV, IR, RS-232, USB 2.0, and Ethernet signals, choose the MCX G2, Black Box-designed, TAA-compliant encoder/decoder unit with additional DisplayPort™ loop out. With this loop through/out, the system can show the input source on a separate monitor. For example, during a live event, the user can view the source and sample that video on a loop, then pass it down to the network to compare latency.

The transcoder is ideal for government control rooms, point-to-point secure video conferencing, hotel or convention center displays, multi-monitor broadcasts, distributed video matrix or video wall systems, and remote KVM system control.

Copper and Fiber Units Combined Into One Device
The transcoder is designed for high-quality, IP-routable, AV extension with virtually zero latency.

HDMI 2.0 and DisplayPort 1.2 Encoding and Decoding
You can connect every essential device to your MCX G2 through its variety of ports. Multiple control and data signals may also be transmitted along with the audio and video, including IR, RS- 232, and Ethernet.

3-Port USB Connectivity
The integrated USB hub of each decoder (receiver) can be configured to be in USB Host or Device Mode and can function as a simple point-to-point KVM extension, freely routed between any two endpoints. It also can be configured into a special "Simultaneous" mode, allowing up to 7 Host Mode units to extend their USB ports to a single Device Mode unit. This type of USB KVM routing flexibility enables a wide range of multi-user, control room, or on-demand installation scenarios.

Data Transfer Delay is Virtually Undistinguishable
This high-quality, IP-routable transcoder provides AV extension with virtually zero latency. The device transmits AV and other data for long extension, enhancing the flexibility of any video distribution installation.

Create Ergonomic Workflows for Operators
This video extension system is easy to install and use on a modern network. The units' front-panel configuration buttons and On-Screen Display (OSD) streamline daily workflows.

Works with MCX Gen2 Controller
Combined with the optional MCX Gen2 Controller or control software, the functionality of the transcoder expands exponentially. Multiple transcoders may be combined with one or more 10-Gigabit fiber Ethernet switches, and the units can be used together to form a distributed video matrix, a multi-viewer system, or a video wall system. This AV network capacity provides flexibility in large event installations.

FEATURES

- PROVIDES AV, IR, RS-232, USB 2.0, AND ETHERNET EXTENSION
- HDMI 2.0 AND DISPLAYPORT 1.2 COMPATIBLE
- HDCP 2.2 AND HDCP 1.X COMPLIANT
- MULTIPLE INPUT/OUTPUT OPTIONS:
  ENCODER MODE: (1) DISPLAYPORT INPUT,
  (1) HDMI INPUT, AND (1) DISPLAYPORT LOOP-THROUGH;
  DECODER MODE: (1) DISPLAYPORT OUTPUT;

  USB CONNECTIONS:
  ENCODER MODE: (1) USB TYPE B; DECODER MODE: (3) USB TYPE A

  OTHER CONNECTIONS: ENCODER MODE: (1) 3.5MM PHONE JACK INPUT; DECODER MODE: (1) 3.5MM PHONE JACK OUTPUT, (1) 10G RJ-45 INPUT OR (1) SFP+ INPUT/OUTPUT
- IP SWITCHABLE WITH VIRTUALLY ZERO LATENCY (REQUIRES OPTIONAL MCX G2 CONTROLLER OR CONTROL SOFTWARE)
- OPTIONAL LOSSLESS COMPRESSION TO ALLOW VIDEO TRANSFER WITHIN LIMITED BANDWIDTH
- EXTENDS UP TO 30 KM OVER FIBER (MAXIMUM DISTANCE DEPENDS ON THE SFP+ MODULE AND TYPE OF FIBER USED)
- SUPPORTS INDEPENDENT BREAKAWAY A/V MATRIX SWITCHING WITH MINIMUM LATENCY, VIDEO WALL GENERATION, AND MULTI-VIEW COMPOSITING (REQUIRES OPTIONAL IP MASTER CONTROLLER/CONTROL SOFTWARE)
- ENABLES PASS THROUGH OF AUDIO FORMATS INCLUDING LPCM (UP TO 8 CHANNELS), BITSTREAM AND HD BITSTREAM FROM HDMI OR DP SOURCES)
- INTERFACES WITH 10-GIGABIT ETHERNET SWITCHES VIA XFI (IEEE 802.3AE) COMPATIBLE SFP+ FIBER MODULES
- BASIC CONFIGURATION VIA FRONT PANEL BUTTONS WITH AN OSD
- WORKS WITH AN EXTERNAL CONTROL CENTER

SPECIFICATIONS

MCX G2 DISPLAYPORT COPPER/FIBER TRANSCODER

FRONT VIEW

MCXG2TD11

BACK VIEW

MCXG2TD11

WHAT'S INCLUDED WITH THE TRANSCODER

- **(1) UHD+ COPPER/FIBER TRANSCODER**
- **(1) 12-V/3-A DC POWER ADAPTER**
- **(1) POWER CORD**
- **(1) IR EMITTER**
- **(1) IR RECEIVER**
- **(1) 3-PIN TERMINAL BLOCK**

SPECIFICATION CHART

MCX G2 DISPLAYPORT COPPER/FIBER TRANSCODER

MCX G2 COPPER/FIBER TRANSCODER SPECIFICATIONS	
FEATURE	**MCXG2TD11 TRANSCODER**
DISPLAYPORT VERSION	DisplayPort™ 1.2
HDMI VERSION	HDMI 2.0b
10GBE BANDWIDTH	10 Gbps
INPUT PORTS	(1) DisplayPort; (1) HDMI Type A
OUTPUT PORTS	(1) DisplayPort (Loop-through in encoder mode)
BI-DIRECTIONAL PORT	(1) Stereo Audio (3.5mm)
PASS-THROUGH PORTS	(1) 10GbE LAN (RJ-45 or SFP+); (2) IR (3.5mm); (1) RS-232 (3-pin Terminal Block); (1) LAN (RJ-45); (3) USB 2.0 (Type A) (under decoder mode); (1) USB 2.0 (Type B) (under decoder mode)
IR FREQUENCY	38kHz
BAUD RATE	57600 (Default), up to 115200 bps
POWER SUPPLY	12V/3A DC (US/EU standards, CE/FCC/UL certified)
ESD PROTECTION (HBM)	±8kV (Air Discharge) ±4kV (Contact Discharge)
DIMENSIONS (W X H X D)	9.1" x 1" x 4.6" (231.5 x 25 x 116.7mm)
WEIGHT	2 lb. (916g)
CHASSIS MATERIAL	Metal (Steel)
CHASSIS COLOR	Black
OPERATING TEMPERATURE	32 to 104˚F (0 to 40˚C)
STORAGE TEMPERATURE	-4˚F to +140˚F (-20 to +60˚C)
RELATIVE HUMIDITY	20 – 90% RH (Non-condensing)
POWER CONSUMPTION	14.3 W
SUPPORTED VIDEO RESOLUTION	720 × 400p@70/85, 640 × 480p@60/72/75/85, 720 × 480i@60, 720 × 480p@60, 720 × 576i@50, 720 × 576p@50, 800 × 600p@56/60/72/75/85, 848 × 480p@60, 1024 × 768p@60/70/75/85, 1152 × 864p@75, 1280 × 720p@50/60, 1280 × 768p@60/75/85, 1280 × 800p@60/75/85, 1280 × 960p@60/85, 1280 × 1024p@60/75/85, 1360 × 768p@60, 1366 × 768p@60, 1400 × 1050p@60, 1440 × 900p@60/75, 1600 × 900p@60RB, 1600 × 1200p@60, 1680 × 1050p@60, 1920 × 1080i@50/60, 1920 × 1080p@24/25/30, 1920 × 1080p@50/60, 1920 × 1200p@60RB, 2560 × 1440p@60RB, 2560 × 1600p@60RB, 2048 × 1080p@24/25/30, 2048 × 1080p@50/60, 3840 × 2160p@24/25/30, 3840 × 2160p@50/60, 3840 × 2160p@24, 3840 × 2160p@50/60, 4096 × 2160p@24/25/30, 4096 × 2160p@24, 4096 × 2160p@50/60, 4096 × 2160p@50/60

SPECIFICATIONS

MCX G2 DISPLAYPORT COPPER/FIBER TRANSCODER

MCX G2 COPPER/FIBER TRANSCODER SPECIFICATIONS CONTINUED		
FEATURE	**MCXG2TD11 TRANSCODER**	
DIGITAL AUDIO		
DISPLAYPORT	Input	Output
	LPCM: Max channels: 8 channels, sampling rate (kHz): 32, 44.1, 48 Bitstream: standard and high definition	
CAT5E/6/7 FIBER	Output	Input
	LPCM: Max channels: 8 channels, sampling rate (kHz): 32, 44.1, 48 Bitstream: standard and high definition	
ANALOG AUDIO		
INPUT	Max Audio Level: 1Vrms Impedance: 10kΩ Type: Unbalanced	
OUTPUT	Max Audio Level: 1Vrms THD+N: < −80 dB@0dBFS 1kHz (A wt) SNR: >80 dB@0dBFS Frequency Response: < ±1 dB@20Hz~20kHz Crosstalk: < −80 dB@10kHz Impedance: 470Ω Type: Unbalanced	

COPPER/FIBER TRANSCODER CABLE LENGTH SPECIFICATIONS				
CABLE LENGTH	**1080P**		**4K30**	4K60
	8-bit	12-bit	(4:4:4) 8-bit	(4:4:4) 8-bit
DISPLAYPORT CABLE				
DISPLAYPORT INPUT	15m	10m	5m	3m
DISPLAYPORT OUTPUT	15m	10m	5m	3m
HDMI INPUT	15m	10m	5m	3m
CATEGORY CABLE				
CAT. 5E/6	100m		70m	
CAT. 6A/7	100m			

NOTE: YUV 4:2:0 and HDR10 is not supported.

SPECIFICATIONS

MCX GEN 2 CONTROLLER (MCX-G2-CTRL-24, -48, -120, -250,-500, -UL)

OVERVIEW

The MCX Gen 2 controller is an all-in-one SDVoE/AVoIP network controller and manager with an easy-to-use, intuitive user interface. It has many advanced features and provides extensive analytics for both end users and integrators. These are physical appliances (basically small computers) providing a software interface to manage all MCX encoders/decoders in a customer's system. Choose from 24, 48, 120, 250, 500, or unlimited endpoints.

FEATURES

- SIMPLIFIED SETUP – EASY SETUP PROCEDURES WITH CSV IMPORT CAPABILITY TO ACCOMMODATE LARGE DEPLOYMENTS. ASSIGN ICONS TO BOTH SOURCE AND DISPLAY ENDPOINTS TO ASSIST IN IDENTIFICATION.
- - SYSTEM DESIGN TESTING – GRANULAR TESTING OF ALL ENCODER/DECODER FUNCTIONALITY INCLUDING ATTACHED IR OR RS-232 DEVICES. REBOOT AND RESET OPTIONS ARE AVAILABLE FOR INDIVIDUAL OR GROUPS OF ENDPOINTS.
- - STATUS MONITORING – REAL-TIME DATA ON ENCODER/DECODER OPERATIONS AS WELL AS INSIGHT INTO SOURCE AND DISPLAY OPERATION.
- - UPDATING – EXTENSIVE FIRMWARE MANAGEMENT, PROVIDING HIGH-LEVEL ADMINISTRATOR ACCESS TO INDIVIDUAL OR GROUPS OF ENDPOINTS WITH FIRMWARE CLOUD-MANAGED FILES
- - SECURITY – INDIVIDUAL ENCRYPTED ENCODER/DECODER PAIRINGS FOR ADDED PROTECTION AGAINST UNAUTHORIZED CONTENT VIEWING. ADDITIONAL PERMISSION SETTINGS CAN ALLOW OR DISALLOW SPECIFIED ROUTING.
- EDID MANAGEMENT – FLEXIBLE EDID HANDLING WITH FULL REPORTING OF MONITOR INFORMATION. EDID VALIDATION PROCESS ENSURES INFORMATION INTEGRITY.
- CONTROL UI – CREATE BROWSER-BASED INTERFACES TO CONTROL YOUR PROJECTS' ESSENTIAL FUNCTIONS WITH OUR "NO PROGRAMMING" APPROACH TO GUI DESIGN. YOU CAN USE CONTROL MATRIX, VIDEO WALL, AND MULTIVIEW FUNCTIONS, AS WELL AS EXTERNAL DEVICES, SUCH AS DISPLAYS AND MEDIA PLAYERS. YOU CAN ALSO CREATE "NO TOUCH" UIS WITH OUR PIN-CODED QR SYSTEM. THIS MAKES SETTING UP TOUCH PANELS AND CONTROL BOARDS SIMPLE AND COST-FREE.
- EVENTS – AUTOMATE ACTIONS LIKE TURNING ON DISPLAYS UPON SOURCE DETECTION OR INITIATING ROOM OFF PROCEDURES AFTER SOURCE DISCONNECTION. COMBINE WITH MULTIPLE ENCODERS TO CREATE A PRIORITY AUTO-SWITCHING SYSTEM.
- SCHEDULER – SCHEDULE ANY NUMBER OF PRESET COMMANDS FOR UNATTENDED OPERATION. FROM ENSURING ALL DISPLAYS ARE TURNED OFF AT THE END OF DAY, TO CHANGING SOURCE CONTENT ON THE LOBBY VIDEO WALL, THE POSSIBILITIES ARE ENDLESS.
- AUDIT – ASSET TRACKING OF DEVICES THROUGHOUT THEIR LIFECYCLE. THE MCX GEN 2 CONTROLLER LOGS THE FULL HISTORY OF EVERY DEVICE IT MANAGES, REGARDLESS OF THE LENGTH OF SERVICE.
- SLA ADHERENCE – TIME-STAMPED LOGGING OF DEVICES TO MEET SYSTEM-INTEGRATOR SLA COMMITMENTS. CREATE REPORTS THAT SHOW WHEN AND HOW LONG DEVICES WERE OUT OF SERVICE.
- ANALYTICS – BETTER UNDERSTAND AV BEHAVIOR BY STUDYING USER AV INTERACTIONS. CREATE REPORTS TO SHOW WHEN AV WAS USED, HOW LONG IT WAS USED, AND EVEN HOW LONG IT TOOK TO START AV IN ANY MEETING.

ORDERING INFORMATION

MCX G2 DATA SHEET

ITEM	CODE
MCX G2 Encoders and Decoders	
Copper, HDMI	
MCX G2 HDMI Single Encoder Copper	**MCXG2EC01**
MCX G2 HDMI Decoder Copper	**MCXG2DC01**
Fiber, HDMI	
MCX G2 HDMI Single Encoder Fiber	**MCXG2EF01**
MCX G2 HDMI Decoder Fiber	**MCXG2DF01**
MCX G2 DisplayPort™ Copper/Fiber Transcoder	**MCXG2TD11**
MCX Gen2 Controller - Adds SDVoE/AVoIP functionality and management	
24 Endpoints	**MCX-G2-CTRL-24**
48 Endpoints	**MCX-G2-CTRL-48**
120 Endpoints	**MCX-G2-CTRL-120**
250 Endpoints	**MCX-G2-CTRL-250**
500 Endpoints	**MCX-G2-CTRL-500**
Unlimited Endpoints	**MCX-G2-CTRL-UL**
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 trusted IT solutions provider delivering cutting-edge technology products and world-class consulting services to businesses across the globe in every industry. The breadth of our global reach and depth of our expertise accelerate customer success by bringing people, ideas, and technology together to solve real-world business problems.

NOTES

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