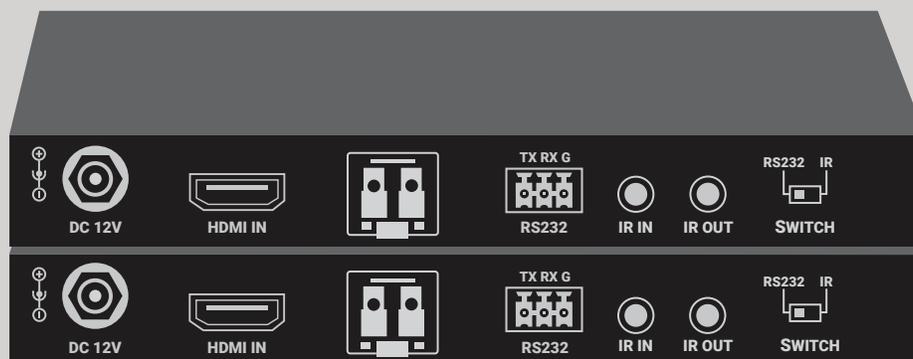


DATA SHEET

AVX-HDMI2-HDB, AVX-HDMI2-FO-HDB

HDMI 2.0 EXTENDER OVER CATX OR FIBER

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



OVERVIEW

HDMI 2.0 EXTENDER OVER CATX OR FIBER DATA SHEET

INTRODUCTION

The HDMI 2.0 CATx Extender (CATx or Fiber) supports 4K @ 60 4:4:4 resolution and complies with HDR and HDCP 2.2 standards. The CATx version distributes uncompressed UHD video, audio, power, and IR together up to 328 feet (100 meters) over a single CATx cable. The Fiber version drives these signals up to 1000 feet (300 meters) over duplex fiber optic cable.

The extender supports Dolby and DTS HD audio and bi-directional IR control in a low-profile box. You can configure the ARC channel feed for a TV (with ARC support) or an auxiliary S/PDIF Input port via an audio output DIP switch on the receiver.

Bi-directional RS-232 or IR ports enable you to control AV devices, easy to choose by the slide switch on the rear panels. Sources and displays can be controlled from either the transmitter or receiver end using either RS-232 or IR signals.

The copper version also supports PoH technology, allowing the receiver to be powered by the transmitter.

LEDs show power and signal status for established connections between devices.

FEATURES

- 4K/UHD CAPABILITY @ 60 HZ WITH 4:4:4 CHROMA SAMPLING, PLUS SUPPORT FOR HDR FORMATS
- HDCP 2.2 AND 1.4 COMPLIANT
- COPPER VERSION SUPPORTS SIGNAL TRANSMISSION UP TO 100 METERS AT HD RESOLUTIONS USING CAT5E/6 CABLE AND 4K RESOLUTIONS USING CAT6A/7 CABLE
- TRANSMITS 4K @ 60 4:4:4 SIGNALS UP TO 1000 FT. (300 M) VIA MM OM3 CABLE WITH 10 GBPS MULTIMODE SFP+ MODULES
- VISUALLY LOSSLESS COMPRESSION ENABLES 4K @ 60 HZ HDR EXTENSION OVER CATX
- RECEIVER TO TRANSMITTER AUDIO RETURN VIA ARC OR DIGITAL COAX PATHWAY
- EXTENDS RS-232, IR AND ETHERNET CONTROL SIGNALS
- COPPER ONLY: STANDARD ONE WAY POH (TRANSMITTER POWER TO RECEIVER)
- AUTOMATIC EDID MANAGEMENT
- VISUAL LED INDICATION
- SUPPORTS BI-DIRECTIONAL IR OR RS-232 PASSTHROUGH (SELECT VIA THE DIP SWITCH ON THE REAR PANEL)
- MULTICHANNEL AUDIO SUPPORTS UP TO PCM 7.1, DTS MASTER HD AND DOLBY TRUE HD
- LOCKING DC POWER PLUGS
- VISUAL LED INDICATION FOR POWER SUPPLY TO UNITS, HDCP PRESENCE IN SIGNAL, UNIT'S STATUS AND FIBER OPTIC CABLE LINK

COMPARISON CHART

SPECIFICATION COMPARISON CHART				
	AVX-HDMI2-HDB TRANSMITTER	AVX-HDMI2-HDB RECEIVER	AVX-HDMI2-FO-HDB TRANSMITTER	AVX-HDMI2-FO-HDB RECEIVER
INPUT CONNECTOR	(1) HDMI	(1)-CATX	(1) HDMI	(1)-OPTICAL
OUTPUT CONNECTOR	(1) CATX	(1) HDMI	(1) OPTICAL	(1) HDMI
NETWORK PORT	(1) RJ-45	(1) RJ-45	(2) LC	(2) LC
ARC	YES	YES	NO	NO
ETHERNET	YES	YES	NO	NO
RS-232	YES	YES	YES	YES
IR	YES	YES	YES	YES
4K	YES	YES	YES	YES
HD	YES	YES	YES	YES
INTERCONNECT CABLE	CATX	CATX	MULTIMODE FIBER	MULTIMODE FIBER



PHOTOS/WHAT'S INCLUDED/SPECIFICATIONS

HDMI 2.0 EXTENDER OVER CATX (AVX-HDMI2-HDB)

WHAT'S INCLUDED WITH THE KIT (AVX-HDMI2-HDB)

- 1) TRANSMITTER
- (1) RECEIVER
- (1) POWER ADAPTER (12 VDC, 2 A)
- (2) PHOENIX MALE CONNECTORS (3.5-MM, 3-PIN)
- (1) IR EMITTER CABLE
- (1) IR BROADBAND RECEIVER CABLE (30 KHZ – 50 KHZ)
- (4) MOUNTING BRACKETS

TRANSMITTER



FRONT VIEW



BACK VIEW

RECEIVER



FRONT VIEW



BACK VIEW

SPECIFICATIONS FOR HDMI 2.0 EXTENDER OVER CATX (AVX-HDMI2-HDB)

GENERAL

INPUT/OUTPUT RESOLUTION SUPPORT	800 x 600, 1024 x 768, 1280 x 720, 1280 x 768, 1280 x 800, 1280 x 960, 1280 x 1024, 1360 x 768, 1366 x 768, 1440 x 900, 1600 x 900, 1600 x 1200, 1680 x 1050, 1920 x 1080, 1920 x 1200, 2560 x 1440, 2560 x 1600, 3840 x 2160P, 4096 x 2160P
MAXIMUM DATA RATE	18 Gbps
INPUT VIDEO LEVEL	0.5 – 1.0 Vp-p
INPUT DDC SIGNAL	5 Vp-p
MAXIMUM PIXEL CLOCK	594 MHz
VIDEO IMPEDANCE	100 ohms
ESD PROTECTION	Human-body model: ±8 kV (air-gap discharge)/±4 kV (contact discharge)
SURGE PROTECTION	Voltage: ±1 kV
ELECTRICAL FAST TRANSIENT/BURST	Data communication cord: 1kV; Power cord: 2 kV
APPROVALS	CE, FCC, IC, RCM and VCCI
POWER SUPPLY	Each unit: (1) external 12 VDC, 3 A
OPERATING TEMPERATURE	32 to 113° F (0 to 45° C)
STORAGE TEMPERATURE	-4 to +158° F (-20 to +70° C)
HUMIDITY	10 to 90% noncondensing
DIMENSIONS	Each unit: 0.8" H x 6.8" W x 3.7" D (2.1 x 17.3 x 9.5 cm)
WEIGHT	Each unit: 0.9 lb. (0.4 kg)

SPECIFICATIONS

HDMI 2.0 EXTENDER OVER CATX (AVX-HDMI2-HDB)

HDMI 2.0 EXTENDER OVER CATX (AVX-HDMI2-HDB) (CONTINUED)	
TRANSMITTER	
VIDEO INPUT	(1) HDMI female
INPUT SIGNAL TYPE	HDMI with 4K
OUTPUT	(1) CATx
OUTPUT SIGNAL TYPE	CATx
NETWORK CONNECTOR	(1) RJ-45
POWER CONSUMPTION (MAXIMUM)	Receiver powered by transmitter: 18.6 W (1080p) 21.6 W (4K @ 60 Hz YUV 4:4:4) Transmitter and Receiver powered separately: 11.6 W (1080p) 18.96 W (4K @ 60 Hz YUV 4:4:4)
RECEIVER	
VIDEO INPUT	(1) CATx
INPUT SIGNAL TYPE	CATx
OUTPUT	(1) HDMI female
OUTPUT SIGNAL TYPE	HDMI with 4K
NETWORK CONNECTOR	(1) RJ-45
POWER CONSUMPTION (MAXIMUM)	Transmitter and Receiver powered separately: 7.44 W (1080p) 7.2 W (4K @ 60 Hz YUV 4:4:4)
POWER CONSUMPTION (MAXIMUM)	Transmitter and Receiver powered separately: 7.44 W (1080p) 7.2 W (4K @ 60 Hz YUV 4:4:4)

CATX CABLE SPECIFICATIONS		
CABLE TYPE	RANGE	SUPPORTED VIDEO
CAT5E/6	328 ft. (100 m)	1080p @ 60 Hz, 36 bpp
CAT5E/6	230 ft. (70 m)	1080p @ 60 Hz, 48 bpp 1080p @ 60 Hz 3D 4K @ 60 Hz YUV 4:4:4
CAT6A/7	328 ft. (100 m)	1080p @ 60 Hz, 48 bpp 1080p @ 60 Hz 3D 4K @ 60 Hz YUV 4:4:4



SPECIFICATIONS

HDMI 2.0 EXTENDER OVER FIBER (AVX-HDMI2-FO-HDB)

WHAT'S INCLUDED WITH THE KIT (AVX-HDMI2-FO-HDB)

- (1) TRANSMITTER WITH 10 GBIT/S MM SFP+ MODULE
- (1) RECEIVER WITH 10 GBIT/S MM SFP+ MODULE
- (2) POWER ADAPTERS (12 VDC, 0.5 A)
- (2) PHOENIX MALE CONNECTORS (3.5-MM, 3-PIN)
- (1) IR EMITTER CABLE
- (1) IR BROADBAND RECEIVER CABLE
- (4) MOUNTING BRACKETS

TRANSMITTER



FRONT VIEW



BACK VIEW

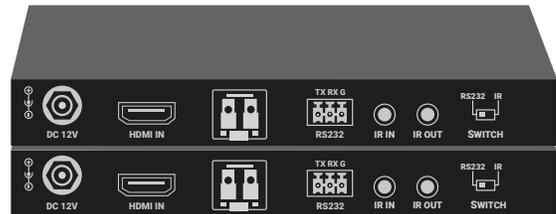
RECEIVER



FRONT VIEW



BACK VIEW



SPECIFICATIONS FOR HDMI 2.0 EXTENDER OVER FIBER (AVX-HDMI2-FO-HDB)

GENERAL	
INPUT/OUTPUT RESOLUTION SUPPORT	800 x 600, 1024 x 768, 1280 x 720, 1280 x 768, 1280 x 800, 1280 x 960, 1280 x 1024, 1360 x 768, 1366 x 768, 1440 x 900, 1600 x 900, 1600 x 1200, 1680 x 1050, 1920 x 1080, 1920 x 1200, 2560 x 1440, 2560 x 1600, 3840 x 2160P, 4096 x 2160P
MAXIMUM DATA RATE	18 Gbps
INPUT VIDEO LEVEL	0.5 – 1.0 Vp-p
MAXIMUM PIXEL CLOCK	600 MHz
VIDEO IMPEDANCE	100 ohms
ESD PROTECTION	Human-body model: ±8 kV (air-gap discharge)/±4 kV (contact discharge)
SURGE PROTECTION	Voltage: ±1 kV
ELECTRICAL FAST TRANSIENT/BURST	Data communication cord: 1kV; Power cord: 2 kV
APPROVALS	CE, FCC, IC, RCM and VCCI
POWER SUPPLY	Power Supply: Each unit: (1) external 12 VDC, 1 A; Consumption: 3.9 W (max.)
OPERATING TEMPERATURE	32 to 113° F (0 to 45° C)
STORAGE TEMPERATURE	-4 to +158° F (-20 to +70° C)
HUMIDITY	0 to 90% noncondensing
DIMENSIONS	Each unit: 0.8" H x 5.9" W x 2.9" D (2 x 15 x 7.4 cm)
WEIGHT	Each unit: 0.7 lb. (0.3 kg)

SPECIFICATIONS

HDMI 2.0 EXTENDER OVER FIBER (AVX-HDMI2-FO-HDB)

HDMI 2.0 EXTENDER OVER CATX (AVX-HDMI2-HDB) (CONTINUED)	
TRANSMITTER	
VIDEO INPUT	(1) HDMI female
INPUT SIGNAL TYPE	HDMI 2.0 and HDCP 2.2
OUTPUT	(1) optical output with LC connector
OUTPUT FIBER TYPE	MM module standard, SM can be purchased separately
FIBER CONNECTOR TYPE	(2) LC
MAXIMUM TRANSMISSION DISTANCE	1000 ft. (300 m) over OM3 cable
RECEIVER	
VIDEO INPUT	(1) optical input with LC connector
INPUT FIBER TYPE	MM module standard, SM can be purchased separately
FIBER CONNECTOR TYPE	(2) LC
OUTPUT SIGNAL TYPE	HDMI 2.0 and HDCP 2.2
MAXIMUM TRANSMISSION DISTANCE	1000 ft. (300 m) over OM3 cable

NOTE: SFPs are included, but you can also use our SM or MM SFP+ modules to replace a lost SFP or to use SM instead of MM. Parts are:

- LSP421, SFP+, 10-Gb, Extended Diagnostics, 850-nm Multimode Fiber, 300-m, LC
- LSP422, SFP+, 10GBASE-SR, 1310-nm Single-Mode, 10 km, Extended Diag, LC



