4K HDR
Multichannel to Two-Channel Audio Converter
for Four HDMI Sources

Introduction

The Atlona **AT-HDR-M2C-QUAD** is an audio converter for extracting and downmixing multichannel PCM, Dolby, and DTS audio from HDMI. The HDR-M2C-QUAD provides simultaneous audio conversion for four HDMI sources. Each HDMI input features pass-through on its associated HDMI output. It also includes unbalanced analog and TOSLINK digital audio outputs with a downmixed stereo signal. The HDR-M2C-QUAD is compatible with high dynamic range (HDR) formats and is HDCP 2.2 compliant. It supports 4K/UHD video @ 60 Hz with 4:4:4 chroma sampling, as well as HDMI data rates up to 18 Gbps. This quad HDMI audio conversion device includes EDID management features as well as audio volume and bass / treble controls for each converter, all available via Ethernet through the Atlona Management System (AMS), the web GUI, or a control system. The HDR-M2C-QUAD is ideal for serving surround sound and/or two-channel audio systems from up to four HDMI sources, while facilitating pass-through to a matrix switcher.

Applications

- **Residential and commercial installations**
  The HDR-M2C-QUAD is designed for AV systems with the latest UHD and HDR sources such as Ultra HD Blu-ray players, plus compatible televisions and projectors.

- **Audio compatibility**
  The HDR-M2C-QUAD is ideal for applications requiring playback of multichannel source content over displays and whole-house audio systems.

Key Features

HDMI audio de-embedding and multi-channel audio downmixing for four HDMI sources

• Quad HDMI audio conversion for four HDMI sources.

• De-embeds HDMI audio with or without connection to a display or other destination.

• Provides easy integration of HDMI audio sources into whole-house and other audio systems.

Downmixes multi-channel PCM, Dolby, and DTS formats to stereo audio

• Extracts, decodes, downmixes, and converts digital multi-channel bitstreams to two-channel signals.

• Supports PCM, Dolby® Digital, Dolby Digital Plus™, Dolby TrueHD, DTS® Digital Surround™, DTS-HD Master Audio™, and DTS:X®.

4K/UHD capability @ 60 Hz with 4:4:4 chroma sampling, plus support for HDR formats

• Compatibility with new and emerging 4K/UHD and HDR-capable sources and displays.

• Compatible with 4K HDR10 and Dolby Vision™ @ 60Hz

• Fully supports video resolutions, audio formats, and color space formats in the HDMI 2.0b specification.

HDCP 2.2 compliant

• Adheres to latest specification for High-bandwidth Digital Content Protection.

• Allows protected content stream to pass between devices.

Delivers downmixed audio to TOSLINK digital audio and analog audio outputs

• Provides flexible options for integrating with displays, matrix switchers, and multi-zone audio amplifiers.

• Also passes through the HDMI input with no downmixing.

Volume and tone adjustments

• Adjustment of output volume, plus bass and treble settings via AMS and the web GUI.

• Avoids the need for an external DSP to set gain and tone controls.

EDID management

• Manages EDID communications with the source through a display's EDID or internally stored EDID.

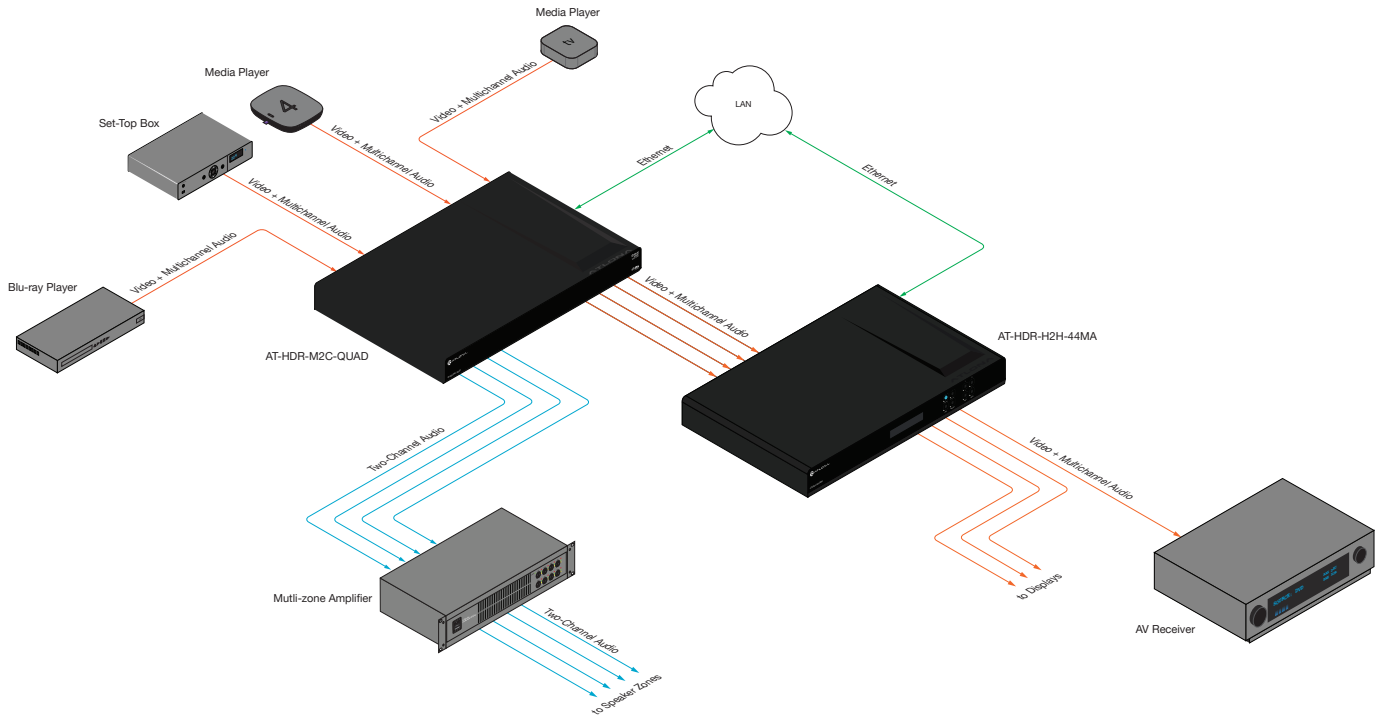• Ensures desired audio formats and video resolutions are provided to the AV system.

IP Control

• Ready for integration with Atlona Velocity™ and third-party control systems.

• Flexible options for audio volume and bass / treble controls, as well as EDID management.

Easy, GUI-based configuration using integrated web server

• Offers menu-based configuration of network settings, audio, and EDID management.

• Allows fast configuration of internal product settings and troubleshooting from a mobile device or PC in the field.

a **PANDUIT** company

Connection Diagram

Media Player

Media Player

Set-Top Box

Video + Multichannel Audio

Video + Multichannel Audio

Video + Multichannel Audio

LAN

Ethernet

Ethernet

Blu-ray Player

Video + Multichannel Audio

AT-HDR-M2C-QUAD

Video + Multichannel Audio

AT-HDR-H2H-44MA

Two-Channel Audio

Mutli-zone Amplifier

Two-Channel Audio

to Speaker Zones

Video + Multichannel Audio

to Displays

AV Receiver

Specifications

Connectors, Controls, and Indicators	
HDMI IN	4 - Type A, 19-pin female
HDMI OUT	4 - Type A, 19-pin female
OPTICAL OUT	4 - TOSLINK™
AUDIO OUT	4 - 3-pin, captive screw
LAN	1 - RJ45
FW	1 - Mini USB Type B
Power	1 - IEC connector
Power Switch	1 - Rocker type, SPST
Status Indicator	1 - LED, green

Video	
UHD/HD/SD	4096×2160@24/25/30/50/60Hz, 3840×2160@24/25/30/50/60Hz, 2048x1080p, 1080p@23.98/24/25/29.97/30/50/59.94/60Hz, 1080i@50/59.94/60Hz, 720p@50/59.94/60Hz, 576p, 576i, 480p, 480i
VESA	2560x1600, 2048x1536, 1920x1200, 1680x1050, 1600x1200, 1440x900, 1400x1050, 1366x768, 1360x768, 1280x1024, 1280x800, 1152x768, 1024x768, 800x600, 640x480
Color Space	YUV, RGB
Chroma Subsampling	4:4:4, 4:2:2, 4:2:0
Color Depth	8-bit, 10-bit, 12-bit
HDR	HDR10 and Dolby® Vision™ @ 60 Hz

Audio	
Analog Output	PCM 2Ch (de-embedded)
Optical Output	PCM 2Ch (de-embedded)
HDMI Output	PCM 2Ch, LPCM 5.1, LPCM 7.1, Dolby® Digital, DTS® 5.1, Dolby Digital Plus™, Dolby TrueHD, DTS-HD Master Audio™, DTS:X™
Sample Rate	32kHz, 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz, 192 kHz
Bit Rate	up to 24-bit
THD+N	< 0.05% @ 1 kHz at maximum level
SNR	110.009 dB
Frequency Range	20 Hz to 20 kHz
Bass	+12 dB to -15 dB @ 20 Hz - 20 kHz
Treble	+15 dB to -15 dB @ 20 Hz - 20 kHz

Resolution / Distance	4K - Feet	4K - Meters	1080p - Feet	1080p - Meters
HDMI IN / HDMI OUT	15	5	30	10

Signal			
Maximum TMDS Clock	600 MHz		
HDMI	2.0		
CEC	Not supported		
HDCP	2.2		

Temperature	Fahrenheit	Celsius	
Operating	32 to 122	0 to 50	
Storage	-4 to 140	-20 to 60	
Humidity (RH)	20% to 90%, non-condensing		

Power	
Consumption	28.6 W
Supply	Input: 100 - 240 VAC 50/60 Hz

Dimensions	Inches	Millimeters
H x W x D	1.73 x 17.24 x 10.00	44.00 x 438.00 x 254.00
H x W x D (w/ ears)	2.18 x 18.93 x 10.23	55.50 x 481.00 x 260.00
Rack Size	1 RU	

Weight	Pounds	Kilograms
Device	7.15	3.24

Certification	
Power Supply	CE, FCC, cULus, RoHS, CCC, RCM
Product	CE, FCC