



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™, and DTS-HD Master Audio™.

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.

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 | 4096x2160@24/25/30/50/60Hz, 3840x2160@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™ |
| 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 |

Copyright, Trademark, and Registration

© 2021 Atlona Inc. All rights reserved. "Atlona" and the Atlona logo are registered trademarks of Atlona Inc. Pricing, specifications and availability subject to change without notice. Actual products, product images, and online product images may vary from images shown here.



The terms HDMI, HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI licensing Administrator, Inc.



Dolby, Dolby Atmos, and the double-D symbol are registered trademarks of Dolby Laboratories Licensing Corporation.



For DTS patents, see <http://patents.dts.com>. Manufactured under license from DTS, Inc. DTS, the Symbol, DTS and the Symbol together, and Digital Surround are registered trademarks and/or trademarks of DTS, Inc. in the United States and/or other countries. © DTS, Inc. All Rights Reserved.

All other trademark(s), copyright(s), and registered technologies mentioned in this document are the properties of their respective owner(s).