

4K HDR Multi-Channel to Two-Channel Audio Converter



AT-HDR-M2C Atlona Manuals Audio



Version Information

Version	Release Date	Notes
1	04/17	Initial release



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Operating Notes

As of this writing, there are no firmware updates for this product. When new firmware is released, update instructions will be included with the firmware and will be appended to this manual.



IMPORTANT: Visit http://www.atlona.com/product/AT-HDR-M2C for the latest firmware updates and User Manual.

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Important Safety Information



CAUTION: TO REDUCT THE RISK OF ELECTRIC SHOCK DO NOT OPEN ENCLOSURE OR EXPOSE TO RAIN OR MOISTURE. NO USER-SERVICEABLE PARTS INSIDE REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance instructions in the literature accompanying the product.

The information bubble is intended to alert the user to helpful or optional operational instructions in the literature accompanying the product.

- 1. Read these instructions.
- 2. Keep these instructions.
- 3. Heed all warnings.
- 4. Follow all instructions.
- 5. Do not use this product near water.
- 6. Clean only with a dry cloth.
- 7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8. Do not install or place this product near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

- 9. Do not defeat the safety purpose of a polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the product.
- 11. Only use attachments/accessories specified by Atlona.
- 12. To reduce the risk of electric shock and/or damage to this product, never handle or touch this unit or power cord if your hands are wet or damp. Do not expose this product to rain or moisture.
- 13. Unplug this product during lightning storms or when unused for long periods of time.
- 14. Refer all servicing to qualified service personnel. Servicing is required when the product has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the product, the product has been exposed to rain or moisture, does not operate normally, or has been dropped.



FCC Statement



FCC Compliance and Advisory Statement: This hardware device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: 1) this device may not cause harmful interference, and 2) this device must accept any interference received including interference that may cause undesired operation. This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a commercial installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed or used in accordance with the instructions, may cause harmful interference

to radio communications. However there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: 1) reorient or relocate the receiving antenna; 2) increase the separation between the equipment and the receiver; 3) connect the equipment to an outlet on a circuit different from that to which the receiver is connected; 4) consult the dealer or an experienced radio/TV technician for help. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. Where shielded interface cables have been provided with the product or specified additional components or accessories elsewhere defined to be used with the installation of the product, they must be used in order to ensure compliance with FCC regulations.



Table of Contents

Introduction	8
Features	8
Package Contents	8
Panel Description	9
Installation	10
Audio Connector	10
Power Connector	10
Connection Instructions	11
Connection Diagram	11
Basic Operation	12
Audio Input Indicators	12
Toggling the IP Mode	12
The Web GUI	13
Introduction to the Web GUI	13
Menu Bar	14
Toggles	15
Sliders	15
Buttons	15
Into page	10
System mo Video Info	10
	17
A/V Settings page	17
Video	17
Audio	18
Config page	18
Configuration	18
System page	19
Network	19
System	20
Commands	21
Appendix	30
Updating the Firmware	30
Using the Web GUI	30
Using USB	31
Mounting Instructions	33
Default Settings	34
Iroubleshooting	35
Specifications	36
Index	38



Introduction

The Atlona **AT-HDR-M2C** is an audio converter for extracting and downmixing multi-channel PCM, Dolby®, and DTS® audio from HDMI® sources. It features an HDMI input with pass-through, and delivers stereo downmixed audio over a separate HDMI output, as well as unbalanced analog and TOSLINK digital audio outputs. The HDR-M2C 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 audio converter includes EDID management features as well as audio volume and bass / treble controls, all available via Ethernet through the Atlona Management System (AMS), the web GUI, or a control system. The HDR-M2C can conveniently serve surround sound and two-channel audio systems from a multi-channel audio source.

The HDR-M2C is ideal for residential and commercial applications with the latest as well as emerging 4K/UHD and HDR sources and displays. It is compatible with all video resolutions, audio formats, and color space formats supported in the HDMI 2.0a specification, plus the ability to pass metadata for HDR content. The HDR-M2C includes Atlona's award-winning 10-year limited product warranty and customer support services, so that integrators can specify, purchase, and install with confidence.

Features

- Downmixes multichannel audio to two-channel audio
- Supports PCM, Dolby Digital, Dolby Digital Plus[™], Dolby TrueHD, Dolby Atmos[®], DTS Digital Surround[™], DTS-HD Master Audio[™], and DTS:X[™]
- LED indicators provide power status and audio format identification
- Compatibility with new and emerging 4K/UHD and HDR-capable sources and displays
- Adjustment of output volume, plus bass and treble settings via AMS and the web GUI
- Manages EDID communications with the source through a display's EDID or internally stored EDID

Package Contents

1 x AT-HDR-M2C

- 1 x Phoenix terminal block, 3-pin
- 1 x Phoenix terminal block, 2-pin
- 1 x 5V DC power supply
- 1 x Wall/table mounting brackets
- 1 x Installation Guide



Panel Description



1 Audio Indicators

These LED indicators will glow green to indicate the current audio format of the input signal.

2 HDMI - PCM 2

Connect an HDMI cable from this port to to an HDMI display, extender, or switcher. This output only supports two-channel audio.

3 LAN

Connect an Ethernet cable from this port to a Local Area Network (LAN). This port provides access to the web GUI.

4 PWR

This LED indicator will glow red when the unit is powered.

5 IP Mode Button

Press this button to set the unit to toggle between static IP and DHCP mode. Refer to Toggling the IP Mode (page 12) for more information.

6 DC 5V

Connect the included 5V DC power supply to this power receptacle.



7 FW

Connect a mini USB type-B cable to this port to update the firmware.

8 L/R

Connect the included 3-pin Phoenix connector from this port to a two-channel audio output device.

9 OPTICAL

Connect an optical audio cable from this TOSLINK port to an audio output device. This output only supports two-channel audio.

10 HDMI OUT

Connect an HDMI cable from this port to a display or other sink device. This output supports multichannel audio.

11 HDMI IN

Connect an HDMI cable from the source to this port.



Installation

Audio Connector

The AT-HDR-M2C provides analog audio output of two-channel audio, using the included 3-pin Phoenix terminal block.

- 1. Use wire strippers to remove a portion of the cable jacket.
- 2. Remove at least 3/16" (5 mm) from the insulation of each wire.
- 3. Insert the wires into the correct terminal on the included Phoenix block, as shown below.
- 4. Tighten the screws to secure the wires. Do not use high-torque devices as this may damage the screws and/or connector block.



Power Connector

Locate the included orange Phoenix terminal block and wire the included power supply to the block, as shown below. Do not use high-torque devices, when securing the wires to the Phoenix terminal block, as this may damage the screws and/or block.

- 1. Insert the wires into the correct terminal on the included Phoenix block, as shown below.
- 2. Tighten the screws to secure the wires. Do not use high-torque devices as this may damage the screws and/or connector block.





Connection Instructions

- 1. Connect an HDMI cable from the UHD/HD source to the HDMI IN port on the AT-HDR-M2C.
- 2. Connect HDMI cables to the output ports:
 - Multichannel Audio Connect an HDMI cable from the HDMI OUT port, on the AT-HDR-M2C, to an AV receiver or other multichannel audio device.
 - **Two-channel audio** Connect an HDMI cable from the **HDMI - PCM 2** port, on the AT-HDR-M2C, to a display or other sink device. Audio output is limited to two-channels.



IMPORTANT: The AT-HDR-M2C is a High Dynamic Range (HDR) device. For best performance, use premium HDMI cables that are HDR-certified.

- 3. Connect an optical audio cable from the **OPTICAL** port, on the AT-HDR-M2C, to a soundbar or other audio output device. Audio output is limited to two-channels.
- 4. Connect an Ethernet cable from the LAN port on the AT-HDR-M2C, to the Local Area Network (LAN).
- 5. Connect the green Phoenix block to the AUDIO OUT connector.
- 6. Connect the orange Phoenix block to the **DC 5V** connector.
- 7. Connect the 5V DC power supply to an available AC outlet.

Connection Diagram





Basic Operation

Audio Input Indicators

The front panel of the AT-HDR-M2C provides six LED indicators which will display the audio format detected on the HDMI IN port. When a recognizable audio format is detected, the associated indicator will glow solid green.



LED	Description
II D	Dolby Digital; lossy audio format supporting up to 5.1 channels
D+	Dolby Digital Plus; lossy audio format supporting up to 5.1 channels plus support for higher bitrates.
HD HD	Dolby TrueHD; lossless audio format supporting up to 7.1 channels
PCM	Indicates the presence of two-channel, 5.1, or 7.1 LPCM audio formats
DTS®	Indicates either DTS 5.1 or DTS:X
DTS-HD	DTS-HD Master Audio™; combined lossy/lossless audio format supporting up to 7.1 channels

Toggling the IP Mode

The recessed button on the front panel of the AT-HDR-M2C is used to toggle between DHCP and static IP mode. The factory-default setting for the AT-HDR-M2C is DHCP mode, which allows the device to be automatically assigned an IP address by the DHCP server (if present), after it is connected to a Local Area Network (LAN).



- IP toggle button

- 1. Insert the tip of a pencil or paper clip into the hole.
- 2. Press and hold the button until the PWR indicator blinks.

PWR LED	Description
2 blinks	Device is in static IP mode.
4 blinks	Device is in DHCP mode.

The default static IP address is 192.168.1.254. The default subnet mask is 255.255.255.0.



The WebGUI

Introduction to the webGUI

The AT-HDR-M2C includes a built-in webGUI. Atlona recommends that the web GUI be used to set up the AT-HDR-M2C, as it provides intuitive management of all features.

The AT-HDR-M2C is shipped with DHCP enabled. Once connected to a network, the DHCP server will automatically assign an IP address to the unit. Use an IP scanner to determine the IP address of the AT-HDR-M2C. If a DHCP server is not available or if a static IP address is desired, it can be assigned using the IPStatic command or through the System page (page 19). The default static IP address of the AT-HDR-M2C is 192.168.1.254.

- 1. Launch a web browser.
- 2. In the address bar, type the IP address of the AT-HDR-M2C.
- 3. The **Login** page will be displayed.

AT-HDR-M2C Login
Lege Uenner Record Lege

- 4. Type root, using lower-case characters, in the Username field.
- 5. Type Atlona in the **Password** field. The password field is case-sensitive. When the password is entered, it will be masked. The password can be changed, if desired. Refer to the Config page (page 18) for more information.
- 6. Click the **Submit** button or press the ENTER key on the keyboard.

La	gin		
	Username	root	
	Password	•••••	
		Submit	



7. The **Info** page will be displayed.

	AT-HDR-M2C Info
Info AV Settings Config	System Log
	SuitemInto
	Model Name - 47-MDP-302
	Seftware Version : 0.1.13
	Boot Version: 1.13
	Video Info
	Sienal Type : HDMJ
	Video Format : 1080p⊛60
	Aspect: 16:9
	Color Space : YCbCr4:2:2
	Color Depth : 24 bits
	Audio Info
	Audio Format :
	Sampling Rate : ···· kHz
	Channels : 2 channel

Menu Bar

The dark-colored bar, near the top of the screen, is the menu bar. When the mouse is moved over each menu element, it will be highlighted in light orange. Once the desired menu element is highlighted, click the left mouse button to access the settings within the menu.

Verse Mill Verse Verse: 4:10 Sequel Type: Million Menu Verse From: 1:10 Menu Asses: 1:00 Area 1:00	Connecting Inchandage	AT-HDR-M2C Info		Lopout		
A/V Settings Config System		Votem 100 Model Names / Af168.02C Pethner Wartish (0.10 Best Version (1.13 Works Name (1.13 Works Name (1.03 Works Name (1.03 Works Name (1.030 Works Name (1.030 Works Name (1.030 Separation (1.030 Generation (Menu ba
			A/V Settings	Config	System	

In this example, clicking A/V Settings, in the menu bar, will display the A/V Settings page.





Toggles

Several settings within the Web GUI use *toggles*, which enable, disable, or assign one of two settings. Generally, when the *toggle* is blue, it means that the feature is *enabled* or ON. If a feature is *disabled*, then the *toggle* will appear gray and be labeled as OFF. Toggle buttons may also indicate its current setting and, when enabled or set to a particular state, may also provide access to another set of controls or text fields within the Web GUI, as shown with the **IP Mode** toggle.

IP Mode:	STATIC IP	
IP:	10.0.1.125	
Netmask:	255.255.255.0	Save
Gateway:	10.0.1.1	
Telnet Port:	23	
Telnet Login	Mode	
OFF		

Sliders

Click and drag slider controls to change their value.



Buttons

Buttons are used to execute an action or setting. Several pages within the Web GUI include a **Save** button. Clicking the **Save** button will apply and save all settings in the current page. Other buttons, such as the **Factory Defaults** button, under the System page, will reset the AT-HDR-M2C to factory-default settings.





Info page

After logging in, the Info page will be displayed. The **Info** page is divided into three sections: **System Info**, **Video Info**, and **Audio Info**. The **System Info** section displays general information about the AT-HDR-M2C, such as the model name, software, and boot loader version. The **Video Info** section displays information about the input video signal. The **Audio Info** section displays information about the audio format, sampling rate, and the number of audio channels.

	AT-HDR-M2C Info	
Info A/V Settings Config	System	Logout
	System Info	
	Model Name : AT-HDR-M2C	
	Software Version: 0.1.13	
	Boot Version : 1.13	
	Video Info	
	Signal Type : HDMI	
	Video Format : 1080p@60	
	Aspect : 16:9	
	Color Space : YCbCr4:2:2	
	Color Depth : 24 bits	
	Audio Info	
	Audio Format :	
	Sampling Rate: kHz	
	Channels : 2 channel	

System Info

Model Name

The model SKU of this product.

Software Version

The version of firmware that the AT-HDR-M2C is running. Always make sure to check the AT-HDR-M2C product page, on the Atlona web site, for the latest version of firmware.

Boot Version

The version of the boot loader.

Video Info

Signal Type The type of input signal.

Video Format

The input resolution of the source device.

Aspect

Aspect ratio of the input signal.

Color Space

Displays the color space and chroma sub-sampling of the input signal.

Color Depth

The color depth of the input signal.



Audio Info

Audio Format The audio format detected on the input.

Sampling Rate

The sampling rate of the input audio signal, expressed in kilohertz (kHz).

Channels

The number of audio channels detected on the input signal.

A/V Settings page

The **A/V Settings** page is divided into two sections: **Video** and **Audio**. The **Video** section allows the preferred input timing to be selected as well as whether or not HDCP content is allowed to pass. The **Audio** section provides options to control the output audio volume, muting, treble, and bass.

	AT-HDR-M2C A/V Settings	
Info AVV Settings Config	System	Logout
	Video Prefer Timing(HDMI) 3840x2160%60Hz • Input HDCP on	
	Audio Mute OUTF Output Volume	
	Volume 6 Output Bass 0 Output Treble 0	

Video

Prefer Timing (HDMI)

Click this drop-down list to select the desired input.

Available Resolutions					
800x600	1280x800	1920x1080	3840x2160@30Hz		
1024x768	1366x768	1920x1200	3840x2160@60Hz		
1280x720	1600×900	2560x1440			

Input HDCP

Click this toggle to report HDCP compliance or non-compliance to the source device.

- **ON** Reports to the source device that the AT-HDR-M2C is an HDCP-compliant sink.
- **OFF** Reports to the source device that the AT-HDR-M2C is a non-HDCP-compliant sink.



Audio

Mute

Click this toggle to the **OFF** position to mute all audio on the output.

Volume

Click and drag this slider bar to adjust the audio volume. Range: -80 to 6.

Output Bass

Click and drag this slider bar to adjust the bass of the audio output. Range: -15 to 15.

Output Treble

Click and drag this slider bar to adjust the treble of the audio output. Range: -15 to 15.

Config page

The **Config** page provides management of usernames and passwords. The administrator username ("root") cannot be changed.

	AT-HDR-M2C Config	
Info A/V Settings Config	System	Logout
Info AV Settings Config	System Configuration Old Vername Old Vername Old Password New Username Confirm New Dessword Confirm New Password Confirm New Password Dename Password All User Login Settings Dename Password Add Remove Add Remove	Logout

Configuration

Old Username

This field cannot be changed. "root" is the administrator user.

Old Password

Enter the current password for the "root" username in this field. The default password is "Atlona".

New Username

This field cannot be changed.

Save

Click this button to save all changes.

New Password

Enter the new password fro the "root" username in this field.

Confirm New Password

Verify the new password by retyping it in this field.



All User Login Settings

- Username Displays the username.
- **Password** Displays the password for the associated username.
- Edit

Click the **Add** button, in this column, to edit the username and password in the row.

• Del

Click the **Remove** button to delete the user in the row. This button will only be available if a username and password have been created.

System page

The **System** page is divided into two sections: **Network** and **System**. The **Network** section allows configuration of the IP settings of the AT-HDR-M2C. The **System** provides controls for resetting the AT-HDR-M2C to factory-default settings and updating the firmware.

	AT-HDR-M2C System
Info AV Settings Config	System
	Network IP Mode: DHCP IP: 00.01.125 Netmask: 255.255.00 Gateway: 00.01.1 Telnet Port: 23 Telnet Login Mode OFF Tenet Timeout 120 • Broadcast Image: State
	System Reset to Default Factory Default Firmware Update Choose File No file chosen Update

Network

IP Mode

Click this toggle to set the AT-HDR-M2C to DHCP or static mode. By default, the AT-HDR-M2C is in DHCP mode.

IP

Enter the IP address of the AT-HDR-M2C in this field. This field will only be available when the **IP Mode** is set to **Static**. The default static IP address is 192.168.1.254.

Netmask

Enter the subnet mask of the AT-HDR-M2C in this field. This field will only be available when the **IP Mode** is set to **Static**.

Save

Click this button to save all changes in the **Network** group.



Gateway

Enter the gateway (router) address in this field. This field will only be available when the **IP Mode** is set to **Static**.

Telnet Port Enter the Telnet port in this field. Telnet uses a default port number of 23.

Telnet Login Mode

Click this toggle to set the Telnet Login Mode to ON or OFF.

Telnet Timeout Click this drop-down list to select the timeout interval, in seconds.

Broadcast Click this toggle to set the Broadcast mode ON or OFF.

System

Factory Default Click this button to reset the AT-HDR-M2C to factory-default settings.

Choose File Click this button to select the firmware file.

Update

Click this button to begin the firmware update procedure.

Refer to Updating the Firmware (page 30) for more information on firmware updates.



Commands

The following tables provide an alphabetical list of commands available on the AT-HDR-M2C. All commands are case-sensitive and must be entered as documented. If the command fails or is entered incorrectly, then the feedback is "Command FAILED".



IMPORTANT: Each command is terminated with a carriage-return (0x0d)and the feedback is terminated with a carriage-return and line-feed (0x0a).

Command	Description
AudioOut1	Enables / disables PCM audio on the HDMI output
BASS1	Adjusts the bass on the audio output
Broadcast	Enables / disables broadcast mode
HDCPSet1	Sets the HDCP mode on the HDMI input
HDMIAud	Enables / disables audio on the HDMI output
IPAddUser	Adds a user to TCP/IP control
IPCFG	Displays the IP settings of the AT-HDR-M2C
IPDelUser	Deletes the specified user from TCP/IP control
IPDHCP	Enables / disables DHCP mode
IPLogin	Enables / disables IP login
IPPort	Sets the TCP/IP port number
IPQuit	Ends the TCP/IP session
IPStatic	Sets the static IP address of the AT-HDR-M2C
IPTimeout	Sets the TCP/IP timeout interval before the connection is terminated
Mreset	Resets the AT-HDR-M2C to factory-default settings
PrefTimg	Sets the preferred timing on the output
RAtlMac	Displays the MAC address of the AT-HDR-M2C
TREBLE1	Adjusts the treble on the audio output
Туре	Displays the model information of the AT-HDR-M2C
UARTPara	Assigns the RS-232 settings for the serial port
Version	Displays the firmware version of the AT-HDR-M2C
VOUT1	Adjusts the volume of the audio output
VOUTMute1	Mutes / un-mutes the audio on the analog AUDIO OUT and HDMI - PCM 2 ports



AudioOut1

Enables / disables audio on the **HDMI - PCM 2**, **OPTICAL**, and analog output port. on = enables the audio output; off = disables audio output; sta = displays the current AudioOut1 setting.

Syntax	
AudioOut1 X	

Parameter	Description	Range
Х	State	on, off, sta
Examples AudioOut1 on		Feedback AudioOut1 on

BASS1

Increases / decreases the amount of bass on the **HDMI - PCM 2**, **OPTICAL**, and analog output port. In addition to specifying an integer value, the **+** and **-** arguments can be used, by themselves, to increase or decrease the bass by 1 value, respectively. To display the current value, execute the BASS1 command without any arguments.

Syntax	
BASS1 X	

Parameter	Description	Range
Х	Value	-15 15
Example BASS1 -5	l	Feedback BASS1 -5
BASS1 +	I	BASS1 -4

Broadcast

Enables / disables broadcast mode. By default, broadcast mode is set to off. When set to on, changes in the web GUI will also be affected on the control system (if connected), via TCP/IP. To separate control between web GUI and Telnet, set this feature off. on = enables broadcast mode; off = disables broadcast mode; sta = displays the current Broadcast setting.

Syntax	
Broadcast X	

Parameter	Description	Range
Х	Value	on, off, sta
Example		Feedback

Broadcast on

Feedback Broadcast on



HDCPSet1

Set the HDCP reporting mode of the **HDMI IN** port. Some computers will send HDCP content if an HDCP-compliant display is detected. Setting this value to off, will force the computer to ignore detection of HDCP-compliant displays. Disabling this feature will *not* decrypt HDCP content. on = enables HDCP detection; off = disables HDCP detection; sta = displays the current HDCPSet1 setting.

Syntax	
HDCPSet1 X	

Parameter	Description	Range
Х	Value	on, off, sta

Example HDCPSet1 on Feedback HDCPSet1 on

HDMIAud

Enables / disables HDMI audio output. on = enables HDMI audio output; off = disables HDMI audio output; sta = displays the current HDMIAud setting.

Syntax	
HDMIAud X	

Parameter	Description	Range
Х	Value	on, off, sta
Example HDMIAud off		Feedback HDMIAud off

Help

Displays a list of all available commands.

Syntax			
Help			

This command does not require any parameters

Example Help Feedback Command List Help IPCFG IPDHCP

... TREBLE1



IPAddUser

Adds a user for Telnet control. This command performs the same function as adding a user within the **Config** page of the web GUI. Refer to Config page (page 18) for more information.

Syntax	
IPAddUser X Y	

Parameter	Description	Range
Х	User name	20 characters (max)
Y	Password	20 characters (max)
Example IPAddUser BigB	oss b055man	Feedback IPAddUser BigBoss b055man

TCP/IP user was added

IPCFG

Displays the current network settings for the AT-HDR-M2C.

Syntax		
IPCFG		

This command does not require any parameters

Example

IPCFG

Feedback IP Addr : 192.168.1.38 Netmask : 255.255.255.0 Gateway : 192.168.1.1 Telnet Port: 23 Http Port: 80

IPDelUser

Deletes the specified TCP/IP user. This command performs the same function as removing a user within the **Config** page of the web GUI. Refer to Config page (page 18) for more information.

Syntax	
IPDelUser X	

Parameter	Description	Range
Х	User	User name

Example IPDelUser BigBoss Feedback IPDelUser BigBoss TCP/IP user was deleted



IPDHCP

Enables / disables DHCP mode on the AT-HDR-M2C. on = enables DHCP mode; off = disables DHCP mode; sta = displays the current IPDHCP setting. If this feature is disabled, then a static IP address must be specified for the AT-HDR-M2C. Refer to the IPStatic command.

Syntax			
IPDHCP X			

Parameter	Description	Range
Х	Value	on, off, sta
Example		Feedback

IPDHCP on

Feedback IPDHCP on

IPLogin

Enables / disables the use of login credentials when starting a Telnet session on the AT-HDR-M2C. If this feature is set to on, then the AT-HDR-M2C will prompt for both the username and password. Use the same credentials as the web GUI. on = login credentials required; off = no login required; sta = displays the current IPLogin setting.

Syntax		
IPLogin X		

Parameter	Description	Range
Х	Value	on, off, sta
Example IPLogin off		Feedback IPLogin off

IPPort

Sets the Telnet listening port for the AT-HDR-M2C. Use the sta argument to display the current port setting.

Syntax		
IPPort X		

Parameter	Description	Range
Х	Port	0 65535, sta
Example		Feedback



IPQuit

Terminates the Telnet session.

Syntax	
IPQuit X	

This command does not require any parameters

Example	Feedback
IPQuit	IPQuit

IPStatic

Sets the static IP address, subnet mask, and gateway (router) address of the AT-HDR-M2C. Before using this command, DHCP must be disabled on the AT-HDR-M2C. Refer to the IPDHCP command for more information. Each argument must be entered in dot-decimal notation and separated by a space. The default static IP address is 192.168.1.254.

Syntax	
IPStatic X Y Z	

Parameter	Description	Range
Х	IP address	0 255 (per byte)
Y	Subnet mask	0 255 (per byte)
Z	Gateway (router)	0 255 (per byte)

Example

IPStatic 192.168.1.112 255.255.255.0 192.168.1.1

Feedback

IPStatic 192.168.1.112 255.255.255.0 192.168.1.1

IPTimeout

Specifies the time interval of inactivity before the Telnet session is automatically closed.

Syntax
IPTimeout X

Parameter	Description	Range
Х	Interval (in seconds)	0 300
Example IPTimeout 60		Feedback IPTimeout 60



Commands

Mreset

Resets the AT-HDR-M2C to factory-default settings.

Syntax

MReset

This command does not require any parameters

Example Mreset Feedback Mreset

PrefTimg

Sets the preferred timing of the video output signal.

Syntax	
PrefTimg X	

Parameter	Description	Range
Х	Value	0 10

Preferred Timing List	5 = 1366 x 768
$0 = 1280 \times 800$	6 = 800 x 600
$1 = 1920 \times 1080$	7 = 1600 x 900
$2 = 1024 \times 768$	8 = 2560 x 1600
$3 = 1280 \times 720$	9 = 3840 x 2160 @ 30 Hz
$4 = 1920 \times 1200$	10 = 3840 x 2160 @ 60 Hz
Example	Feedback
PrefTimg 2	PrefTimg 2

RAtlMac

Displays the MAC address of the AT-HDR-M2C.

Syntax	
RAtlMac	

This command does not require any parameters

Example RAtlMac Feedback b8-98-b0-00-00-c6



TREBLE1

Increases / decreases the amount of treble HDMI - PCM 2, OPTICAL, and analog output port. In addition to specifying an integer value, the + and - arguments can be used, by themselves, to increase or decrease the amount of treble by 1 value, respectively. To display the current value, execute the TREBLE1 command without any arguments.

Syntax		
TREBLE1 X		

Parameter	Description	Range	
Х	Value	-15 15	
Example		Feedback	
TREBLE1 8		TREBLE1 8	
TREBLE1 -		TREBLE1 7	

TREBLE1 -

Type

Displays the model information for the AT-HDR-M2C.

Syntax			
Туре			

This command does not require any parameters

Example

Туре

Feedback AT-HDR-M2C

UARTPara

Sets the baud rate, data bits, parity bit, and stop bits for the AT-HDR-M2C. All arguments must be separated by a comma. The data bits, parity bit, and stop bits for this product must be 8, 0, and 1, respectively.

Syntax	
UARTPara W X Y Z	

Parameter	Description	Range
W	Baud rate	2400, 4800, 9600, 19200, 38400, 57600, 115200
Х	Data bits	7, 8
Υ	Parity bit	0, 1, 2 (None, Odd, Even)
Z	Stop bits	1, 2
Example		Feedback

UARTPara 38400,8,0,1

UARTPara 38400,8,0,1



Version

Displays the current firmware version of the AT-HDR-M2C.

Syntax			
Version			

This command does not require any parameters

Example Version

Feedback 0.2.05

VOUT1

Increases / decreases the audio volume HDMI - PCM 2, OPTICAL, and analog output port. In addition to specifying an integer value, the + and - arguments can be used, by themselves, to increase or decrease the volume by 1 value, respectively. To display the current value, execute the VOUT1 command without any arguments.

Syntax		
VOUT1		

Parameter	Description	Range
Х	Value	-80 6
		Feedback
VOUT1 +		VOUT1 5

VOUTMute1

Mutes / unmutes the audio on the HDMI - PCM 2, OPTICAL, and analog output port. on = enables muting; off = disables muting; sta = displays the current VOUTMute1 setting.

Syntax	
VOUTMute1 X	

Parameter	Description	Range
Х	Value	on, off, sta
Example VOUTMute1 on		Feedback VOUTMute1 on

VOUTMute1 on



Appendix

Updating the Firmware

Updating the firmware can be completed using either the USB interface or the web GUI. Atlona recommends using the web GUI for updating the firmware. However, If a network connection is not available, the AT-HDR-M2C firmware can be updated using a USB-A to USB mini-B cable.

Using the Web GUI

Requirements

- AT-HDR-M2C
- Firmware file (.bin file)
- Computer
- 1. Connect an Ethernet cable from the computer, containing the firmware, to the same network where the AT-HDR-M2C is connected.
- 2. Go to the System page (page 19) in the web GUI.

	AT-HDR-M2C System
Info AV Settings Config	System Logout
	Network IP Mode: DHCP IP: 00.01.125 Netmask: 255.25.8.0 Seve Gateway: 00.01.1 Telnet Port: 0 Telnet Login Mode OFF Telnet Timeout 120 Broadcast ON
Choose File button	System Reset to Default Factory Default Firmware Update Choose File No file chosen Update

- 3. Click the Choose File button, under the Firmware Update section.
- 4. Browse to the location of the firmware file, select it, and click the **Open** button.
- 5. Click the **Update** button.
- 6. The following dialog will be displayed.





- 7. Click the **OK** button to begin the firmware update process. Click the **Cancel** button to abort the process.
- 8. The update process will take approximately 60 seconds and will automatically reboot the AT-HDR-M2C. During the update process, the **PWR** LED indicator will flash.
- 9. After the firmware update process is complete, the Login screen will be displayed.

Login Username Password Sutem

Using USB

Requirements

- AT-HDR-M2C
- Firmware file (.bin file)
- Computer
- USB-A to USB mini-B cable
- 1. Make sure the AT-HDR-M2C is powered.
- 2. Connect the USB-A to USB mini-B cable from the computer to the FW port on the AT-HDR-M2C.

OPTICAL

3. The USB UPDATE folder will be displayed.

If this folder is not displayed, automatically, select the USB UPDATE drive from Windows Explorer, as shown on the next page.

FW port



Appendix



- 4. Delete all files from the USB UPDATE drive, if any are present.
- 5. Drag-and-drop the firmware file to the drive.
- 6. After the file has been copied, disconnect the USB cable from both the computer and the AT-HDR-M2C.
- 7. The AT-HDR-M2C will automatically reboot, completing the firmware update process.



Appendix

Mounting Instructions

The AT-HDR-M2C includes two mounting brackets, which can be used to attach the unit to any flat surface. Use the two enclosure screws, on the sides of the unit to attach the mounting brackets.

1. Using a small Phillips screwdriver, remove the two screws from the left side of the enclosure.



- 2. Position one of the mounting brackets, as shown below, aligning the holes on the side of the enclosure with one set of holes on the mounting bracket.
- 3. Repeat steps 1 and 2 to attach the second mounting bracket to the opposite side of the unit.
- 4. Mount the unit to a flat surface using the oval-shaped holes, on each mounting bracket. If using a drywall surface, a #6 drywall screw is recommended.







NOTE: Mounting brackets can also be inverted to mount the unit under a table or other flat surface.



Default Settings

The following tables list the factory-default settings for the AT-HDR-M2C.

A/V Settings		
Video	Preferred Timing (HDMI) Input HDCP	1920 x 1080 ON
Audio	Mute Output Volume Output Bass Output Treble	OFF 6 0 0

Config		
Configuration	Username (cannot be changed) Password	root Atlona

System		
Network	IP Mode IP Netmask Gateway Telnet Port Telnet Login Mode Telnet Timeout (seconds) Broadcast	DHCP 192.168.1.254 255.255.255.0 192.168.1.1 23 OFF 120 ON



NOTE: When the AT-HDR-M2C is set to static IP mode, then the IP, Netmask, and Gateway settings will be used by default.



Appendix

Specifications

Video	
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

Audio	
Audio Formats	PCM 2Ch, LPCM 5.1, LPCM 7.1, Dolby® Digital, Dolby Digital Plus, Dolby TrueHD, DTS® 5.1, DTS-HD Master Audio™, DTS:X™, Dolby Atmos®
Sample Rate	32 kHz, 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz, 192 kHz
Bit Rate	24-bit (max.)

Resolution / HDMI cable length	4K/UHD - Feet / Meters		1080p - Feet / Meter	S
HDMI @ 60 Hz	6	2	30	10
HDMI @ 24 Hz	16	5	50	15

Signal	
Bandwidth	18 Gbps
CEC	Yes
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	



Appendix

Power	
Consumption	6.5 W
Supply	Input: 100 - 240 V AC, 50/60 Hz Output: 5 V DC, 1 A

Dimensions	Inches	Millimeters
H x W x D	1.02 x 5.00 x 4.29	26 x 127 x 109
H x W x D (w/ ears)	1.02 x 5.39 x 4.29	26 x 137 x 109

Weight	Pounds	Kilograms
Device	0.6	0.27

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



Index

A

Audio connector 10 indicators 9, 12 muting 18, 29

Β

Bass adjusting 18, 22

С

Commands AudioOut1 22 BASS1 22 Broadcast 22 HDCPSet1 23 HDMIAud 23 Help 23 IPAddUser 24 IPCFG 24 IPDelUser 24 **IPDHCP** 25 IPLogin 25 IPPort 25 IPQuit 26 IPStatic 26 IPTimeout 26 Mreset 27 PrefTimg 27 RAtlMac 27 TREBLE1 28 Type 28 UARTPara 28 Version 29 VOUT1 29 VOUTMute1 29 Connection diagram 10 instructions 10 Contents package 8 Customer support 3

D

Default setttings 34 DHCP setting 12, 25

F

FCC statement 6 Features 8 Firmware displaying 16 updating 30

G

Gateway setting 20

Η

HDCP reporting 23 HDMI OUT 9

Installation 10 IP address default 19 setting 19 IP mode button 9 setting 12 IP settings default 34

l

LED 5V 9 SOURCE 9

Μ

MAC address displaying 27 Mounting instructions 33 Muting audio 18, 29

С

Operating notes 3 Output volume adjusting 29

Ρ

Panel descriptions 9 Password setting 18 Power connector 10

R

Reset factory-default 20, 27 Resolution setting 17, 27

S

Safety information 6 Specifications 35 Static IP setting 12, 26 Subnet mask setting 19

T

Telnet port default 20 setting 20 Treble adjusting 18, 28

U

Users adding 19, 24 editing 19 removing 19, 24

V

Volume muting 29 output, adjusting 18, 29

W

Warranty 4 Web GUI 13





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