

4K / HDR Multichannel Digital to Two-Channel Audio Converter



Version Information

Version	Release Date	Notes
1	07/18	Initial release

Welcome to Atlona!

Thank you for purchasing this Atlona product. We hope you enjoy it and will take a extra few moments to register your new purchase.

Registration only takes a few minutes and protects this product against theft or loss. In addition, you will receive notifications of product updates and firmware. Atlona product registration is voluntary and failure to register will not affect the product warranty.

To register your product, go to <http://www.atlona.com/registration>

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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-QUAD> for the latest firmware updates and User Manual.

Atlona, Inc. (“Atlona”) Limited Product Warranty

Coverage

Atlona warrants its products will substantially perform to their published specifications and will be free from defects in materials and workmanship under normal use, conditions and service.

Under its Limited Product Warranty, Atlona, at its sole discretion, will either:

- repair or facilitate the repair of defective products within a reasonable period of time, restore products to their proper operating condition and return defective products free of any charge for necessary parts, labor and shipping.

OR

- replace and return, free of charge, any defective products with direct replacement or with similar products deemed by Atlona to perform substantially the same function as the original products.

OR

- refund the pro-rated value based on the remaining term of the warranty period, not to exceed MSRP, in cases where products are beyond repair and/or no direct or substantially similar replacement products exist.

Repair, replacement or refund of Atlona products is the purchaser’s exclusive remedy and Atlona liability does not extend to any other damages, incidental, consequential or otherwise.

This Limited Product Warranty extends to the original end-user purchaser of Atlona products and is non-transferrable to any subsequent purchaser(s) or owner(s) of these products.

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Atlona Limited Product Warranty Period begins on the date of purchase by the end-purchaser. The date contained on the end-purchaser’s sales or delivery receipt is the proof purchase date.

Limited Product Warranty Terms – New Products

- 10 years from proof of purchase date for hardware/electronics products purchased on or after June 1, 2013.
- 3 years from proof of purchase date for hardware/electronics products purchased before June 1, 2013.
- Lifetime Limited Product Warranty for all cable products.

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- 3 years from proof of purchase date for all Refurbished (B-Stock) hardware and electronic products purchased on or after June 1, 2013.

Remedy

Atlona recommends that end-purchasers contact their authorized Atlona dealer or reseller from whom they purchased their products. Atlona can also be contacted directly. Visit www.atlona.com for Atlona’s contact information and hours of operation. Atlona requires that a dated sales or delivery receipt from an authorized dealer, reseller or end-purchaser is provided before Atlona extends its warranty services. Additionally, a return merchandise authorization (RMA) and/or case number, is required to be obtained from Atlona in advance of returns.

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Exclusions

This Limited Product Warranty excludes:

- Damage, deterioration or malfunction caused by any alteration, modification, improper use, neglect, improper packaging or shipping (such claims must be presented to the carrier), lightning, power surges, or other acts of nature.

Atlona, Inc. (“Atlona”) Limited Product Warranty

- Damage, deterioration or malfunction resulting from the installation or removal of this product from any installation, any unauthorized tampering with this product, any repairs attempted by anyone unauthorized by Atlona to make such repairs, or any other cause which does not relate directly to a defect in materials and/or workmanship of this product.
- Equipment enclosures, cables, power supplies, batteries, LCD displays, and any accessories used in conjunction with the product(s).
- Products purchased from unauthorized distributors, dealers, resellers, auction websites and similar unauthorized channels of distribution.

Disclaimers

This Limited Product Warranty does not imply that the electronic components contained within Atlona’s products will not become obsolete nor does it imply Atlona products or their electronic components will remain compatible with any other current product, technology or any future products or technologies in which Atlona’s products may be used in conjunction with. Atlona, at its sole discretion, reserves the right not to extend its warranty offering in instances arising outside its normal course of business including, but not limited to, damage inflicted to its products from acts of god.

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The maximum liability of Atlona under this limited product warranty shall not exceed the original Atlona MSRP for its products. To the maximum extent permitted by law, Atlona is not responsible for the direct, special, incidental or consequential damages resulting from any breach of warranty or condition, or under any other legal theory. Some countries, districts or states do not allow the exclusion or limitation of relief, special, incidental, consequential or indirect damages, or the limitation of liability to specified amounts, so the above limitations or exclusions may not apply to you.

Exclusive Remedy

To the maximum extent permitted by law, this limited product warranty and the remedies set forth above are exclusive and in lieu of all other warranties, remedies and conditions, whether oral or written, express or implied. To the maximum extent permitted by law, Atlona specifically disclaims all implied warranties, including, without limitation, warranties of merchantability and fitness for a particular purpose. If Atlona cannot lawfully disclaim or exclude implied warranties under applicable law, then all implied warranties covering its products including warranties of merchantability and fitness for a particular purpose, shall provide to its products under applicable law. If any product to which this limited warranty applies is a “Consumer Product” under the Magnuson-Moss Warranty Act (15 U.S.C.A. §2301, ET SEQ.) or other applicable law, the foregoing disclaimer of implied warranties shall not apply, and all implied warranties on its products, including warranties of merchantability and fitness for the particular purpose, shall apply as provided under applicable law.

Other Conditions

Atlona’s Limited Product Warranty offering gives legal rights, and other rights may apply and vary from country to country or state to state. This limited warranty is void if (i) the label bearing the serial number of products have been removed or defaced, (ii) products are not purchased from an authorized Atlona dealer or reseller. A comprehensive list of Atlona’s authorized distributors, dealers and resellers can be found at www.atlona.com.

Important Safety Information

CAUTION
 RISK OF ELECTRIC SHOCK
 DO NOT OPEN

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.

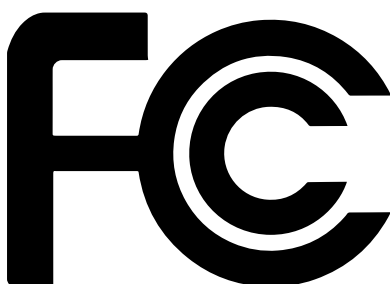


The information bubble is intended to alert the user to helpful or optional operational instructions in the literature accompanying the product.

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.

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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 down-mixed 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.

Features

- HDMI audio de-embedding and multi-channel audio downmixing for four HDMI sources
- Downmixes multi-channel PCM, Dolby, and DTS formats to stereo audio
- 4K/UHD capability @ 60 Hz with 4:4:4 chroma sampling, plus support for HDR formats
- HDCP 2.2 compliant
- Delivers audio to HDMI, TOSLINK digital audio, and analog audio outputs
- Volume and tone adjustments
- EDID management
- Configured and managed by AMS

Package Contents

1 x AT-HDR-M2C-QUAD
4 x 3-pin captive screw blocks
1 x Wall/table mounting brackets
1 x Power cable
1 x Installation Guide

Panel Description

Front



Rear



1 RESET Button

Press and hold this button for 10 seconds to set the IP mode. Press and hold for 20 seconds to perform a factory reset. Refer to [IP Configuration \(page 12\)](#) and ## for more information.

2 RESET LED Indicator

This indicator displays the current state of the AT-HDR-M2C-QUAD. During normal operation, this indicator will glow solid green. When a firmware update is in process, it will flash green.

3 FW

Connect a mini USB cable from a computer to this port to update the firmware. Refer to ## for more information.

4 LAN

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

5 I/O 1 - I/O 4

The AT-HDR-M2C-QUAD provides four sets of audio and video input / output ports:

AUDIO OUT

Analog Audio

Connect the included 3-pin captive screw block from this port to a two-channel audio output device. Refer to [Audio Connector \(page 3\)](#) for wiring information.

Digital Audio

Connect an optical cable from this TOSLINK port to an AV receiver. Only two-channel audio output is supported.

HDMI

OUT

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

IN

Connect an HDMI cable from this port to a source with multichannel audio.

6 Power Button

Press this button to power-on or power-off the AT-HDR-M2C-QUAD.

7 Power receptacle

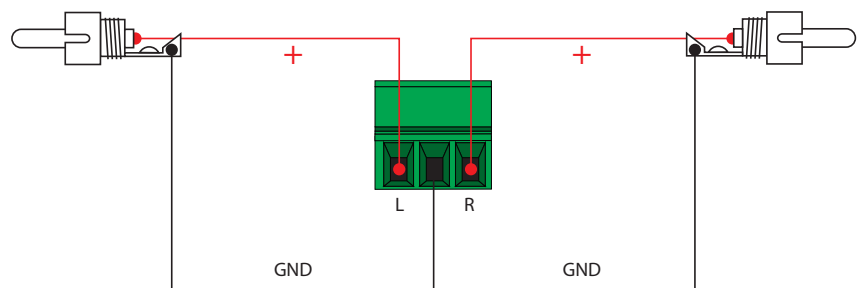
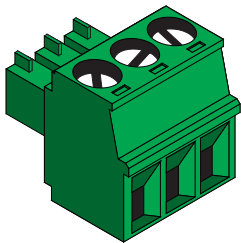
Connect the included power cable from this receptacle to an available electrical outlet.

Installation

Audio Connector

The AT-HDR-M2C-QUAD provides analog audio output of two-channel audio, using the included 3-pin captive-screw 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.



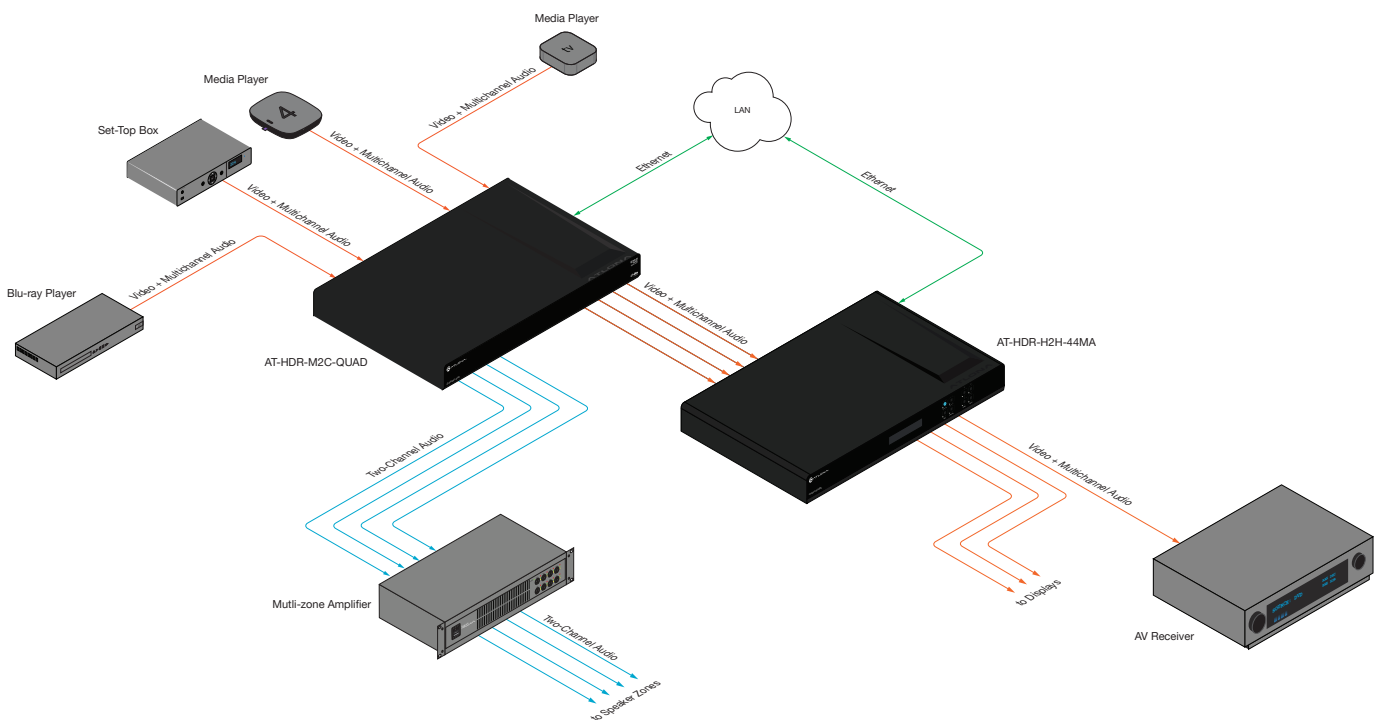
Connection Instructions

1. Connect a UHD/HD source to each of the **HDMI IN** ports on the AT-HDR-M2C-QUAD.
2. Connect an HDMI cable from each **HDMI OUT** port on the AT-HDR-M2C-QUAD to a display or other sink device. HDMI OUT ports support multichannel audio.

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

3. Connect an optical audio cable from each **OPTICAL** port on the AT-HDR-M2C-QUAD, to a sound bar or other audio output device. Audio output on this port is limited to two-channels.
4. Connect the included 3-pin captive screw block from each analog audio output to an amplifier or a set of powered speakers. Refer to [Audio Connector \(page 3\)](#) for wiring information.
5. Connect an Ethernet cable from the **LAN** port on the AT-HDR-M2C-QUAD, to the Local Area Network (LAN).
6. Connect the included power cable from the power receptacle on the AT-HDR-M2C-QUAD to an available electrical outlet.

Connection Diagram



IP Configuration

The AT-HDR-M2C-QUAD is shipped with DHCP enabled. Once connected to a network, the DHCP server (if available), will automatically assign an IP address to the unit. Use an IP scanner, along with the MAC address on the bottom of the unit, to identify both the unit and its IP address on the network.

If the AT-HDR-M2C-QUAD is unable to detect a DHCP server within 15 seconds, then the unit will be placed in Auto IP mode and will be assigned an IP address within the range 169.254.xxx.xxx. If this occurs, the AT-HDR-M2C-QUAD can be set to a static IP address.

Using the Front Panel

1. Make sure the AT-HDR-M2C-QUAD is powered.
2. Press and hold the **RESET** button for 10 seconds, using the end of a paper clip or other pointed object.



3. Release the **RESET** button. The RESET LED indicator will flash green. The number of flashes will indicate the currently selected IP mode:

PW LED flashes	Description	Description
Two	Static IP mode	IP address: 192.168.1.254 Subnet mask: 255.255.0.0 Gateway: 192.168.1.1
Four	DHCP mode	---

Using Commands

Use the IPStatic and IPDHCP commands to switch between DHCP and IP mode through RS-232 or Telnet. Refer to API documentation for more information. All commands and their arguments are case-sensitive.

- **Setting static IP mode**

1. Connect to the AT-HDR-M2C-QUAD using RS-232 or Telnet.
2. At the command line, execute the IPDHCP command using the off argument, as shown.

```
IPDHCP off
```

3. Execute the IPStatic command. This command requires three arguments: the desired IP address of the AT-JUNO-451-HDBT, the subnet mask, and the gateway address. All arguments must be entered in dot-decimal notation. The following is an example:

```
IPStatic 192.168.1.112 255.255.255.0 192.168.1.1
```

└── IP address ─┘
└── Subnet mask ─┘
└── Gateway ─┘

- **Setting DHCP mode**

1. Connect to the AT-HDR-M2C-QUAD using RS-232 or Telnet.
2. At the command line, execute the IPDHCP command using the on argument, as shown. All characters are case-sensitive.

```
IPDHCP on
```

Once DHCP is enabled, the unit will be assigned an IP address by the DHCP server (if present).

Setting the IP Address using the Web GUI

The **System page (page 21)**, in the web GUI, can be used to set the AT-HDR-M2C-QUAD to either DHCP or static IP mode. In order to access the web GUI, the IP address of the AT-HDR-M2C-QUAD must be known. Refer to **Introduction to the Web GUI (page 14)**.

1. Open the desired web browser and enter the IP address of the AT-HDR-M2C-QUAD.
2. Log in, using the required credentials. The factory-default username and password are listed below:

Username: root
Password: Atlona

3. Click the **System** tab.

IP Mode:	<input type="radio"/> DHCP <input checked="" type="radio"/> STATIC IP	
IP:	<input type="text" value="10.0.1.109"/>	
Netmask:	<input type="text" value="255.255.255.0"/>	<input type="button" value="Save"/>
Gateway:	<input type="text" value="10.0.1.1"/>	
Telnet Port:	<input type="text" value="23"/>	

4. Click the **IP Mode** toggle to switch between the **DHCP** and **STATIC IP** setting. When set to **STATIC IP**, the **IP**, **Netmask**, and **Gateway** fields can be modified.
5. Click the **Save** button to save the changes.

The Web GUI

Introduction to the Web GUI

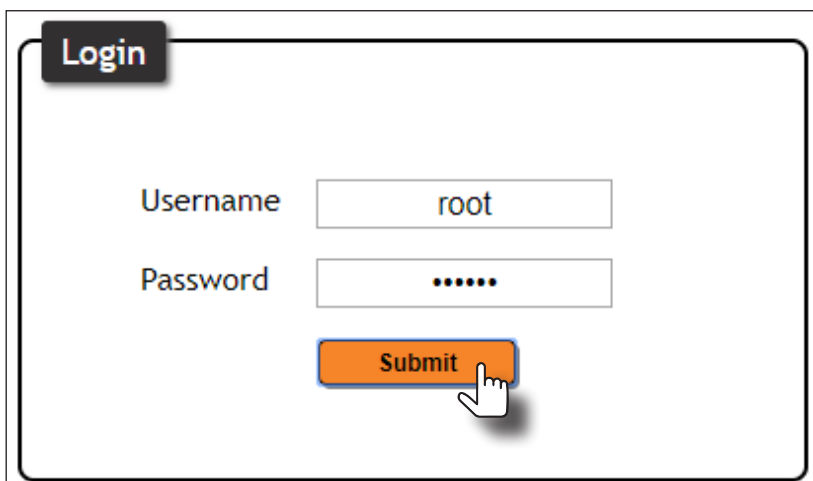
The AT-HDR-M2C-QUAD includes a built-in web GUI. Atlona recommends that the web GUI be used to set up the AT-HDR-M2C-QUAD, as it provides intuitive management of all features.

The AT-HDR-M2C-QUAD 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-QUAD. If a static IP address is desired, refer to [Setting the IP Address using the Web GUI \(page 13\)](#) for more information. The default static IP address of the AT-HDR-M2C-QUAD is 192.168.1.254.

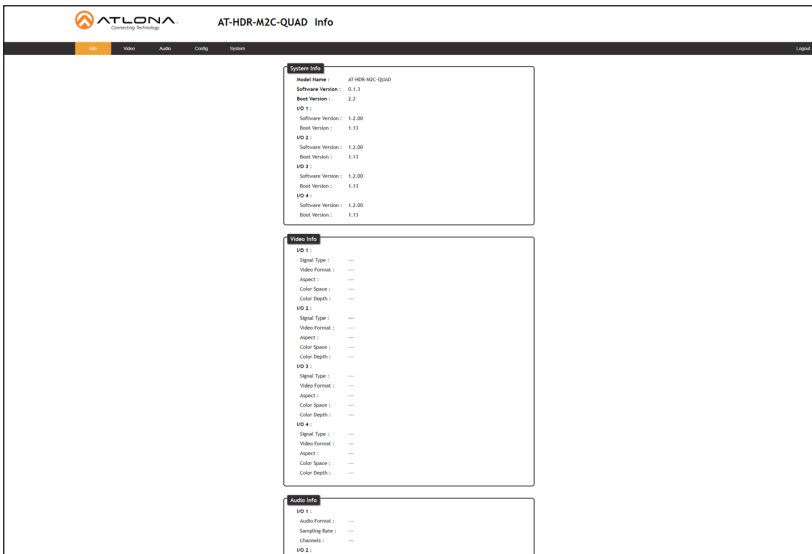
1. Launch a web browser.
2. In the address bar, type the IP address of the AT-HDR-M2C-QUAD.
3. The **Login** page will be displayed.



4. Type root, using lower-case characters, in the **Username** field.
5. Type Atlona in the **Password** field. This is the default password. 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 \(page 20\)](#) for more information.
6. Click the **Login** button or press the ENTER key on the keyboard.

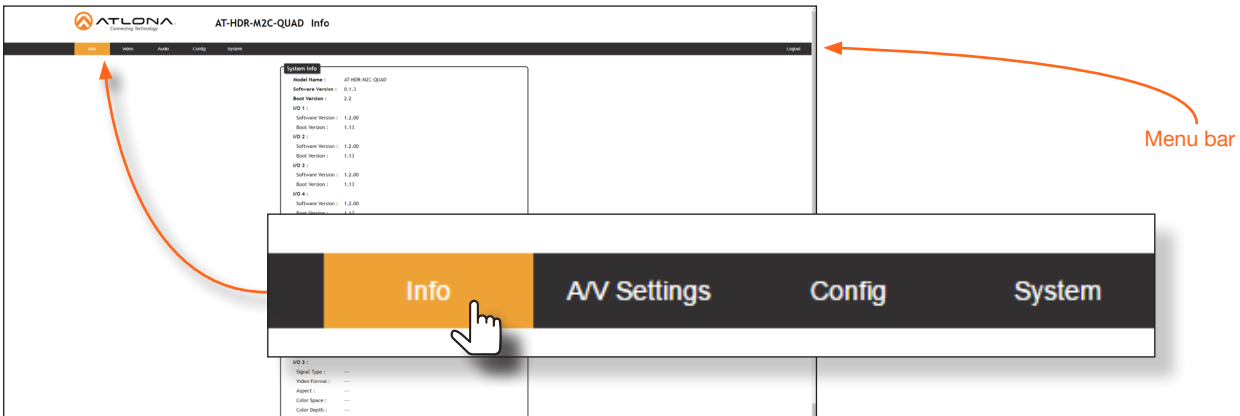


7. The **Info** page will be displayed.

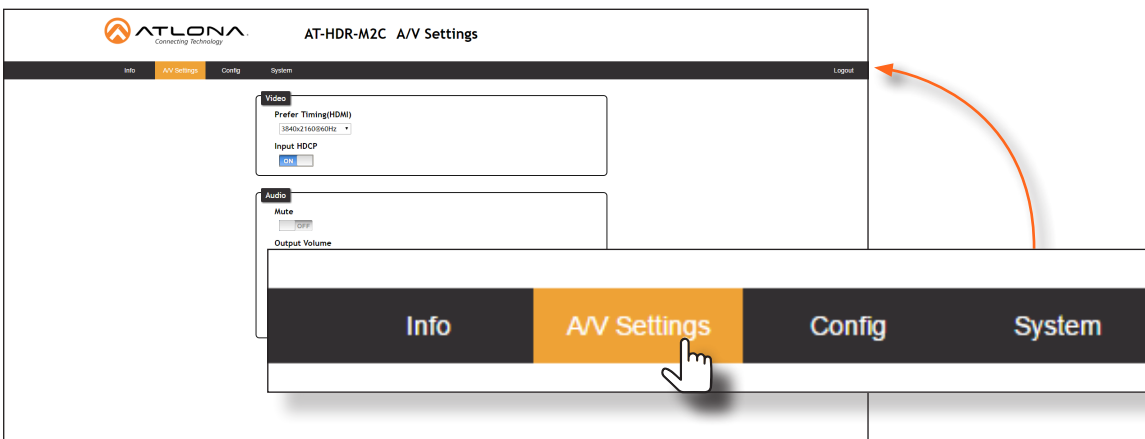


Menu Bar

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.

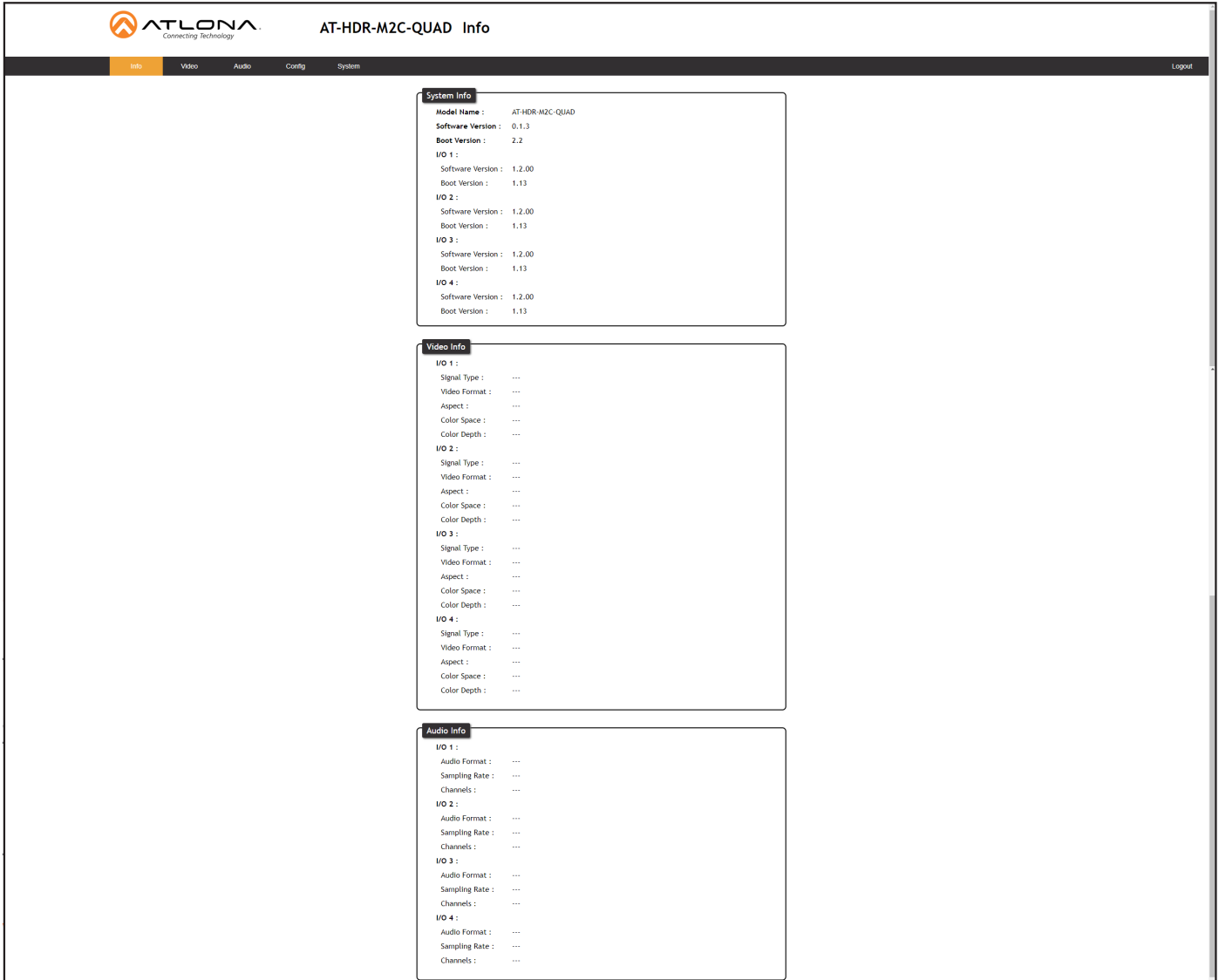


In this example, clicking **A/V Settings**, in the menu bar, will display the **A/V Settings** page.



Info page

After logging in, the **Info** page is the first page to 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-QUAD, such as the model name, software, and boot loader version for each I/O block. 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.



Model Name

The model name of the unit.

Boot Version

Version of software

Software Version

The version of software

Boot Version

Boot firmware version

I/O 1 - I/O 4

Software Version

Version of software

Video Info

I/O 1 - I/O 4

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

I/O 1 - I/O 4

Audio Format

The audio format detected on the input.

Sampling Rate

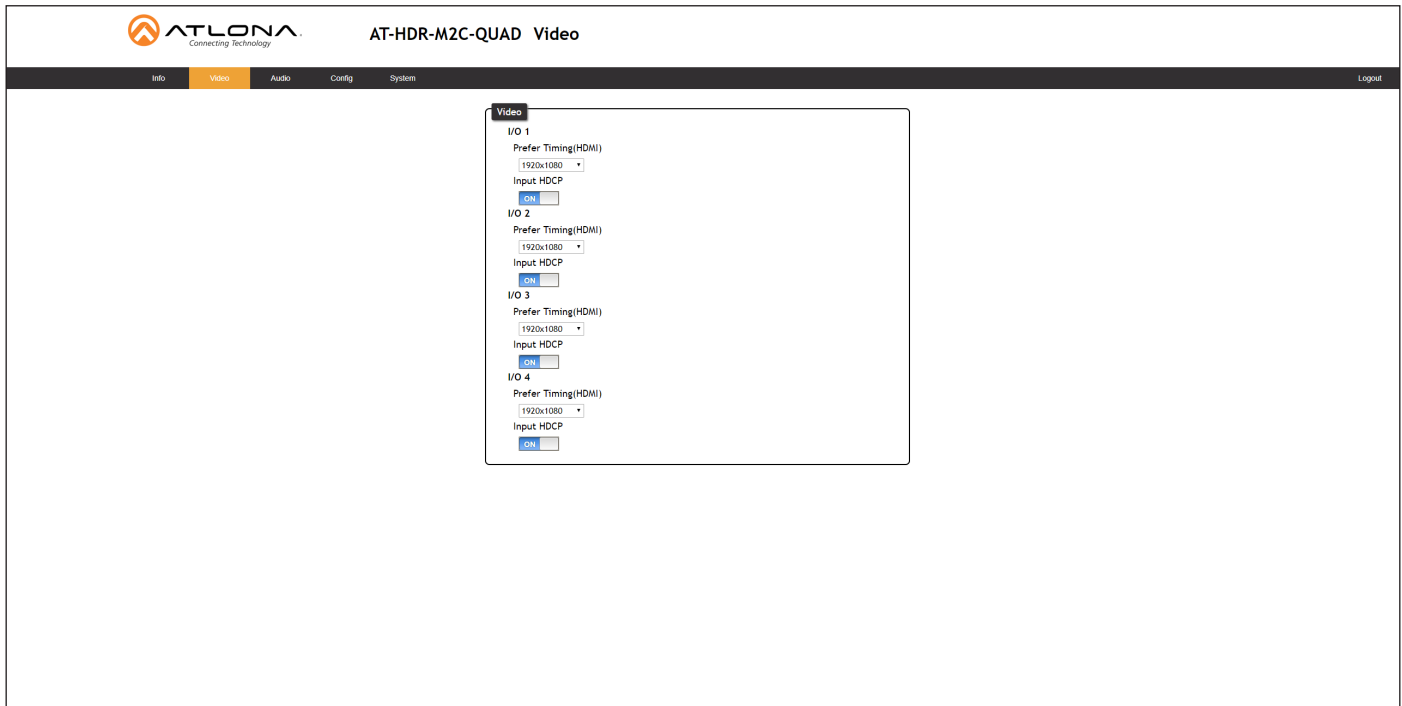
The sampling rate of the input audio signal, expressed in kilohertz (kHz).

Channels

The number of audio channels detected on the input signal.

Video page

The **Video** page allows the preferred input timing to be selected as well as setting the HDCP mode.



Video

Prefer Timing (HDMI)

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

Available Resolutions			
3840x2160@60Hz	1920x1200	1366x768	1024x768
3840x2160@30Hz	1920x1080	1280x800	800x600
2560x1440	1600x900	1280x720	Default - HDMI OUT

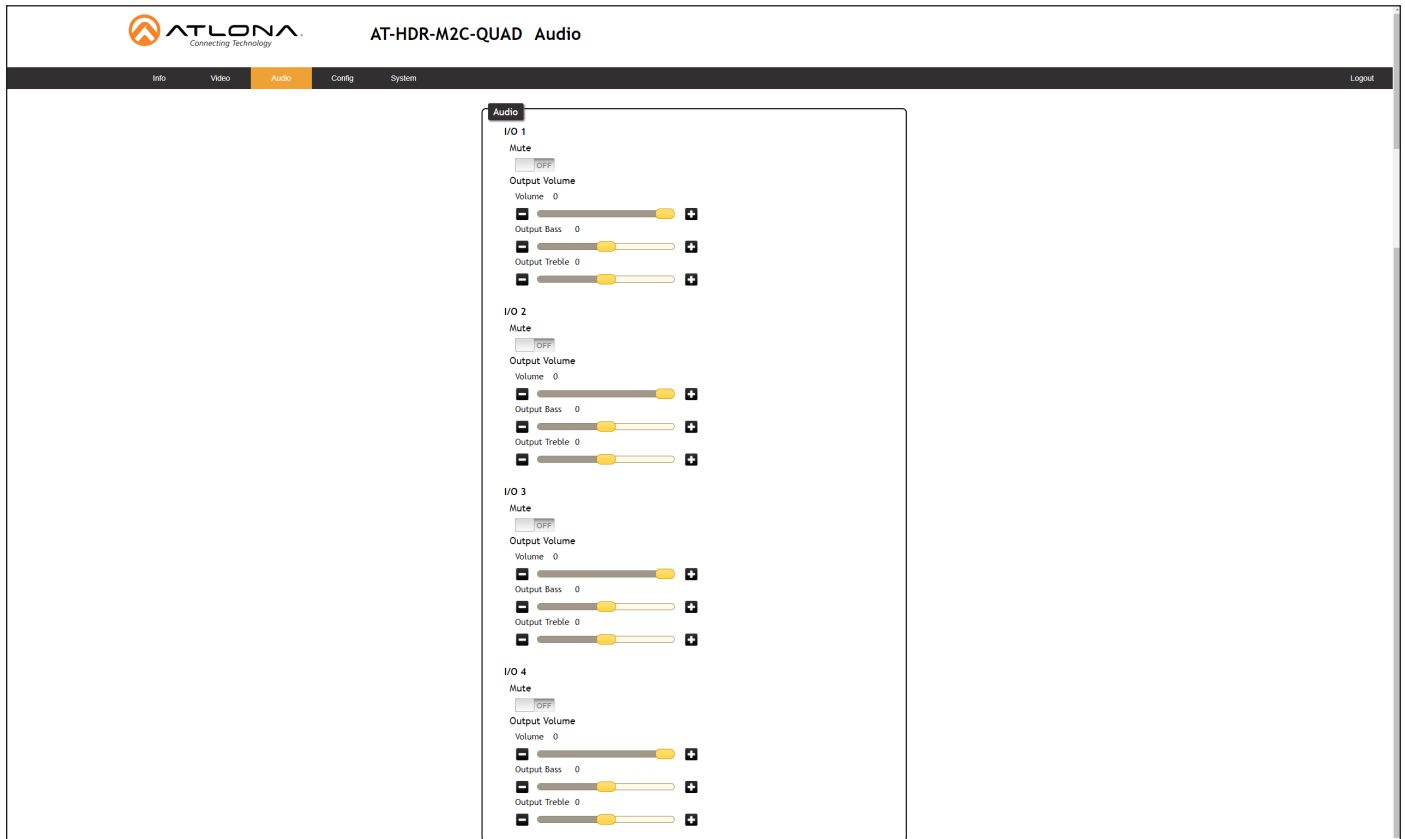
Input HDCP

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

The **Audio** page provides options to control the volume, muting, treble, and bass, for the analog and TOSLINK audio outputs. These controls do not affect the HDMI Out port.



I/O 1 - I/O 4

Mute

Click this toggle to the **OFF** position to mute the analog and TOSLINK outputs. HDMI outputs are not affected.

Volume

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

Output Bass

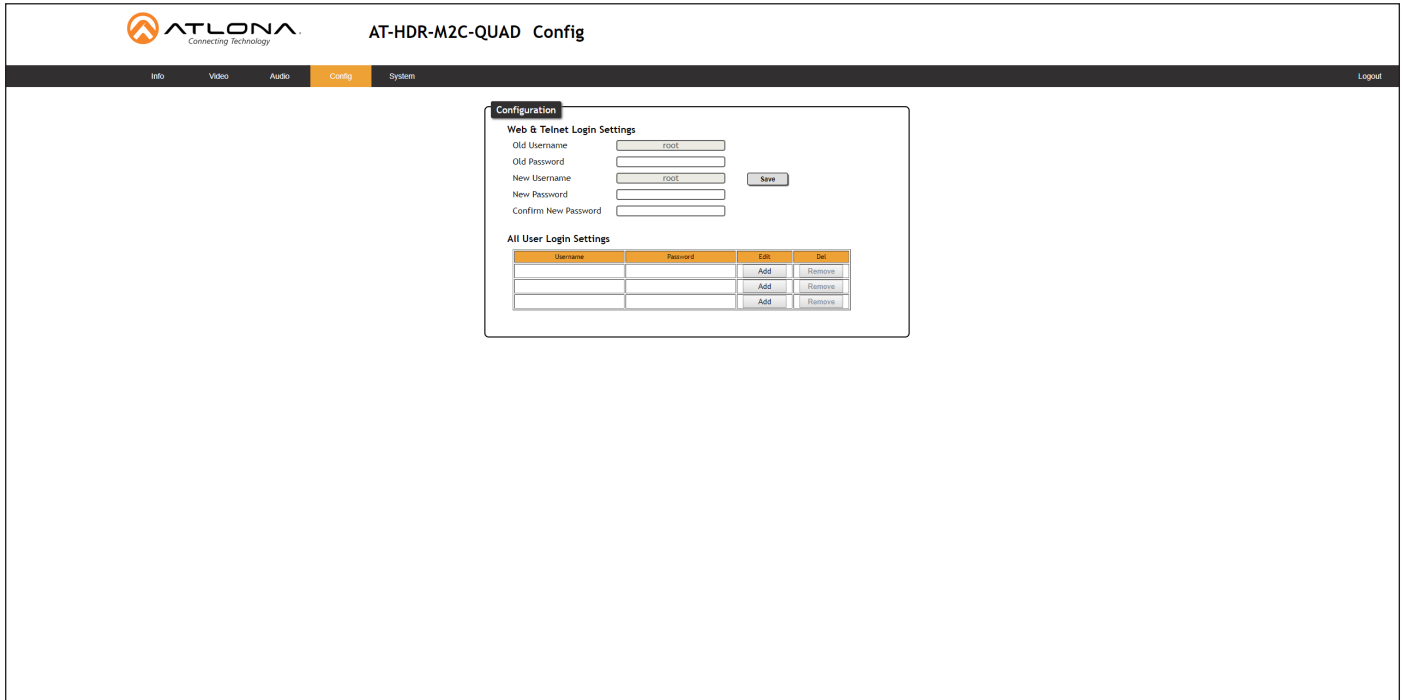
Click and drag this slider bar to adjust the bass on the analog and TOSLINK outputs. Range: -15 to 15.

Output Treble

Click and drag this slider bar to adjust the treble on the analog and TOSLINK outputs. Range: -15 to 15.

Config page

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



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

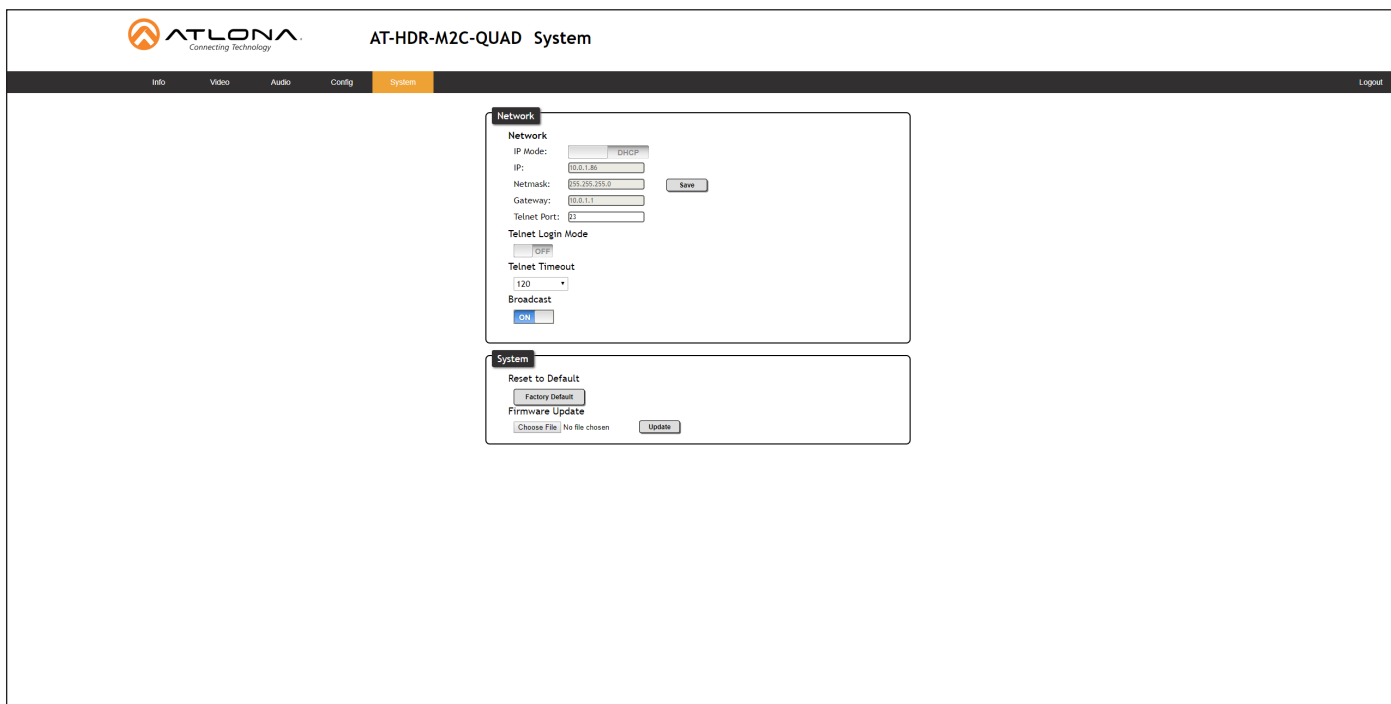
Click this button to save all changes.

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-QUAD. The **System** section provides controls for resetting the AT-HDR-M2C-QUAD to factory-default settings and updating the firmware.



Network

IP Mode

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

IP

Enter the IP address of the AT-HDR-M2C-QUAD 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-QUAD 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-QUAD 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 \(page 23\)](#) for more information on firmware updates.

Appendix

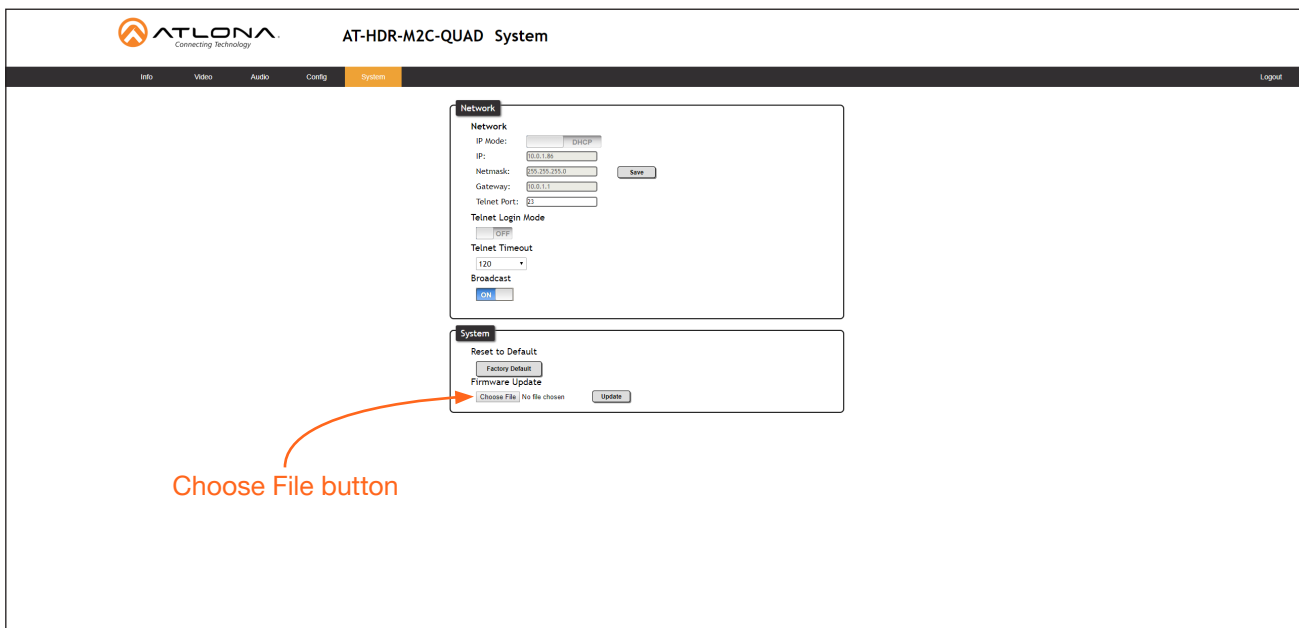
Updating the Firmware

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-QUAD firmware can be updated using a USB-A to USB mini-B cable.

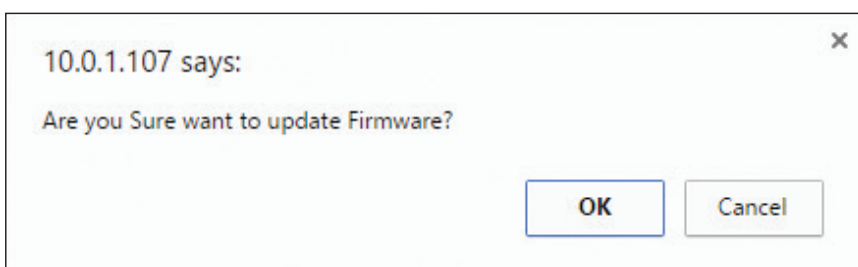
Using the Web GUI

Requirements

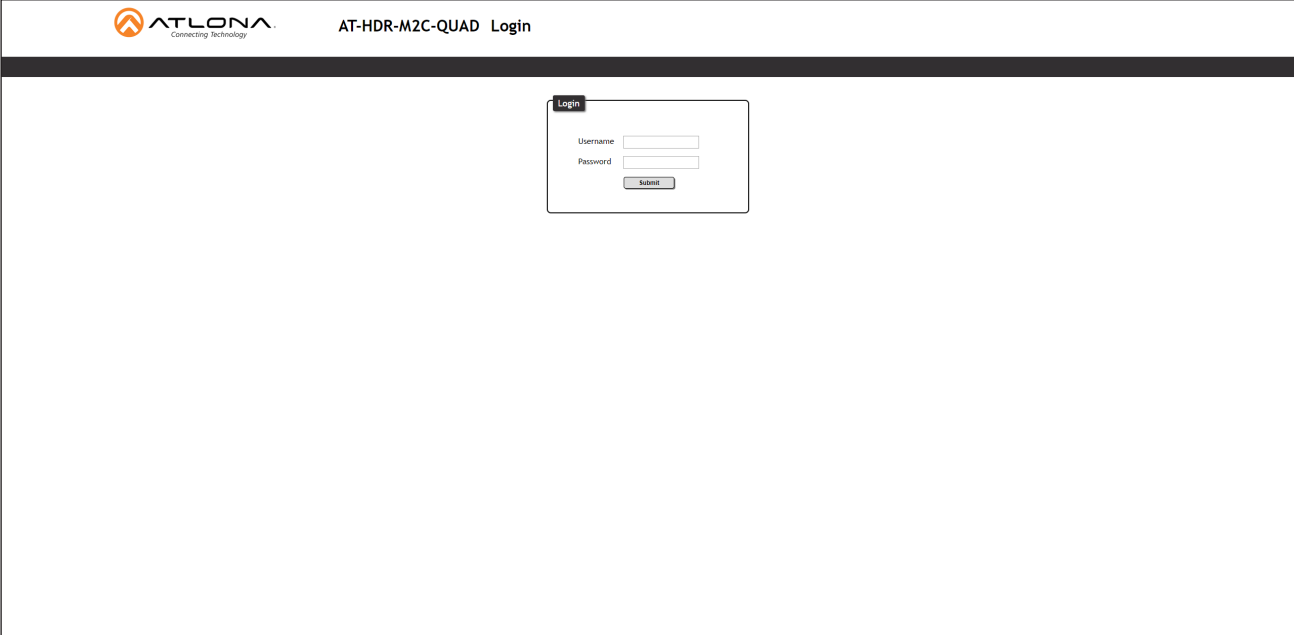
- AT-HDR-M2C-QUAD
 - Firmware file (.bin file)
 - Computer
1. Connect an Ethernet cable from the computer, containing the firmware, to the same network where the AT-HDR-M2C-QUAD is connected.
 2. Go to the **System** page (page 21) in the web GUI.



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-QUAD. During the update process, the **PWR** LED indicator will flash.
9. After the firmware update process is complete, the **Login** screen will be displayed.



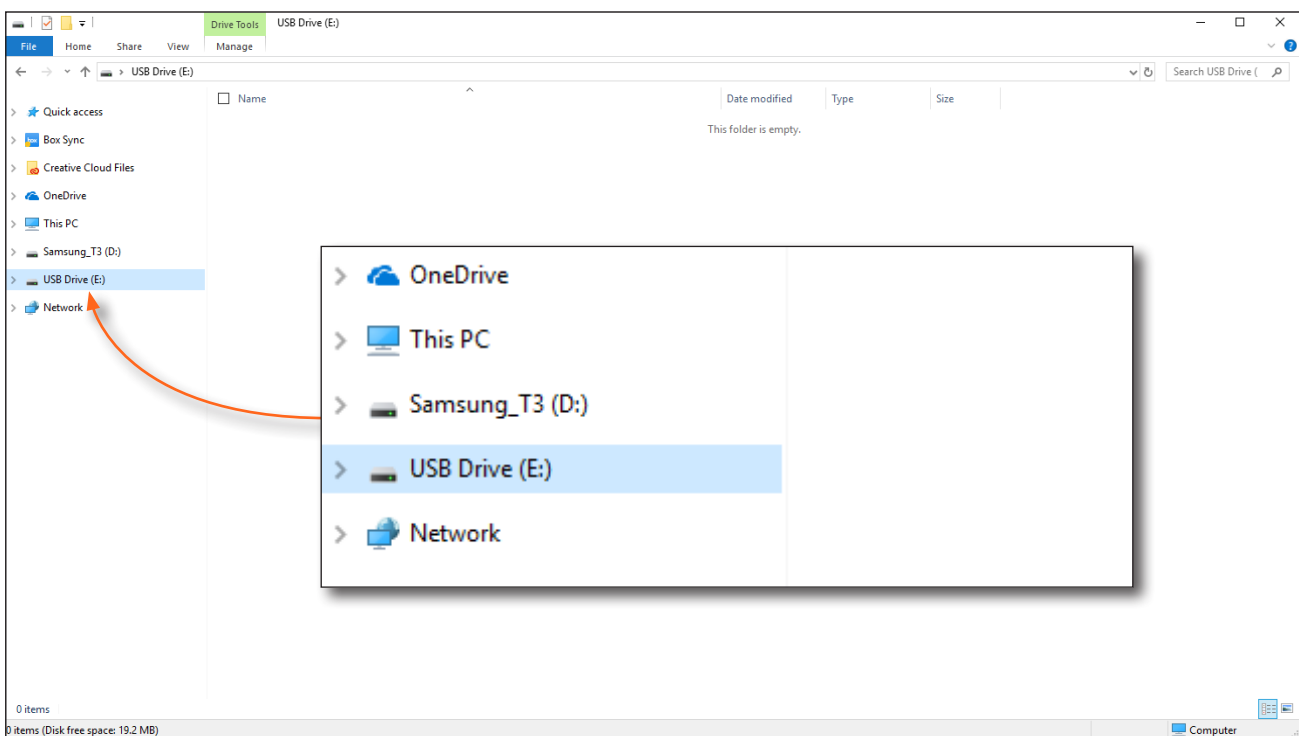
The screenshot displays the login interface for the AT-HDR-M2C-QUAD device. At the top left, the ATLONA logo is visible. To its right, the page title reads "AT-HDR-M2C-QUAD Login". The central part of the page features a "Login" form with two input fields: "Username" and "Password", followed by a "Submit" button.

Using USB

Requirements

- AT-HDR-M2C-QUAD
- Firmware file (.bin file)
- Computer
- USB-A to USB mini-B cable

1. Power-off the AT-HDR-M2C-QUAD.
2. Connect the USB-A to USB mini-B cable from the computer to the **FW** port on the rear panel of the AT-HDR-M2C-QUAD.
3. Power-on the AT-HDR-M2C-QUAD. After a few moments, a USB Drive folder will be displayed. If this folder is not displayed, automatically, select the USB UPDATE drive from Windows Explorer, as shown below.

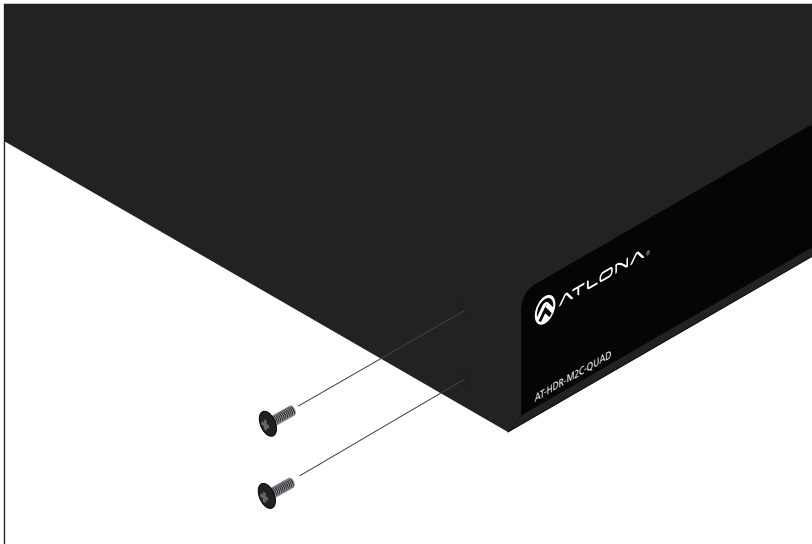


4. Delete all files from the USB Drive folder, if any are present.
5. Drag-and-drop the firmware file to the drive.
6. The RESET LED indicator, on the rear panel, will flash green during the update procedure. Wait for the LED to turn solid green.
7. The AT-HDR-M2C-QUAD will automatically reboot, completing the firmware update process.
8. Disconnect the USB cable from both the computer and the AT-HDR-M2C-QUAD.
9. The firmware update process is complete.

Mounting Instructions

The AT-HDR-M2C-QUAD includes two rack ears, which can be used to install the unit into a rack. Use the two enclosure screws, on the sides of the unit to attach the rack ears.

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



2. Position one of the rack ears, as shown below, aligning the holes on the side of the enclosure with one set of holes on the rack ear.
3. Use the screws from Step 1 to attach the rack ear.



4. Repeat Steps 1 through 3 to attach the second rack ear to the opposite side of the unit.
5. Install the assembly into a rack. Secure the unit to the rack using the oval-shaped holes, on each rack ear.


Default Settings

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

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 --- --- --- 23 OFF 120 ON

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

Internal EDID Data

The AT-HDR-M2C-QUAD comes with 11 pre-programmed EDID selections. The timing and audio summary (if applicable) for each EDID, is listed below. Raw data is also provided and can be used to view the full EDID structure.

EDID	Description
800x600	<p>Native/preferred timing 800x600p at 60Hz (16:9)</p> <p>Standard timings supported 720 x 400p at 70Hz - IBM VGA 640 x 480p at 60Hz - IBM VGA 800 x 600p at 60Hz - VESA 1024 x 768p at 60Hz - VESA 1280 x 1024p at 60Hz - VESA STD 1024 x 768p at 60Hz - VESA STD 800 x 600p at 60Hz - VESA STD 640 x 480p at 60Hz - VESA STD</p> <p>CE video identifiers (VICs) - timing/formats supported 1920 x 1080p at 60Hz - HDTV (16:9, 1:1) 1920 x 1080p at 30Hz - HDTV (16:9, 1:1) 1920 x 1080p at 24Hz - HDTV (16:9, 1:1) 1920 x 1080i at 60Hz - HDTV (16:9, 1:1) 1280 x 720p at 60Hz - HDTV (16:9, 1:1) [Native] 720 x 480p at 60Hz - EDTV (16:9, 32:27) 720 x 480p at 60Hz - EDTV (4:3, 8:9)</p> <p>CE audio data (formats supported) LPCM 8-channel, 16/20/24 bit depths at 32/44/48/88/96/176/192 kHz DTS 6-channel, 1536k max. bit rate at 32/44/48/88/96 kHz AC-3 6-channel, 640k max. bit rate at 32/44/48 kHz DTS-HD 2-channel, 16-bit at 192 kHz DTS-HD 8-channel, 16-bit at 192 kHz DD+ 8-channel at 32/44/48 kHz DVD-A 2-channel at 48/96/192 kHz DVD-A 8-channel at 48/96 kHz SACD 6-channel at 44 kHz AAC 6-channel, 448k max. bit rate at 32/44/48 kHz</p> <p>Raw data 00 FF FF FF FF FF FF 00 06 8C 11 20 00 00 00 01 15 01 03 80 10 09 78 0A EE 91 A3 54 4C 99 26 0F 50 54 A1 08 00 81 80 61 40 45 40 31 40 01 01 01 01 01 01 01 01 A0 0F 20 00 31 58 1C 20 28 80 14 00 A0 5A 00 00 00 1E 01 1D 00 72 51 D0 1E 20 6E 28 55 00 A0 5A 00 00 00 1E 00 00 00 FD 00 39 3F 1F 52 10 00 0A 20 20 20 20 20 20 00 00 00 FC 00 41 54 4C 20 31 30 38 30 50 20 32 43 48 01 83 02 03 37 C1 47 10 22 20 05 84 03 02 3E 0F 7F 07 3D 1F C0 15 07 50 59 40 01 5F 40 01 57 07 00 61 54 00 67 14 00 4D 02 00 35 07 38 67 03 0C 00 10 00 B8 2D E3 05 03 01 02 3A 80 18 71 38 2D 40 58 2C 45 00 A0 5A 00 00 00 1E 01 1D 80 18 71 1C 16 20 58 2C 25 00 A0 5A 00 00 00 9E 01 1D 00 72 51 D0 1E 20 6E 28 55 00 A0 5A 00 00 00 1E 8C 0A D0 8A 20 E0 2D 10 10 3E 96 00 A0 5A 00 00 00 18 05</p>

EDID	Description
1024x768	<p>Native/preferred timing 1024x768p at 60Hz (16:9)</p> <p>Standard timings supported 720 x 400p at 70Hz - IBM VGA 640 x 480p at 60Hz - IBM VGA 800 x 600p at 60Hz - VESA 1024 x 768p at 60Hz - VESA 1280 x 1024p at 60Hz - VESA STD 1024 x 768p at 60Hz - VESA STD 800 x 600p at 60Hz - VESA STD 640 x 480p at 60Hz - VESA STD</p> <p>CE video identifiers (VICs) - timing/formats supported 1920 x 1080p at 60Hz - HDTV (16:9, 1:1) 1920 x 1080p at 30Hz - HDTV (16:9, 1:1) 1920 x 1080p at 24Hz - HDTV (16:9, 1:1) 1920 x 1080i at 60Hz - HDTV (16:9, 1:1) 1280 x 720p at 60Hz - HDTV (16:9, 1:1) [Native] 720 x 480p at 60Hz - EDTV (16:9, 32:27) 720 x 480p at 60Hz - EDTV (4:3, 8:9)</p> <p>CE audio data (formats supported) LPCM 8-channel, 16/20/24 bit depths at 32/44/48/88/96/176/192 kHz DTS 6-channel, 1536k max. bit rate at 32/44/48/88/96 kHz AC-3 6-channel, 640k max. bit rate at 32/44/48 kHz DTS-HD 2-channel, 16-bit at 192 kHz DTS-HD 8-channel, 16-bit at 192 kHz DD+ 8-channel at 32/44/48 kHz DVD-A 2-channel at 48/96/192 kHz DVD-A 8-channel at 48/96 kHz SACD 6-channel at 44 kHz AAC 6-channel, 448k max. bit rate at 32/44/48 kHz</p> <p>Raw data 00 FF FF FF FF FF FF 00 06 8C 11 20 00 00 00 01 15 01 03 80 10 09 78 0A EE 91 A3 54 4C 99 26 0F 50 54 A1 08 00 81 80 61 40 45 40 31 40 01 01 01 01 01 01 01 01 64 19 00 40 41 00 26 30 18 88 36 00 A0 5A 00 00 00 1E 01 1D 00 72 51 D0 1E 20 6E 28 55 00 A0 5A 00 00 00 1E 00 00 00 FD 00 39 3F 1F 52 10 00 0A 20 20 20 20 20 00 00 00 FC 00 41 54 4C 20 31 30 38 30 50 20 32 43 48 01 A9 02 03 37 C1 47 10 22 20 05 84 03 02 3E 0F 7F 07 3D 1F C0 15 07 50 59 40 01 5F 40 01 57 07 00 61 54 00 67 14 00 4D 02 00 35 07 38 67 03 0C 00 10 00 B8 2D E3 05 03 01 02 3A 80 18 71 38 2D 40 58 2C 45 00 A0 5A 00 00 00 1E 01 1D 80 18 71 1C 16 20 58 2C 25 00 A0 5A 00 00 00 9E 01 1D 00 72 51 D0 1E 20 6E 28 55 00 A0 5A 00 00 00 1E 8C 0A D0 8A 20 E0 2D 10 10 3E 96 00 A0 5A 00 00 00 18 05</p>

EDID	Description
1280x720	<p>Native/preferred timing 1280x720p at 60Hz (16:9)</p> <p>Standard timings supported 720 x 400p at 70Hz - IBM VGA 640 x 480p at 60Hz - IBM VGA 800 x 600p at 60Hz - VESA 1024 x 768p at 60Hz - VESA 1280 x 1024p at 60Hz - VESA STD 1024 x 768p at 60Hz - VESA STD 800 x 600p at 60Hz - VESA STD 640 x 480p at 60Hz - VESA STD</p> <p>CE video identifiers (VICs) - timing/formats supported 1920 x 1080p at 60Hz - HDTV (16:9, 1:1) 1920 x 1080p at 30Hz - HDTV (16:9, 1:1) 1920 x 1080p at 24Hz - HDTV (16:9, 1:1) 1920 x 1080i at 60Hz - HDTV (16:9, 1:1) 1280 x 720p at 60Hz - HDTV (16:9, 1:1) [Native] 720 x 480p at 60Hz - EDTV (16:9, 32:27) 720 x 480p at 60Hz - EDTV (4:3, 8:9)</p> <p>CE audio data (formats supported) LPCM 8-channel, 16/20/24 bit depths at 32/44/48/88/96/176/192 kHz DTS 6-channel, 1536k max. bit rate at 32/44/48/88/96 kHz AC-3 6-channel, 640k max. bit rate at 32/44/48 kHz DTS-HD 2-channel, 16-bit at 192 kHz DTS-HD 8-channel, 16-bit at 192 kHz DD+ 8-channel at 32/44/48 kHz DVD-A 2-channel at 48/96/192 kHz DVD-A 8-channel at 48/96 kHz SACD 6-channel at 44 kHz AAC 6-channel, 448k max. bit rate at 32/44/48 kHz</p> <p>Raw data 00 FF FF FF FF FF FF 00 06 8C 11 20 00 00 00 01 15 01 03 80 10 09 78 0A EE 91 A3 54 4C 99 26 0F 50 54 A1 08 00 81 80 61 40 45 40 31 40 01 01 01 01 01 01 01 01 01 1D 00 72 51 D0 1E 20 6E 28 55 00 A0 5A 00 00 00 1E 00 00 00 FD 00 39 01 1D 00 72 51 D0 1E 20 6E 28 55 00 A0 5A 00 00 00 00 FC 00 41 54 4C 20 31 30 38 3F 1F 52 10 00 0A 20 20 20 20 20 00 00 00 00 00 00 00 00 41 54 4C 20 31 30 38 30 50 20 32 43 48 01 F9 02 03 37 C1 47 10 22 20 05 84 03 02 3E 0F 7F 07 3D 1F C0 15 07 50 59 40 01 5F 40 01 57 07 00 61 54 00 67 14 00 4D 02 00 35 07 38 67 03 0C 00 10 00 B8 2D E3 05 03 01 02 3A 80 18 71 38 2D 40 58 2C 45 00 A0 5A 00 00 00 1E 01 1D 80 18 71 1C 16 20 58 2C 25 00 A0 5A 00 00 00 9E 01 1D 00 72 51 D0 1E 20 6E 28 55 00 A0 5A 00 00 00 1E 8C 0A D0 8A 20 E0 2D 10 10 3E 96 00 A0 5A 00 00 00 18 05</p>

EDID	Description
1280x800	<p>Native/preferred timing 1280x800p at 60Hz (16:9)</p> <p>Standard timings supported 720 x 400p at 70Hz - IBM VGA 640 x 480p at 60Hz - IBM VGA 800 x 600p at 60Hz - VESA 1024 x 768p at 60Hz - VESA 1280 x 1024p at 60Hz - VESA STD 1024 x 768p at 60Hz - VESA STD 800 x 600p at 60Hz - VESA STD 640 x 480p at 60Hz - VESA STD</p> <p>CE video identifiers (VICs) - timing/formats supported 1920 x 1080p at 60Hz - HDTV (16:9, 1:1) 1920 x 1080p at 30Hz - HDTV (16:9, 1:1) 1920 x 1080p at 24Hz - HDTV (16:9, 1:1) 1920 x 1080i at 60Hz - HDTV (16:9, 1:1) 1280 x 720p at 60Hz - HDTV (16:9, 1:1) [Native] 720 x 480p at 60Hz - EDTV (16:9, 32:27) 720 x 480p at 60Hz - EDTV (4:3, 8:9)</p> <p>CE audio data (formats supported) LPCM 8-channel, 16/20/24 bit depths at 32/44/48/88/96/176/192 kHz DTS 6-channel, 1536k max. bit rate at 32/44/48/88/96 kHz AC-3 6-channel, 640k max. bit rate at 32/44/48 kHz DTS-HD 2-channel, 16-bit at 192 kHz DTS-HD 8-channel, 16-bit at 192 kHz DD+ 8-channel at 32/44/48 kHz DVD-A 2-channel at 48/96/192 kHz DVD-A 8-channel at 48/96 kHz SACD 6-channel at 44 kHz AAC 6-channel, 448k max. bit rate at 32/44/48 kHz</p> <p>Raw data 00 FF FF FF FF FF FF 00 06 8C 11 20 00 00 00 01 15 01 03 80 10 09 78 0A EE 91 A3 54 4C 99 26 0F 50 54 A1 08 00 81 80 61 40 45 40 31 40 01 01 01 01 01 01 01 01 9E 20 00 90 51 20 1F 30 48 80 36 00 A0 5A 00 00 00 1E 01 1D 00 72 51 D0 1E 20 6E 28 55 00 A0 5A 00 00 00 1E 00 00 00 FD 00 39 3F 1F 52 10 00 0A 20 20 20 20 20 00 00 00 FC 00 41 54 4C 20 31 30 38 30 50 20 32 43 48 01 C7 02 03 37 C1 47 10 22 20 05 84 03 02 3E 0F 7F 07 3D 1F C0 15 07 50 59 40 01 5F 40 01 57 07 00 61 54 00 67 14 00 4D 02 00 35 07 38 67 03 0C 00 10 00 B8 2D E3 05 03 01 02 3A 80 18 71 38 2D 40 58 2C 45 00 A0 5A 00 00 00 1E 01 1D 80 18 71 1C 16 20 58 2C 25 00 A0 5A 00 00 00 9E 01 1D 00 72 51 D0 1E 20 6E 28 55 00 A0 5A 00 00 00 1E 8C 0A D0 8A 20 E0 2D 10 10 3E 96 00 A0 5A 00 00 00 18 05</p>

EDID	Description
1366x768	<p>Native/preferred timing 1366x768p at 60Hz (16:9)</p> <p>Standard timings supported 720 x 400p at 70Hz - IBM VGA 640 x 480p at 60Hz - IBM VGA 800 x 600p at 60Hz - VESA 1024 x 768p at 60Hz - VESA 1280 x 1024p at 60Hz - VESA STD 1024 x 768p at 60Hz - VESA STD 800 x 600p at 60Hz - VESA STD 640 x 480p at 60Hz - VESA STD</p> <p>CE video identifiers (VICs) - timing/formats supported 1920 x 1080p at 60Hz - HDTV (16:9, 1:1) 1920 x 1080p at 30Hz - HDTV (16:9, 1:1) 1920 x 1080p at 24Hz - HDTV (16:9, 1:1) 1920 x 1080i at 60Hz - HDTV (16:9, 1:1) 1280 x 720p at 60Hz - HDTV (16:9, 1:1) [Native] 720 x 480p at 60Hz - EDTV (16:9, 32:27) 720 x 480p at 60Hz - EDTV (4:3, 8:9)</p> <p>CE audio data (formats supported) LPCM 8-channel, 16/20/24 bit depths at 32/44/48/88/96/176/192 kHz DTS 6-channel, 1536k max. bit rate at 32/44/48/88/96 kHz AC-3 6-channel, 640k max. bit rate at 32/44/48 kHz DTS-HD 2-channel, 16-bit at 192 kHz DTS-HD 8-channel, 16-bit at 192 kHz DD+ 8-channel at 32/44/48 kHz DVD-A 2-channel at 48/96/192 kHz DVD-A 8-channel at 48/96 kHz SACD 6-channel at 44 kHz AAC 6-channel, 448k max. bit rate at 32/44/48 kHz</p> <p>Raw data 00 FF FF FF FF FF FF 00 06 8C 11 20 00 00 00 01 15 01 03 80 10 09 78 0A EE 91 A3 54 4C 99 26 0F 50 54 A1 08 00 81 80 61 40 45 40 31 40 01 01 01 01 01 01 01 01 66 21 56 AA 51 00 1E 30 46 8F 33 00 A0 5A 00 00 00 1E 01 1D 00 72 51 D0 1E 20 6E 28 55 00 A0 5A 00 00 00 1E 00 00 00 FD 00 39 3F 1F 52 10 00 0A 20 20 20 20 20 00 00 00 FC 00 41 54 4C 20 31 30 38 30 50 20 32 43 48 01 A5 02 03 37 C1 47 10 22 20 05 84 03 02 3E 0F 7F 07 3D 1F C0 15 07 50 59 40 01 5F 40 01 57 07 00 61 54 00 67 14 00 4D 02 00 35 07 38 67 03 0C 00 10 00 B8 2D E3 05 03 01 02 3A 80 18 71 38 2D 40 58 2C 45 00 A0 5A 00 00 00 1E 01 1D 80 18 71 1C 16 20 58 2C 25 00 A0 5A 00 00 00 9E 01 1D 00 72 51 D0 1E 20 6E 28 55 00 A0 5A 00 00 00 1E 8C 0A D0 8A 20 E0 2D 10 10 3E 96 00 A0 5A 00 00 00 18 05</p>

EDID	Description
1600x900	<p>Native/preferred timing 1600x900p at 60Hz (16:9)</p> <p>Standard timings supported 720 x 400p at 70Hz - IBM VGA 640 x 480p at 60Hz - IBM VGA 800 x 600p at 60Hz - VESA 1024 x 768p at 60Hz - VESA 1280 x 1024p at 60Hz - VESA STD 1024 x 768p at 60Hz - VESA STD 800 x 600p at 60Hz - VESA STD 640 x 480p at 60Hz - VESA STD</p> <p>CE video identifiers (VICs) - timing/formats supported 1920 x 1080p at 60Hz - HDTV (16:9, 1:1) 1920 x 1080p at 30Hz - HDTV (16:9, 1:1) 1920 x 1080p at 24Hz - HDTV (16:9, 1:1) 1920 x 1080i at 60Hz - HDTV (16:9, 1:1) 1280 x 720p at 60Hz - HDTV (16:9, 1:1) [Native] 720 x 480p at 60Hz - EDTV (16:9, 32:27) 720 x 480p at 60Hz - EDTV (4:3, 8:9)</p> <p>CE audio data (formats supported) LPCM 8-channel, 16/20/24 bit depths at 32/44/48/88/96/176/192 kHz DTS 6-channel, 1536k max. bit rate at 32/44/48/88/96 kHz AC-3 6-channel, 640k max. bit rate at 32/44/48 kHz DTS-HD 2-channel, 16-bit at 192 kHz DTS-HD 8-channel, 16-bit at 192 kHz DD+ 8-channel at 32/44/48 kHz DVD-A 2-channel at 48/96/192 kHz DVD-A 8-channel at 48/96 kHz SACD 6-channel at 44 kHz AAC 6-channel, 448k max. bit rate at 32/44/48 kHz</p> <p>Raw data 00 FF FF FF FF FF FF 00 06 8C 11 20 00 00 00 01 15 01 03 80 10 09 78 0A EE 91 A3 54 4C 99 26 0F 50 54 A1 08 00 81 80 61 40 45 40 31 40 01 01 01 01 01 01 01 01 31 2E 40 00 62 84 22 30 58 A8 35 00 A0 5A 00 00 00 1E 01 1D 00 72 51 D0 1E 20 6E 28 55 00 A0 5A 00 00 00 1E 00 00 00 FD 00 39 3F 1F 52 10 00 0A 20 20 20 20 20 00 00 00 FC 00 41 54 4C 20 31 30 38 30 50 20 32 43 48 01 C7 02 03 37 C1 47 10 22 20 05 84 03 02 3E 0F 7F 07 3D 1F C0 15 07 50 59 40 01 5F 40 01 57 07 00 61 54 00 67 14 00 4D 02 00 35 07 38 67 03 0C 00 10 00 B8 2D E3 05 03 01 02 3A 80 18 71 38 2D 40 58 2C 45 00 A0 5A 00 00 00 1E 01 1D 80 18 71 1C 16 20 58 2C 25 00 A0 5A 00 00 00 9E 01 1D 00 72 51 D0 1E 20 6E 28 55 00 A0 5A 00 00 00 1E 8C 0A D0 8A 20 E0 2D 10 10 3E 96 00 A0 5A 00 00 00 18 05</p>

EDID	Description
1920x1080	<p>Native/preferred timing 1920x1080p at 60Hz (16:9)</p> <p>Standard timings supported 720 x 400p at 70Hz - IBM VGA 640 x 480p at 60Hz - IBM VGA 800 x 600p at 60Hz - VESA 1024 x 768p at 60Hz - VESA 1280 x 1024p at 60Hz - VESA STD 1024 x 768p at 60Hz - VESA STD 800 x 600p at 60Hz - VESA STD 640 x 480p at 60Hz - VESA STD</p> <p>CE video identifiers (VICs) - timing/formats supported 1920 x 1080p at 60Hz - HDTV (16:9, 1:1) 1920 x 1080p at 30Hz - HDTV (16:9, 1:1) 1920 x 1080p at 24Hz - HDTV (16:9, 1:1) 1920 x 1080i at 60Hz - HDTV (16:9, 1:1) 1280 x 720p at 60Hz - HDTV (16:9, 1:1) [Native] 720 x 480p at 60Hz - EDTV (16:9, 32:27) 720 x 480p at 60Hz - EDTV (4:3, 8:9)</p> <p>CE audio data (formats supported) LPCM 8-channel, 16/20/24 bit depths at 32/44/48/88/96/176/192 kHz DTS 6-channel, 1536k max. bit rate at 32/44/48/88/96 kHz AC-3 6-channel, 640k max. bit rate at 32/44/48 kHz DTS-HD 2-channel, 16-bit at 192 kHz DTS-HD 8-channel, 16-bit at 192 kHz DD+ 8-channel at 32/44/48 kHz DVD-A 2-channel at 48/96/192 kHz DVD-A 8-channel at 48/96 kHz SACD 6-channel at 44 kHz AAC 6-channel, 448k max. bit rate at 32/44/48 kHz</p> <p>Raw data 00 FF FF FF FF FF FF 00 06 8C 11 20 00 00 00 01 15 01 03 80 10 09 78 0A EE 91 A3 54 4C 99 26 0F 50 54 A1 08 00 81 80 61 40 45 40 31 40 01 01 01 01 01 01 01 01 02 3A 80 18 71 38 2D 40 58 2C 45 00 A0 5A 00 00 00 1E 01 1D 00 72 51 D0 1E 20 6E 28 55 00 A0 5A 00 00 00 1E 00 00 00 FD 00 39 3F 1F 52 10 00 0A 20 20 20 20 20 00 00 00 FC 00 41 54 4C 20 31 30 38 30 50 20 32 43 48 01 20 02 03 37 C1 47 10 22 20 05 84 03 02 3E 0F 7F 07 3D 1F C0 15 07 50 59 40 01 5F 40 01 57 07 00 61 54 00 67 14 00 4D 02 00 35 07 38 67 03 0C 00 10 00 B8 2D E3 05 03 01 02 3A 80 18 71 38 2D 40 58 2C 45 00 A0 5A 00 00 00 1E 01 1D 80 18 71 1C 16 20 58 2C 25 00 A0 5A 00 00 00 9E 01 1D 00 72 51 D0 1E 20 6E 28 55 00 A0 5A 00 00 00 1E 8C 0A D0 8A 20 E0 2D 10 10 3E 96 00 A0 5A 00 00 00 18 05</p>

EDID	Description
1920x1200	<p>Native/preferred timing 1920x1200p at 29Hz (16:9)</p> <p>Standard timings supported 720 x 400p at 70Hz - IBM VGA 640 x 480p at 60Hz - IBM VGA 800 x 600p at 60Hz - VESA 1024 x 768p at 60Hz - VESA 1280 x 1024p at 60Hz - VESA STD 1024 x 768p at 60Hz - VESA STD 800 x 600p at 60Hz - VESA STD 640 x 480p at 60Hz - VESA STD</p> <p>CE video identifiers (VICs) - timing/formats supported 1920 x 1080p at 60Hz - HDTV (16:9, 1:1) 1920 x 1080p at 30Hz - HDTV (16:9, 1:1) 1920 x 1080p at 24Hz - HDTV (16:9, 1:1) 1920 x 1080i at 60Hz - HDTV (16:9, 1:1) 1280 x 720p at 60Hz - HDTV (16:9, 1:1) [Native] 720 x 480p at 60Hz - EDTV (16:9, 32:27) 720 x 480p at 60Hz - EDTV (4:3, 8:9)</p> <p>CE audio data (formats supported) LPCM 8-channel, 16/20/24 bit depths at 32/44/48/88/96/176/192 kHz DTS 6-channel, 1536k max. bit rate at 32/44/48/88/96 kHz AC-3 6-channel, 640k max. bit rate at 32/44/48 kHz DTS-HD 2-channel, 16-bit at 192 kHz DTS-HD 8-channel, 16-bit at 192 kHz DD+ 8-channel at 32/44/48 kHz DVD-A 2-channel at 48/96/192 kHz DVD-A 8-channel at 48/96 kHz SACD 6-channel at 44 kHz AAC 6-channel, 448k max. bit rate at 32/44/48 kHz</p> <p>Raw data 00 FF FF FF FF FF FF 00 06 8C 11 20 00 00 00 01 15 01 03 80 10 09 78 0A EE 91 A3 54 4C 99 26 0F 50 54 A1 08 00 81 80 61 40 45 40 31 40 01 01 01 01 01 01 01 01 EC 1C 80 A0 70 B0 23 40 30 20 36 00 A0 5A 00 00 00 1E 01 1D 00 72 51 D0 1E 20 6E 28 55 00 A0 5A 00 00 00 1E 00 00 00 FD 00 39 3F 1F 52 10 00 0A 20 20 20 20 20 00 00 00 FC 00 41 54 4C 20 31 30 38 30 50 20 32 43 48 01 A2 02 03 37 C1 47 10 22 20 05 84 03 02 3E 0F 7F 07 3D 1F C0 15 07 50 59 40 01 5F 40 01 57 07 00 61 54 00 67 14 00 4D 02 00 35 07 38 67 03 0C 00 10 00 B8 2D E3 05 03 01 02 3A 80 18 71 38 2D 40 58 2C 45 00 A0 5A 00 00 00 1E 01 1D 80 18 71 1C 16 20 58 2C 25 00 A0 5A 00 00 00 9E 01 1D 00 72 51 D0 1E 20 6E 28 55 00 A0 5A 00 00 00 1E 8C 0A D0 8A 20 E0 2D 10 10 3E 96 00 A0 5A 00 00 00 18 05</p>

EDID	Description
2560x1440	<p>Native/preferred timing 2560x1440p at 29Hz (16:9)</p> <p>Standard timings supported 720 x 400p at 70Hz - IBM VGA 640 x 480p at 60Hz - IBM VGA 800 x 600p at 60Hz - VESA 1024 x 768p at 60Hz - VESA 1280 x 1024p at 60Hz - VESA STD 1024 x 768p at 60Hz - VESA STD 800 x 600p at 60Hz - VESA STD 640 x 480p at 60Hz - VESA STD</p> <p>CE video identifiers (VICs) - timing/formats supported 1920 x 1080p at 60Hz - HDTV (16:9, 1:1) 1920 x 1080p at 30Hz - HDTV (16:9, 1:1) 1920 x 1080p at 24Hz - HDTV (16:9, 1:1) 1920 x 1080i at 60Hz - HDTV (16:9, 1:1) 1280 x 720p at 60Hz - HDTV (16:9, 1:1) [Native] 720 x 480p at 60Hz - EDTV (16:9, 32:27) 720 x 480p at 60Hz - EDTV (4:3, 8:9)</p> <p>CE audio data (formats supported) LPCM 8-channel, 16/20/24 bit depths at 32/44/48/88/96/176/192 kHz DTS 6-channel, 1536k max. bit rate at 32/44/48/88/96 kHz AC-3 6-channel, 640k max. bit rate at 32/44/48 kHz DTS-HD 2-channel, 16-bit at 192 kHz DTS-HD 8-channel, 16-bit at 192 kHz DD+ 8-channel at 32/44/48 kHz DVD-A 2-channel at 48/96/192 kHz DVD-A 8-channel at 48/96 kHz SACD 6-channel at 44 kHz AAC 6-channel, 448k max. bit rate at 32/44/48 kHz</p> <p>Raw data 00 FF FF FF FF FF FF 00 06 8C 11 20 00 00 00 01 15 01 03 80 10 09 78 0A EE 91 A3 54 4C 99 26 0F 50 54 A1 08 00 81 80 61 40 45 40 31 40 01 01 01 01 01 01 01 01 56 5E 00 A0 A0 A0 29 50 30 20 35 00 A0 5A 00 00 00 1E 01 1D 00 72 51 D0 1E 20 6E 28 55 00 A0 5A 00 00 00 1E 00 00 00 FD 00 39 3F 1F 52 10 00 0A 20 20 20 20 20 00 00 00 FC 00 41 54 4C 20 31 30 38 30 50 20 32 43 48 01 41 02 03 37 C1 47 10 22 20 05 84 03 02 3E 0F 7F 07 3D 1F C0 15 07 50 59 40 01 5F 40 01 57 07 00 61 54 00 67 14 00 4D 02 00 35 07 38 67 03 0C 00 10 00 B8 2D E3 05 03 01 02 3A 80 18 71 38 2D 40 58 2C 45 00 A0 5A 00 00 00 1E 01 1D 80 18 71 1C 16 20 58 2C 25 00 A0 5A 00 00 00 9E 01 1D 00 72 51 D0 1E 20 6E 28 55 00 A0 5A 00 00 00 1E 8C 0A D0 8A 20 E0 2D 10 10 3E 96 00 A0 5A 00 00 00 18 05</p>

EDID	Description
3840x2160	<p>Native/preferred timing 3840x2160p at 30Hz (16:9)</p> <p>Standard timings supported 720 x 400p at 70Hz - IBM VGA 640 x 480p at 60Hz - IBM VGA 800 x 600p at 60Hz - VESA 1024 x 768p at 60Hz - VESA 1280 x 1024p at 60Hz - VESA STD 1024 x 768p at 60Hz - VESA STD 800 x 600p at 60Hz - VESA STD 640 x 480p at 60Hz - VESA STD</p> <p>CE video identifiers (VICs) - timing/formats supported 1920 x 1080p at 60Hz - HDTV (16:9, 1:1) 1920 x 1080p at 30Hz - HDTV (16:9, 1:1) 1920 x 1080p at 24Hz - HDTV (16:9, 1:1) 1920 x 1080i at 60Hz - HDTV (16:9, 1:1) 1280 x 720p at 60Hz - HDTV (16:9, 1:1) [Native] 720 x 480p at 60Hz - EDTV (16:9, 32:27) 720 x 480p at 60Hz - EDTV (4:3, 8:9)</p> <p>CE audio data (formats supported) LPCM 8-channel, 16/20/24 bit depths at 32/44/48/88/96/176/192 kHz DTS 6-channel, 1536k max. bit rate at 32/44/48/88/96 kHz AC-3 6-channel, 640k max. bit rate at 32/44/48 kHz DTS-HD 2-channel, 16-bit at 192 kHz DTS-HD 8-channel, 16-bit at 192 kHz DD+ 8-channel at 32/44/48 kHz DVD-A 2-channel at 48/96/192 kHz DVD-A 8-channel at 48/96 kHz SACD 6-channel at 44 kHz AAC 6-channel, 448k max. bit rate at 32/44/48 kHz</p> <p>Raw data 00 FF FF FF FF FF FF 00 06 8C 11 20 00 00 00 01 15 01 03 80 10 09 78 0A EE 91 A3 54 4C 99 26 0F 50 54 A1 08 00 81 80 61 40 45 40 31 40 01 01 01 01 01 01 01 01 04 74 00 30 F2 70 5A 80 B0 58 8A 00 A0 5A 00 00 00 1A 01 1D 00 72 51 D0 1E 20 6E 28 55 00 A0 5A 00 00 00 1E 00 00 00 FD 00 39 3F 1F 52 10 00 0A 20 20 20 20 20 00 00 00 FC 00 41 54 4C 20 31 30 38 30 50 20 32 43 48 01 61 02 03 37 C1 47 10 22 20 05 84 03 02 3E 0F 7F 07 3D 1F C0 15 07 50 59 40 01 5F 40 01 57 07 00 61 54 00 67 14 00 4D 02 00 35 07 38 67 03 0C 00 10 00 B8 2D E3 05 03 01 02 3A 80 18 71 38 2D 40 58 2C 45 00 A0 5A 00 00 00 1E 01 1D 80 18 71 1C 16 20 58 2C 25 00 A0 5A 00 00 00 9E 01 1D 00 72 51 D0 1E 20 6E 28 55 00 A0 5A 00 00 00 1E 8C 0A D0 8A 20 E0 2D 10 10 3E 96 00 A0 5A 00 00 00 18 05</p>

EDID	Description
3840x2160	<p>Native/preferred timing 3840x2160p at 60Hz (16:9)</p> <p>Standard timings supported 720 x 400p at 70Hz - IBM VGA 640 x 480p at 60Hz - IBM VGA 800 x 600p at 60Hz - VESA 1024 x 768p at 60Hz - VESA 1280 x 1024p at 60Hz - VESA STD 1024 x 768p at 60Hz - VESA STD 800 x 600p at 60Hz - VESA STD 640 x 480p at 60Hz - VESA STD</p> <p>CE video identifiers (VICs) - timing/formats supported 1920 x 1080p at 60Hz - HDTV (16:9, 1:1) 1920 x 1080p at 30Hz - HDTV (16:9, 1:1) 1920 x 1080p at 24Hz - HDTV (16:9, 1:1) 1920 x 1080i at 60Hz - HDTV (16:9, 1:1) 1280 x 720p at 60Hz - HDTV (16:9, 1:1) [Native] 720 x 480p at 60Hz - EDTV (16:9, 32:27) 720 x 480p at 60Hz - EDTV (4:3, 8:9)</p> <p>CE audio data (formats supported) LPCM 8-channel, 16/20/24 bit depths at 32/44/48/88/96/176/192 kHz DTS 6-channel, 1536k max. bit rate at 32/44/48/88/96 kHz AC-3 6-channel, 640k max. bit rate at 32/44/48 kHz DTS-HD 2-channel, 16-bit at 192 kHz DTS-HD 8-channel, 16-bit at 192 kHz DD+ 8-channel at 32/44/48 kHz DVD-A 2-channel at 48/96/192 kHz DVD-A 8-channel at 48/96 kHz SACD 6-channel at 44 kHz AAC 6-channel, 448k max. bit rate at 32/44/48 kHz</p> <p>Raw data 00 FF FF FF FF FF FF 00 06 8C 11 20 00 00 00 01 15 01 03 80 10 09 78 0A EE 91 A3 54 4C 99 26 0F 50 54 A1 08 00 81 80 61 40 45 40 31 40 01 01 01 01 01 01 01 01 08 E8 00 30 F2 70 5A 80 B0 58 8A 00 BA 88 21 00 00 1E 01 1D 00 72 51 D0 1E 20 6E 28 55 00 A0 5A 00 00 00 1E 00 00 00 FD 00 39 3F 1F 52 10 00 0A 20 20 20 20 20 00 00 00 FC 00 41 54 4C 20 31 30 38 30 50 20 32 43 48 01 7C 02 03 37 C1 47 10 22 20 05 84 03 02 3E 0F 7F 07 3D 1F C0 15 07 50 59 40 01 5F 40 01 57 07 00 61 54 00 67 14 00 4D 02 00 35 07 38 67 03 0C 00 10 00 B8 2D E3 05 03 01 02 3A 80 18 71 38 2D 40 58 2C 45 00 A0 5A 00 00 00 1E 01 1D 80 18 71 1C 16 20 58 2C 25 00 A0 5A 00 00 00 9E 01 1D 00 72 51 D0 1E 20 6E 28 55 00 A0 5A 00 00 00 1E 8C 0A D0 8A 20 E0 2D 10 10 3E 96 00 A0 5A 00 00 00 18 05</p>

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	
HDMI IN / HDBaseT IN	PCM 2Ch, LPCM 5.1, LPCM 7.1, Dolby® Digital, DTS® 5.1, Dolby Digital Plus™, Dolby TrueHD, DTS-HD Master Audio™, Dolby Atmos®, DTS:X™
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 / 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
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

Weight	Pounds	Kilograms
Device	7.15	3.24

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

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