

AJA IPR-10G-HDMI – Release Notes v2.1

Firmware for IPR-10G-HDMI v2.1

Introduction

This is the third release of firmware specifically for IPR-10G-HDMI (version 2.1)

Features, Updates and Improvements in v2.1

- Added NMOS registry status information to web status display.
- Added Ref Input Format to web status display.
- Automatically switch Input Stream Selection to NMOS/Ember+ on connection change.
- Changed NMOS to use DNS-SD and MDNS priorities.
- Fixed bug with DHCP Client where it would sometimes not obtain an IP address.
- Fixed an issue where enabling Spanning Tree Protocol on the media network would cause the video to break up.
- Fixed NMOS IS-05 connection management issues with some clients.
- Fixed bug in PTP master mode.
- Fixed a field inversion issue with Interlaced video formats.

Features, Updates and Improvements in Previous Releases

Version 1.1

- Added support for UltraHD 23.976p, 24p, 25p, 29.97p, 30p at 10-bit, 4:2:2.
- Added support for NMOS (discovery, registration and control).
- Added support for Ember Plus (control only, discovery and registration are handled manually).
- PTP optimizations.

Version 1.0

- Initial Firmware release for IPR-10G-HDMI.

- SMPTE ST 2110 IP Video and Audio to HDMI Converter.
- Quiet, rugged, fanless, compact design.
- Essence support: SMPTE ST 2110-10, 2110-20, 2110-21, 2110-30.
- AJA REST API for Control.
- 1x 1 GigE RJ45 socket (with status light) for network (LAN) control and status.
- 1x USB 2.0 Mini-B Interface.
- 1x SFP+ Cage for 10 GigE Ethernet media, control, and timing input (SFP+ module not included).
- Full size HDMI 1.4b video output: Deep Color 30-bit video per pixel (24-bit also supported).
- HDMI video output capabilities up to 1920x1080 60p, YCbCr 4:2:2, or RGB 4:4:4.
- Full 10-bit pixel processing pipeline.
- Embedded HDMI audio support up to 8-channel output.
- Analog audio support Up to 2-channel output.
- Built in web server for full remote control and configuration (Control Port or Media Ports).
- Quick network setup with AJA eMini-Setup software v1.3 onwards (via USB):
<https://www.aja.com/family/software#eminisetup>
- For additional information, please refer to the IPR-10G-HDMI section of the AJA website:
<https://www.aja.com/products/mini-converters/ipr-10g-hdmi>
<https://www.aja.com/products/mini-converters/ip-converters>

Initial Setup, Control and Updating Firmware

Note: Please see the combined manual for all ST 2110 Transmitters and Receivers “10 GigE IP Mini-Converters” for further details.

There are two methods available for initial setup and updating firmware for IPR-10G-HDMI:

- Web Browser on host computer connected to the same network as the IPR-10G-HDMI
- AJA eMini-Setup application running on host computer directly connected to IPR-10G-HDMI via USB

Web Browser – Configuration, Control and Updates

Note: Please see the combined manual for all ST 2110 Transmitters and Receivers “10 GigE IP Mini-Converters” for further details.

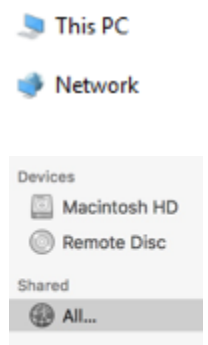
Note: Safari is the preferred web browser for control on the Mac, and additionally Chrome and Firefox on Windows. Other web browsers may work, but AJA cannot guarantee consistent operation for all web browsers or web browser versions.

IPR-10G-HDMI requires a network connection for initial configuration, control and firmware updates. 10 GigE IP Mini-Converters are shipped from the factory with DHCP enabled, and support automatic network discovery via SSDP and MDNS.

1. Connect IPR-10G-HDMI Control Port to the intended network with Ethernet cable
2. The intended network's DHCP Server will assign an IP address and the IP Mini-Converter will join that network
3. Locate and connect to the AJA IP Mini-Converter

Windows PC host:

- a. Open Windows Explorer
- b. Navigate to Network
- c. Click on Network to enumerate network devices
- d. Search for either "IPR-10G" or the device's Serial Number
- e. Double click on the intended IP Mini-Converter
- f. The host machine web browser will launch and display the web GUI for the device



Mac host:

- a. Go to System Preferences > Sharing and turn on File Sharing
- b. Open Finder Window
- c. Navigate to Shared > All...
- d. Click on All... to enumerate network devices
- e. Search for either "IPR-10G" or the device's Serial Number
- f. Double click on the intended IP Mini-Converter
- g. The host machine web browser will launch and display the web GUI for the device
- h. If the above does not work, then you will need to download and install an MDNS browser to assist with discovering network devices on a Mac host

4. Leaving the IP Mini-Converter browser tab open, open a new browser tab and check the AJA website for new firmware:

<https://www.aja.com/products/mini-converters/IPR-10G-HDMI#support>

5. If new software is found, download it and uncompress the file archive (.zip) to a network location accessible to the IP Mini-Converter
6. Return to the IP Mini-Converter browser tab and proceed to the Firmware Page
7. Adjacent to the "Upload New Firmware" use the "Choose File" button to locate previously unzipped firmware package (.ajas extension)
8. Follow the prompts to load the new firmware into your unit.

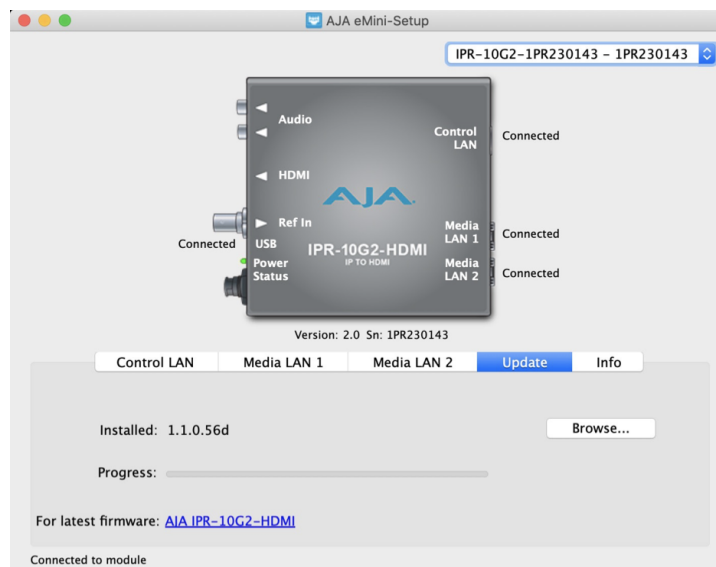
9. After the update, the AJA device must be rebooted by clicking on the Reboot button in the prompt window.

AJA eMini-Setup – Configuration, Control and Updates

Note: Please see the eMini-Setup Manual for further details.

Note: eMini Setup 1.3 is the first version to support IPR-10G-HDMI. Earlier versions will not work with this specific IP mini-Converter model.

1. Acquire eMini-Setup from the AJA website for either macOS or Windows:
<https://www.aja.com/family/software#eminisetup>
2. Install eMini-Setup:
 - a. Unzip the Installer.
 - b. Run the .dmg file on macOS or the .msi file on Windows.
3. Connect Power to your AJA Ethernet equipped Converter.
4. Connect the USB Config cable to the Computer running eMini-Setup.
5. Open eMini-Setup and Configure the device's network settings.
Note: DHCP will be enabled by default, and if the device is connected to a DHCP server the IP address field will populate.
6. Type in (or Copy/Paste) the IP address into a Browser Window.
 - a. This will get you into the web based GUI for your AJA device.
7. Use the Web GUI to fully configure, control and use your AJA Device.



8. After the update, the AJA device must be rebooted by clicking on the Reboot button in the prompt window.

Technical Support

AJA Technical Support is free and available to help you answer questions or resolve issues with any of your AJA products.

To Contact AJA Technical Support:

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Web: <https://www.aja.com/support/contact>

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