

AJA IPT-10G2-HDMI – Release Notes v2.3

Firmware for IPT-10G2- v2.3

Introduction

This is the third release of firmware specifically for IPT-10G2-HDMI (version 2.3).

Features, Updates and Improvements in v2.3

- Added frame sync feature for synchronizing incoming unlocked video sources with PTP.
- LLDP (Link Layer Discovery Protocol) support added, enabling identification of the first upstream network switch from the 10 GigE IP Mini-Converter, and vice versa.
- Updated support for NMOS 1.3 (IS-04 v1.3 and IS-05 v1.1)

Important Hardware Upgrade Notes

Earlier models of IPT-10G2-HDMI are feature complete as of version 2.1 firmware. Attempting to update to v2.2 firmware or later will result in the error message “this firmware is not for this device”. If you encounter this message and wish to make use of the v2.2 firmware update or later, please contact AJA Customer Support (see end of this document for contact details)

Features, Updates and Improvements in Previous Releases

Version 2.2

- PTP optimizations
- SDP optimizations

Version 2.1

- Initial Firmware release for IPT-10G2-HDMI and IPT-10G2-SDI.
- HDMI Video and Audio to SMPTE ST 2110 IP Converter with hitless switching (-7) support.
- Quiet, rugged, fanless, compact design.
- Essence support: SMPTE ST 2110-10, 2110-20, 2110-21, 2110-30.
- NMOS for Discovery, Registration, Control (according to standards IS-04 v1.2 & IS-05 v1.0).

- AJA REST API or Ember + v1.6.2 for Control.
- 1x 1 GigE RJ45 socket (with status light) for network (LAN) control and status.
- 1x USB 2.0 Mini-B Interface.
- 2x SFP+ Cage for 10 GigE Ethernet media, control, and timing input (SFP+ modules not included).
- Full size HDMI 1.4b video input: Deep Color 30-bit video per pixel (24-bit also supported).
- HDMI video input 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 input.
- Analog audio support Up to 2-channel input.
- Built in web server for full remote control and configuration (Control Port or Media Ports).
- Quick network setup with AJA eMini-Setup software v2.1 onwards (via USB):
<https://www.aja.com/family/software#eminisetup>
- For additional information, please refer to the IPT-10G2-HDMI section of the AJA website:
<https://www.aja.com/products/mini-converters/IPT-10G2-HDMI>
<https://www.aja.com/products/mini-converters/ip-converters>

Initial Setup, Control and Updating Firmware

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 IPT-10G2-HDMI:

- Web Browser on host computer connected to the same network as the IPT-10G2-HDMI.
- AJA eMini-Setup application running on host computer directly connected to IPT-10G2-HDMI via USB.

Web Browser – Configuration, Control and Updates

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

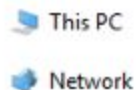
Note: Safari is the preferred web browser for control on the Mac, and additionally Chrome and Firefox on Windows. Other web browsers may work, but AJA cannot guarantee consistent operation for all web browsers or web browser versions.

IPT-10G2-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 IPT-10G2-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:

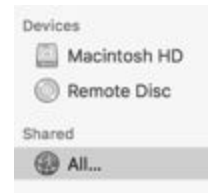
- a. Open Windows Explorer.



- b. Navigate to Network.
- c. Click on Network to enumerate network devices.
- d. Search for either “IPT-10G2” 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 “IPT-10G2” 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/IPT-10G2-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 “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.

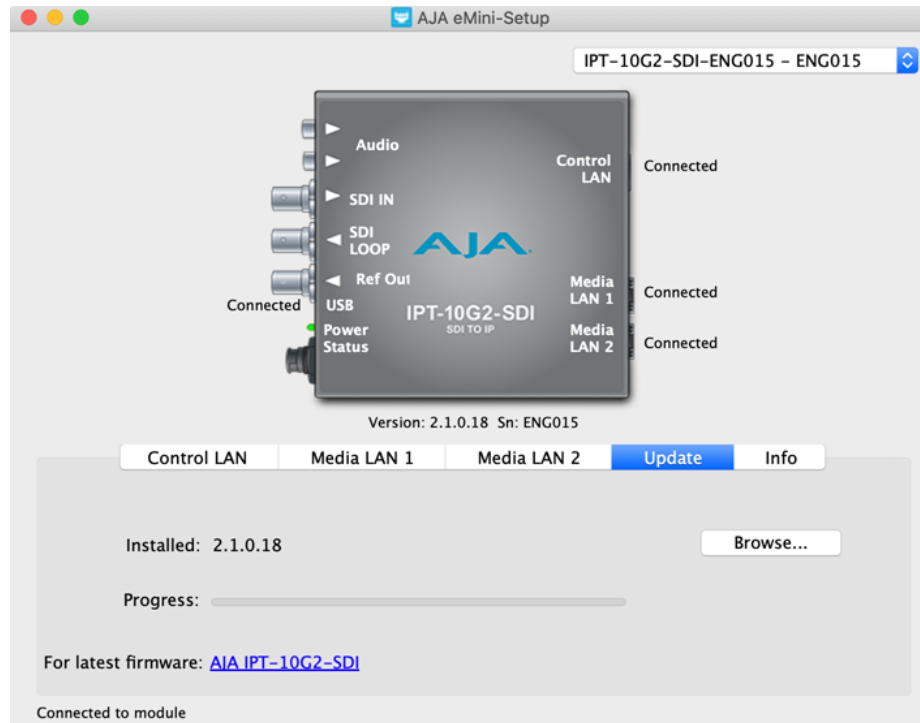
AJA eMini-Setup – Configuration, Control and Updates

Please see the eMini-Setup Manual for further details.

Note: eMini Setup 2.1 is the first version to support IPT-10G2-HDMI and IPT-10G2-SDI. Earlier versions will not work with these specific IP mini-Converter models. AJA Recommends using the latest version of eMini Setup available via AJA.com.

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.
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:

Email: support@aja.com

Phone: +1-530-271-3190

Fax: +1-530-274-9442

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

Shipping: 180 Litton Dr. Grass Valley, CA 95945 USA