

AJA FS4 Release Notes - v1.0.0.58

Firmware for FS4

General

This is the initial release of the FS4 Frame Sync product.

Key features include:

- Two operational Frame Sync modes:

Single Channel Mode

- Supports a single 4K, UltraHD, 2K, HD, or SD channel
- YCbCr, 4:2:2, 10 bit
- Coax and fiber SDI I/O up to 3G-SDI
- Single, dual, and quad link
- Quadrant and Two Sample Interleave mapping

Four Channel Mode

- Supports four independent 2K, HD, or SD channels
- YCbCr, 4:2:2, 10 bit
- Coax and fiber SDI I/O up to 3G-SDI
- Single and dual link

- Up to eight SDI inputs and outputs
- 3G-SDI support includes Level A, Level B-DL, and Level B-DS
- Genlock to external reference, an SDI input, or free run
- Adjustable output timing and delay
- AFD input detection, down-convert control, and output pass-thru or overwrite
- Freeze (manual or on input signal loss) to black or last good frame
- Motion adaptive de-interlacing, and interlacing
- High quality up/down/cross conversion
- SD Aspect ratio conversion
- Video proc amp and color corrector
- Crop/Fill controls
- Matte generators for background fill
- Closed caption conversion (CEA-608/CEA-708)
- Built in Test Pattern Generators
- Monitor outputs (SDI and HDMI)
- Audio support for 48kHz sample rate, 24 bit
- SDI Audio disembedders and embedders (20 bit SD-SDI)
- Balanced AES I/O (16 ch input, 16 ch output)
- MADI I/O (128 ch input, 128 ch output, via BNC and Fiber)
- 277 x 208 channel audio matrix routing with gain, phase, and delay controls

- Audio Sample Rate Conversion available on all audio inputs
- SRC bypass for non-PCM audio
- 5.1 or 7.1 stereo mix down
- Front panel controls and display
- Built in web server for remote status, configuration, and software updates
- Extensive alarming features
- Configurable GPIO

Features not included in this release

- Support for optional 12G/6G-SDI SFP modules
- SNMP

Improvements

- Not Applicable.

Additional Information

For additional information, please refer to the FS4 section of the AJA website:

<https://www.aja.com/en/products/fs4>

Updating FS4 Firmware

Although the FS4 comes from the factory pre-installed with the latest firmware as of the time of manufacture, it may be necessary to re-flash the factory firmware or update to new firmware that has been posted on our AJA website. The following topics in these notes describe the steps required to upgrade the firmware in your AJA FS4.

Download the Latest Firmware

Current and past releases of FS4 firmware are available on AJA's website. To get the firmware, point your browser to:

<https://www.aja.com/en/products/fs4#support>

Once you see the update page, FS4 firmware files can be selected for downloading to your Mac or PC for upgrading your local machine.

Unpack the Firmware

The firmware update files are “ZIP” files, which you can open with a number of standard and third party uncompressor applications. The firmware image that you’ll install on the FS4 is a file with a name like FS4_ver_1.0.0.0.bin or similar. Depending on your Mac or Windows operating system settings, the “.bin” extension may not be visible to you in a file directory.

In the archive there will be a README.TXT file. Please open and read the file so you will be aware of any updates or information that did not get in the manual or release notes..

Uploading and Installing the Firmware to the FS4

Uploading and installing the firmware update only requires a Mac or Windows computer that can “see” the FS4 via its Ethernet connection. Follow this procedure to install the firmware:

1. Point your browser at the FS4's upgrade page by clicking on the “Firmware” menu link at the bottom of the navigation box on the left-hand side of any FS4 web page. The FS4 web pages are discussed in the FS4 User Manual.
2. Click the “Browse...” button to select the file you previously downloaded.
3. After you have selected a valid FS4 image file, click the “OK” button in the “Upload Firmware” prompt. The file you select will upload to the FS4 and be tested for validity. Incomplete, corrupted, or non-FS4 firmware files are rejected.
4. Click “Commit Uploaded Firmware” on the FS4 Update Firmware web page after the upload is finished.
5. Wait for the procedure to complete. When done, the FS4 Update Firmware web page will prompt you to restart your FS4. Click the “Restart FS4 with New Firmware” button to begin the restart. Restart progress is shown on the front panel of the FS4 only. After the restart completes, the FS4 front panel “Status” menu is displayed, and the FS4 will be running the new firmware.
6. Once these steps are complete, the FS4 will be running the firmware you just uploaded until the next time you upgrade it. The configuration of the FS4 prior to the upgrade will be preserved. Ensure the new firmware is running by bringing up the FS4 web page again; the firmware version is displayed at the top of all FS4 web screens. If for some rare reason it didn't update, you can then run through the update steps again.

Important Note: If there is a power outage or glitch during the firmware download, the FS4 will boot the older version and the upgrade process can then be re-started by the user. This happens because the FS4 has been designed with a safety feature where an internal “safe” copy of the previous firmware is retained in the event of any error in the updating.

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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