

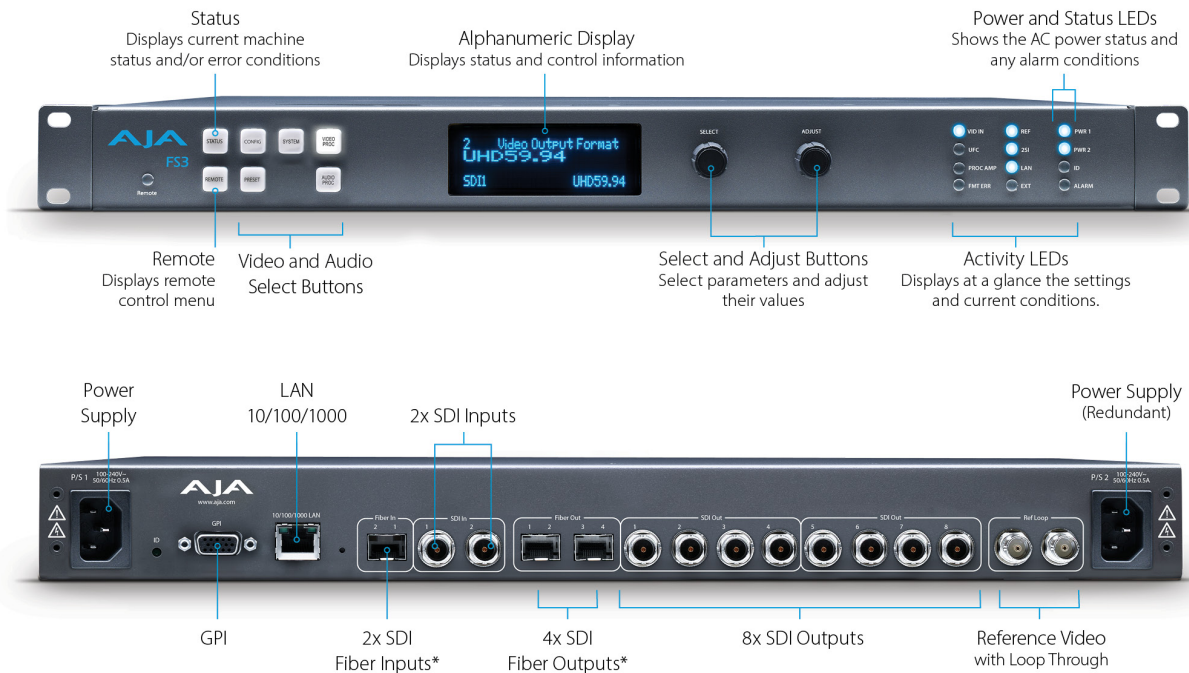


FS3

FR3 is no longer available. For more information about AJA Frame Sync products please visit the [Frame Sync](#) page.

\$ US MSRP

<https://www.aja.com/products/fs3>



*Optional

Video Input Digital

- Four 3G-SDI inputs, 2 BNC and up to 2 fiber (optional)
- 4x1 selector feeds video processor
- SD/HD/3G-SDI, SMPTE-259/292/424, 8 or 10-bits
 - 3G-SDI Level A, Level B-DL, or Level B-DS
 - Dual Link HD-SDI (2x 1.5G), SMPTE -372
 - Single Link SD/HD/3G-SDI
- Fiber SDI, SMPTE-297, 8 or 10-bits (optional)
 - Dual Channel LC connector modules
 - Single Channel LC connector modules
 - Single Channel SC connector modules
- Formats and frame rates
 - (2K) 2048 x 1080p 23.98, 24, 25, 29.97, 50, 59.94
 - (HD) 1920 x 1080p 23.98, 24, 25, 29.97, 50, 59.94
 - (HD) 1920 x 1080PsF 23.98, 24, 25, 29.97, 50, 59.94
 - (HD) 1920 x 1080i 50, 59.94
 - (HD) 1280 x 720p 50, 59.94
 - (SD) 625i 50
 - (SD) 525i 59.94
 - YCbCr, 4:2:2, 10-bit

Video Output Digital

- Twelve 3G-SDI outputs, 8x BNC and up to 4x fiber (optional)
- Video processor feeds all outputs
- SD/HD/3G-SDI, SMPTE-259/292/424, 8 or 10-bits
 - Quadrant (Square Division) or 2SI (Two Sample Interleave) 4K/UltraHD pixel mapping
 - 3G-SDI Level A, Level B-DL, or Level B-DS
 - Quad 3G-SDI for 4K/UltraHD p50/59.94 (3 copies on Quad SDI)
 - Dual 3G-SDI for 4K/UltraHD p23.98/24/25/29.97 (6 copies on Dual SDI)
 - Single Link SD/HD/3G-SDI (12 copies on single SDI)
- Fiber SDI, SMPTE-297, 8 or 10-bits (optional)
 - Dual Channel LC connector modules
 - Single Channel LC connector modules
 - Single Channel SC connector modules
- Formats and frame rates:
 - (4K) 4096 x 2160p 23.98, 24, 25, 29.97, 50, 59.94
 - (UltraHD) 3840 x 2160p 23.98, 24, 25, 29.97, 50, 59.94
 - (2K) 2048 x 1080p 23.98, 24, 25, 29.97, 50, 59.94
 - (HD) 1920 x 1080p 23.98, 24, 25, 29.97, 50, 59.94
 - (HD) 1920 x 1080PsF 23.98, 24, 25, 29.97, 50, 59.94
 - (HD) 1920 x 1080i 50, 59.94
 - (HD) 1280 x 720p 50, 59.94
 - (SD) 625i 50
 - (SD) 525i 59.94
 - YCbCr, 4:2:2, 10-bit

Audio Input Digital

- 64-Channels via four 16-Channel audio disembedders (1 disembedder per SDI input)
- SD/HD/3G-SDI, SMPTE-272/299
- 20-bit SD, 24-bit HD/3G, 48 kHz sample rate
- Drop/repeat sample rate conversion to match output reference

Audio Output Digital

- 64-Channels via four 16-Channel audio embedders
- SD/HD/3G-SDI, SMPTE-272/299
- 20-bit SD, 24-bit HD/3G, 48 kHz sample rate
- 64 x 64 mono audio matrix

Video Processing

- Proc amp controls

- Color corrector
- Legalizer
- Frame rate conversion (3:2, 1:2, 2:1)
- Delay 0-6 frames with H and V controls
- Closed Captioning conversion (CEA-608/CEA-708)
- AFD input detection, down-convert control, and output pass through or overwrite
- Freeze (manual or on input signal loss) to black or last good frame
- Matte generator for background fill
- Video test generator
- Nominal video delay
 - 4K/UltraHD, 3 frames (LFR), 6 frames (HFR)
 - HD/SD, 2 frames (LFR), 4 frames (HFR)

Format Conversion

- Convert any supported input HD/SD format to any supported 4K/UltraHD/HD/SD output format, as long as the input and output frame rates are of the same frame rate family. These three families are:
 - 59.94, 29.97, 23.98
 - 50, 25
 - 24

Scaling

- Zoom in and out
- Reposition
- Region of Interest

Up-Conversion

- SD/HD/2K to UltraHD/4K
- SD to HD/2K
- Hardware 10-bit
- Zoom 14:9: results in a 4:3 image zoomed slightly to fill a 14:9 image with black side bars
- Zoom Letterbox: results in image zoomed to fill fullscreen
- Zoom Wide: results in a combination of zoom and horizontal stretch to fill a 16:9 screen; this setting will introduce a small aspect ratio change

Down-Conversion

- HD/2K to SD
- Hardware 10-bit
- Anamorphic: fullscreen
- Letterbox: image is reduced with black top and bottom added to image area with the aspect ratio preserved
- Crop: image is cropped to fit new screen size

Aspect Ration Conversion

- Letterbox: This transforms SD anamorphic material to a letterboxed image
- H Crop: Will produce a horizontally stretched effect on the image; transforms anamorphic SD to full frame
- SD Pillarbox: Will produce an image in the center of the screen with black borders on the left and right sides and an anamorphized image in the center
- V Crop: Will transform SD letterbox material to an anamorphic image

Audio Processing

- 64 x 64 mono audio matrix, route 1 to 1, 1 to many
- Independent controls for each channel
 - Gain +18 to -18 dB in 0.5 dB steps
 - Delay -16ms to 256 ms in 20.8 us steps
 - Phase invert
- 5.1 or 7.1 to stereo mixdown with gain adjust

- Audio test generator

Timecode

- SDI RP188 via SDI BNC

Reference Input

- Blackburst or tri-level sync
- Looping, nonterminating

Network Interface

- 10/100/1000 Ethernet (RJ-45)
- Embedded web server for remote control

Machine Control

- GPI in/out, 15-pin D-connector
 - Pinout is as follows :

| | | | |
|---|---------------|----|---------------|
| 1 | GND | 9 | GPI OUT 2 |
| 2 | GPI IN 1 | 10 | GPI I/O GND 3 |
| 3 | GPI IN 2 | 11 | GPI I/O GND 4 |
| 4 | GPI IN 3 | 12 | GPI OUT 3 |
| 5 | GPI I/O GND 1 | 13 | GPI OUT 4 |
| 6 | GPI I/O GND 2 | 14 | NC |
| 7 | GPI IN 4 | 15 | GND |
| 8 | GPI OUT 1 | | |

- RS-422, Sony 9-pin protocol (reserved for future use)

Size (w x d x h)

- 17.5" x 16.0" x 1.75" 1RU (444.5 x 406.4 x 44.45 mm)

Weight

- 7.9 lb (3.6 kg)

Power

- 100-240 VAC 50/60 Hz (Dual, redundant power supplies), 55W typical; 80W max.

Environment

- Safe Operating Temperature: 0 to 40 C (32 to 104 F)
- Safe Storage Temperature (Power OFF): -40 to 60 C (-40 to 140 F)
- Operating Relative Humidity: 10-90% noncondensing
- Operating Altitude: <3,000 meters (<10,000 feet)