FS

FS4

1 Input
1-4 QuadLink

FS3

2 Video Output Format
4K2160P5994

SDI1   4K2160P5994

FS2

1 Video1 Input
SDI1

SDI1   1080i59.94

FS1-X

10 FRC Enable
Enable

The Power to Convert and Deliver

FS

4:3

16:9 HD

FS4
1 Vid Output Format
4K2160ᴘ5994

SELECT   ADJUST   SYSTEM   CHANNEL SELECT   VIDEO   AUDIO

SYSTEM VIDEO AUDIO   VID 1 VID 2 AES   INPUT FORMAT TIMING LEVEL   PS1 PS2 2SI REF ID REMOTE

REMOTE CONFIG PRESET   VID 3 VID 4 MADI   ANC SCALE TSTGEN DELAY

COLOR KEYER FREEZE MAP

FS3
STATUS CONFIG SYSTEM VIDEO PROC

REMOTE PRESET AUDIO PROC

Remote

2 Video Output Format
UHD59.94
SDI1   UHD59.94

SELECT   ADJUST   VID IN REF PWR 1   UFC 2SI PWR 2   PROC AMP LAN ID   FMT ERR EXT ALARM

The Power to Convert

With support for all broadcast video formats, the FS family simplifies the integration of disparate video and audio formats with comprehensive analog and digital I/O, extensive up, down, cross-conversion and frame synchronization.

AJA's FS family of frame synchronizing converters delivers power and flexibility for a range of raster and frame rates from SD to 4K/UltraHD. Align mismatched signal types to house reference, process and convert video and audio, and even up, down, cross-convert to 4K/UltraHD to establish a consistent format for postproduction or broadcast.

AJA's FS family offers the full power of our hardware conversion expertise in compact 1RU rack units that offer unrivaled flexibility.

Delivering AJA's industry standard up, down, cross-conversion technology for the highest quality images, FS units are ideal for high density applications such as mobile trucks and packed machine rooms, replacing multiple hardware units in a single rack space with up to four channels of 2K/HD/SD processing in a single 1RU frame.

The widest range of conversion possibilities makes them perfect for aligning disparate sources to a common format, integrating legacy signals into higher resolution workflows or handling whatever the production environment might throw at you.

Easy to use and fully networkable via built-in 10/100/1000 Ethernet ports, FS converters can be quickly integrated into a facility and configured by any computer on the network via a standard web browser. FS units also accept automation control from external GPI commands, for additional integration options.

With flexible I/O support, FS converters are ideal for use with legacy equipment as well as the latest digital and fiber optic video and MADI audio connections.

Built to the exacting standards of all AJA hardware, FS frame synchronizers are backed by our world class support network, 5 year international warranty and advanced exchange service.

FS

Digital and Analog
I/O Flexibility

FS frame synchronizers are loaded with comprehensive I/O for converting between the widest range of analog and digital signals. Perfect for use in all broadcast and postproduction environments, FS units are engineered to provide the maximum flexibility of input and output connections for any situation with advanced audio extraction, routing and embedding all in a single device.

FS products that support optional SDI Fiber and BNC SFP modules can be simply configured at www.aja.com/config ensuring you choose the right options for the job at hand.

AJA Hardware Conversion
Technology

AJA's hardware conversion technology ensures the highest image quality for your productions. Key conversion features include:
- 4K/UltraHD up, down, cross-conversion to and from 2K/HD/SD
- HD/SD up, down-conversion
- SD/SD aspect ratio conversion
- HD/HD cross-conversion (720p/1080i with simultaneous down-converted SDI output
- Closed Caption conversion (CEA-608/CEA-708 standards)
- AFD conversion or pass through (user selectable)

Note: Not all conversions are available on all models. See individual product specifications for details.

Remote Configuration
and Control

FS units are network ready and support SNMP monitoring and web-based remote control. Units can be connected to any Ethernet network via the built-in 10/100/1000 Ethernet port, allowing control and configuration of multiple FS units from any web browser on a connected computer. Configurations can be saved and applied to multiple units, ensuring consistency and quick configuration in large installs. To integrate smoothly with the existing automation of a facility, external GPI commands can be received to trigger a variety of functions, from freezing an input source to switching between saved presets and more.

FS

FS Family of Frame Synchronizers and Converters

FS4

pg. 5

4-Ch 2K/HD/SD or 1-Ch 4K/UltraHD Frame Sync and Up, Down, Cross-Converter

4-Channel 2K/HD/SD or 1-Channel 4K/UltraHD frame synchronizer and up, down, cross-converter to and from 2K/HD/SD. AJA's flagship frame synchronizer and converter offers incredible versatility and connectivity with a wealth of digital and optional 12G-SDI Fiber LC and 12G-SDI BNC SFP connectivity in a 1RU frame.

FS3

pg. 11

4K Up-Converter and HD/SD Frame Sync

1-Channel high quality digital HD/SD to 4K/UltraHD up-converter and frame synchronizer with 3G-SDI and optional fiber inputs and outputs capability, supporting up to 3 x simultaneous 4K/UltraHD outputs from a single source.

FS2

pg. 16

2-Ch HD/SD Frame Sync and Up, Down, Cross-Converter

2-Channel HD/SD frame synchronizer and up, down, cross-converter. FS2 can do the work of two separate devices or combine both processors together for maximum flexibility.

FS1-X

pg. 21

HD/SD Frame Sync and Up, Down, Cross-Converter

1-Channel HD/SD advanced frame synchronizer and converter with MADI audio and motion adaptive linear Frame Rate Converter for digital and analog pipelines.

FS4

Only $4,995 US MSRP*

Find a Reseller

FS4 offers two modes for comprehensive conversion and signal processing.

Single channel mode provides a full suite of 4K/UltraHD processing and up, down, cross-conversion to and from 2K, HD or SD.

Four channel mode offers 4 x 2K/HD/SD channels of simultaneous conversion and processing, all within an elegant 1RU chassis for multi-channel high-density delivery.

The Ultimate 4K Toolbox.

4-Channel 2K/HD/SD or 1-Channel 4K/UltraHD frame synchronizer and up, down, cross-converter

Bulletproof reliability. Incredible conversion power.

FS4 is your real world answer for conversions of any resolution, built to AJA's high quality and reliability standards.

4K/UltraHD delivery, processing and synchronization is fast becoming the next standard, and FS4 gets you there with a wealth of digital video connectivity including Quad 1.5G, Dual 3G, Quad 3G over 3G-SDI and 12Gb/6Gb over optional 12G-SDI BNC and 12G-SDI LC Fiber SFP modules.

In single channel mode, FS4 will up scale your HD or SD materials to 4K/UltraHD and back, with a huge array of audio channels over Fiber, 3G-SDI, AES, and MADI for an incredible 272 x 208 matrix of audio possibilities.
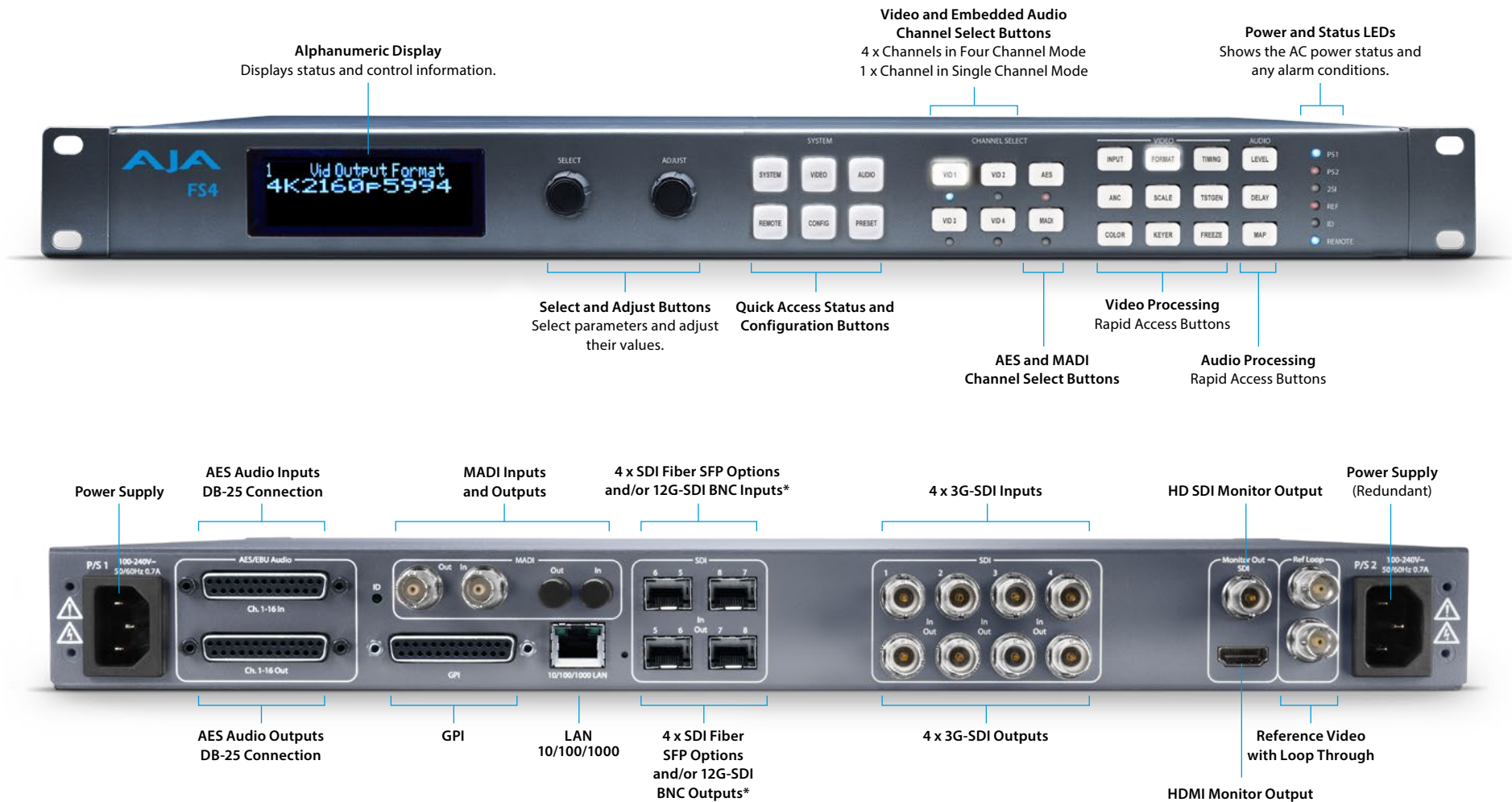
Welcome to Four Channel Mode.

In four channel mode FS4 provides incredibly powerful multi-channel conversion with up to 4 channels of simultaneous processing for 2K/HD and SD signals. New thinking requires a new layout and FS4's front panel has been redesigned to simplify and speed your access to the product's wealth of features. The panel has also been designed to provide straightforward operation in single channel or four channel mode. In four channel mode, all four VIDx buttons under Channel Select are lit up. In single channel mode, only VID1 is lit and VID2-4 are off.

Multi-channel density in a 1RU Chassis. Space, energy and power preserved.
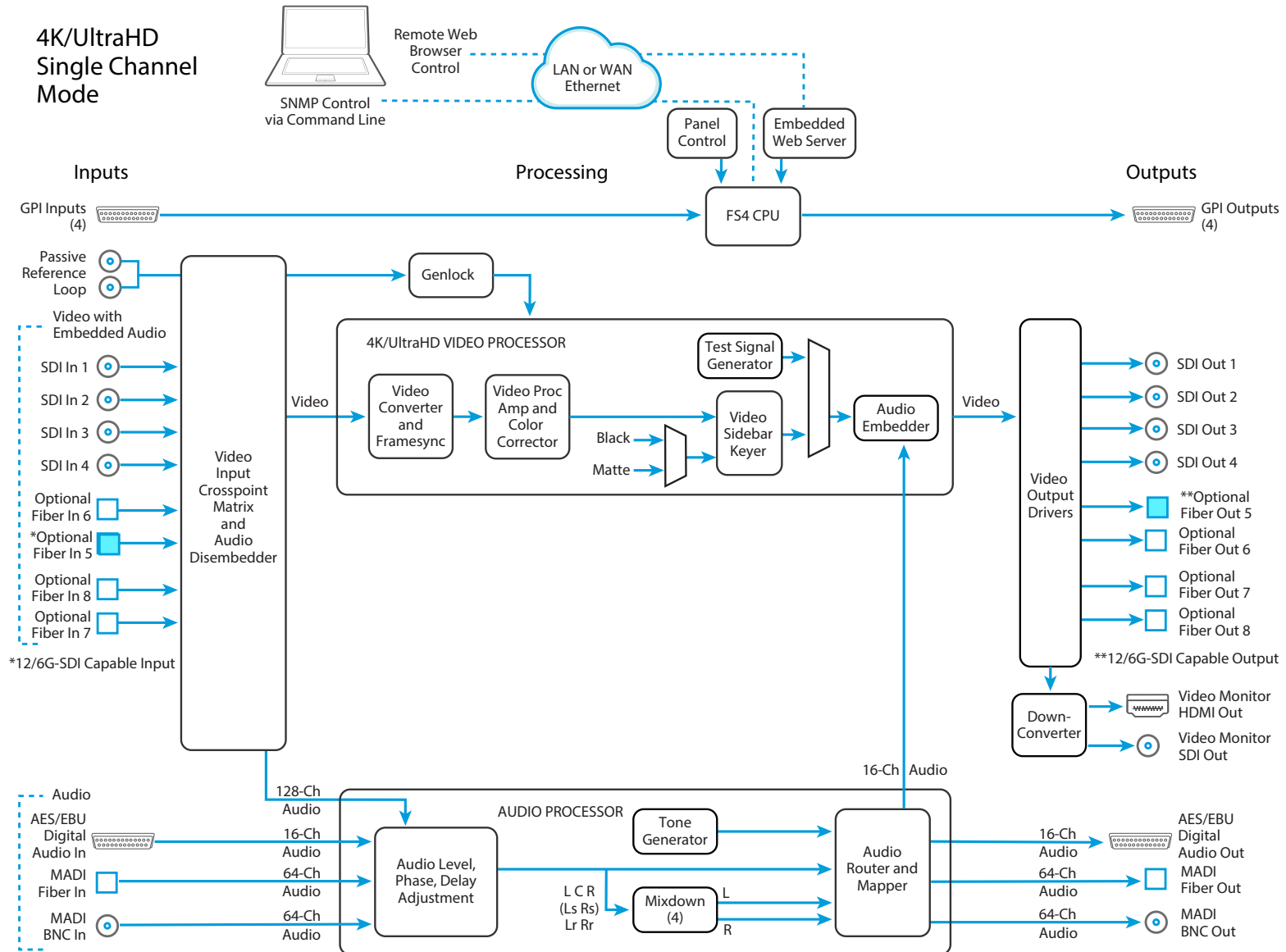
FS4

Connections

Alphanumeric Display
Displays status and control information.

**Video and Embedded Audio
Channel Select Buttons**
4 x Channels in Four Channel Mode
1 x Channel in Single Channel Mode

Power and Status LEDs
Shows the AC power status and
any alarm conditions.

Select and Adjust Buttons
Select parameters and adjust
their values.

**Quick Access Status and
Configuration Buttons**

**AES and MADI
Channel Select Buttons**

Video Processing
Rapid Access Buttons

Audio Processing
Rapid Access Buttons

Power Supply

**AES Audio Inputs
DB-25 Connection**

**MADI Inputs
and Outputs**

**4 x SDI Fiber SFP Options
and/or 12G-SDI BNC Inputs***

4 x 3G-SDI Inputs

HD SDI Monitor Output

**Power Supply
(Redundant)**

**AES Audio Outputs
DB-25 Connection**

GPI

**LAN
10/100/1000**

**4 x SDI Fiber
SFP Options
and/or 12G-SDI
BNC Outputs***

4 x 3G-SDI Outputs

**Reference Video
with Loop Through**

HDMI Monitor Output

Optional

Click here For full product specifications visit www.aja.com/products/FS4/#techspecs

FS4

Single Channel Mode

4K/UltraHD Single Channel Mode

Remote Web Browser Control

SNMP Control via Command Line

LAN or WAN Ethernet

Panel Control

Embedded Web Server

Inputs

Processing

Outputs

GPI Inputs (4) → FS4 CPU → GPI Outputs (4)

Passive Reference Loop → Genlock

Video with Embedded Audio

SDI In 1
SDI In 2
SDI In 3
SDI In 4
Optional Fiber In 6
*Optional Fiber In 5
Optional Fiber In 8
Optional Fiber In 7

→ Video Input Crosspoint Matrix and Audio Disembedder

*12/6G-SDI Capable Input

Video →

4K/UltraHD VIDEO PROCESSOR

Video Converter and Framesync → Video Proc Amp and Color Corrector

Test Signal Generator

Black
Matte

Video Sidebar Keyer

Audio Embedder

Video →

Video Output Drivers →

SDI Out 1
SDI Out 2
SDI Out 3
SDI Out 4
**Optional Fiber Out 5
Optional Fiber Out 6
Optional Fiber Out 7
Optional Fiber Out 8

**12/6G-SDI Capable Output

Down-Converter →
Video Monitor HDMI Out
Video Monitor SDI Out

16-Ch Audio

Audio

AES/EBU Digital Audio In
MADI Fiber In
MADI BNC In

128-Ch Audio
16-Ch Audio
64-Ch Audio
64-Ch Audio

AUDIO PROCESSOR

Tone Generator →

Audio Level, Phase, Delay Adjustment →

L C R (Ls Rs) Lr Rr →

Mixdown (4)

L

R

Audio Router and Mapper →

16-Ch Audio
64-Ch Audio
64-Ch Audio

AES/EBU Digital Audio Out
MADI Fiber Out
MADI BNC Out

FS4

Four Channel Mode

Remote Web Browser Control

SNMP Control via Command Line

LAN or WAN Ethernet

Panel Control

Embedded Web Server

Inputs

Processing

Outputs

GPI Inputs (4)

FS4 CPU

GPI Outputs (4)

Passive Reference Loop

Genlock

Video with Embedded Audio

SDI In 1
SDI In 2
SDI In 3
SDI In 4

Optional Fiber In 6
Optional Fiber In 5

Optional Fiber In 8
Optional Fiber In 7

Video Input Crosspoint Matrix and Audio Disembedder

Video

HD/SD VIDEO PROCESSOR 1

Video Converter and Framesync

Video Proc Amp and Color Corrector

Black
Matte
Other Video Proc

Test Signal Generator

Video Sidebar Keyer

Audio Embedder

Video

Video Output Drivers

SDI Out 1
SDI Out 2
SDI Out 3
SDI Out 4

Optional Fiber Out 5
Optional Fiber Out 6
Optional Fiber Out 7
Optional Fiber Out 8

HD/SD VIDEO PROCESSOR 2 (same as VP 1)

HD/SD VIDEO PROCESSOR 3 (same as VP 1)

HD/SD VIDEO PROCESSOR 4 (same as VP 1)

Video Monitor HDMI Out

Video Monitor SDI Out

4 x 16-Ch Audio

Audio

AES/EBU Digital Audio In

MADI Fiber In

MADI BNC In

128-Ch Audio
16-Ch Audio
64-Ch Audio
64-Ch Audio

AUDIO PROCESSOR

Tone Generator

Audio Level, Phase, Delay Adjustment

L C R (Ls Rs) Lr Rr

Mixdown (4)

L

R

Audio Router and Mapper

16-Ch Audio
64-Ch Audio
64-Ch Audio

AES/EBU Digital Audio Out

MADI Fiber Out

MADI BNC Out

FS4

Tech Specs

Modes of Operation

• Four independent 2K, HD, or SD Video Processors
• One 4K, UltraHD, 2K, HD, or SD Video Processor

Video Formats

• (4K) 4096 x 2160p 23.98, 24, 25, 29.97, 30, 50, 59.94, 60
• (UltraHD) 3840 x 2160p 23.98, 24, 25, 29.97, 30, 50, 59.94, 60
• (2K) 2048 x 1080p 23.98, 24, 25, 29.97, 30, 50, 59.94, 60
• (HD) 1920 x 1080p 23.98, 24, 25, 29.97, 30, 50, 59.94, 60
• (HD) 1920 x 1080PsF 23.98, 24, 25, 29.97, 30
• (HD) 1920 x 1080i 50, 59.94, 60
• (HD) 1280 x 720p 50, 59.94, 60
• (SD) 625i 50
• (SD) 525i 59.94
• YCbCr, 4:2:2, 10-bit

Video Input Digital

• 4 x 3G-SDI inputs, 4 x BNC
• 4 x 3G-SDI inputs, 4 x Fiber or HD BNC (optional SFP modules)
  • SFP fiber modules, 3G-SDI, dual LC, single LC, or single SC, SMPTE-297
  • SFP fiber module, 6G/12G-SDI, dual LC, SMPTE-297
  • SFP coax module, 6G/12G-SDI, dual HD-BNC
• 12G/6G/3G/HD/SD, SMPTE-259/292/424/2081/2082
  • Single Link 12G/6G-SDI (with optional SFP module)
  • Quad Link 3G-SDI Level A or B-DL (4x3G), SMPTE-425-5
  • Dual Link 3G-SDI Level B-DS (2x3G), SMPTE-425-3
  • Single Link 3G-SDI Level A, B-DL, or B-DS, SMPTE 425
  • Quad Link HD-SDI (4 x 1.5G)
  • Dual Link HD-SDI (2 x 1.5G), SMPTE-372
  • Single Link HD/SD
• Quadrant (Square Division) or 2SI (Two Sample Interleave) 4K/UltraHD input pixel mapping
• 8 x 1 selector feeds video processor(s)

Video Output Digital

• 4 X 3G-SDI outputs, 4 x BNC
• 4 x 3G-SDI outputs, 4 x fiber or HD-BNC (optional SFP modules)
  • SFP fiber modules, 3G-SDI, Dual LC, Dual LC CWDM, Single LC, or Single SC, SMPTE-297
  • SFP fiber module, 12G/6G-SDI, dual LC, SMPTE-297
  • SFP coax module, 12G/6G-SDI, dual HD-BNC
• 12G/6G/3G/HD/SD, SMPTE-259/292/424/2081/2082
  • Single Link 12G/6G-SDI (with optional SFP module)
  • Quad Link 3G-SDI Level A or B-DL (4 x 3G), SMPTE-425-5
  • Dual Link 3G-SDI Level B-DS (2 x 3G), SMPTE-425-3
  • Single Link 3G-SDI Level A, B-DL, or B-DS, SMPTE 425
  • Quad Link HD-SDI (4 x 1.5G)
  • Dual Link HD-SDI (2 x 1.5G), SMPTE-372
  • Single Link HD/SD
• Quadrant (Square Division) or 2SI (Two Sample Interleave) 4K/UltraHD output pixel mapping

Monitor Output Digital

• 1 x BNC, 1 x 3G-SDI output
  • 3G-SDI/HD/SD, SMPTE-259/292/424, 10-bits
• 1 x HDMI, 1 x HD output
  • 2K/HD/SD, HDMI v1.4a
• Monitored Video Processor output (video and audio) is simultaneously output on both connectors
• 4K/UltraHD down-converted to 2K/HD
• Crop control on HDMI output

Video Processing

• Motion adaptive deinterlacer
• Proc amp controls
• Color corrector
• Legalizer
• Framerate conversion/film cadence removal/insertion (3:2, 1:2, 2:1, 2:3)
• Adjustable delay 0-6 frames with H and V timing controls
• Closed Caption 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 format to any supported output format, within the same frame rate family. These three families are:
  • 59.94, 29.97, 23.98
  • 50, 25
  • 60, 30, 24

Scaling

• Supported in 2K/HD/SD formats
  • Zoom in and out
  • Reposition
  • Region of Interest (ROI)

Up-Conversion

• 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

• 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 video output format

Aspect Ratio Conversion for SD to SD

• **Letterbox:** Transforms SD anamorphic material to a letterboxed image
• **H Crop:** Produces a horizontally stretched effect on the image; transforms anamorphic SD to full frame
• **SD Pillarbox:** Produces 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:** Transforms SD letterbox material to an anamorphic image

FS4

Tech Specs *(Continued)*

Audio Input Digital

- 48 kHz sample rate
- 8 x SDI embedded inputs (16-Channels each)
  - 128-Channels, 24-bit (20-bit SD), SMPTE-272/299
- 8 x balanced AES inputs (16-Channels), 1 x DB-25
  - 16-Channels, 24-bit, AES-3
- 2 x MADI inputs, 1 BNC, 1 x ST Fiber
  - 128-Channels, 24-bit, AES-10

Audio Output Digital

- 48 kHz sample rate
- 1 x SDI embedded output per Video Processor (16-Channels each)
  - 16-Channels (in single Video Processor mode), 24-bit (20-bit SD), SMPTE-272/299
  - 64-Channels (in four Video Processor mode), 24-bit (20-bit SD), SMPTE-272/299
- 8 x balanced AES outputs (16-Channels), 1 x DB-25
  - 16-Channels, 24-bit, AES-3
- 2 x MADI outputs, 1 BNC, 1 x ST Fiber
  - 128-Channels, 24-bit, AES-10

Audio Processing

- 277 x 208 mono audio matrix, route 1 to 1, 1 to many
  - Inputs: 128 embedded, 16 AES, 128 MADI, 2 stereo mixdowns, 3 tone generator
  - Outputs: 64 embedded, 16 AES, 128 MADI
- Input adjustment controls for each channel
  - Gain +18 to -18 dB in 0.5 dB steps
  - Phase invert
- Input adjustment controls for each channel pair
  - Delay -16ms to +1sec in 20.8 us steps
- Two independent 5.1 or 7.1 to stereo mixdown processors with gain adjust
- High quality Sample Rate Conversion on all audio inputs
- SRC bypass for non-PCM audio (e.g. Dolby E, AC-3, etc)
- Audio tone generator (mute, 400 Hz, 1 kHz)

Reference Input

- External, 2 x BNC
  - Looping, nonterminating
  - Blackburst or tri-level sync

Genlock

- Lock to External Reference
- Lock to SDI input 1 thru 8
- Free run based on Temperature Compensated Crystal Oscillator

Network Interface

- 1 x RJ-45, 10/100/1000 Ethernet
- Embedded web server for remote control
- SNMP

Front Panel

- Display
- Keypad with status LEDs
- Two rotary/push knobs
- Comprehensive alarm indicators

Presets

- Each mode supports 40 Presets

GPI

- 1 x 25-pin D-Connector
  - Four optically isolated GPI inputs
  - Four optically isolated GPO outputs

Size (w x d x h)

- 17.5" x 16" x 1.75" (1RU) (444.5mm x 406.5mm x 44.45mm)

Weight

- 7.9 lb (3.6 kg)

Power

- 100-240 VAC 50/60 Hz (Dual, redundant power supplies), 55W typical; 70W max. 15A max.

Environment

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

FS3

Perfect for Transitioning to 4K

Universal SD/HD Framesync with high quality 4K/UltraHD Up-conversion

Only $2,995 US MSRP*

Find a Reseller

The FS3 is AJA's first FS product with a 4K/UltraHD up-converter, and is the next evolution in video conversion and frame synchronization. Within its compact 1RU chassis, FS3 integrates an array of video and audio processing designed to solve tough signal conversion challenges.

Moving to 4K is never an instant change. Legacy signals and archival material need to be integrated into the 4K environment. Utilizing AJA's remarkable conversion algorithms, FS3 supports up-conversion from SD, HD, and 3G-SDI video to 4K or UltraHD video carried on quad 3G-SDI BNCs, dual 3G-SDI BNCs, or optional fiber LC SFP outputs. Both Quadrant (Square Division) and 2SI (Two Sample Interleave) output formats are supported.

Synchronizing and up-converting SD, HD, and 3G-SDI video to 4K or UltraHD is a critical part of a broadcast, mobile or postproduction environment. FS3 syncs to analog SD blackburst, HD tri-level sync, or to the incoming SDI signal. FS3 also provides integer frame rate conversion (3:2, 1:2, 2:1).

FS3 has full Video Proc Amp and Color Corrector capabilities, and the robust AFD features ensure that the aspect ratio of the outgoing signal is properly identified for downstream devices.

The growth of 5.1 and 7.1 audio has increased the number of audio channels that must be managed in a production. FS3 accepts embedded SDI audio on all four SDI inputs (two coax and two optional fiber), and has an internal 64 x 64 audio matrix that allows routing of all embedded audio channels. Besides audio level, phase, and delay controls, FS3 also provides for 5.1 and 7.1 mixdown to stereo.
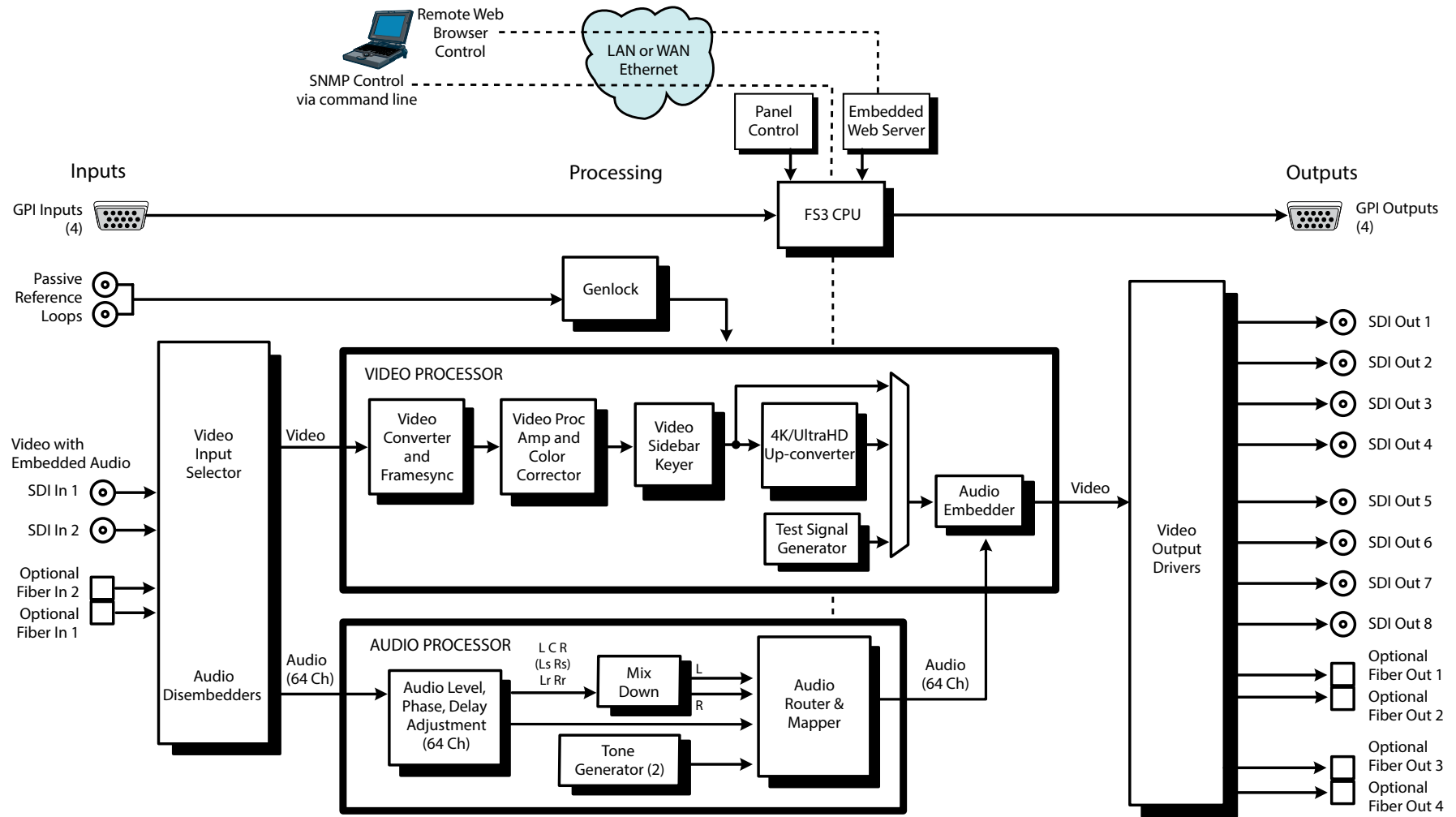
FS3

Connections

Status
Displays current machine status and/or error conditions.

Alphanumeric Display
Displays status and control information.

Power and Status LEDs
Shows the AC power status and any alarm conditions.

Remote
Displays remote control menu.

Video and Audio Select Buttons

Select and Adjust Buttons
Select parameters and adjust their values.

Activity LEDs
Displays at a glance the settings and current conditions.

Fully Redundant AC Power Supplies

GPI

LAN

2x SDI Fiber Inputs*

2x SDI Inputs

4x SDI Fiber Outputs*

8x SDI Outputs

Reference Video with Loop Through

Optional

Click here   For full product specifications visit www.aja.com/products/FS3/#techspecs

FS3

Architecture

Remote Web Browser Control

SNMP Control via command line

LAN or WAN Ethernet

Panel Control

Embedded Web Server

Inputs

Processing

Outputs

GPI Inputs (4)

FS3 CPU

GPI Outputs (4)

Passive Reference Loops

Genlock

SDI Out 1

SDI Out 2

SDI Out 3

SDI Out 4

Video Input Selector

Video

VIDEO PROCESSOR

Video Converter and Framesync

Video Proc Amp and Color Corrector

Video Sidebar Keyer

4K/UltraHD Up-converter

Video with Embedded Audio

SDI In 1

SDI In 2

Test Signal Generator

Audio Embedder

Video

SDI Out 5

SDI Out 6

SDI Out 7

SDI Out 8

Optional Fiber In 2

Optional Fiber In 1

Video Output Drivers

Audio Disembedders

Audio (64 Ch)

AUDIO PROCESSOR

Audio Level, Phase, Delay Adjustment (64 Ch)

L C R (Ls Rs) Lr Rr

Mix Down

L

R

Audio Router & Mapper

Audio (64 Ch)

Tone Generator (2)

Optional Fiber Out 1

Optional Fiber Out 2

Optional Fiber Out 3

Optional Fiber Out 4

FS3

Tech Specs

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
  • Single Link SD/HD/3G-SDI
  • Dual Link HD-SDI (2x1.5G), SMPTE -372
  • 3G-SDI level A, level B-DL, or level B-DS
• Fiber SDI, SMPTE-297, 8 or 10-bits (optional)
  • Single Channel LC connector modules
  • Single Channel SC connector modules
  • Dual Channel LC 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

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

Video Output Digital

• Twelve 3G-SDI outputs, 8 BNC and up to 4 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) 625i50
  • (SD) 525i 59.94
  • YCbCr, 4:2:2, 10-bit

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 Caption 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 Ratio 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

FS3

Tech Specs *(Continued)*

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 -16 ms 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

Size (w x d x h)

- 17.5" x 16" x 1.75" 1RU (444.5mm x 406.5mm x 44.45mm)

Weight

- 7.9 lb (3.6 kg)

Power

- 100-240 VAC 50/60Hz (dual, redundant power supplies), 55W typical; 80W max. 15A max.

Environment

- Operating Temperature: 0 to 40 degree C
- Operating altitude: <3,000 meters (<10,000 feet)
- Relative humidity: 0 to 90%, noncondensing

Control

- GPI in/out, 15-pin D-connector

1	GROUND	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	GROUND
8	GPI OUT 1		

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

FS2

A World of Conversion Possibilities

Only **$3,995** US MSRP*

Find a Reseller

With Dual Channel conversion and frame synchronizing in a slim 1RU space, FS2 can do the work of two separate devices or combine both processors together for maximum flexibility.

Double your conversion capacity and still have room to spare.

Offering huge flexibility and the power to adapt to meet the needs of rapidly changing environments, FS2 offers unprecedented conversion and frame synchronization power in a 1RU space.

Capable of simultaneously working with two independent streams of 3G/HD/SD 10-bit broadcast quality video and two independent groups of multi-channel analog or digital audio, each FS2 video channel supports virtually any input or output: analog component or composite, 3G-SDI, Dual Link (1.485 Gb), Fiber and HDMI I/O. A Fiber I/O option allows fiber cable runs of up to 10 kilometers to be connected directly to the FS2 without the need for separate fiber to SDI conversion. Each video processing channel can be individually cropped and resized using AJA's image scaling technology for the best possible quality when incorporating nonstandard image sizes.

FS2 can be used as two separate frame synchronizers/format converters, or the two channels can be linked with the internal FS2 keyer to do the work of three or more devices - for example HD sidebar keying where both the video and background graphics are up-converted and combined.

FS2 can up or down-convert between SD, HD, and 3G HD (1080p50/60), and cross-convert between HD formats including 3G HD. Additionally, FS2 has full input and output signal routing, allowing any I/O port to be assigned to either processing channel.
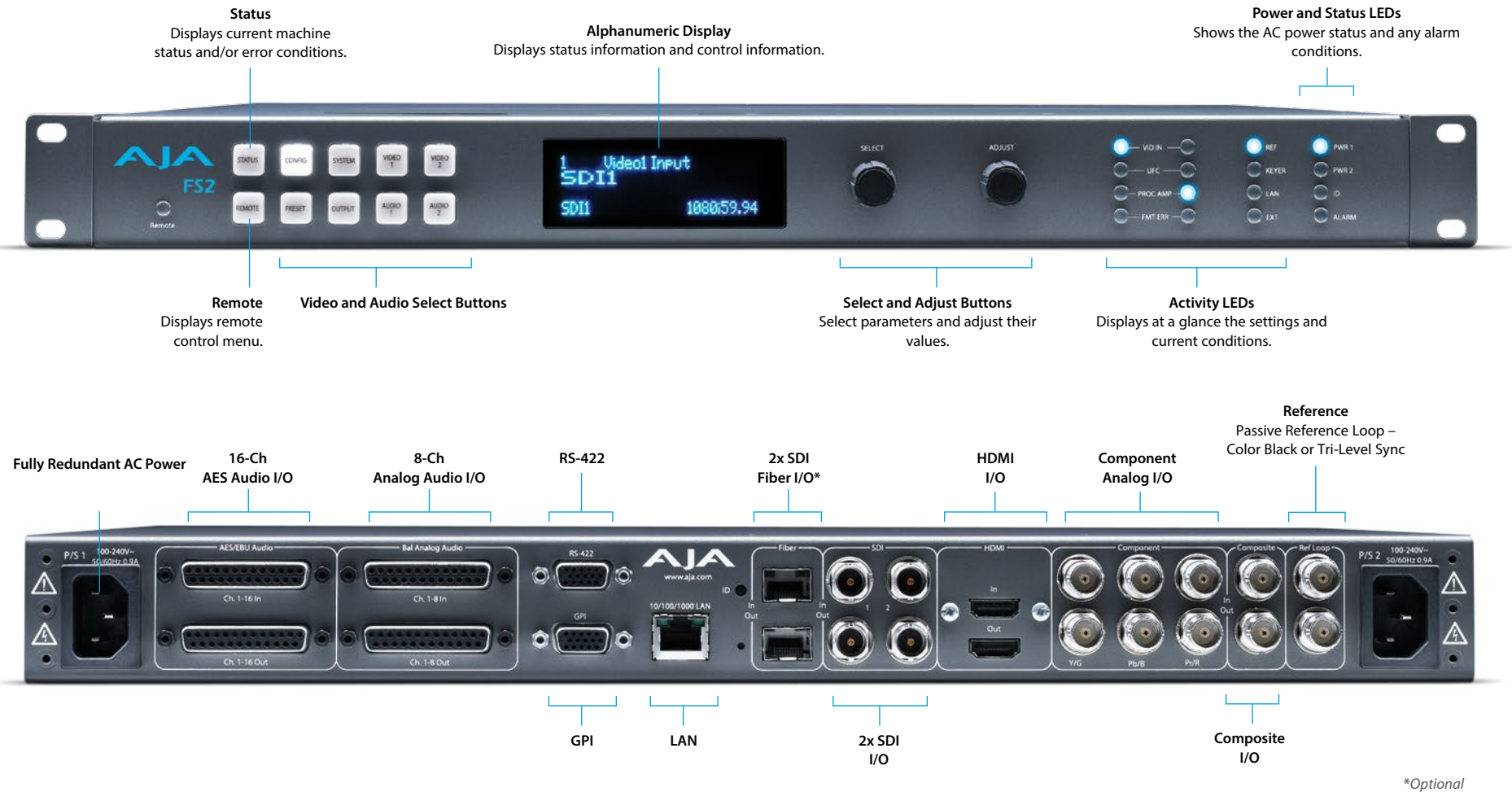
For audio, FS2 has two audio processors, each supporting 16-Channel AES/EBU digital audio, 16-Channel embedded audio, and 8-Channel balanced analog audio with a variety of controls for maximum flexibility. The output of each processor can be embedded in its respective video processor output (SDI, Fiber, or HDMI), or sent to the AES or balanced outputs. For 3G and Dual Link inputs, the audio processors can have access to all 32 channels.

FS2 supports closed captioning and the conversion of closed captioning between SD and HD formats - including full conversion between CEA-608 and CEA-708 caption standards.
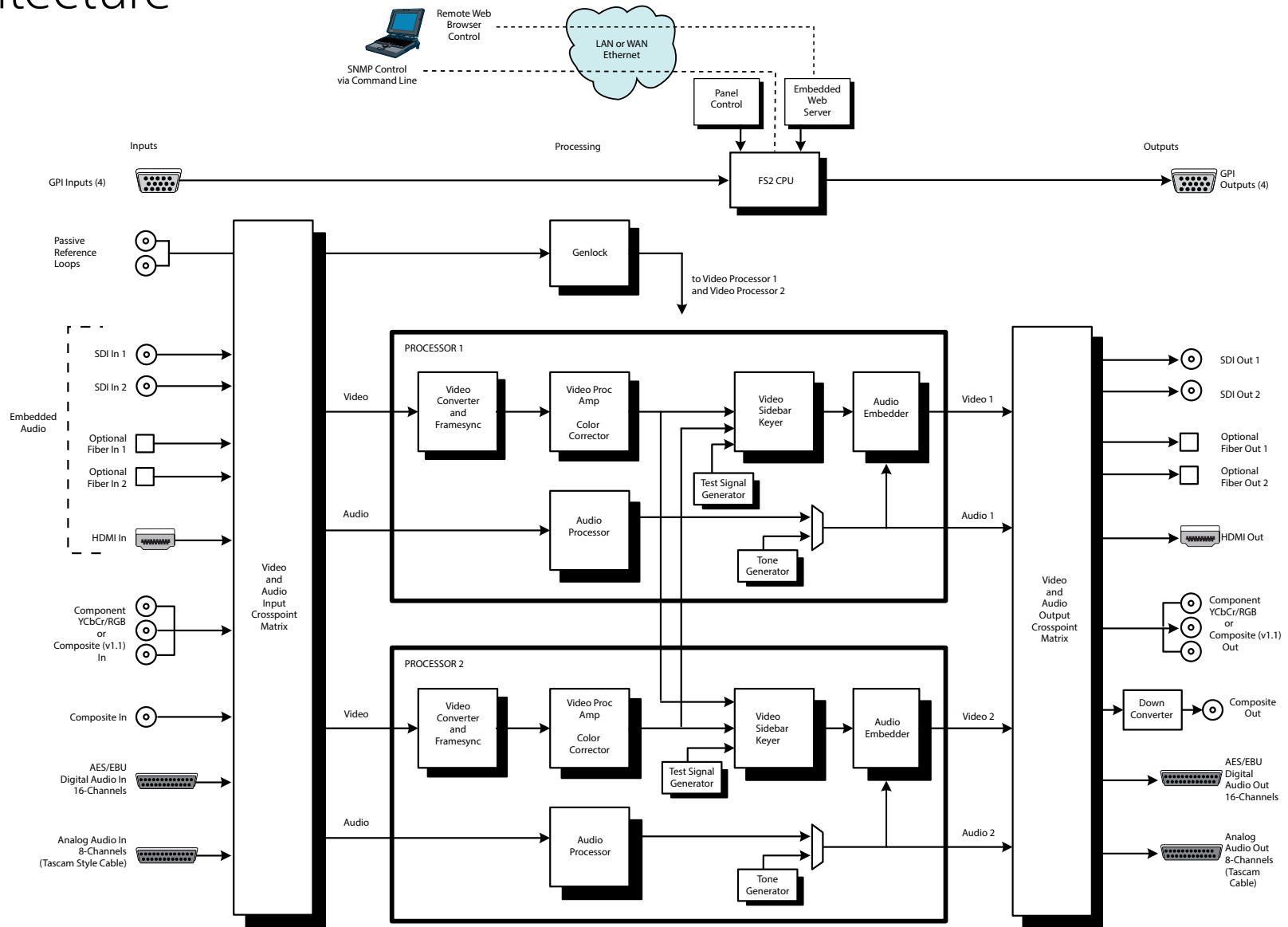
*Pricing is for US only. International pricing will vary. Please contact a local AJA Reseller for pricing details.

FS2

Connections

Status
Displays current machine status and/or error conditions.

Alphanumeric Display
Displays status information and control information.

Power and Status LEDs
Shows the AC power status and any alarm conditions.

Remote
Displays remote control menu.

Video and Audio Select Buttons

Select and Adjust Buttons
Select parameters and adjust their values.

Activity LEDs
Displays at a glance the settings and current conditions.

Reference
Passive Reference Loop – Color Black or Tri-Level Sync

Fully Redundant AC Power

16-Ch AES Audio I/O

8-Ch Analog Audio I/O

RS-422

2x SDI Fiber I/O*

HDMI I/O

Component Analog I/O

GPI

LAN

2x SDI I/O

Composite I/O

Optional

For the most recent product specifications visit www.aja.com/products/fs2/#techspecs

FS2

Architecture

Remote Web Browser Control

SNMP Control via Command Line

LAN or WAN Ethernet

Panel Control

Embedded Web Server

Inputs

Processing

Outputs

GPI Inputs (4)

FS2 CPU

GPI Outputs (4)

Passive Reference Loops

Genlock

to Video Processor 1 and Video Processor 2

SDI In 1

SDI In 2

Embedded Audio

Optional Fiber In 1

Optional Fiber In 2

HDMI In

Component YCbCr/RGB or Composite (v1.1) In

Composite In

AES/EBU Digital Audio In 16-Channels

Analog Audio In 8-Channels (Tascam Style Cable)

Video and Audio Input Crosspoint Matrix

PROCESSOR 1

Video

Video Converter and Framesync

Video Proc Amp Color Corrector

Video Sidebar Keyer

Audio Embedder

Video 1

Test Signal Generator

Audio

Audio Processor

Audio 1

Tone Generator

PROCESSOR 2

Video

Video Converter and Framesync

Video Proc Amp Color Corrector

Video Sidebar Keyer

Audio Embedder

Video 2

Test Signal Generator

Audio

Audio Processor

Audio 2

Tone Generator

Video and Audio Output Crosspoint Matrix

SDI Out 1

SDI Out 2

Optional Fiber Out 1

Optional Fiber Out 2

HDMI Out

Component YCbCr/RGB or Composite (v1.1) Out

Down Converter

Composite Out

AES/EBU Digital Audio Out 16-Channels

Analog Audio Out 8-Channels (Tascam Cable)

FS2

Tech Specs

Video Formats

- (HD) 1080p 24, 25, 30
- (HD) 1080PsF 23.98, 24
- (HD) 1080i 25, 29.97, 30
- (HD) 720p 50, 59.94, 60
- (SD) 625i 25
- (SD) 525i 29.97

Video Input Digital

- Dual 3G-SDI, SMPTE-259/292/424, 8 or 10-bits
- 3G-SDI Dual Link, Dual Stream, level A or B
- Fiber SDI, SMPTE-297, 8 or 10-bits (optional)
  - Single Channel LC connector modules
  - Single Channel SC connector modules
  - Dual Channel LC connector modules
- HDMI 30 bits/pixel, RGB or YUV, SD, HD, 1080p-50/60

Video Input Analog

- SD/HD component YPbPr, SMPTE-274 (3 x BNC)
- 12-bit A/D, 2x oversampling
- +/- .25 dB to 5.5 MHz Y frequency response
- +/- .25 dB to 2.5 MHz C frequency response
- .5% 2T pulse response
- <2 ns Y/C delay inequity
- SD composite
- 12-bit A/D, 4x oversampling

Video Output Digital

- Dual SD/HD/3G SDI, SMPTE-259/292/424, 8 or 10-bits
- 3G SDI Dual Link, Dual Stream, level A or B
- Dual Fiber (SC or LC) SD/HD/3G SDI, SMPTE-297, 8 or 10-bits (optional)
- HDMI 30-bits/pixel, RGB or YUV, SD, HD, 1080p50, 60

Video Output Analog

- SD/HD component YPbPr, SMPTE-274 (3 x BNC)
- 12-bit D/A, 2x oversampling
- 12-bit D/A, 4x oversampling
- +/- .25 dB to 5.5 MHz Y frequency response
- +/- .25 dB to 2.5 MHz C frequency response
- .5% 2T pulse response
- <2 ns Y/C delay inequity
- SD Composite
- 12-bit D/A, 4x oversampling

Audio Input Digital

- 16-Channel, 24-bit SDI embedded audio, 48 kHz sample rate, synchronous
- 16-Channel, 24-bit AES/EBU audio, 48 kHz sample rate, synchronous or nonsynchronous, internal sample rate conversion (25-pin "D" TASCAM connector)

Audio Input Analog

- 8-Channel, 24-bit A/D analog audio, 48 kHz sample rate, balanced (25-pin "D" TASCAM connector)
  - +12 dBu, +15 dBu, +18 dBu, +24 dBu (Full Scale Digital)
  - +/- 0.2 dB 20 Hz to 20 kHz frequency response

Audio Output Digital

- 16-Channel, 24-bit SDI embedded audio, 48 kHz sample rate, synchronous
- 16-Channel, 24-bit AES/EBU audio, 48 kHz sample rate, Synchronous or nonsynchronous, internal sample rate conversion (25 pin "D" TASCAM connector)

Audio Output Analog

- 8-Channel, 24-bit D/A analog audio, 48 kHz sample rate, balanced (25 pin "D" TASCAM connector)
  - +12 dBu, +15 dBu, +18 dBu, +24 dBu (Full Scale Digital)
  - +/- 0.2 dB 20 Hz to 20 kHz frequency response

Captioning

- Full conversion of CEA-608 to CEA-708 captions
- Preserve captioning even when converting between formats

Up-Conversion

- Hardware 10-bit
- **Anamorphic:** fullscreen
- **Pillar box 4:3:** results in a 4:3 image in center of screen with black sidebars
- **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 can introduce a small aspect ratio change

Down-Conversion

- 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

Cross-Conversion

- Hardware 10-bit
- 1080i to 720p
- 720p to 1080i
- 1080p to 720p, 720p to 1080p

FS2

Tech Specs *(Continued)*

SD to SD Aspect Ratio 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.

Timecode

• SDI RP188 via SDI BNC

Reference Input

• Analog Color Black (1V) or Composite Sync (2 or 4V)
• Looping, nonterminating

Network Interface

• 10/100/1000 Ethernet (RJ-45)
• Embedded web server for remote control
• VTECS™ protocol for Remote Control Panel

User Interface

• Alphanumeric display, with dedicated buttons

Control

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

1	GROUND	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	GROUND
8	GPI OUT 1		

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

Size (w x d x h)

• 17.25" x 14.5" x 1.75" 1RU (438.1mm x 368.3mm x 44.4mm)

Weight

• 7.9 lb (3.6 kg)

Power

• 100-240 VAC 50/60 Hz (Dual, redundant power supplies), 55 W typical; 80W max. 15A max.

Environment

• Operating Temperature: 0 to 40 degree C
• Relative humidity: 0 to 90%, noncondensing
• Operating Altitude: <3,000 meters (<10,000 feet)

FS1-X

Starting at $3,495 US MSRP*

Find a Reseller

FS1-X with the optional Frame Rate Converter allows unprecedented conversion quality between disparate formats. The addition of 64-Channel MADI audio I/O integrates FS1-X into the most modern workflows while preserving valuable rack space.

Problem Solved

Universal Framesync and Conversion

Matching up and synchronizing disparate video and audio formats is a critical part of any broadcast, mobile or postproduction environment. AJA's FS1-X is the next evolution in frame synchronization and conversion. Within its compact 1RU chassis, FS1-X integrates an amazing array of video and audio connectivity and processing. Featuring a flexible architecture, FS1-X simultaneously works with 3G-SDI 10-bit broadcast quality video and incorporates embedded audio, AES, MADI, and analog audio.

Utilizing AJA's remarkable conversion algorithms, FS1-X supports up, down and cross-conversion between SD and HD signals for the highest quality output possible. Additionally, the factory installed motion adaptive Frame Rate Converter (FRC) option enables high quality conversions between different frame rate families for virtually unlimited international standards support.

The growth of 5.1 and 7.1 audio has increased the number of audio channels that must be managed in a production. The MADI standard provides a convenient way to transport huge numbers of audio channels along a single cable, simplifying the cabling demands for broadcasters,
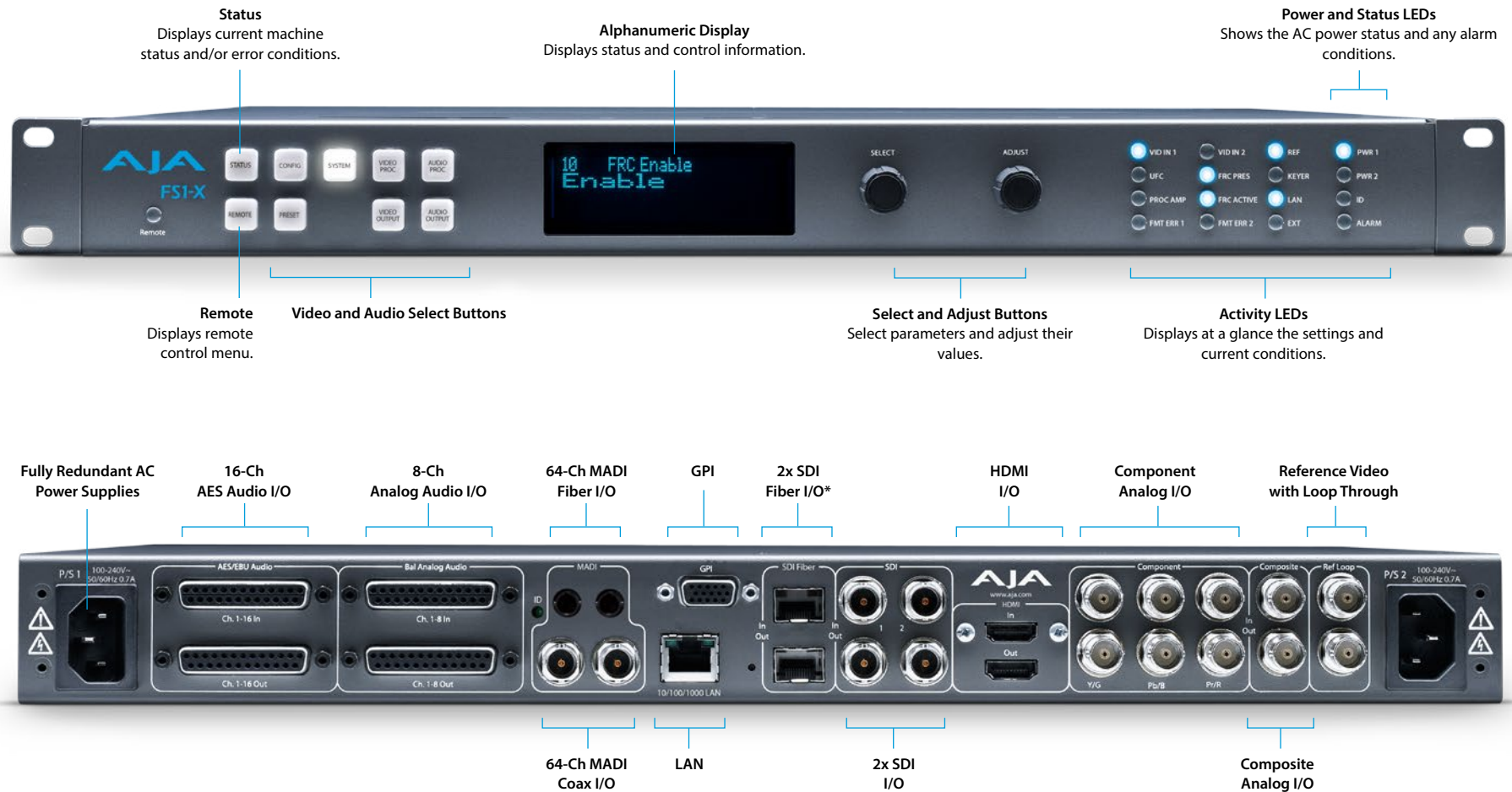
mobile trucks and production. FS1-X supports both fiber and coax 64-Channel MADI input and output. An internal 224 x 224 audio matrix allows full routing of MADI and all audio coming from SDI, fiber, AES and analog sources for an incredible amount of audio processing capability in a single box.

FS1-X features a unique keyer configuration, allowing incoming signals to be combined in powerful ways. A common example is sidebar keying, where incoming video is converted from SD to HD but rather than stretching the 4:3 aspect ratio to fit in a 16:9 frame, a second signal is used to fill the sides of the 16:9 frame. This allows channel identification or other imagery to be placed in that area rather than having black bars on either side. The robust AFD features of FS1-X ensure that the aspect ratio of the outgoing signal is properly identified for downstream devices.

FS1-X supports closed captioning and the conversion of closed captioning between SD and HD formats - including full conversion between CEA-608 and CEA-708 caption standards.
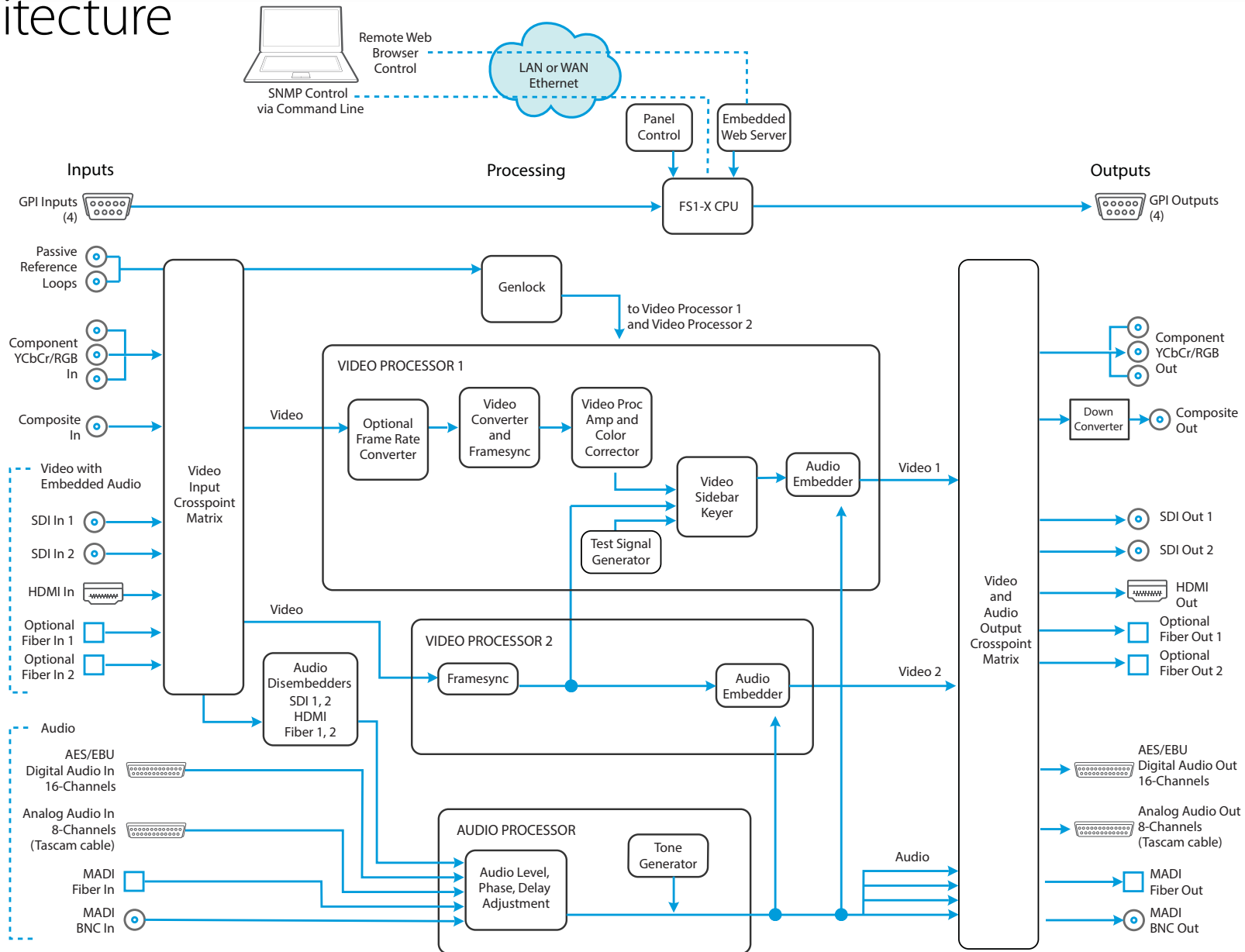
* Pricing is for US only. International pricing will vary. Please contact a local AJA Reseller for pricing details.

FS1-X

Connections

Status
Displays current machine status and/or error conditions.

Alphanumeric Display
Displays status and control information.

Power and Status LEDs
Shows the AC power status and any alarm conditions.

Remote
Displays remote control menu.

Video and Audio Select Buttons

Select and Adjust Buttons
Select parameters and adjust their values.

Activity LEDs
Displays at a glance the settings and current conditions.

Fully Redundant AC Power Supplies

16-Ch AES Audio I/O

8-Ch Analog Audio I/O

64-Ch MADI Fiber I/O

GPI

2x SDI Fiber I/O*

HDMI I/O

Component Analog I/O

Reference Video with Loop Through

64-Ch MADI Coax I/O

LAN

2x SDI I/O

Composite Analog I/O

*Optional

Click here For full product specifications visit www.aja.com/products/fs1-x/#techspecs

FS1-X

Architecture

FS1-X

Tech Specs

Video Input Digital

• Dual 3G-SDI, SMPTE-259/292/424, 8- or 10-bits
• 3G-SDI Dual Link, Dual Stream, level A or B
• Fiber SDI, SMPTE-297, 8- or 10-bits (optional)
   • Single Channel LC connector modules
   • Single Channel SC connector modules
   • Dual Channel LC connector modules
• HDMI 30-bits/pixel, RGB or YUV, SD, HD, 1080p50, 60

Video Input Analog

• SD/HD component YPbPr, SMPTE-274 (3 x BNC)
• 12-bit A/D, 2x oversampling
• +/- .25 dB to 5.5 MHz Y frequency response
• +/- .25 dB to 2.5 MHz C frequency response
• .5% 2T pulse response
• <2 ns Y/C delay inequity
• SD composite
• 12-bit A/D, 4x oversampling

Video Output Digital

• Dual 3G-SDI, SMPTE-259/292/424, 8- or 10-bits
• 3G SDI Dual Link, Dual Stream, level A or B
• Dual Fiber (SC or LC) SD/HD/3G SDI, SMPTE-297,
• 8 or 10-bits (optional)
• HDMI 30 bits/pixel, RGB or YUV, SD, HD,
• 1080p50, 60 Video Output Analog

Video Output Analog

• SD/HD component YPbPr, SMPTE-274 (3 x BNC)
• 12-bit A/D, 2x oversampling
• +/- .25 dB to 5.5 MHz Y frequency response
• +/- .25 dB to 2.5 MHz C frequency response
• .5% 2T pulse response
• <2 ns Y/C delay inequity
• SD composite
• 12-bit A/D, 4x oversampling

Audio Input Digital

• 64-Channel MADI, coax or fiber, 48 kHz sample rate,
  synchronous
• 16-Channel, 24-bit SDI embedded audio,
  48 kHz sample rate, synchronous
• 16-Channel, 24-bit AES/EBU audio, 48 kHz sample rate,
  synchronous or nonsynchronous, internal sample rate
  conversion (25 pin "D" TASCAM connector)

Audio Input Analog

• 8-Channel, 24-bit A/D analog audio, 48 kHz sample rate,
  balanced (25 pin "D" TASCAM connector)

Audio Output Digital

• 64-Channel MADI, coax or fiber, 48 kHz sample rate,
  synchronous
• 16-Channel, 24-bit SDI embedded audio,
  48 kHz sample rate, synchronous
• 16-Channel, 24-bit AES/EBU audio, 48 kHz sample rate,
  synchronous or nonsynchronous, internal sample rate
  conversion (25 pin "D" TASCAM connector)

Audio Output Analog

• 8-Channel, 24-bit D/A analog audio, 48 kHz sample rate,
  balanced (25 pin "D" TASCAM connector)

Up-Conversion

• Hardware 10-bit
• **Anamorphic:** fullscreen
• Pillarbox 4:3: results in a 4:3 image in center of screen
  with black sidebars
• **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

• 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

Cross-Conversion

• Hardware 10-bit
• 1080i to 720p
• 720p to 1080i
• 1080p to 720p, 720p to 1080p

SD to SD Aspect Ratio 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

Captioning

• Full conversion of CEA-608 to CEA-708 captions
• Preserve captioning even when converting
  between formats

Timecode

• SDI RP188 via SDI BNC

Reference Input

• Color Black or Tri-Level Sync
• Looping, nonterminating

Network Interface

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

User Interface

• Alphanumeric display, with dedicated buttons

FS1-X

Tech Specs *(Continued)*

Control

• GPI in/out, 15-pin D-connector

1	GROUND	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	GROUND
8	GPI OUT 1		

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

Size (w x d x h)

• 17.5" x 16" x 1.75" 1RU (444.5mm x 406.5mm x 44.45mm)

Weight

• 7.9 lb (3.6 kg)

Power

• 100-240 VAC 50/60 Hz (Dual, redundant power supplies), 55 W typical; 80W max. 15A max.

Environment

• Operating Temperature: 0 to 40 degree C
• Relative Humidity: 0 to 90%, noncondensing
• Operating Altitude: <3,000 meters (<10,000 feet)

5 Year Warranty

AJA Video warrants that FS products will be free from defects in materials and workmanship for a period of five years from the date of purchase.

About AJA Video Systems, Inc.

Since 1993, AJA Video has been a leading manufacturer of video interface and conversion solutions, bringing high quality, cost effective digital video products to the professional, broadcast and post production markets. AJA products are designed and manufactured at our facilities in Grass Valley, California, and sold through an extensive sales channel of resellers and systems integrators around the world. For further information, please see our website at **www.aja.com**

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