

CONVERT

FS1

HD/SD Audio/Video Frame
Synchronizer and Converter



Because it matters.

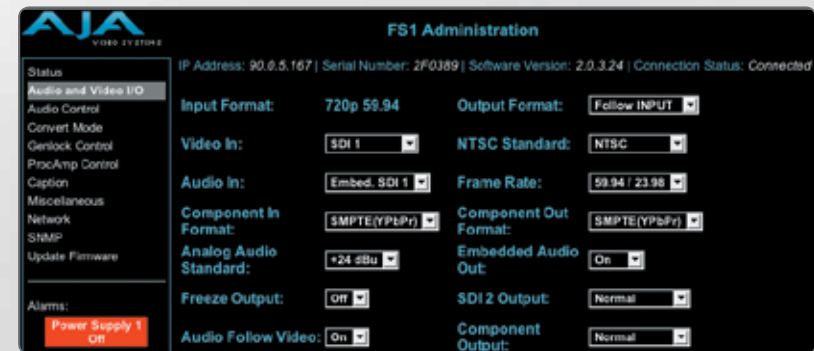


FS1

HD/SD Audio/Video Frame Synchronizer and Converter

Featuring a flexible input, output, and control architecture, the FS1 Universal HD/SD Audio/Video Frame Synchronizer and Converter can simultaneously work with both HD and SD video — all in full 10-bit broadcast quality video and 24-bit audio. The FS1 supports virtually any input or output, analog or digital, HD or SD. The FS1 can up-or-down-convert between SD and HD, and provide simultaneous HD and SD outputs.

Up, Down, Cross-Conversion between HD formats are also supported, with simultaneous output of both formats. For audio, the FS1 supports 8-channel AES, balanced analog, or 16 channel embedded audio with full flexibility and audio processing controls. You can choose from any of the 4 groups of embedded audio for 8 channel output on the AES or Analog audio. The FS1 supports closed captioning and the conversion of closed captioning between SD and HD formats—including full conversion of CEA-608 captions to the CEA-708 standard. The FS1 is also network ready, supporting web-based and SNMP remote control.



Remote Web Interface



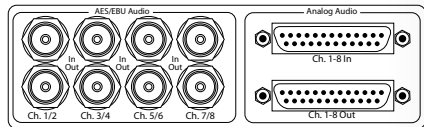
Flexible Input...

- 525i / 720p / 1080i / 59.94Hz
- 1080 psf 23.98Hz
- 625i / 720p / 1080i / 50Hz
- 1080 psf 24Hz
- 1080i / 720p / 60Hz
- 8-channel AES Audio
- 16-channel Embedded Audio
- 8-channel Balanced Analog Audio



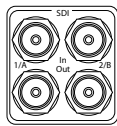
...Flexible Output

- 525i / 720p / 1080i / 59.94Hz
- 1080 psf 23.98Hz
- 625i / 720p / 1080i / 50Hz
- 1080 psf 24Hz
- 1080i / 720p / 60Hz
- 8-channel AES Audio
- 16-channel Embedded Audio
- 8-channel Balanced Analog Audio



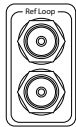
Audio Connections

- 8-channel balanced analog, 25 pin D (Tascam pinout)
- 8-channel AES (BNC)
- 16-channel HD/SD-SDI embedded
- Audio A/D, D/A: 24 Bits, 48Khz
- Audio Levels: +12dBu, +15dBu, +18dBu, +24dBu, (Full Scale Digital)
- Channel mapping



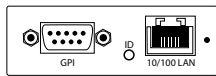
HD/SD-SDI

- Dual HD/SD-SDI inputs and output, SMPTE 259/274/292/296



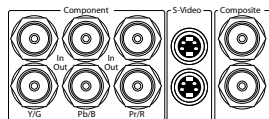
Reference Video with Loop-Through

- Synchronize FS1 outputs to house reference video signal (blackburst or composite sync for SD, or Tri level for HD).



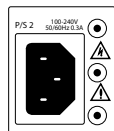
LAN and GPI Connections

- 2x GPI inputs/outputs, TTL, isolated.
- RJ45 10/100 LAN connector—offers DHCP, SNMP and embedded Web Server Remote Control



Analog Video

- HD component YPbPr/RGB (RGB is output only), SMPTE-274
- SD component/composite/YC (S-Video)
- Video A/D, D/A: 12 bits 2x oversampled (HD), 4x oversampled (SD)



Fully Redundant AC Power Supplies

Two independent AC power supplies with independent power connectors. The power supplies autosense from 100 to 240VAC, 50/60Hz. Only one has to be connected for operation; connect both for redundancy. Alarm monitoring alerts locally and remotely if a power supply fails.

Features

- SD/HD up/down conversion
- SD/SD aspect ratio conversion
- HD/HD cross conversion (720p/1080i)
- Up/down/cross conversion with both the input and converted formats on SD/HD SDI outputs (both synchronized)
- HD cross conversion with simultaneous downconverted SDI output
- Closed caption support for up, down and cross-conversion
- AFD support (Active Format Description)
- Dual HD/SD SDI inputs and outputs
- Component analog HD/SD input and output (RGB)
- Composite/S-video input and output with TBC
- 8-channel AES and balanced analog audio inputs and outputs
- 16-channel embedded audio I/O
- Fully redundant power supplies standard
- 10/100 LAN with SNMP, and embedded web server for remote control
- Video Proc Amp
- Audio Channel Mapping
- Chassis styling optimized for machine room use with simple panel and remote web browser user interfaces
- Front panel alphanumeric and graphical display shows input/output settings and parameter viewing/editing choices
- LED status indicators for at-a-glance system monitoring
- Two GPI inputs and outputs, TTL, isolated
- Register Recall/Store
- Save/Restore to Computer
- Tone and Test Signal Generator
- Sidebar Keyer
- VTECS 2 and VTECS 5 Remote Control Panel Support
- Front panel lockout from web UI
- Password protect for web UI
- GPI control for Aspect Ratio Conversion
- 5 year warranty

Front panel control



Remote

Displays remote control menu.

Status

Displays current machine status and/or error conditions.



Alphanumeric Display

Displays status information and Control information (for viewing and changing functions/parameters).



Select and Adjust Buttons

Select Parameters and adjust their values.



Activity LEDs

Displays at-a-glance the settings and current FS1 conditions.



Power and Status LEDs

Shows the AC power status and any alarm conditions.)

Specifications

| Input | Possible Output Formats | | |
|--------------|-------------------------|------------|------------|
| 525i59.94 | 525i59.94 | 720p59.94 | 1080i59.94 |
| 720p59.94 | 525i59.94 | 720p59.94 | 1080i59.94 |
| 1080i59.94 | 525i59.94 | 720p59.94 | 1080i59.94 |
| 1080pSF23.98 | 1080pSF23.98 | 1080i59.94 | 525i59.94 |
| 625i50 | 625i50 | 1080i50 | 720p50 |
| 720p50 | 625i50 | 1080i50 | 720p50 |
| 1080i50 | 625i50 | 1080i50 | 720p50 |
| 1080pSF24 | 1080pSF24 | 1080i60 | |
| 1080i60 | 1080i60 | 720p60 | |
| 720p60 | 720p60 | 1080i60 | |

Notes:

- In the case of 1080pSF/23.98 input—and when 1080i59.94 (or 525) is selected as an output format, the FS1 automatically does 3:2 pulldown correct frame rate. Similarly, in the case of 1080pSF/24 input, FS1 automatically does 3:2 pulldown to get the correct frame rate.
- When passing 24 or 60 framerate video, output is high definition.

Video Inputs and Outputs

- Dual HD/SD-SDI, SMPTE 259/274/292/296
- HD component YPbPr/RGB (RGB is output only), SMPTE-274
- SD component/composite/YC (S-Video)

Video A/D, D/A

- 12-bit
- 2x oversampled (HD)
- 4x oversampled (SD)

Audio Inputs and Outputs

- 8-channel balanced analog, 25 pin D (Tascam pinout)
- 8-channel AES (BNC)
- 16-channel HD/SD-SDI Embedded

Audio A/D, D/A

- 24-Bit, 48Khz

Audio Levels

- +12dBu, +15dBu, +18dBu, +24dBu, (Full Scale Digital)

LAN

- 10/100 auto config., auto cable crossover
- Embedded Webserver, HTTP v1.1, SNMP

GPI

- 2x GPI input, TTL, isolated
- 2x GPI output, TTL, isolated

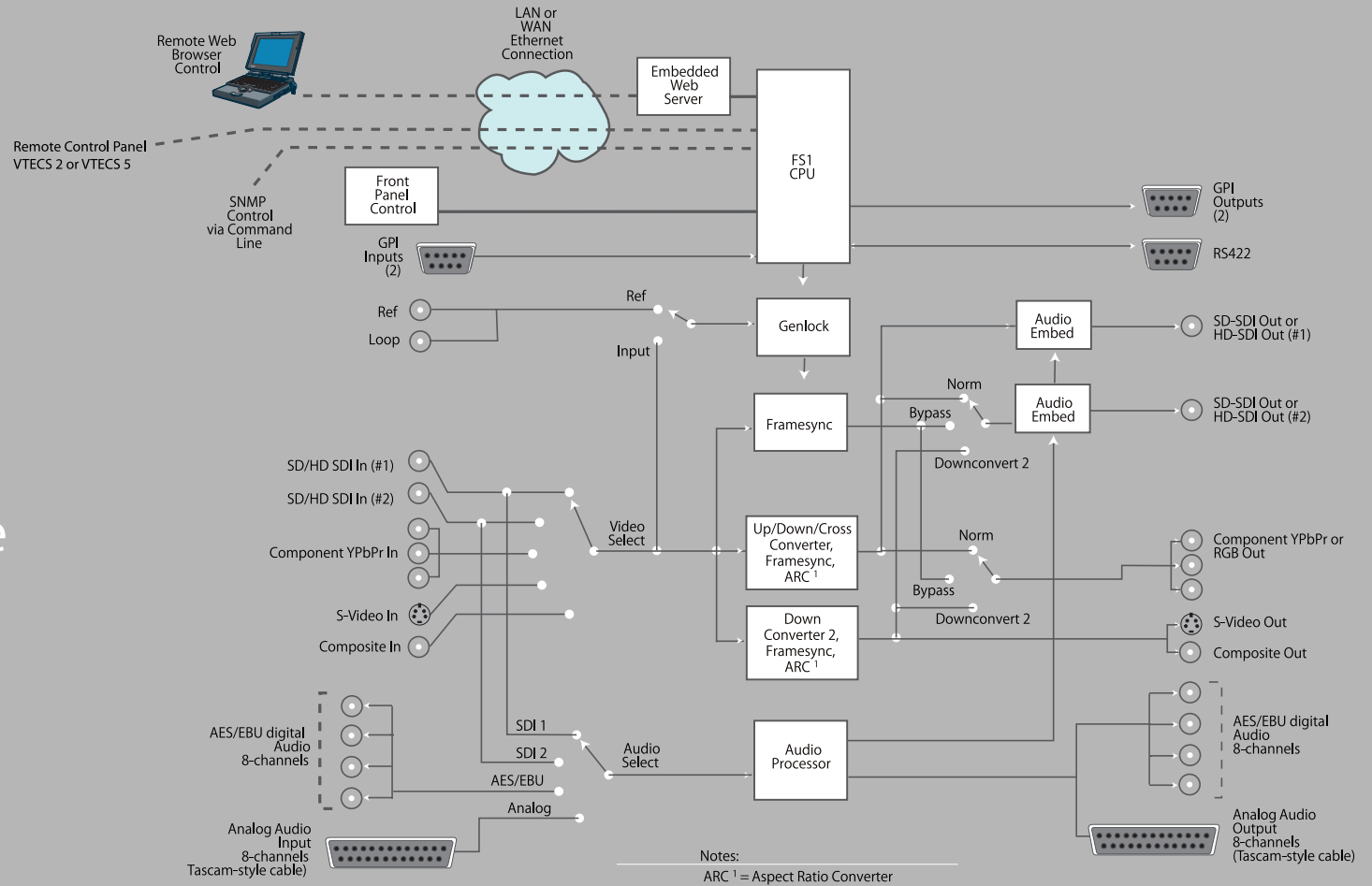
Physical

- 1 RU, 12 inches deep, fan-cooled

Power

- 100-240 VAC, 25 watts
- Fully Redundant, diode isolated

Flexible I/O FS1 Architecture



Incredible 3 Year Warranty

AJA Video warrants that KONA products will be free from defects in materials and workmanship for a period of three 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 offers the Io and KONA desktop video products, Ki Pro family of recorders, miniature stand-alone converters, and a complete line of rack mount interface and conversion cards and frames. With a headquarters and design center located in Grass Valley, California, AJA Video offers its products through an extensive sales channel of dealers and systems integrators around the world. For further information, please see our website at www.aja.com

B e c a u s e i t m a t t e r s .



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