FS1
HD/SD Audio/Video Frame Synchronizer and Converter

Because it matters.

AJA VIDEO SYSTEMS
Featuring a flexible “anything in, anything out” 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 ASE 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.
Anything in...

- 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

Anything out...

- 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
**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

<table>
<thead>
<tr>
<th>Input</th>
<th>Possible Output Formats</th>
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<tbody>
<tr>
<td>525i59.94</td>
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<tr>
<td>720p60</td>
<td>1080i60, 720p60</td>
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</tbody>
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**Notes:**
1. 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.
2. 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 (5-Video)

**Video 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
Anything in, Anything out.
FS1 Architecture
Incredible 5 Year Warranty
AJA Video warrants that FS1 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 offers the Io, KONA and XENA desktop video products, 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

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