



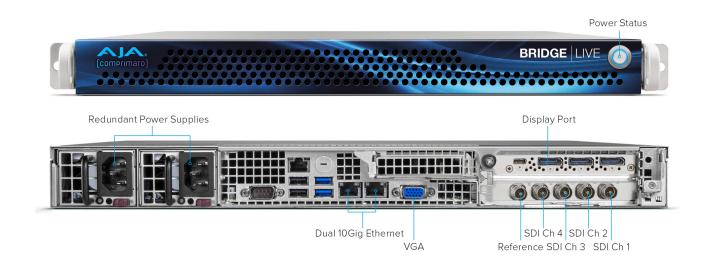
# **BRIDGE LIVE**

BRIDGE LIVE is a turnkey solution built for critical streaming applications with high performance 12G-SDI video encoding/decoding, stream based transcoding, flexible I/O, comprehensive metadata support, Closed Captioning support and all within a compact 1RU form factor with redundant power supplies.

**\$15,999** US MSRP

Designed with the ability to support both low latency and high quality workflows across a range of codecs, containers, and protocols, BRIDGE LIVE enables numerous use cases; multi-input live streaming to platforms such as YouTube, Facebook, or Twitch, providing high quality reference video for remote collaboration in production and post, backhauling remote live SDI video sources to the media production facility, SDI to MPEG-TS conversions for Telcos/IPTV/Cable networks, through to encoding for content distribution with ABR ladder profiles or hand off for OTT packaging, and all supported via public internet.

https://www.aja.com/products/bridge-live



## Video Formats

- (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, 47.95, 48, 50, 59.94, 60
- (HD) 1080p 23.98, 24, 25, 29.97, 30, 50, 59.94, 60
- (HD) 1080i 50, 59.94, 60
- (HD) 720p 50, 59.94, 60
- (SD) 625i 50



• (SD) 525i 59.94

## Video Color Component Sampling

- SDI
  - o YCbCr, 4:2:2, 10-bit
- Transport Streams
  - o YCbCr, 4:2:2, 10-bit/8-bit
  - YCbCr, 4:2:0, 10-bit/8-bit
- NDI
  - o P216, 4:2:2, 16-bit
  - o UYVY, 4:2:2, 8-bit

#### Video Codecs

- H.264 (AVC, MPEG-4)
- H.265 (HEVC)
- JPEG 2000 (VSF TR-01)
- MPEG-2
- NDI
- JPEG-XS (VSF TR-07)

### Audio Streams/Codecs

- AAC
- AC3
- E-AC3 (input)
- MPEG-2 Audio
- NDI (uncompressed float)
- Uncompressed PCM (multi-channel), SMPTE 302M-2007

#### Metadata

- MPEG-2 ancillary packet support, SMPTE 2038
- HDR over SDI end-to-end via VPID signaling for SDR/HDR Transfer Characteristics, Colorimetry, and Luminance
- Closed Captioning (EIA-608/708)
- Line 21 Captions
- Metadata pass-through
- SCTE-35, SCTE-104
- Subtitles embedded within H.264 SEI messages
- Electronic program guide (EPG) on input

#### Containers and Protocols

- HLS (input)
  - o AVC TS segments
  - Fragmented MP4
- HLS (output)
- AVC TS segments
- MPEG-TS
- MPTS (input)
- RTMP
- RTMPS(output)
- RTP, UDP
- SRT (including encryption)
- VSF TR-01
- VSF TR-07

## Video Processing

- Auto Color Component Sampling based on I/O settings
- Cropping / Padding
- Color adjustments
- Deinterlacing
- Frame rate 50% down-conversion (60p->30p, 59.94->29.97, 50p->25p)
- Frame rate up-conversion (50i->50p)
- Logo insertion

Resizing

## **Audio Processing**

- Channel Remapping
- Gair
- Sample Rate conversion

## Synchronization

- Input PCR
  - Global configuration (in separate transport stream)
  - Local configuration (in each transport stream)
- Output PTS
  - o Pass-through
  - o Add offset to input PTS
- NTP
  - o Encoder Synchronous Multi-Channel Transport
- PCR
  - o Decoder Synchronous Multi-Channel Transport

### Performance

- Stream startup time maximum 5 seconds after configuration applied
- Latency down to sub 150ms input to output (based on codec and other parameters)
- Encode/Decode simultaneously up to 4x incoming SDI 1080 60p streams (to numerous IP video output destinations/variations\*)
- Encode/Decode simultaneously up to 2x incoming SDI UltraHD 30p streams (to numerous IP video output destinations/variations\*)
- Encode/Decode up to 1x incoming SDI UltraHD 60p streams (to numerous IP video output destinations/variations\*)
- Additional transcoding tasks can be carried out when Encoding/Decoding to/from SDI\*
- NDI 1080p is supported up to 60p, NDI 4K is supported up to 60p

## Video Input Digital

- 12G-SDI, SMPTE-2082, 10-bit
- 6G-SDI\*, SMPTE-2081, 10-bit
- 3G-SDI, SMPTE-424, 10-bit
- 1.5G-SDI, SMPTE 292M, 10-bit
- 270 Mbit/s SDI, SMPTE 259M-C, 10-bit

# Video Output Digital

- 12G-SDI, SMPTE-2082, 10-bit
- 6G-SDI\*, SMPTE-2081, 10-bit
- 3G-SDI, SMPTE-424, 10-bit
- 1.5G-SDI, SMPTE 292M, 10-bit
- 270 Mbit/s SDI, SMPTE 259M-C, 10-bit

\*UltraHD 30p supported, no other SMPTE-2081 support at this time

# Audio Input Digital

 16-channel, 16 and 24-bit SDI embedded audio, 48 kHz sample rate, synchronous per SDI connection

# Audio Output Digital

• 16-channel, 16 and 24-bit SDI embedded audio, 48 kHz sample rate, synchronous per SDI connection

<sup>\*</sup>Final additional stream count per output is dependent on settings and configuration. See Manual for more details.

<sup>\*</sup>UltraHD 30p supported, no other SMPTE-2081 support at this time



# Configuration and Monitoring

- Local "Kiosk" interface (keyboard, mouse and monitor)
- Remote access via Browser
- REST API
- SNMP

#### Form Factor

- 1RU turnkey system
- 4x full size BNC (12G/6G/3G/1.5G-SDI compatible)
- 2x 10GigE
- Local interface via Display Port and USB
- OS custom image
- Update and license via download

# Size $(w \times d \times h)$

• 17.2" x 16.9" x 1.7" (436.88 x 429.26 x 43.18 mm)

## Weight

- 28 lb. (12.7kg) in box18 lb. (8.2kg) server only

#### Power

- 100-240 VAC 50/60 Hz (Dual, redundant power supplies)
- 190W typical, 245W Maximum

## Environment

- Safe Operating Temperature: 5 to 35 C (41 to 95 F)
- Safe Storage Temperature (Power OFF): -40 to 60 C (-40 to 140 F)
- Operating Relative Humidity: 8-90% noncondensing
- Nonoperating Relative Humidity: 5-95% noncondensing