![AJA VIDEO SYSTEMS logo]

BRIDGE LIVE

BRIDGE LIVE is the broadcast quality, low latency turnkey system for REMI, Synchronous Multi-Channel Video Contribution, Remote Collaboration, Direct to Audience Streaming, and Multi Bit Rate/ Multi Format Delivery.
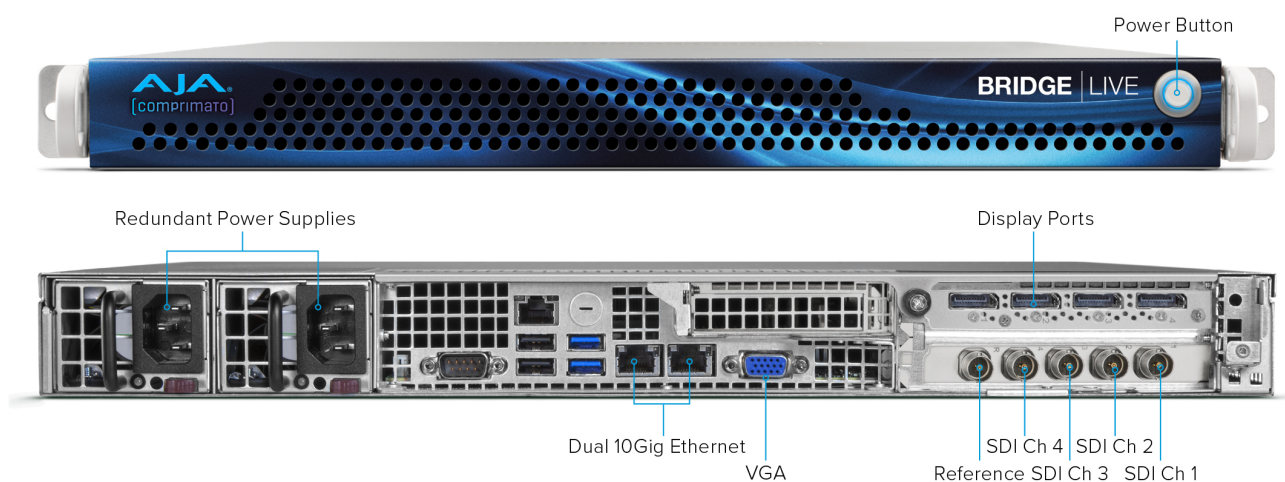
BRIDGE LIVE was developed as a collaboration between AJA and Comprimato to deliver the performance, reliability, and ease of use necessary for critical live encode, decode, or transcode needs. Equipped with 12G-SDI I/O plus the power and flexibility to enable real time bidirectional encoding, decoding, and transcoding for critical UltraHD and HD workflows, BRIDGE LIVE is an essential part of any modern live video production toolkit. A compact and robust 1RU form factor with redundant power supplies and a three year warranty means peace of mind even when dealing with the most demanding applications.

New for 2024 is a new Rocky Linux 9 Operating System and the addition of SRT v1.5.3 with hitless redundancy for critical signal delivery over ISPs. Also new is Dolby E passthrough, AAC-HE support, SEI Timecode Insertion, and NDI V5.6 support.

Whether facilitating remote production, two-way interviews, live event streaming, synchronous multi-cam backhaul with HDR, cloud contribution, program return, confidence monitoring, collaborative production, or ABR ladder profiles to hand off for OTT packaging, BRIDGE LIVE ensures simultaneous, secure, and stable workflows whether over purpose built dedicated lines or the public internet.

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

$15,999 US MSRP

Power Button

Redundant Power Supplies

Display Ports

Dual 10Gig Ethernet

VGA

SDI Ch 4   SDI Ch 2

Reference SDI Ch 3   SDI Ch 1

Video Formats

- (UltraHD) 3840x2160p 23.98, 24, 25, 29.97, 30, 50, 59.94, 60
- (2K) 2048x1080p 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
  - YCbCr, 4:2:2, 10-bit
- Transport Streams
  - YCbCr, 4:2:2, 10-bit/8-bit
  - YCbCr, 4:2:0, 10-bit/8-bit
- NDI
  - P216, 4:2:2, 16-bit
  - 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)
  - 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
- Gain
- Sample Rate conversion

Synchronization

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

*Final additional stream count per output is dependent on settings and configuration. See Manual for more details.

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

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

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

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 x d x h)

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

Weight

- 28 lb. (12.7kg) in box
- 18 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