



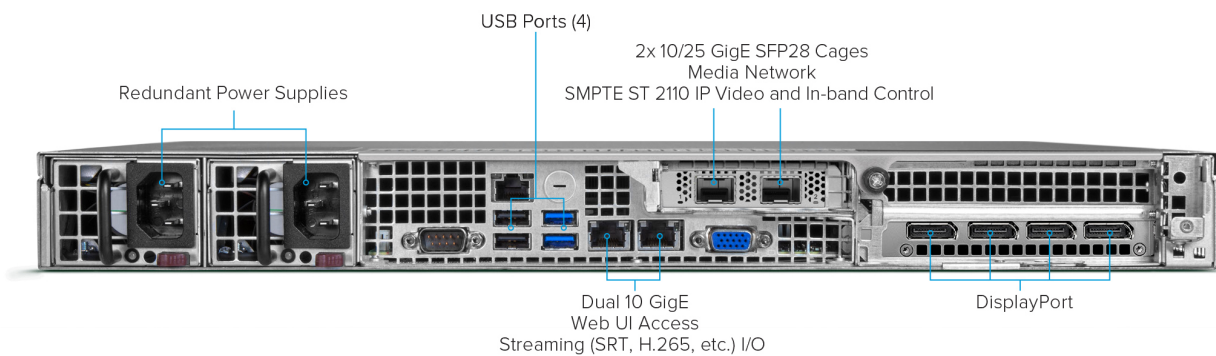
## BRIDGE LIVE IP

BRIDGE LIVE IP is the broadcast quality, low-latency turnkey systems for REMI, Synchronous Multi-Channel Video Contribution, Remote Collaboration, Direct to Audience Streaming, and Multi Bit Rate/ Multi Format Delivery.

**\$17,999 US MSRP**

BRIDGE LIVE IP 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 2x 25 GbE SMPTE ST 2110 I/O plus the power and flexibility to enable real time bidirectional encoding, decoding, and transcoding for critical UltraHD and HD workflows, BRIDGE LIVE IP is the essential part of any modern live video production toolkit. A compact and robust 1RU form factor with redundant power supplies and up to a five year warranty means peace of mind even when dealing with the most demanding applications.

<https://www.aja.com/products/bridge-live-ip>



### Video Formats

- (UltraHD) 3840 x 2160p 25, 29.97, 30, 50, 59.94, 60
- (HD) 1920 x 1080p 25, 29.97, 30, 50, 59.94, 60
- (HD) 1920 x 1080i 50, 59.94
- (HD) 1280 x 720P 50, 59.94, 60

### Media Transport Interfaces (In-Band)

- Uncompressed media (SMPTE ST 2110-20, 30, 40)
- PTP
- Configuration & Control
- 2x SFP28 Cages (redundant only)- SFPs not included
- Supports 10GigE and 25GigE SFPs

## Input Uncompressed IP

- ST 2110-20 Video
  - 16-channel input\*
  - Rx support for Narrow and Wide Senders
  - Rx support for Class-A,B,C ST 2022-7 redundancy
- SMPTE ST 2110-30 Audio
  - Up to 8 streams per pipeline\*\*
  - Up to 64-channel audio per stream, 16-bit or 24-bit per channel, 48 kHz or 96 kHz synchronous\*\*
  - 1ms and 125us timing

\*Format and application dependent

\*\*Application dependent

## Output Uncompressed IP

- ST 2110-20 Video
  - 16-channel output\*
  - Tx support for ST 2022-7
  - Tx senders are Narrow Gapped
- ST 2110-30 Audio
  - Up to 12 streams per pipeline\*\*
  - Up to 16-channel audio per stream, 16-bit or 24-bit per channel, 48 kHz or 96 kHz synchronous\*\*
  - 1ms and 125us timing
- ST 2110-40 Ancillary
  - Up to 12 streams\*\*

\*Format dependent

\*\* Application dependent

## Discovery, Registration and Control

- NMOS Tx/Rx support according to standards IS-04 v1.3 and IS-05 v1.1
- In-Band and Out-of-Band
- L2, L3 with SSM
- IGMP v2, v3

## IP Clock

- PTPv2 ST 2059-2 / IEEE 1588-2008
- In-Band only

## Video Color Component Sampling

- ST 2110-20
  - 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
  - 10-bit via P216, 4:2:2, 16-bit
  - 8-bit, UYVY, 4:2:2
  - HDR metadata Manual Marking

## Video Codecs

- H.264 (AVC, MPEG-4)
- H.265 (HEVC)
- JPEG 2000 (VSF TR-01)
- H.262 (MPEG-2)
- NDI
- JPEG XS (VSF TR-07)

## Audio Streams/Codexes

- AAC-LC (ADTS, LATM)
- AAC-HE (ADTS, LATM)
- AAC-HE v1 & v2 (ADTS, LATM)
- AC3
- E-AC3 (input)
- Dolby E pass-through
- MPEG-2 Audio
- NDI (uncompressed float)
- Uncompressed PCM multi-channel (SMPTE 302M-2007)
- ST 2110-30 Uncompressed audio

## Metadata

- MPEG-2 ancillary packet support (SMPTE 2038)
- Closed Captioning (EIA-608/708)
- Line 21 Captions
- Metadata pass-through
- SCTE-35, SCTE-104
- Subtitles embedded within H.264 SEI messages
- Timecode embedded within HEVC and H.264 SEI messages
- Electronic program guide (EPG) on input
- ST 2110-40 Ancillary data

## 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
- Up/Down-mixing (e.g., 5.1 to stereo and vice versa)
- Audio delay

## Synchronization

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- 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

## Configuration and Monitoring

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

## Form Factor

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- 1RU turnkey system
- 2x SFP28 cages (10GigE and 25GigE compatible)
- 2x 10GigE RJ45
- Local interface via Display Port and USB
- OS custom image
- Update and license via download

## Size (w x d x h)

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

## Weight

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

## Power

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- 100-240 VAC 50/60 Hz (Dual, redundant power supplies)
- 320W typical, 600W Maximum

## Environment

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- 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