



BRIDGE NDI® 3G

BRIDGE NDI 3G is a 1RU gateway offering high density conversion to and from 3G-SDI to NDI and NDI to 3G-SDI for both HD and 4K/UltraHD. Designed to drop into any existing NDI or SDI workflow as a plug and play appliance, easy to deploy and administer.

BRIDGE NDI 3G brings immense conversion power and flexibility, fully controllable remotely for AV use, security and surveillance, broadcast, eSports, entertainment venues and a wide range of other facilities needing high quality, efficient NDI encode and decode. Set and forget, or use more dynamically as project needs dictate.

<https://www.aja.com/products/bridge-ndi-3g>

Video Formats

- (4K) 4096 x 2160p 23.98, 24, 25, 29.97, 30, 50, 59.94, 60
- (UltraHD) 3840 x 2160p 23.98, 24, 25, 29.97, 30, 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

Video Codecs

- NDI
- NDI HX (input only)

Audio Streams/Codecs

- NDI (uncompressed float)
- SDI (PCM)

Color Component Sampling, Color Space, and Bit Depth

- SDI
 - YCbCr, 4:2:2, 10-bit
- NDI
 - UYVY, 4:2:2, 8-bit
 - UYVA, 4:2:2, 8-bit
 - P216, 4:2:2, 16-bit (output only)

Video Processing

- Scaling
- Letterbox/Pillarbox
- Video/Key Pair (2x SDI to 1x NDI + Alpha, or, 1x NDI + Alpha to 2x SDI)
- Reclocking for integer/fractional rate conversion

Audio Processing

- Audio reference level per video channel / group (up to 16 audio channels)
- Sample Rate conversion

Performance

- Up to 16x HD (NDI/SDI)
- Up to 4x 4K (NDI/SDI)
- Ultimate performance based on network conditions, concurrent video processing, and other parameters

NDI Video Input

- NDI (approx. 150–250Mbit/s)
- NDI HX (approx. 8-20Mbit/s)

NDI Video Output

- NDI (approx. 150–250Mbit/s)

SDI Video Input Digital

- 3G-SDI, SMPTE 424, 10-bit
- 1.5G-SDI, SMPTE 292M, 10-bit

SDI Video Output Digital

- 3G-SDI, SMPTE 424, 10-bit
- 1.5G-SDI, SMPTE 292M, 10-bit

NDI Audio Input

- Up to 16-channel, uncompressed float, 48 kHz sample rate, per NDI connection

NDI Audio Output

- Up to 16-channel, uncompressed float, 48 kHz sample rate, per NDI connection

SDI Audio Input Digital

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

SDI Audio Output Digital

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

Reference

- Dual Analog Color Black or HD Tri-level sync

Timecode

- VITC1, VITC2, LTC (embedded), Time-of-Day

Configuration and Monitoring

- NDI 5 or NDI 4 library can be used via interface toggle
- Browser via network attached client system
- Local "Kiosk" interface via monitor (VGA), keyboard, and mouse (not included)
- Local Dual Channel Audio via USB sound card (included)
- REST API

Form Factor

- 1RU turnkey system
- 18x BNC (Din 1.0/2.3, 3G/1.5G-SDI compatible)
- 2x 10GigE
- Local interface via VGA and USB
- OS custom image
- Updates 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