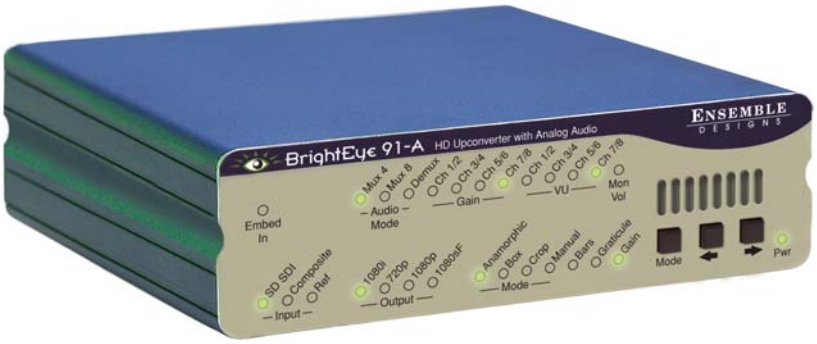
BrightEye 91-A

HD Upconverter with Analog Audio



Easy To Use

BrightEye 91-A is an upconverter with analog composite and SD SDI inputs. Feed the analog composite or SD SDI output of a camera to a BrightEye 91-A and upconvert to HD. You can take the HD signal from the BrightEye 91-A into a switcher or projection system. Upconverting existing SD equipment lets you leverage the equipment you already have and operate in the HD domain. A special Mirror Output Mode can be enabled, causing the output image to be flipped left to right for use with on-camera talent. An external reference input allows genlock to a house reference. All vertical interval data and closed captioning is faithfully passed.

Upconvert Before Distribution

While some cameras may have firewire out, using the video output and upconverting before distribution is preferable since longer cable runs can be achieved and quality is superior. Additionally, the BrightEye 91-A's reference input allows you to time the upconverted video output for use with a production switcher.

Audio Processing

BrightEye 91-A handles both embedded audio and eight analog audio inputs. Sixteen channels of embedded audio are supported in BrightEye 91-A. If the incoming video has embedded audio, the audio will be safely bypassed around the video processing and lipsync will be preserved. Audio mixing is available for two of the four embedded groups of audio.

Audio Monitoring

Audio monitoring is easy with BrightEye 91-A's convenient 3.5 mm mini jack. Just select the audio channels you want to monitor from the front panel and plug in a headset.

- Use with Cameras and Projection Systems
- Turn Analog Camera into Digital HD Source
- SD Digital and Analog Composite Video Inputs
- Analog Audio Inputs
- Analog Audio Monitor Output
- Mirror Output Mode for On-Camera Talent
- HDMI Output
- Frame Sync
- 12 and 16 bit processing
- Passes Embedded Audio

Monitoring with HDMI

The HDMI connector on the rear of the unit provides a future proof monitoring interface. Plug it into most LCD monitors for confidence monitoring of your feed.

Front Panel and Software Control

Input selection, gain control, and test patterns control are provided through the front panel interface. Audio presence LEDs indicate which channels are detected. Controls for crop, letterbox and pillarbox are accessed from the front panel or BrightEye Mac or PC software. Video and audio levels and the audio mixer can be adjusted through BrightEye Mac or PC software.

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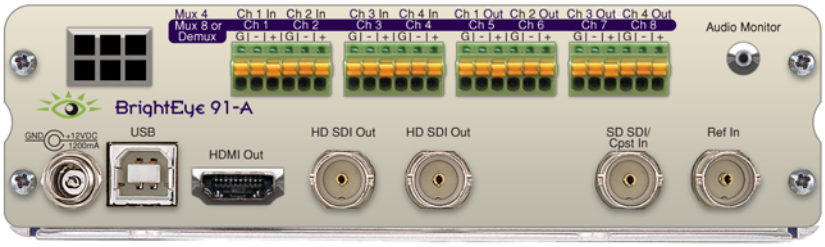

Specifications

Analog Video Input

Number	One
Type	Analog Composite PAL or NTSC
Resolution	Digitized at 12 bits
Impedance	75 Ω
Return Loss	>40 dB
Input DC	+/-1 volt DC
Input Hum	<100 mV

Serial Digital Input

Number	One
Signal Type	270 Mb/s SD Serial Digital (SMPTE 259M)
Impedance	75 Ω
Return Loss	>15dB
Max Cable Length	300 meters for 270 Mb/s

Reference Input

Number	One
Type	1 V p-p Composite Video PAL or NTSC or Tri-Level Sync
Impedance	75 Ω
Return Loss	>40 dB

Serial Digital Output

Number	Two
Type	HD Serial Digital 1.485 Gb/s SMPTE 274M, 292M or 296M
Processing	12 and 16 bit
Impedance	75 Ω
Return Loss	>15 dB
Max Cable Length	100 Meters for HD (Belden 1694A or equiv.)

HD Standards Supported
- 1080i (SMPTE 274M -4,5,6) 50, 59.94 or 60 Hz
- 720p (SMPTE 296M -1,2,3) 50, 59.94 or 60 Hz
- 1080p (SMPTE 274M -9,10,11) 23.98, 24, 25 Hz
- 1080sF (RP211 -14,15,16) 23.98, 24, 25Hz

Analog Audio Inputs

Number	Eight (selectable as inputs or outputs)
Type	Balanced
Impedance	>15K Ω
Max Input Level	24 dBu
CMRR	>60 dB, 20 Hz to 10 KHz
Quantization	24 bits, 128x Oversampled
Sample Rate	48 KHz
Reference Level	-10 dBu or +4 dBu
Frequency Response	±0.1 dB, 20 Hz to 20 KHz
Crosstalk	<106 dB
Dynamic Range	>106 dB

Analog Audio Outputs

Number	Eight (selectable as inputs or outputs)
Type	Balanced, transformerless
Impedance	30 Ω
Maximum Output Level	24 dBu
Resolution	24 bits, 128x Oversampled
Reference Level	-10 dBu or +4 dBu
Frequency Response	± 0.1 dB, 20 Hz to 20 KHz
Crosstalk	<106 dB
Dynamic Range	>106 dB

Embedded Output (In Serial Output)

Group Assign	Two of four groups
Channels	Sixteen passed
Bit Depth	24 Bit

Monitor Output

Number	One
Connectorization	HDMI
Type	Follows SDI out

Audio Monitoring Output

Number	One (select from eight channels)
Connectorization	3.5 mm stereo mini jack

General Specifications

Size	5.625" W x 1.7" H x 5.5" D (143 mm x 40 mm x 140 mm) including connectors
Power	12 volts, 7 watts (100-230 VAC modular power supply not included)
Temperature Range	0 to 40° C ambient
Relative Humidity	0 to 95%, non-condensing