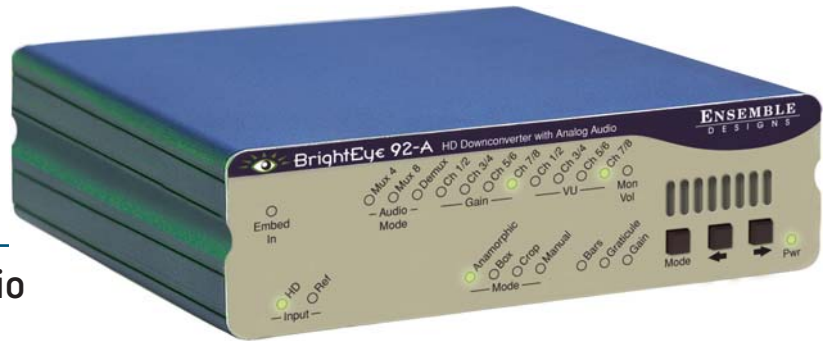# BrightEye™

BrightEye 92-A

HD Downconverter with Analog Audio

Easy To Use
BrightEye 92-A will downconvert any type of HD signal and provides both an SD SDI output and an analog composite output that are suitable for broadcast or monitoring. The built-in Frame Synchronizer allows you to feed asynchronous signals to the BrightEye 92-A. An external reference input allows genlock to a house reference. All vertical interval data and closed captioning is faithfully passed.

Downconverting to Standard Definition
BrightEye 92-A will downconvert any type of HD signal and provides both an SD SDI and an analog composite output suitable for broadcast or monitoring.

Audio Processing
BrightEye 92-A handles both embedded audio and analog audio. Sixteen channels of embedded audio are supported in BrightEye 92-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 92-A's convenient 3.5mm mini jack. Select the audio channels you want to monitor from the front panel and plug in a headset.
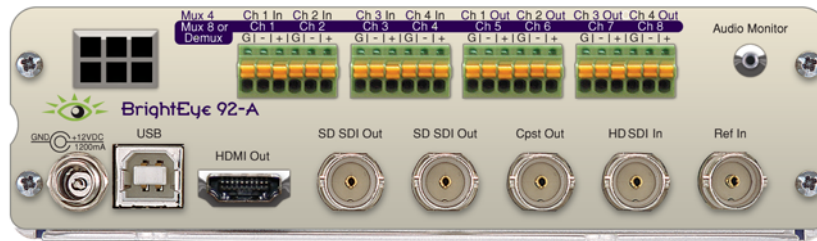
- ► Downconversion for monitoring or broadcast
- ► SD Digital and Analog Composite Video Outputs
- ► Analog Audio Inputs and Outputs
- ► Analog Audio Monitor Output
- ► HDMI Output for Monitoring
- ► Frame Sync
- ► 12 and 16 bit processing

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 ftest pattern controls 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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BrightEye 92-A

► Specifications

Serial Digital Input

Number	One
Signal Type	1.485Gb/s HD Serial Digital (SMPTE 274M or 296M)
Impedance	75 Ω
Return Loss	>15dB
Max Cable Length	100 meters for 1.485 Gb/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

Analog Video Output

Number	One
Type	Composite PAL or NTSC
Return Loss	>40 dB
Output	DC <100 mV

Serial Digital Output

Number	Two
Type	SD Serial Digital 270Mb/s SMPTE 259M-C
Processing	12 and 16 bit
Impedance	75 Ω
Return Loss	>15 dB
Max Cable Length	300 Meters
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	>60dB, 20Hz to 10KHz
Quantization	24 bits, 128x Oversampled
Sample Rate	48 KHz
Reference Level	-10 dBu or +4 dBu
Frequency Response	±0.1dB, 20Hz to 20KHz
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	± 0.1dB, 20Hz to 20KHz
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

Audio Monitoring Output

Number	One (Select from eight channels)
Connectorization	3.5mm 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

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