

BrightEye 71

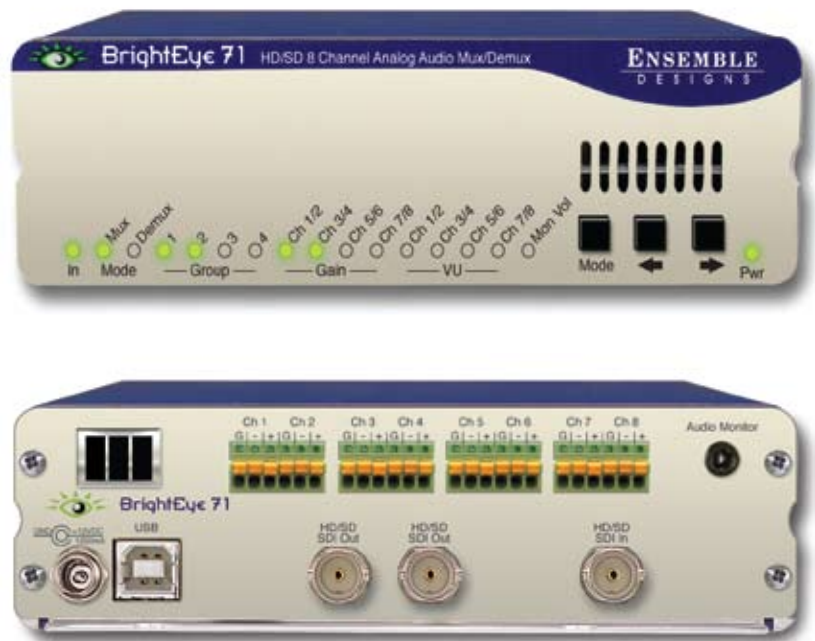
HD / SD 8 Channel Analog Audio Embedder / Disembedder

The BrightEye 71 is a dual rate eight channel analog audio embedder or disembedder for 1.5 Gb/s high definition video signals or for 270 Mb/s standard definition signals. The analog audio ports automatically configure as inputs or outputs depending if the module is configured as mux or demux.

When configured as a multiplexer, the BrightEye 71 has one serial digital video input and eight analog audio inputs. The audio streams are embedded into the video stream. The output of the module is a digital stream that contains the original video and audio signals.

When configured as a demultiplexer, audio signals present in the incoming video signal are extracted and delivered as analog audio.

The BrightEye 71 includes an eight channel audio mixer with channel swap and shuffle capability that allows you to completely re-arrange and re-mix audio channels. It provides precise control over audio level, with up to 12 dB of gain to compensate for low level sources. All audio processing is performed at full 24 bit resolution by a digital signal processor (DSP). Delay is adjustable up to one second.



- ▶ Use with Servers, Workstations and Satellite Receivers
- ▶ HD/SD Audio Embedder or Disembedder
- ▶ 8 Channel Audio Mixing
- ▶ Adjustable Delay

► Specifications

Serial Digital Input

Number	One
Type	HD Serial Digital 1.485 Gb/s SMPTE 274M, 292M or 296M or SD Serial Digital 270 Mb/s SMPTE 259M-C
Impedance	75 Ω
Return Loss	>15 dB
Max Cable Length	100 meters for HD 300 meters for SD (Belden 1694A)

Automatic Input Cable Equalization

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, 25 Hz

Serial Digital Output

Number	One
Type	Follows input
Impedance	75 Ω
Return Loss	>15 dB
Output DC	None (AC coupled)

Analog Audio Inputs

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

Embedded Output (In SDI Outputs)

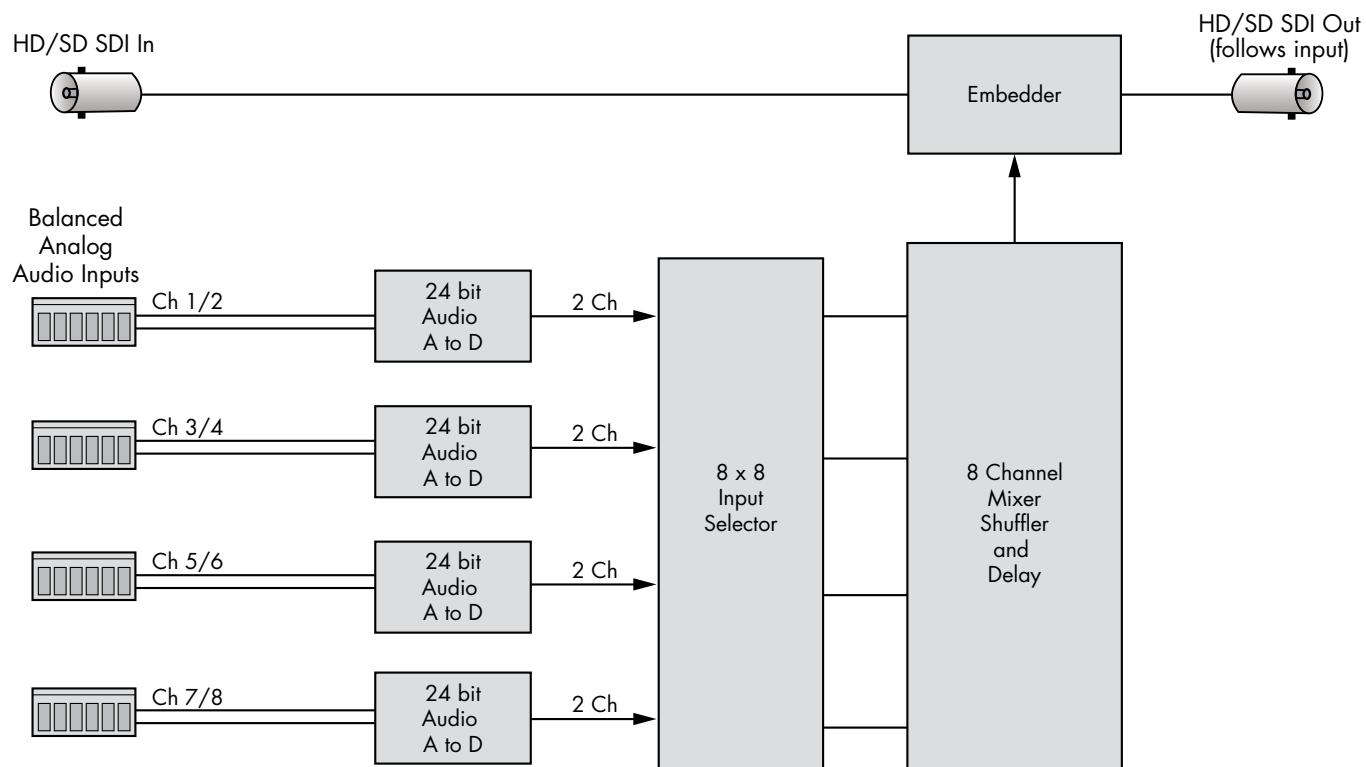
Group Assign	Cascade, or Replace any two of four groups
Channels	Eight
Bit Depth	24 Bit

General Specifications

Size	5.625" W x 0.8" H x 5.5" D (143 mm x 20 mm x 140 mm) including connectors
Power	12 volts, 8 watts (100-230 VAC modular power supply not included)
Temperature Range	0 to 40° C ambient
Relative Humidity	0 to 95% non-condensing
Altitude	0 to 10,000 ft.

► BrightEye 71 Block Diagrams on following pages

► Mux Mode



► Demux Mode

