



# BrightEye 71

## HD/SD 8 Channel Analog Audio

- ▶ 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 or 296M or SD Serial Digital 270Mb/s SMPTE 259M-C
Impedance	75 Ω
Return Loss	>15 dB
Max Cable Length	100 Meters for HD 300 Meters for SD (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

#### 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	>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

The BrightEye 71 is a dual rate eight channel analog audio embedder or disembedder for 1.5Gb/s high definition video signals or for 270Mb/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 signal and four analog audio pairs.

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.

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 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, 7 watts (100-230 VAC modular power supply)
Power Consumption	10 watts
Temperature Range	0 to 40° C ambient
Relative Humidity	0 to 95% non-condensing
Altitude	0 to 10,000 ft.