



# BrightEye 73



## HD/SD AES Embedder with Optical Out

- ▶ Optical Transmitter
- ▶ Use with Servers, Workstations and Routers
- ▶ 8 Channel Audio Embedder
- ▶ HD/SD SDI Electrical and AES Inputs
- ▶ Optical Embedded Output

The BrightEye 73 is a dual rate eight channel audio embedder for 1.5Gb/s high definition video signals or for 270Mb/s standard definition signals.

There is one serial digital video input and four AES audio inputs. These four AES streams are embedded into the video stream. AES inputs are sample rate converted, allowing the use of asynchronous audio. The output of the module is an optical signal that contains the original video signal and four AES pairs.

The BrightEye 73 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. The Data mode operation allows Dolby E or AC3 inputs.

## 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 (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)	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

**AES/EBU Digital Inputs**

Number	Four (total of eight channels)
Type	AES3id
Connectorization	Coaxial, 75 Ω
Bit Depth	20 and 24 Bit
Sample Rate	30KHz to 100KHz (sample rate converted internally to 48KHz)
Crosstalk	<144 dB
Dynamic Range	>144 dB
Reference Level	-18 or -20 dBFS (selectable) AC-3, Dolby-E Supported when inputs are synchronous

**Optical Output**

Number	One
Type	SD and ASI (SMPTE 297M, optical equivalent of 259M) HD (SMPTE 274M or 296M)
Wavelength	1310 nm
Power	-7 dBm
Max Cable Length	20 km
Fiber Type	Single Mode Multi-mode compatible with 8 dB attenuation at transmit end
Connector	SC

### Embedded Output (In Optical 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)
Temperature Range	0 to 40° C ambient
Relative Humidity	0 to 95° non-condensing