

# BrightEye 74

## Optical Disembedder with HD/SD Electrical Out

The BrightEye 74 is an eight channel audio disembedder for 1.5 Gb/s high definition video signals or for 270 Mb/s standard definition signals.

The BrightEye 74 accepts either an HD or SD optical signal. The digital video output is present on a BNC and is either HD SDI or SD SDI, following the input standard. Audio signals present in the incoming video signal are extracted and delivered as standard AES digital audio streams.

The BrightEye 74 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 allows disembedding of Dolby E or AC-3 signals.

### Features

- **Optical receiver**
- **Use with satellite receivers and video servers**
- **HD/SD audio disembedder**
- **8 channel audio mixing**
- **Adjustable delay**
- **Passes embedded audio**



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### Optical Input

Number	One
Type	SD and ASI (SMPTE 297M, optical equivalent of 259M) HD (SMPTE 274M, 292M or 296M)
Wavelength	830 to 1610 nm
Receiver Sensitivity	SD and ASI: -18 dBm HD: -18 dBm
Max Cable Length	20 km (For greater distances, or higher power and larger loss budgets, please contact the factory)
Fiber Type	Single Mode Multi-mode compatible with attenuation at transmit end
Connector	SC

### Embedded Inputs

Number	Four AES Streams (from optical input) Eight channels from any two of four groups
Channels	Eight
Bit Depth	20 and 24 Bit

### 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
Delay	< 1 $\mu$ Sec. Audio is adjustable to 1 second
Impedance	75 $\Omega$
Return Loss	>15 dB
Output DC	None (AC coupled)

### AES/EBU Digital Outputs

Number	Four (total of 8 channels)
Type	AES3id
Connector	Coaxial, 75 $\Omega$
Bit Depth	20 and 24 Bit
Sample Rate	48 KHz, synchronous to video output
Reference Level	-18 or -20 dBFS (selectable)

### General Specifications

Size	5.63"W x 0.8"H x 5.98"D (143 mm x 21 mm x 152 mm) including connectors and flange
Weight	15 oz
Power	12 watts, 3 watts
Temperature Range	0 to 40° C ambient (all specs met)
Relative Humidity	0 to 95% non-condensing
Altitude	0 to 10,000 ft.

