

# BrightEye 30-D

## Audio ADC and DAC, Bidirectional Converter with Delay

BrightEye 30-D is a flexible audio converter that can be a two channel, Bidirectional ADC and DAC, or it can be configured as a four channel converter. Perfect in desktop, post and broadcast applications, 24 bit processing ensures beautiful audio.

As a Bidirectional converter, two channels of analog audio are converted to AES digital audio and at the same time an AES stream is converted to two channels of analog.

Alternately, the unit can be configured as a four channel AES to analog converter or a four channel analog to AES converter.

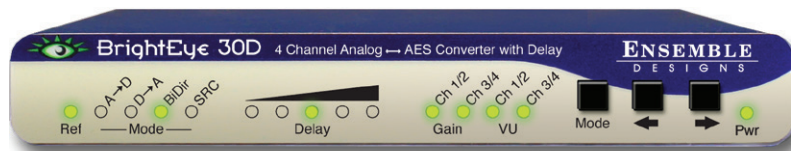
BrightEye 30-D also serves as a sample rate converter. For example, a digital 44.1 KHz signal from a CD player can be fed to the input and a digital AES3id, 48 KHz signal synchronous to the reference input will be output.

Audio mixing, level adjustments, channel shuffling and delay are accessed through BrightEye PC and BrightEye Mac. Audio delay adjustments simplify signal integration. A variety of audio connectors and adapters are available for integrating BrightEye 30-D to any type of system.

A reference input is provided which allows digital outputs to be synchronized to either a PAL or NTSC video signal or AES reference.

### Features

- 2 or 4 channel audio converter
- Analog and digital inputs
- Analog and digital outputs
- Bidirectional ADC/DAC
- Sample rate converter
- Adjustable audio delay



## Audio ADC and DAC, Bidirectional Converter with Delay

### Analog Audio Inputs

|                     |  |
|---------------------|--|
| Number              | Four (selectable as inputs or outputs) |
| Type                | Balanced                               |
| Impedance           | >15K $\Omega$                          |
| 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                                |

### AES/EBU Digital Inputs

|             |   |
|-------------|---|
| Number      | Two (total of four channels)<br>(selectable as inputs or outputs) |
| Type        | AES3id  |
| Connector   | Coaxial, 75 $\Omega$  |
| Bit Depth   | 20 and 24 Bit   |
| Sample Rate | 30 KHz to 96 KHz (Sample Rate Converted<br>internally to 48 KHz)  |

### Analog Audio Outputs

|                      |  |
|----------------------|--|
| Number               | Four (selectable as inputs or outputs) |
| Type                 | Balanced, transformerless              |
| Delay                | Adjustable from 5 to 1000 msec         |
| Impedance            | 30 $\Omega$                            |
| 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                                |

### AES/EBU Digital Outputs

|                 |   |
|-----------------|---|
| Number          | Two (total of four channels)<br>(selectable as inputs or outputs) |
| Type            | AES3id  |
| Delay           | Adjustable from 5 to 1000 msec                                    |
| Connector       | Coaxial, 75 $\Omega$  |
| Bit Depth       | 24 Bit  |
| Sample Rate     | 48 KHz<br>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<br>(143 mm x 21 mm x 152 mm)<br>including connectors and flange |
| Weight            | 1 lb   |
| Power             | 12 volts, 3 watts<br>(100-230 VAC modular power supply)                                    |
| Temperature Range | 0 to 40° C ambient (all specs met)   |
| Relative Humidity | 0 to 95%, non-condensing   |
| Altitude          | 0 to 10,000 ft.  |

*BrightEye 30-D Block Diagrams on previous pages*