



BrightEye 16

SD SDI to Analog Video Converter with Frame Sync/Genlock and Audio Disembedder

- ▶ Feed Analog Switchers and Routers
- ▶ SDI Input
- ▶ Analog Video Output
- ▶ Timing Control for Output
- ▶ Audio Disembedding
- ▶ Analog Audio Outputs

BrightEye 16 is a digital to analog video converter with a timeable output. It's perfect for feeding analog switchers and routers, where signal timing is required. It's also a disembedder and provides four analog audio outputs.

With timing controls, proc adjustments, and a built-in audio mixer, BrightEye 16 provides a complete solution for digital to analog conversion.

BrightEye 16 has an SDI video input and a reference input. The input signal is converted to analog composite and synchronized (genlocked) to the reference signal. The analog composite output is fully timed with respect to the reference, including ScH phase. Audio is disembedded with 24 bit precision and converted to analog.

Basic controls are accessed on the front panel. BrightEye Mac or PC software provides access to video proc functions and the built-in audio mixer. The vertical interval can be passed or blanked. VU indication is provided on the front panel and through BrightEye Mac or PC software.

▶ Specifications

Serial Digital Input

Number	One
Signal Type	270Mb/s SD Serial Digital (SMPTE 259M)
Impedance	75 Ω
Return Loss	>15dB
Max Cable Length	300 meters

Reference Input

Number	One
Type	1 V p-p Composite Video, PAL or NTSC
Impedance	75 Ω
Return Loss	>40 dB

Analog Video Output

Number	Two
Type	Composite PAL or NTSC (follows input)
Return Loss	>40 dB
Output	DC < 100 mV

SDI to Analog Performance

Bit Resolution	12 bit output reconstruction 8 X oversampling
Signal to Noise	>65 dB
Timing Window	Infinite (with respect to Reference)
Output	ScH Phase matches Reference
Timing Resolution	Adjustable to within 1 degree of subcarrier
Frequency Response	±0.1 dB , 0 to 5.5 MHz
K Factor	<1%
ScH Phase Error	<±2 degrees
Differential Phase	<1 degree
Differential Gain	<1%

Analog Audio Outputs

Number	Four
Type	Balanced, transformerless
Impedance	30 Ω
Max Output Level	24 dBu
Resolution	24 bits, 128x Oversampled
Reference Level	-10 dBu to +4 dBu
Frequency Response	± 0.1dB, 20Hz to 20KHz
Crosstalk	<106 dB
Dynamic Range	>106 dB

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