



# BrightEye 10

## Optical/SD SDI to Analog/SDI Converter

- ▶ Optical Receiver
- ▶ Use with Monitors, VTRs and Projectors
- ▶ Optical or SDI Input
- ▶ SDI Output
- ▶ Analog Composite Output
- ▶ Component, S-Video Output
- ▶ 12 Bit

BrightEye 10 is a digital to analog video converter with both SDI (electrical) and fiber optic inputs. Output formats include Beta and SMPTE component, RGB, and composite (with simultaneous Y/C). Video processing, encoding and analog conversion is performed digitally at 12 bits of resolution with 8 times oversampling.

Front panel controls select between the optical and SDI input, choose the analog output format, and adjust gain. Video levels can be adjusted through BrightEye Mac or PC software.

The reclocked SDI output follows the input selector, thus providing optical to electrical conversion when the optical input is selected. BrightEye 10 combines fiber to SDI conversion and QC monitoring in one compact unit.

### ► Specifications

#### Serial Digital Input

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

#### Optical Input

Number	One
Type	SD (SMPTE 297M, optical equivalent of 259M)
Wavelength	1310 nm
Receiver sensitivity	-18 dBm
Maximum length	20 km
Fiber Type	Single Mode Multi-mode compatible with 8 dB attenuation at transmit end SC
Connector	SC

#### Analog Output

Number	One
Type	Beta/SMPTE, Y, Pr, Pb RGB NTSC, PAL Composite NTSC, PAL S-Video
Return Loss	>40 dB
Output DC	None (AC coupled)

#### Serial Digital Output

Number	One
Type	270 Mb/s SD Serial Digital (SMPTE 259M)
Impedance	75 Ω
Return Loss	>15 dB
Output DC	<50 mV

#### SDI to Analog Performance

Bit Resolution	12 bit output reconstruction
Signal to Noise	8 X oversampling
Frequency Response	>65 dB
K Factor	±0.1 dB, 0 to 5.5 MHz
Sch Phase Error	<1%
Differential Phase	<±2 degrees
Differential Gain	<1 degree
	<1%

#### 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 not included)
Temperature Range	0 to 40° C ambient
Relative Humidity	0 to 95%, non-condensing