

# BrightEye 10

## Optical / SD SDI to Analog / SDI Converter

BrightEye 10 is a digital to analog video converter with both SD 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 x 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 relocked SD SDI output follows the input selector, thus providing optical to electrical conversion when the optical input is selected. BrightEye 10 combines fiber to SD SDI conversion and QC monitoring in one compact unit.



- Use with VCRs, Cameras, Satellite Receivers
- Analog Video Inputs and Outputs
- TBC and Frame Sync
- 12 Bit Processing

**Serial Digital Input**

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

**Optical Input**

Number	One
Type	SD (SMPTE 297M, optical equivalent of 259M)
Wavelength	830 to 1610 nm
Receiver sensitivity	-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 8 dB attenuation at transmit end
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 $\Omega$
Return Loss	>15 dB
Output DC	<50 mV

**SDI to Analog Performance**

Bit Resolution	12 bit output reconstruction 8 x oversampling
Signal to Noise	>65 dB
Frequency Response	$\pm 0.1$ dB, 0 to 5.5 MHz
K Factor	<1%
ScH Phase Error	< $\pm 2$ degrees
Differential Phase	<1 degree
Differential Gain	<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
Weight	15 oz
Power	12 volts, 4 watts (100-230 VAC modular power supply not included)
Temperature Range	0 to 40° C ambient
Relative Humidity	0 to 95%, non-condensing

