

BrightEye 75

HD/SD Analog to Digital Video Converter

BrightEye 75 is an analog video to digital converter and audio embedder. Standard definition component or composite, or high definition analog component video is accepted on the input BNCs. Two channels of analog audio are input on a plugable Phoenix connector.

This unit is perfect for use with HD cameras or other devices with analog I/O. The digital output will carry the full, un-compressed input, synchronous to a genlock reference. You can turn a hand-held HD camera into a digital source. A three camera, live studio suddenly becomes affordable.

The built-in TBC/Frame Synchronizer allows you to feed asynchronous or noisy signals to the BrightEye 75. The input is digitized to 12 bits of resolution and time base corrected by a noise tolerant tracking circuit. An external reference input allows genlock to a house reference.

Input selection, gain control, and TBC enable is provided through the front panel interface. Video levels can be adjusted through BrightEye Mac or PC software.

The video and audio signals are embedded and presented on a BNC. The output follows the SD or HD input standard.

► Specifications

Analog Video Input

| | |
|-------------|---|
| Number | One |
| Type | HD or SD :Y, Pr, Pb (SMPTE or Beta levels) HD or SD: Analog Component |
| RGB | (sync on green) Analog Composite PAL or NTSC Analog S-Video PAL or NTSC |
| Resolution | Digitized at 12 bits |
| Impedance | 75 Ω |
| Return Loss | >40 dB |
| Input DC | +/-1 volt DC |
| Input Hum | <100 mV |

Analog Audio Inputs

| | |
|-----------------|-------------------------|
| Number | Two |
| Type | Balanced |
| Impedance | >15K Ω |
| Max Input Level | 24 dBu |
| CMRR | >60 dB, 20 Hz to 10 KHz |



- Use with Analog HD Cameras and Set Top Boxes
- Turn Analog Camera Into Digital HD Source
- Analog HD or SD Inputs
- Analog Audio Inputs
- Serial Digital HD or SD Embedded Output
- TBC and Frame Sync

| | |
|--------------------|---------------------------|
| Quantization | 24 bits, 128x Oversampled |
| Sample Rate | 48 KHz |
| Reference Level | -10 dBu or +4 dBu |
| Frequency Response | ±0.1 dB, 20 Hz to 20 KHz |
| Crosstalk | <106 dB |
| Dynamic Range | >106 dB |

Serial Digital Output

| | |
|------------------|---|
| Number | One |
| Type | Follows input standard HD Serial Digital 1.485 Gb/s SMPTE 274M, 292M or 296M or SD Serial Digital 270 Mb/s SMPTE 259M-C |
| Impedance | 75 Ω |
| Return Loss | >15 dB |
| Max Cable Length | 100 Meters for HD 300 Meters for SD (Belden 1694A or equiv.) |

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, 25Hz |

Embedded Output (In Serial Output)

| | |
|--------------|--------------------|
| Group Assign | One of four groups |
| Channels | Two |
| Bit Depth | 24 Bit |

Reference Input

| | |
|-------------|---|
| Number | One |
| Type | 1 V p-p Composite Video, PAL or NTSC or Tri-Level Sync |
| Impedance | 75 Ω |
| Return Loss | >40 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 not included) |
| Temperature Range | 0 to 40° C ambient |
| Relative Humidity | 0 to 95%, non-condensing |