

# BrightEye Mitto

## 3G / HD / SD Scan Converter

### YouTube™ Video to Air Made Simple

BrightEye Mitto™ is a high performance scan converter that supports SD, HD and 3G video signals. For broadcasters who find they are relying on video content from the web, BrightEye Mitto offers the best way to take computer video to air. Video that once seemed constrained by your computer desktop can now be used for the most demanding broadcast and display applications.

### Exclusive Filtering and Scaling Technology

A superior quality scan converter, BrightEye Mitto has the advantage of proprietary scaling technology and exclusive multi-tap filtering. The region selected for output determines if Mitto acts as an upconverter or downconverter. The filters automatically adjust in accordance with the conversion being performed.

Bringing progressive images from the desktop into the interlaced world of video used to be a compromise between sharp details versus interfield flicker. Mitto's advanced filtering satisfies both of these seemingly contradictory requirements. The result is that the output looks as good, or better, than the original and passes the most stringent testing.

### Digital and Analog Video and Audio

The intuitive front panel interface makes it easy to choose the desired video output format. Choices are 1.5 and 3 Gb/s HD SDI and SD SDI. Composite video is simultaneously output on a separate BNC. The genlock reference input allows the video outputs to be timed to house. ➤

The audio input accepts either AES digital audio or analog audio. Audio is embedded into the SDI outputs which is required for many high-end applications.

### Easy To Use

BrightEye PC and BrightEye Mac software let you simply use your mouse to click and drag over the specific portion of computer video that you want to output. The beauty of this user interface is that you can see which parts of the screen you don't want to output, as well as the parts you do want to use. The perspective of seeing the whole screen gives you the ability to choose exactly which portion of the video you want to output. It's easy to output the entire screen or just a selected portion.

From the software you also have complete and intuitive control of timing, video format, and video level adjustments. You can easily time BrightEye Mitto into a production switcher or router. Plus, presets enable you to store your favorite settings.

### Click Use Your Mouse To Select What Will Be Output to Video

BrightEye PC/Mac software runs ovetop of any video, website or software. The Selection Tool shows up as a black box around your selection and shows the portion of the video that will be output from BrightEye Mitto.

Resize the selection window by clicking and dragging with your mouse. Mitto's video output automatically goes to pillar box or letter box as needed. Mitto maintains perfect aspect ratio.



### High Performance Scan Converter

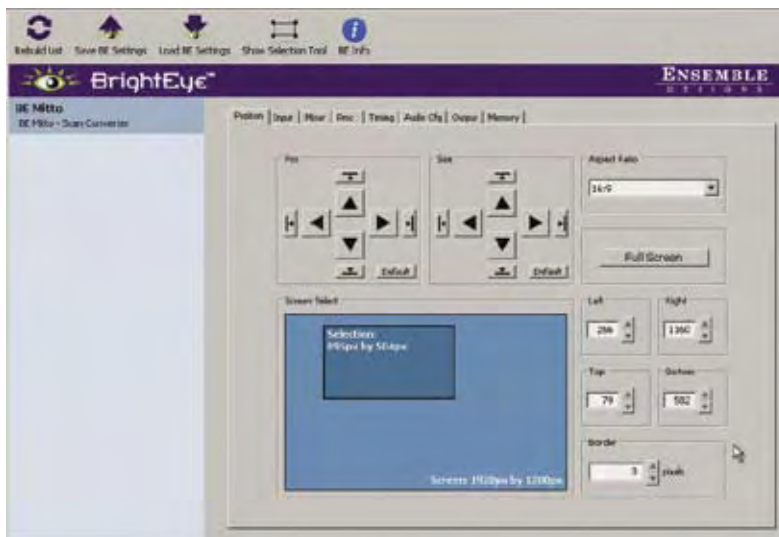
- Best way to bring YouTube™, Skype™, weather radar, video and viewer emails to video for use on-air
- Proprietary Scaling and Multi-tap Filtering System Provides Maximum Detail, Flicker-free Video Output
- Intuitive Front Panel Controls
- Easy-to-use Mac and PC User Interface
- Outputs 1.5 and 3 Gb/s HD, SD SDI and Composite Video
- DVI I/O, VGA and HDMI Support with an Adaptor
- Analog Audio and AES Digital Audio Input
- Use a Mouse to Select What Part of the Video You Want to Output
- Easily Adjust Video Parameters and Select Video Output Format
- Genlock and Time to House Reference, Fully Timeable
- Rackmountable
- Memory Presets for Your Favorite Settings
- 5-year Warranty and Free Software Upgrades

### Free Software Upgrades Forever

BrightEye Mitto's software is easily upgraded through the unit's USB port. Software upgrades are available at no charge for the life of the product and are conveniently downloadable from the Ensemble Designs' web site. Every unit comes with a five-year warranty.



*BrightEye PC and BrightEye Mac software provide complete and intuitive control of the BrightEye Mitto including handles for timing, video format, and video level adjustments.*



Click the  Selection Tool button in BrightEye Mac or PC to bring up the Selection Tool.

**Computer Input**

Number	One
Type	DVI (Supports HDMI or VGA with adaptor)
Connector	DVI-I
Resolution	Up to 1920 x 1200

**Reference Input**

Number	One, BNC
Type	1 V P-P Composite Video PAL, NTSC, Tri-Level Sync
Impedance	75 $\Omega$
Return Loss	>40 dB

Note: When no reference is provided, Mitto runs from an internal "sync gen grade" precision frequency reference.

**Analog Audio Inputs**

Number	One stereo pair
Connector	1/8" mini jack
Impedance	>15K $\Omega$
Max Input Level	24 dBu
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 (four channels)
Type	AES3id, S/PDIF
Connector	1/8" mini jack
Bit Depth	20 and 24 Bit
Sample Rate	30 KHz to 192 KHz (Sample Rate Converted Internally to 48KHz)

**Serial Digital Output**

Number	Two, BNC
Signal Type	1.485 Gb/s HD, 2.97 Gb/s HD or 270 Mb/s SD SDI
Delay	Minimum 16 msec (one 60 Hz field) Maximum 33 msec (one 60 Hz frame)

Note: Output is fully timeable with respect to the reference input.

Audio	Embedded
Impedance	75 $\Omega$
Return Loss	>15 dB to 1.485 GHz >10 dB to 2.97 GHz
Output DC	None (AC coupled)

**SDI 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, 25 Hz
3 Gb/s Level A or Level B (SMPTE 424M, 425M)	
525i, 625i (SMPTE 259M)	

**Analog Video Output**

Number	One, BNC
Type	Composite PAL or NTSC (when SD is selected on the SDI output)
Return Loss	>40 dB
Output DC	<100 mV

**Computer Monitor Output**

Number	One, looping
Type	DVI (Supports HDMI or VGA with adaptor)
Connector	DVI-I
Format	Follows input

**Control**

Number	One
Connector	9 pin D
Type	RS-232, GPI

**General Specifications**

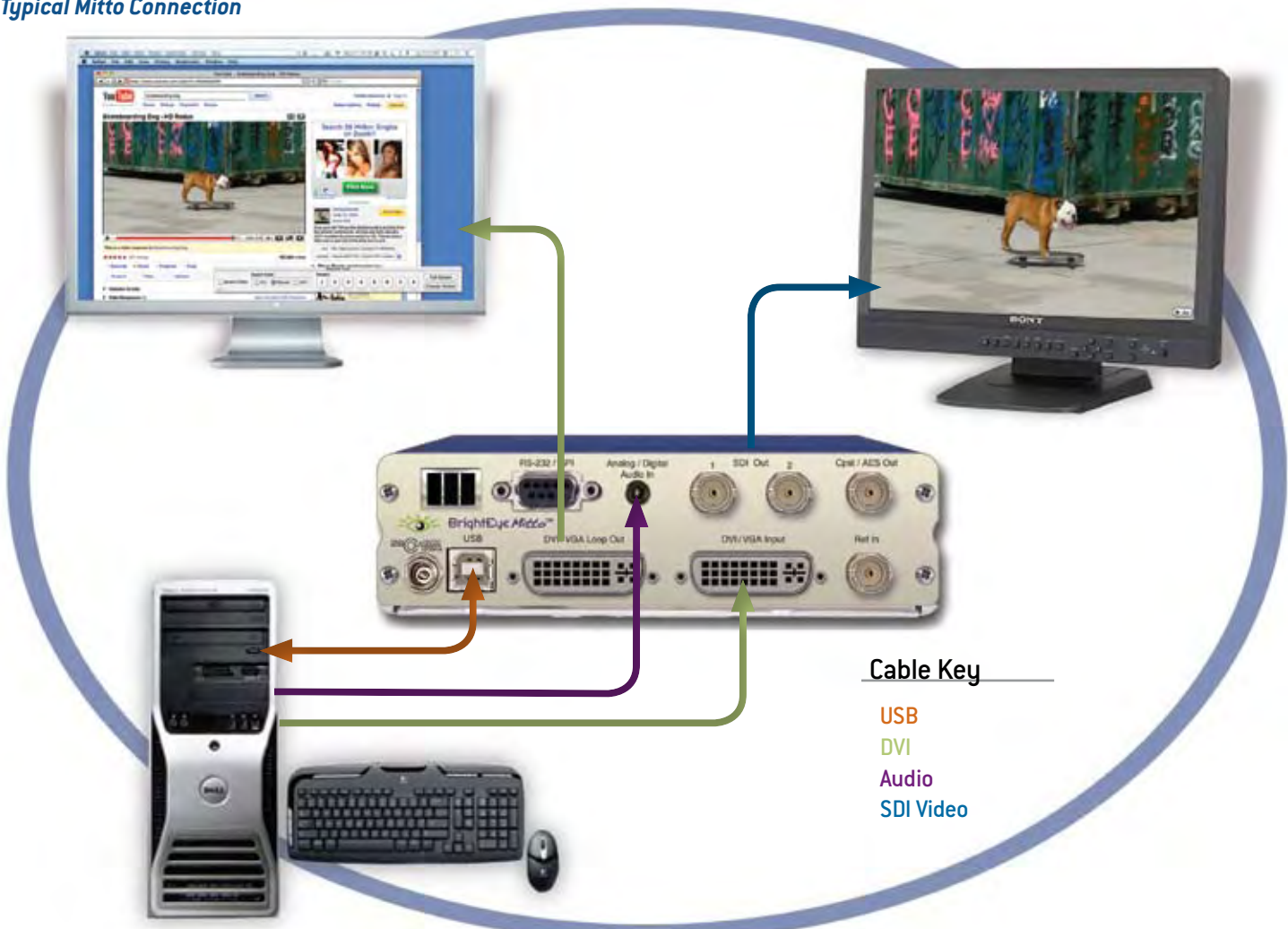
Size	5.625" W x 1.6" H x 5.5" D (143 mm x 20 mm x 140 mm) including connectors
Weight	1 lb 6 oz
Power	12 volts, 12 watts (100-230 VAC modular power supply not included)
Temperature Range	0 to 40° C ambient
Relative Humidity	0 to 95° non-condensing

**Mitto Defined:**

Comes from the Latin root for *transmit* or *send*

It's also the root word of *uncompromising*

Typical Mitto Connection



Cable Key

- USB
- DVI
- Audio
- SDI Video

