COMBINE HIGH RESOLUTION IMAGES

SYNCHROMASTER 300

The SynchroMaster™ 300 combines images from two high-resolution computer sources or image generators into a composite image. The system enables a complex image to be generated by multiple workstations for real-time simulations.

In a typical situation, one computer will generate the foreground and the other, the background. The background signal is digitized and written to a 1280 x 1024 pixel frame buffer, synchronized to and combined with the foreground signal.

RGB and HDTV inputs/ outputs

Combines asynchronous images

Mixes interlaced and non-interlaced images

Double buffering for non-interlaced signals

Autosync

Control of all functions over RS-232 port

Rear panel control

Freeze frame

Converts interlaced to non-interlaced

Converts non-interlaced to interlaced

Window extraction

The SynchroMaster 300 offers three techniques to combine two computer images:

Chroma Key:

One image designated as foreground is generated with areas of a user-defined "key color." The SynchroMaster 300 substitutes the background image wherever the key color appears in the foreground image; i.e., the foreground image becomes transparent and the background image shows through.

Linear Luminance Key:

The luminance keying circuitry combines foreground and background images according to the luminance value of the foreground images. If keying on black, the background image appears in areas of the foreground which are darker than a specified threshold. If keying on white, the background image appears in areas of the foreground which are brighter than a specified threshold. The keyer's variable gain allows you to control the sharpness of transitions between foreground and background.

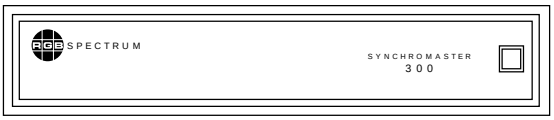
Weighted Sum:

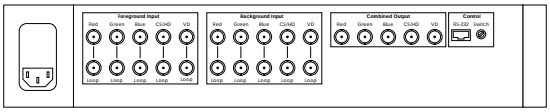
The output image is a weighted sum (average) of the two input images. The SynchroMaster 300 lets you fade smoothly between foreground and background signals, with programmable fades and dissolves.

The SynchroMaster 300 can synchronize RGB signals of different line and frame rates, interlaced and non-interlaced formats and even HDTV. The signals can then be switched, dissolved or combined.

The SynchroMaster 300 is a versatile scan converter with a number of other uses. It has the ability to "window in" on a computer generated signal and extract from it a portion of the raster containing a selectable number of lines - e.g., 875, 675, 625 and 525 line signals can be generated. All output timing adjustments are user-configurable, including vertical refresh rate and choice of interlaced or non-interlaced format. The SynchroMaster 300 can also convert interlaced signals to non-interlaced signals and vice versa.

RGB SPECTRUM®
a visual communications company™





#A5999 ISO9002
RGB SPECTRUM

Specifications subject
to change without notice
Made in the USA

RGB Video Input

Video Format	non-interlaced or interlaced
Resolution	320 x 200 to 1280 x 1024
Horizontal rate	15 kHz to 95 kHz
Vertical rate	20 Hz to 100 Hz
Amplitude	0.7 to 1.0 V peak to peak; white positive
Input impedance	75 Ω
Sync amplitude	1.0 V to 5.0 V (75 Ω)
Sync formats	Sync on green, composite sync, H-drive and V-drive
Connectors	BNC

RGB Video Output

Format	foreground identical to input
Output impedance	75 Ω
Switching time (chromakey)	better than 4 ns
Delay	less than 20 ns for foreground input
Connectors	BNC

HDTV Input/Output

Format	Y, P_B, P_R (1125 line, 30 Hz, 33.75 kHz)
Connectors	BNC

Frame Buffer

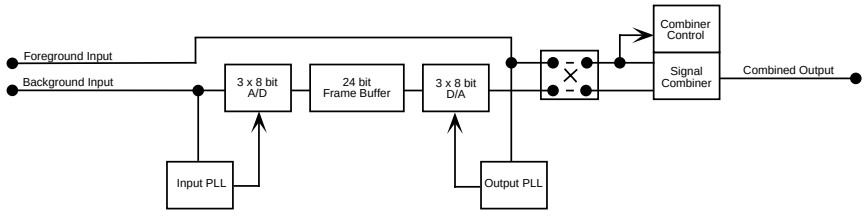
Size	2048 x 1024
Pixel depth	24 bits (8 each for red, green and blue)

Control Input

RS-232 port	1200, 2400, 4800, 9600 baud, echo or no-echo

Mechanical

Size	17.5” wide by 3.5” high by 18.5” deep (rack mountable)
Weight	20 lbs.
Power	150 watts



RGB SPECTRUM
950 Marina Village Parkway
Alameda, CA 94501
(510) 814-7000
(510) 814-7026 FAX
E-mail: sales@rgb.com
http://www.rgb.com/