



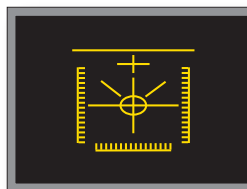
HIGH RESOLUTION IMAGE COMBINER

SYNCHROMASTER 555

The new SynchroMaster® 555 overlay/keyer combines images from two high resolution computer sources or image generators into a composite image. The two signals, one foreground and one background, are digitized, synchronized, and combined at up to 1920 x 1200 pixel resolution.



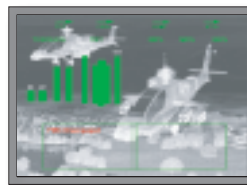
Background



Foreground

An illustration of chroma-key technique. The foreground image contains a color that can be keyed on, in this case black. The combiner makes the foreground image transparent where it finds the key color, allowing the background image to show through.

The SynchroMaster 555 offers color keying of RGB analog and DVI sources with exceptional image quality. The unit supports one dual RGB or DVI channel and a second RGB channel. It can synchronize and combine signals of different line and frame rates and interlacing formats. Using a chroma-key technique, one signal is made visible through the other wherever a color falls within a specified color range. Either channel can be configured as the foreground or the background signal. The output signal is genlocked to one of the two inputs, and is available in either RGB or DVI format.



The SynchroMaster 555 overlay/keyer digitizes, synchronizes, and combines images from two high resolution computer sources into one composite image, at up to 1920 x 1200 pixel resolution.

The SynchroMaster 555 features an easy-to-use interface for selecting a key color. The user simply moves a cursor over the image being keyed on until it is positioned over the desired color.

In a typical aircraft or helicopter simulation, one image generator produces the background, an out-the-window display, and a second produces the foreground, a heads-up display (HUD). The SynchroMaster 555 combines the two images into a pilot's view through the HUD. Important in simulation, the architecture offers very low latency.

Superior image quality, input versatility, and operational simplicity make the SynchroMaster 555 an excellent solution for applications in simulation and command-and-control.

RGB SPECTRUM®
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Specifications

High Resolution Graphics Inputs

Analog RGB	Interlaced or non-interlaced
Number	2
Video level	Nominal 0.7V p-p (1.0V composite p-p)
Input impedance	75 ohms
Sample rate	Up to 205 MHz
Horizontal scan rate	15 kHz to 100 kHz non-interlaced
Frame rate	Up to 100 Hz
Resolution	640 x 480 - 1920 x 1200 pixels
Sync	3 wire (sync on green, bi-level or tri-level), 4 wire (separate composite sync), 5 wire (separate H and V sync)
Sync level	0.3V p-p (3 wire bi-level), 0.6V p-p (3 wire tri-level), 1 to 5V (4 and 5 wire)

DVI

Number	1
Resolution	640 x 480 - 1600 x 1200 pixels
Maximum bandwidth	1.65 Gbps / channel (DVI single link)

High Resolution Graphics Output

Analog RGB	
Video level	Nominal 0.7V pk-pk
Output impedance	75 ohms
Sample rate	Up to 205 MHz
Resolution	640 x 480 - 1920 x 1200 pixels
Sync	3 wire (sync on green), 4 wire (separate composite sync), 5 wire (separate H and V sync)
Sync level	0.3V p-p (3 wire), 5V (4 and 5 wire)

DVI

Resolution	640 x 480 - 1600 x 1200 pixels
Maximum bandwidth	1.65 Gbps / channel (DVI single link)

Functions

Chroma key	1-bit key with interactive color selection
Image controls	Brightness, contrast, gamma, zoom, pan
Test signals	Internally generated test signals

Control

Network connection	
Type	10/100 Base-T Ethernet (TCP/IP)
Connector type	RJ 45
Function	Command line control via internal Telnet server
RS-232 serial	
Connector type	RJ11
Baud rate	9600 baud to 115k baud
Function	Command line control of all system functions

Other

Power	100-264 VAC, 50/60 Hz, 35 W maximum
Size	17.25" (w), 12" (d), 1.75" (h) excluding rack mount ears
Weight	10 lbs

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