

VSC 500

HIGH RESOLUTION COMPUTER-TO-VIDEO SCAN CONVERTER

- ▶ One VGA input with buffered loop-through
- ▶ Three simultaneous outputs:
 - Composite video
 - S-video
 - Component or RGB video
- ▶ Autoscanning up to 1920x1200
- ▶ Auto-Image™ setup
- ▶ Four vertical filters for improved image clarity
- ▶ Sizing & centering controls
- ▶ Zoom control with eight presets
- ▶ 60 factory and 16 user-accessible auto memory location presets
- ▶ Freeze function captures a frame of video for extended display
- ▶ Internal color bar generator
- ▶ RS-232/RS-422 remote control
- ▶ Optional IR remote control



The Extron VSC 500 is a single input, high resolution computer-to-video scan converter that combines high performance, essential features, and value. It is ideal for everyday use in videoconference facilities, conference rooms and boardrooms, and for recording the output of a computer as an NTSC or PAL video signal.



Extron Electronics
INTERFACING, SWITCHING AND CONTROL

DESCRIPTION

The Extron **VSC 500** High Resolution Computer-to-Video Scan Converter combines high performance processing, features, and value. It accepts computer-video signals at resolutions up to 1920x1200 and simultaneously outputs a scan-converted video signal as NTSC or PAL composite video, S-video, and component video or RGB video.

The VSC 500 is ideal for everyday use in a wide range of applications including videoconferencing, video recording, and viewing of computer-video images on an NTSC or PAL monitor or other video display device.

The VSC 500 features Auto-Image setup for automatic adjustment of centering, sizing, and filter settings. Additional key features include zoom control up to 200%, a color bar generator, an LCD display for user-friendly menu navigation, memory presets, and a buffered loop-through for local monitor output.

The VSC 500 can be controlled via the front panel, RS-232 or RS-422 serial control, or the optional VSC Remote handheld IR remote control. It is housed in a rack-mountable 1U, half rack width enclosure and is equipped with an internal international power supply.

FEATURES

- ▶ **Automatically recognizes and converts computer resolutions from 560x384 to 1920x1200 and frequencies to 100 kHz horizontal and 120 Hz vertical**
- ▶ **Buffered loop-through** – Provides a local monitor output, enabling the computer input signal to be monitored without the need for a separate distribution amplifier.
- ▶ **Three simultaneous outputs** – NTSC or PAL standard video is output as composite video, S-video, and component or RGB video.
- ▶ **Auto-Image setup** – Saves time by providing calibration of image size, position, clock, and phase adjustments at the touch of a button.
- ▶ **Vertical filtering** – Four selectable vertical filters reduce jitter, improve image quality, and help maintain picture detail.
- ▶ **Sizing and centering controls** – User-friendly positioning is accessible through the front panel for quick and efficient image setup.
- ▶ **Image zoom control and presets** – Eight zoom presets are available for recalling size, position, and filtering, enabling the user to quickly zoom in on a certain area of an image.
- ▶ **Input memory presets** – Allow the scan converter to automatically recall up to 16 user presets, 60 factory presets, and eight zoom presets. Each memory location stores filter, size, and centering, or zoom settings for each source which can be recalled instantaneously when switching between different computer-video inputs and resolutions.
- ▶ **Image freeze control** – The output video can be frozen using the freeze button on the front panel. This allows the scan converter to capture a frame of video to display for an extended period of time, even after the source has been removed.

FEATURES (Cont.)

- ▶ **Internal color bar generator** – An internally-generated color bar pattern is provided for simplified setup of a display. The color bar pattern or a black screen can also be set as the default output when no input signal is present.
- ▶ **RS-232 and RS-422 serial control port** – Using serial commands, the VSC 500 can be controlled and configured via the Extron Windows®-based control program, or integrated into third-party control systems. Extron products use the SIS™ - Simple Instruction Set command protocol, a set of basic ASCII code commands that allow for quick and easy programming.
- ▶ **Optional IR remote control, part # 70-206-01** – The optional VSC Remote handheld IR remote control performs most front panel functions such as image freeze, zoom in and out, size and shift, vertical filter adjustment, and preset selection.
- ▶ **Front panel security lockout** – This feature locks out all front panel functions except for input selection; all functions however, are available through RS-232 control.
- ▶ **Rack-mountable 1U, half rack width metal enclosure**
- ▶ **Internal international power supply** – The 100-240VAC, 50/60 Hz, autoswitchable internal power supply provides worldwide power compatibility.

ALSO AVAILABLE

The Extron VSC 700 High Resolution Computer-to-Video Scan Converter builds on the performance and features of the VSC 500, incorporating RGBHV input on BNCs with a buffered loop-through that simplifies integration, as well as additional filter adjustments for fine-tuning image quality. The VSC 700 is also available with SDI - Serial Digital Interface output and includes video genlock, enabling integration into broadcast and production applications.

For enhanced integration requirements, the Extron VSC 900D Two Input High Resolution Computer-to-Video Scan Converter with Genlock and SDI Output includes two RGBHV inputs on BNCs and 15-pin HD, each with a buffered loop-through. In addition to SDI output and video genlock, the VSC 900D offers even more filter adjustment capability to further refine image quality.



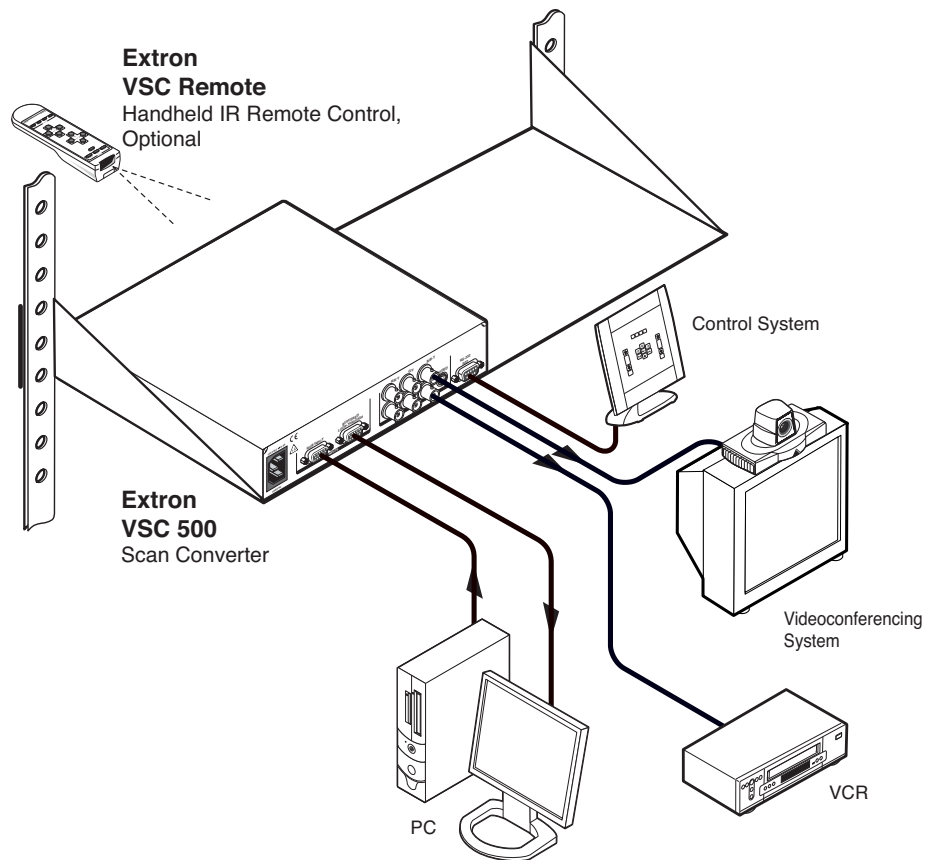
Optional VSC Remote
Handheld IR Remote
Control

SPECIFICATIONS

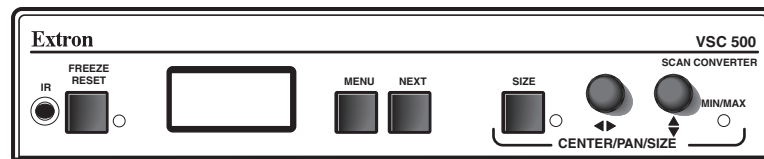
VIDEO INPUT	
Number/signal type	1 RGBHV, RGBS, RGsB with 1 buffered loop-through
Connectors	(1) 15-pin HD for input, (1) 15-pin HD for loop-through
Nominal level	0.7 Vp-p for RGB
Minimum/maximum levels	0 V to 2.0 Vp-p with no offset at unity gain
Impedance	75 ohms
Horizontal frequency	Autoscan 24 kHz to 100 kHz
Vertical frequency	Autoscan 50 Hz to 120 Hz
Resolution range	Autoscan 560 x 384 to 1920 x 1200; 480p, 720p, 1080i, 1080p (RGB only)
Maximum DC offset	2.0 V
VIDEO PROCESSING	
Encoder	10 bit digital
Digital sampling	24 bit, 8 bits per color
Colors	16.8 million
Horizontal filtering	1 fixed level
Flicker filtering	4 levels (selectable)
Encoder filtering	4 levels
VIDEO OUTPUT	
Number/signal type	1 RGBHV, RGBS, RGsB, or component video 1 S-video, 1 composite video
Connectors	5 BNC female: RGBHV/RGBS/RGsB/component video (1) 4-pin mini-DIN female: S-video 1 BNC female: composite video
Nominal level	1 Vp-p for Y of component video and S-video, and for composite video 0.7 Vp-p for RGB and for R-Y and B-Y of component video 0.3 Vp-p for C of S-video
Minimum/maximum levels	0.0 V to 0.7 Vp-p (RGB) 0.0 V to 1.0 Vp-p (component video, G of RGsB)
Impedance	75 ohms
SYNC	
Input type	Autodetect RGBHV, RGBS, RGsB
Output type	RGBHV, RGBS, RGsB
Standards	NTSC 3.58, PAL
Input level	1.5 V to 5.0 Vp-p
Output level	TTL: 5.0 Vp-p, unterminated
Input impedance	600 ohms
Output impedance	75 ohms
Max. input voltage	5.0 Vp-p
Polarity	Negative

CONTROL/REMOTE — SCAN CONVERTER		
Serial control port	RS-232 or RS-422, 9-pin female D connector	
Baud rate and protocol	9600 baud, 8 data bits, 1 stop bit, no parity	
Serial control pin configurations		
RS-232	2 = Tx, 3 = Rx, 5 = GND	
RS-422	2 = Tx-, 3 = Rx-, 5 = GND, 7 = Rx+, 8 = Tx+	
IR controller module	VSC Remote	
Program control	Extron's control/configuration program for Windows® Extron's Simple Instruction Set (SIS™)	
GENERAL		
Power	100 VAC to 240 VAC, 50/60 Hz, 40 watts, internal	
Temperature/humidity	Storage -40° to +158°F (-40° to +70°C) / 10% to 90%, noncondensing Operating +32° to +122°F (0° to +50°C) / 10% to 90%, noncondensing	
Cooling	Convection, no vents	
Mounting		
Rack mount	Yes, with optional 1U, 9.5" rack shelf, part #60-190-01 (RSU 129) or 60-604-01 (RSB 129)	
Enclosure type	Metal	
Enclosure dimensions	1.75" H x 8.75" W x 10.5" D (1U high, half rack wide) (4.4 cm H x 22.2 cm W x 26.7 cm D) (Depth excludes knobs.)	
Product weight	2.4 lbs (1.1 kg)	
Shipping weight	7 lbs (4 kg)	
Vibration	ISTA/NTSA 1A in carton (International Safe Transit Association)	
Regulatory compliance		
Safety	CE, CUL, UL	
EMI/EMC	CE, C-tick, FCC Class A, ICES, VCCI	
Environmental	Complies with the appropriate requirements of WEEE.	
Warranty	3 years parts and labor	
NOTE: All nominal levels are at ±10%.		
Model	Version Description	Part number
VSC 500	Scan Converter	60-476-01
Optional Accessories		
VSC Remote	Handheld IR Remote Control for VSC Series	70-206-01
RSU 129	1U 9.5" Deep Universal Rack Shelf Kit	60-190-01
MBU 129	1U, 1/2 Rack Width Under-Desk Mount	
	Kit for Four-Piece Enclosure	70-219-01
RCAF-BNCF/10	RCA Female-BNC Male, Qty. 10	100-229-01
SVHSM-BNCF 8" (20 cm)	S-Video Male to 2 BNC Female Adapter, 8"	26-353-01
MHR-2 SVM-M/6	4-pin Mini DIN Male-Male, 6' (1.8 m)	26-316-02

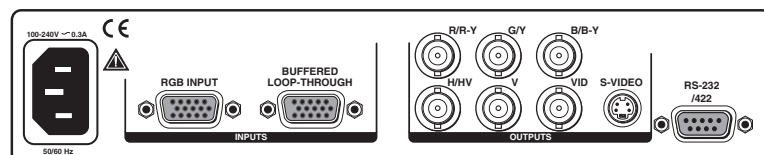
APPLICATION DIAGRAM



PANEL DRAWINGS



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