VSC 700
VSC 700D

HIGH RESOLUTION COMPUTER-TO-VIDEO SCAN CONVERTERS WITH GENLOCK

- One RGBHV input with buffered loop-through
- Three simultaneous outputs:
  - Composite video
  - S-video
  - Component or RGB video
- Autoscanning up to 1920x1200
- Auto-Image™ setup
- Four horizontal filters and five vertical filters
- 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
- Video genlock
- RS-232/RS-422 remote control
- Optional IR remote control
- Optional SDI digital video output

The Extron VSC 700 and VSC 700D are single input, high resolution computer-to-video scan converters that combine high performance with an expanded feature set and innovative technologies. Both models are ideal for use in a range of integrated A/V systems, including broadcast applications, videoconference facilities, conference rooms and boardrooms, and rental and staging environments.

DESCRIPTION

The Extron **VSC 700** and **VSC 700D** High Resolution Computer-to-Video Scan Converters combine high performance processing with an expanded feature set designed for easy integration. They accept computer-video signals at resolutions up to 1920x1200 and simultaneously output a scan-converted video signal as NTSC or PAL composite video, S-video, and component video or RGB video. In addition, the VSC 700D includes a fourth, SDI serial digital video output. The VSC 700 and VSC 700D are ideal for 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.

Both models feature 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. For broadcast and production applications, the VSC 700 and VSC 700D include video genlock capability for synchronization to an external reference signal. The VSC 700D adds an SDI output for integration into digital broadcast and production systems.

The VSC 700 and VSC 700D can be controlled via the front panel, RS-232 or RS-422 serial control, or the optional VSC Remote handheld IR remote control. They are housed in rack-mountable 1U, half rack width enclosures and are 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.
- **Optional SDI output** – The VSC 700D features a SMPTE 259M- and ITU.R BT-601-compliant SDI serial digital video output that facilitates the integration of computer-video signal sources into digital broadcast and production applications.
- **Auto-Image setup** – Saves time by providing calibration of image size, position, clock, and phase adjustments at the touch of a button.
- **Vertical filtering** – Five selectable vertical filters reduce jitter, improve image quality, and help maintain picture detail.
- **Horizontal filtering** – Four selectable horizontal filters prevent aliasing or pixel elimination so that less detail is dropped when the image is scanned from left to right.
- **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.

FEATURES - Cont.

- **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.
- **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.
- **Video genlock** – All NTSC and PAL video outputs can be synchronized to an external reference signal for integration into broadcast and production applications.
- **RS-232 and RS-422 serial control port** – Using serial commands, the VSC 700 and VSC 700D 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 900D Two Input High Resolution Computer-to-Video Scan Converter with Genlock and SDI Output builds on the performance and features of the VSC 700, with two RGBHV inputs on BNCs and 15-pin HD, each with a buffered loop-through for simplified integration. In addition to SDI output and video genlock, the VSC 900D offers additional filter adjustment capability to further refine image quality.

Optional VSC Remote
Handheld IR Remote Control

VIDEO INPUT

Number/signal type	1 RGBHV, RGBS, RGsB with 1 buffered loop-through
Connectors	2 x 5 female BNC (5 for input, 5 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
DC offset (max. allowable)	2.0 V
External sync (genlock)	0.3 V to 1.0 Vp-p

VIDEO PROCESSING

Encoder	10 bit digital
Digital sampling	24 bit, 8 bits per color
Colors	16.8 million
Horizontal filtering	4 levels
Flicker filtering	5 levels
Encoder filtering	4 levels

VIDEO OUTPUT

Number/signal type	1 RGBHV, RGBS, RGsB, or component video 1 SDI component video (VSC 700D only) 1 S-video 1 NTSC/PAL composite video
Connectors	5 BNC female: RGBHV/RGBS/RGsB/ component video 1 BNC female: SDI component video (VSC 700D only) (1) 4-pin mini-DIN female: S-video 1 BNC female: composite video
Nominal level	0.7 Vp-p for RGB
Minimum/maximum levels	0.0 V to 1.0 Vp-p
Impedance	75 ohms

SYNC

Input type	Autodetect RGBHV, RGBS, RGsB
Output type	RGBHV, RGBS, RGsB
Genlock connectors	1 BNC female: genlock input 1 BNC female: genlock output (terminate w/75 ohms if unused)
Standards	NTSC 3.58, PAL
Input level	1.5 V to 5.0V p-p
Output level	TTL: 5.0V p-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, 9 = hard-wired IR RS-422: 2 = Tx-, 3 = Rx-, 5 = GNC, 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, 30 watts, internal, autoswitchable
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
Rack mount	Yes, with optional 1U rack shelf RSU 129, part # 60-190-01; or RSB 129, part #60-604-01
Enclosure type	Metal
Enclosure dimensions	
VSC 700	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.)
VSC 700D	1.75" H x 8.75" W x 10.75" D (1U high, half rack wide) 4.4 cm H x 22.2 cm W x 27.3 cm D (Depth excludes knobs.)
Product weight	
VSC 700	2.8 lbs (1.3 kg)
VSC 700D	2.9 lbs (1.3 kg)
Shipping weight	5 lbs (3 kg)
Vibration	ISTA 1A in carton (International Safe Transit Association)
Listings	UL, CUL
Compliances	CE, FCC Class A, VCCI, AS/NZS, ICES
MTBF	30,000 hours
Warranty	3 years parts and labor

NOTE: All nominal levels are at ±10%.

Model	Version Description	Part Number
VSC 700	Standard Version	60-477-01
VSC 700D	With SDI Output	60-477-02

Included Accessories

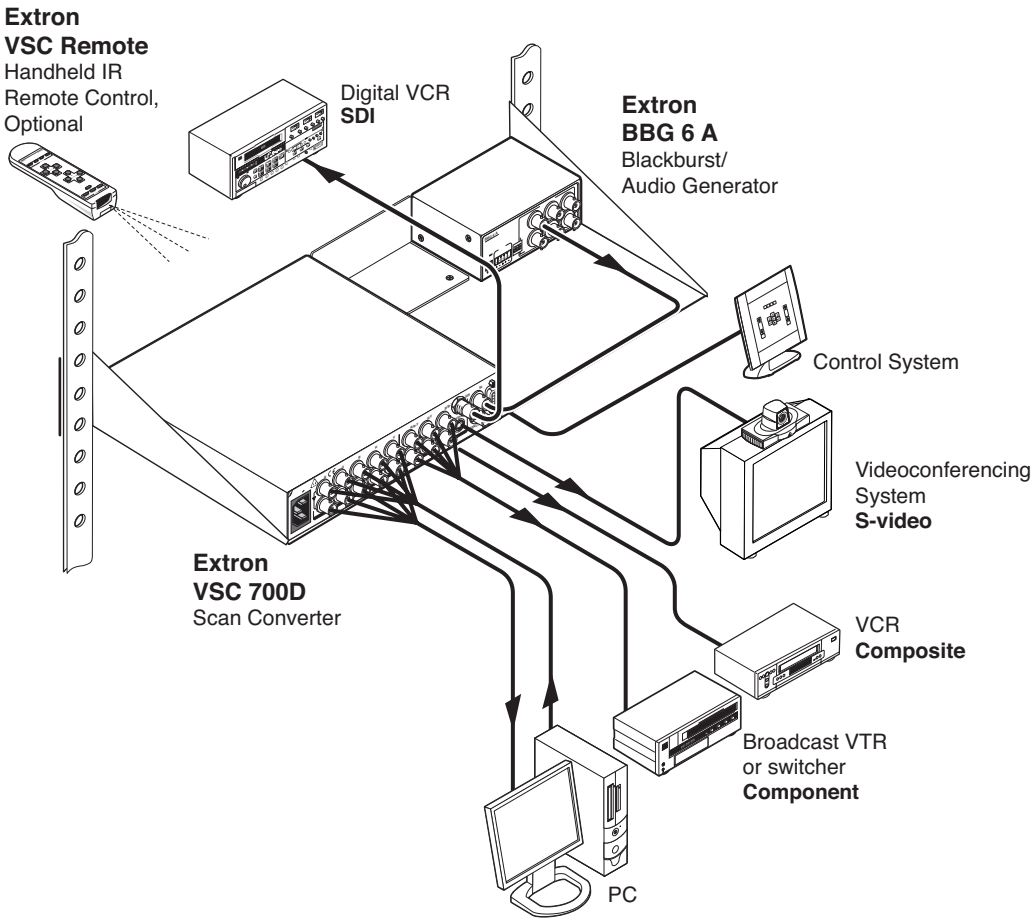
MHR-2 SVM-F/6	Male to Female 4-pin Mini DIN S-Video Cable, 6'	26-542-02

Optional Accessories

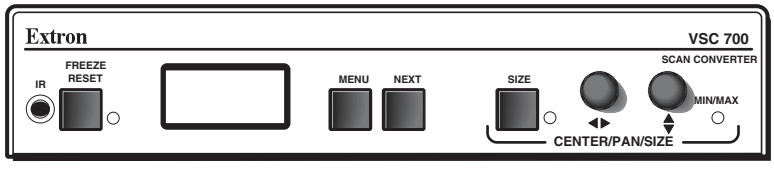
BBG 6 A	Blackburst, Color Bars, and Audio Generator	60-535-01
VSC Remote	Handheld IR Remote Control for VSC Series	70-206-01
SDI Output Board	SDI Output Board	70-065-02
RSU 129	1U 9.5" Deep Universal Rack Shelf Kit	60-190-01
MBU 129	1U, 1/2 Rack Width Under-Desk Mount Kit for Four-Piece Enclosure	70-219-01
RCAF-BNCM/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

Specifications are subject to change without notice.

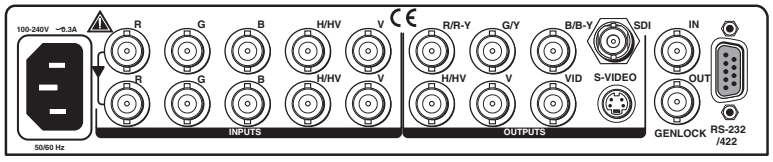
APPLICATION DIAGRAM



PANEL DRAWINGS



Front



Back

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