

Description

Savant's SmartVideo SSV-1000 provides a single zone of TrueCommand™ (on-TV menu system), video processing and scaling, and video switching all within a space-saving 1U enclosure.

SmartVideo also includes an integrated video processor capable of enhancing images using de-interlacing technology and expanded 12-bit color processing.

SmartVideo delivers on-screen display (OSD) technology with its TrueCommand™ user interface, 5 x 1 video distribution, and integrated control along with broadcast-quality video processing and scaling.

SSV-1000 delivers on-screen displays overlaid on live video up to 1080p, when paired with the Savant Host Controller (SVR-4100 or SVR-4100S) user interface server. See the technical specifications for the SVR-4100 or SVR-4100S.

SSV-1000 is a standalone video processor and scalar. Video scaling features include aspect ratio: anamorphic, panoramic full screen and pillar box.

Video processing features including: hue, saturation, brightness and contrast (HSBC) control and adaptive mosquito noise reduction, block artifact and temporal noise reduction, and frame rate Conversion.

NOTE VOM-VP02H is a service card solution for OSD applications used in Savant's modular platforms. See also, the technical specifications for VOM-VP02H).

Feature Summary

- Control formats - provide the control and automation features common in simple installations:
 - (2) RS-232/422/485 Serial ports
 - (6) IR Transmitter ports
 - (1) Relay Ports
 - (1) GPIO Ports
 - (1) Ethernet 10/100 base-T
- Audio inputs and outputs
 - (1) Analog inputs, R and L RCA jacks
 - (1) Digital output, TosLink
 - Distributes a single iTunes® source from external host via HDMI input
- Video inputs and outputs include:
 - (4) HDMI Inputs
 - (1) HDMI Output
 - (1) Component Input: YPbPr
 - Supports HDCP, 3D video resolutions and frame rate conversions
- Host HDMI input port for HST-4001, HST-4002 SVR-4100, or SVR-4100S
- Cost-effective control and scalability
- Use RacePoint Blueprint™ design tool to configure and customize SSV-1000



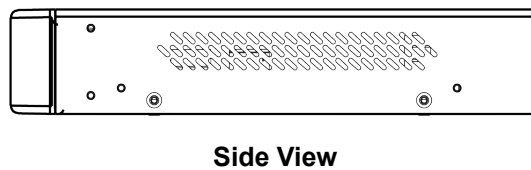
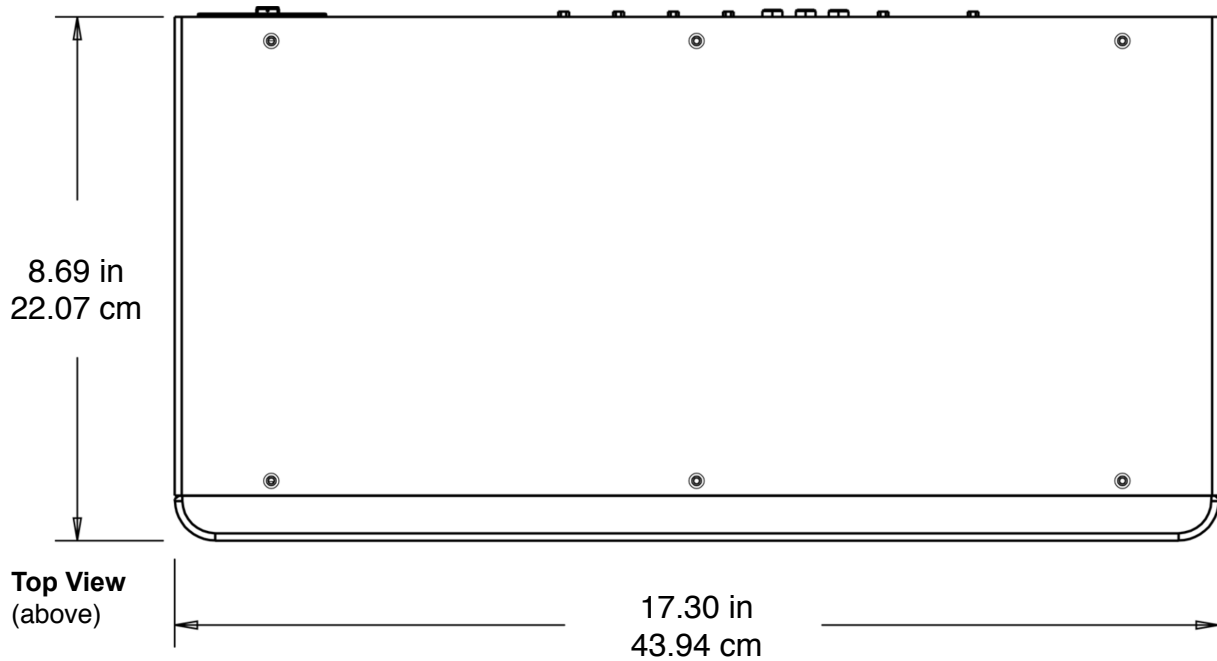
Front View of SSV-1000 (above)



Rear View of SSV-1000 (above)

Dimensions

The next figures show the dimensions of the SSV-1000.



Specifications

Environmental			
Temperature	32° to 104° F (0° to 40° C)		
Humidity	10% to 80% Relative Humidity (non-condensing)		
Cooling	6 cubic feet per minute (CFM) recommended.		
Maximum BTUs	113 BTUs per hour		
Dimensions and Weight			
Height	1.71 in/4.34 cm		
Width	17.30 in/43.94 cm		
Depth	8.69 in/22.07 cm		
Weight	9 lb/4.08 kg		
Rack	1U		
Power			
Input Power	100-240V AC, 50/60 Hz		
Nominal Power	22 watts (50 VA) for 120V AC, 60Hz (N. America) 22 watts (50 VA) for 230V AC, 50Hz (Europe)		
Maximum Power	33 watts (75 VA) (50 VA) for 120V AC, 60Hz (N. America) 33 watts (75 VA) for 230V AC, 50Hz (Europe)		
Compliance			
Safety and Emissions	FCC Part 15 S Mark CE Mark C-Tick		
RoHS	Compliant		
Front LEDs			
The LEDs on the front panel are used for diagnostic purposes. A description of the LEDs is available in the SmartVideo (SSV-1000) Quick Reference Guide.			
Rear Panel			
See <i>Rear Panel Capabilities and Connectors</i> page 5.			
Supported Video Output Formats		Supported Audio Output Formats	
720p, 1080i, 1080p at 50/60 Hz	Audio Source Signal Type	Audio Output Connector Type	
576p at 50 Hz		HDMI	TosLink
480p at 60 Hz	Dolby TrueHD	✓	
1920 x 1200p at 60 Hz	DTS-HD Master Audio	✓	
1366 x 768 at 60 Hz (custom)	Dolby Digital	✓	✓
HDCP: Supported	DTS Digital Surround	✓	✓
	DTS-ES Discrete 6.1	✓	✓
	DTS-HD Matrix 6.1	✓	✓
	DTS 96/24	✓	✓
	Stereo PCM	✓	✓
Enclosure			
Metal enclosure, matte black			

Included Items

The individual components included with the Savant SmartVideo (SSV-1000) are outlined in the next table.

Description	Quantity
1U Rack Mounting Brackets	2
Phillips Screws for Brackets (M3 X 8MM FLAT)	4
AC Power Cord (6 ft)	1
3-Pin Screw Down Connector for GPIO and relay ports	2
6-Pin Screw Down Connector for IR ports	2
HDMI Locking Cable (3 ft)	1
Quick Reference Guide	1

Required System Components

The system components required for use with the SSV-1000 are outlined in the next table.

Description	Model Number
Host Controllers	HST-4001, HST-4002, SVR-4100, or SVR-4100S
Ethernet Network	Enterprise-grade network deployment

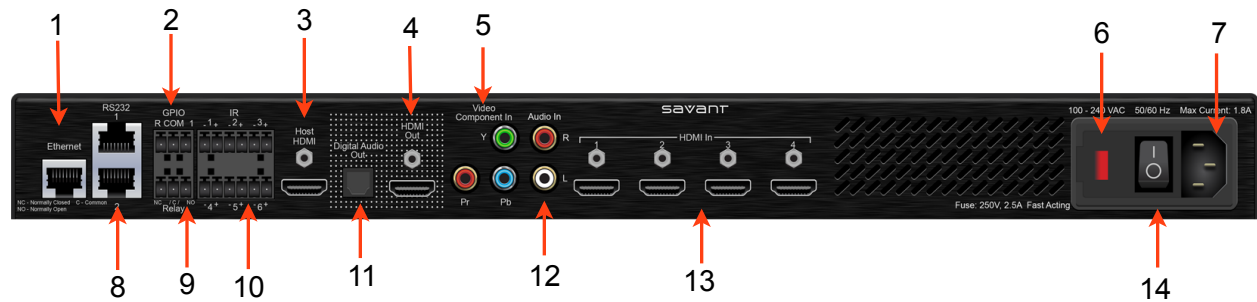
Optional Accessories

The optional accessories available for use with the SSV-1000 are outlined in the next table.

Description	Model Number
RS-232 Adapter Kit (5 pack)	SAK-1000
Infrared (IR) Emitter	IRB-1000
Infrared (IR) Emitters (10 pack)	IRB-1010
HDMI locking cable (3 ft)	CBL-3LHDMI
HDMI locking cable (6 ft)	CBL-6LHDMI
HDMI over Cat 5/6 Solution Set	HCX-1010
HDMI over COAX Solution Set	HCX-1100
HDMI over Multi-Mode Fiber Optic Cable Solution Set	HCX-1200
Structured Wire Bundle (3) Cat 5e + (1) 14/2 AWG	CBL-1000
RJ-45 Serial Adapters Flow Null (10-pack)	CON-10FN
RJ-45 Serial Adapters Flow No Null (10-pack)	CON-10FNN
DB-9 Mini Gender Changer (10 pack)	CON-10GEN
RJ-45 Serial Adapters No Flow Null (10-pack)	CON-10NFN
RJ-45 Serial Adapters No Flow No Null (10-pack)	CON-10NFNN
3-pin Screw-Down Connector (25 pack)	CON-STC3
6-pin Screw-Down Connector (25 pack)	CON-STC6
USB 2.0 over Cat 5e Digital Extender Set	UCX-2000

Rear Panel Capabilities and Connectors

The next figure shows the rear panel of an SSV-1000. The numbered callouts on the figure are explained in the next table.

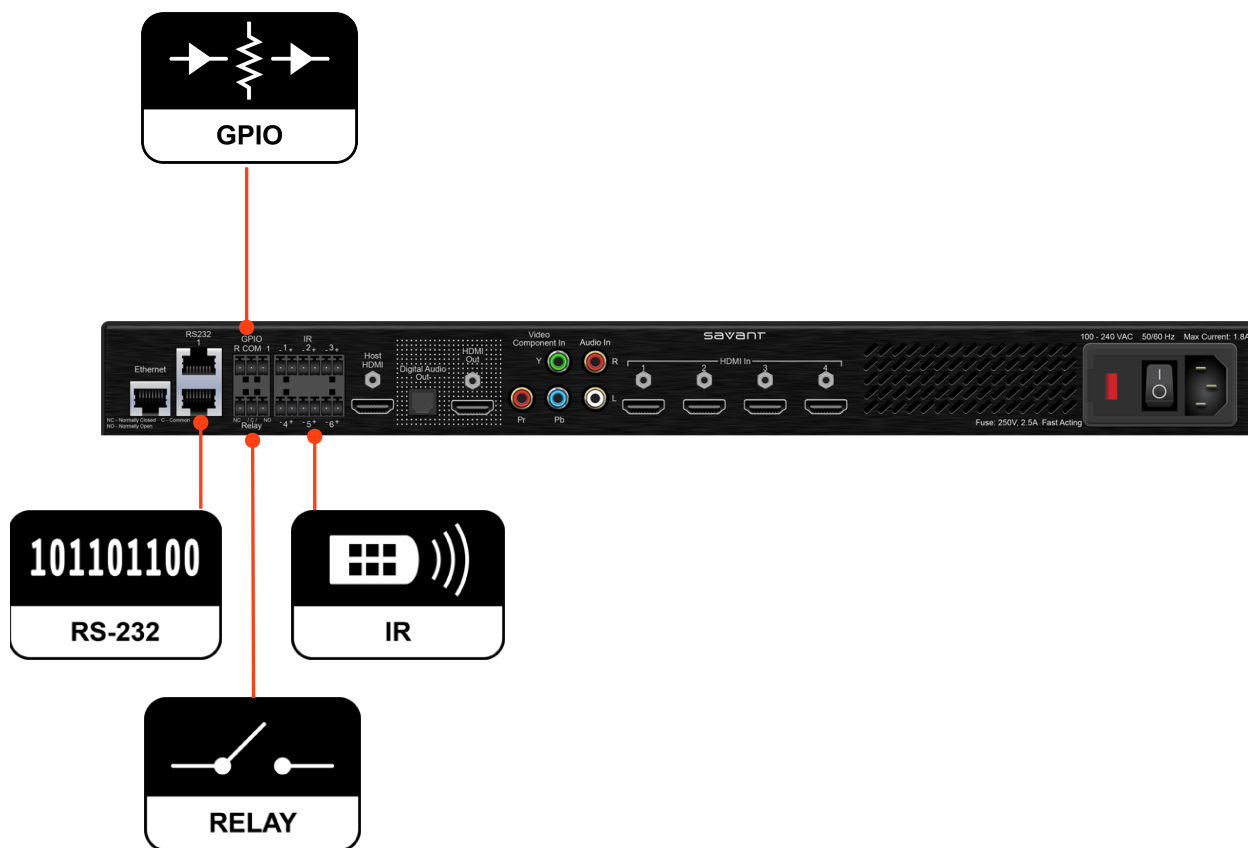


The next table describes the numbered callouts in the previous figure.





Number	Item	Description
1	Ethernet	RJ-45 10/100 Base-T, auto-negotiating port
2	GPIO	General Purpose Input and Output ports—uses 3-pin screw-down connector. The digital GPIO ports are binary I/O ports used for contact closure, trigger (output), or detect (input). R is reserved (not used). The COM pin is used for common ground. Pin 1 is used for input or output.
	GPIO Input	When configured as an input, the port detects a voltage present (GPIO input). GPIO inputs can safely detect the presence of a voltage of 0-30V DC with a threshold of approximately 2.4V DC.
	GPIO Output	When configured as an output, a GPIO port outputs a voltage between 0V-12V DC. The maximum current per port is 150 milliamps. An overcurrent condition shuts down the output until that condition is removed.
3	Host HDMI	Input port for external host (HST-4001, HST-4002) with locking HDMI connectors
4	HDMI Out	HDMI output port to HDTV (for example)
5	Video Component In	RCA jacks for component input: YPbPr
6	Fuse	250V, 2.5A—Fast acting fuse. This is replaceable.
7	Input Power	100-240V AC, 50/60 Hz
8	RS-232 (1-2)	RJ-45 ports used to transmit and receive serial binary data transmission.
9	Relay NC/C/NO (Normally Closed/Common Normally Open)	This port provides dry contacts (open/closed) to control devices requiring basic on/off operation. A single relay port can carry a maximum of 30V DC with a maximum current of 1.0 amps. Input from a device to the Savant controller is not supported through a relay. Uses a 3-pin screw-down connector.
10	IR (1-6)	Infrared transmitter ports (Two 6-pin screw down connectors)
11	Digital Audio Out	Digital TosLink jack for audio output signal—sends stereo and surround sound signal (not high bit rate audio) from TosLink digital audio connection.
12	Audio In	Right and Left RCA jacks for audio input
13	HDMI In (1-4)	HDMI input ports for High-Definition Multimedia Interface
14	I/O	On/Off button - I is used to power the controller to the On state. O is used to power the controller to the Off state.

Devices Supported by SSV-1000

The next figure shows a rear view of the SSV-1000. The devices that can be controlled with an SSV-1000 are described in the next table.

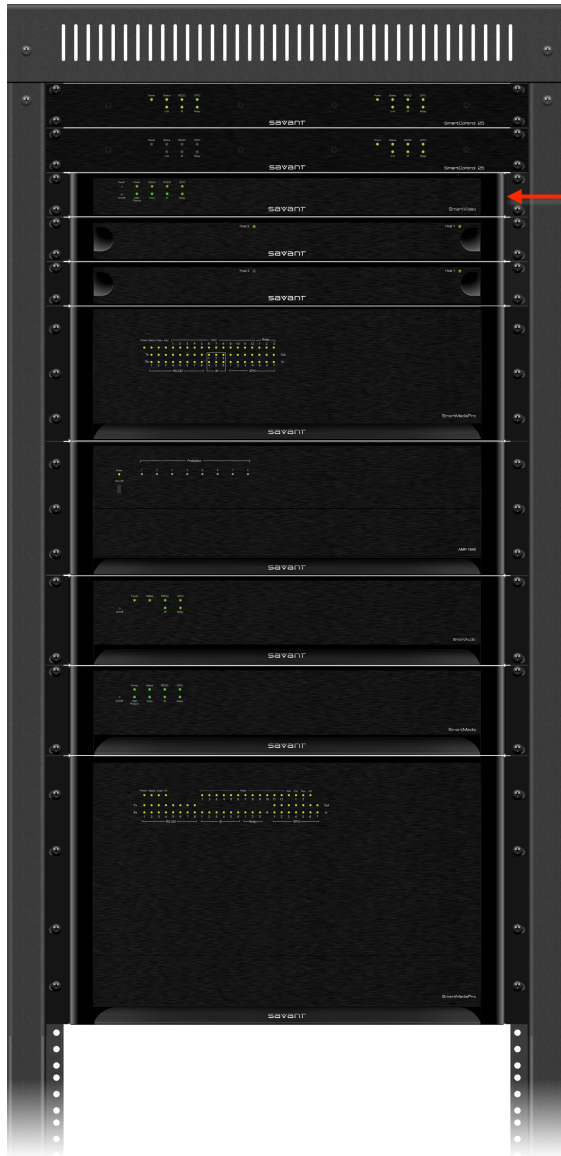


The next table describes the typical uses associated with the ports on the SSV-1000.

Port Quantity	Port Type	Port Icon	Typical Uses
2	Serial		Lighting, Displays, Door Entry Systems, and Heating Ventilation Air Conditioning (HVAC)
6	Infrared		Blu-ray Players, Displays, and Set Top Boxes (Cable and Satellite)
1	General Purpose Input Output		Equipment Power Sensing, and Voltage Control Applications
1	Relay		Shade Control, Gate Controllers, Door Latches, and Motorized Lifts

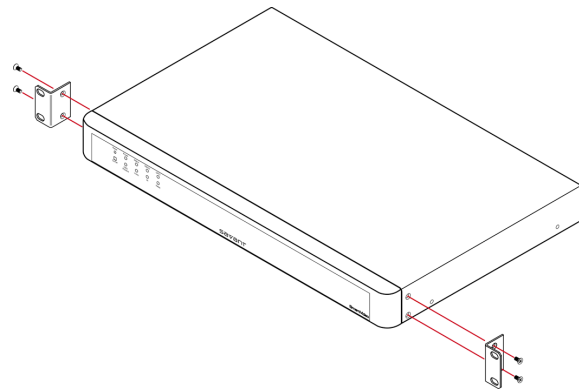
Specifications for Installing Device in Rack

The SSV-1000 can be mounted in a 1U-rack style enclosure. The next figure shows a partial view of a typical rack used to house an SSV-1000 and other devices. The SSV-1000 is compatible with all standard 19-inch National Electrical Manufacturers Association (NEMA) rack-mounts.



SSV-1000

SSV-1000 with 1U mounting brackets (below).



Installation Considerations

Savant recommends using cable supports on the rear of the chassis for audio/video control cabling.

This chassis needs adequate space on each side for air intake and exhaust—a minimum of two inches on each side.