

Description

The SSA-4000 provides 6 x 12 distributed audio and control, all in one compact 1U rack-mountable fanless design. It is the ideal multi-room audio solution effortlessly controlled by an iPhone®, iPod touch®, iPad®, or iPad mini® running Savant's TrueControl App.

The SSA-4000 includes 24 RCA jack connections for passing analog line-level audio to an external amplifier of your choice (see AMP-2000 or AMP-8125).

The SSA-4000 delivers a complete Savant SmartSystem™ when paired with an external host.

6 x 12 Audio Matrix Switcher

The SSA-4000 provides four analog and two digital inputs to manage all your stereo audio sources, and even accepts direct input from Savant Media Servers and Desktop Media Docks. In addition, four PCM stereo streams are available from the external host allowing you to play up to four iTunes® audio streams.

Advanced DSP

The SSA-4000 includes 12 zones of high-performance pre-amplification with digital signal switching, including independent control of volume, balance, bass, and treble. The User Interface (UI) can be the Savant Select Remote or any iOS device.

Common Applications

The SSA-4000 distributes audiophile-grade music to every room playing the same song (party mode) or different songs, simultaneously and independently.

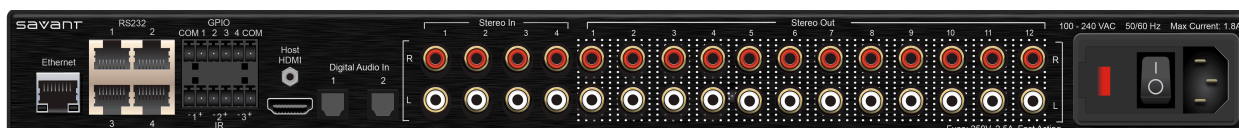
When paired with an optional Savant Media Server, the SSA-4000 will support local music libraries and the most popular streaming services including Pandora, Spotify, Rhapsody, SiriusXM, Last.fm, and TuneIn radio.

Feature Summary

- Advanced 12-Zone distributed audio solution for residential and commercial markets
- Provides 12 pre-amplified stereo zone outputs
- Provides 4 analog and 2 digital inputs
- Independent control of volume, balance, bass, and treble
- Integrated Controller with 11 control ports including serial, IR, and GPIO
- Complete control of all your audio zones when paired with Savant user interface
- Playback of up to four independent iTunes® sources (external host required, sold separately)
- 1U rack-mountable fanless metal enclosure
- Low power consumption, cool-running operation
- Use RacePoint Blueprint™ design tool to configure the SSA-4000



Front View of SSA-4000 (above)

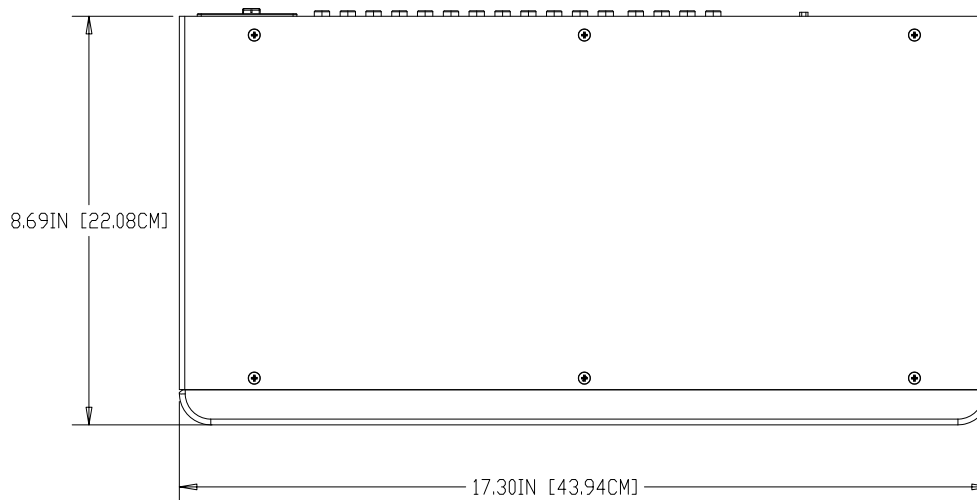


Rear View of SSA-4000 (above)

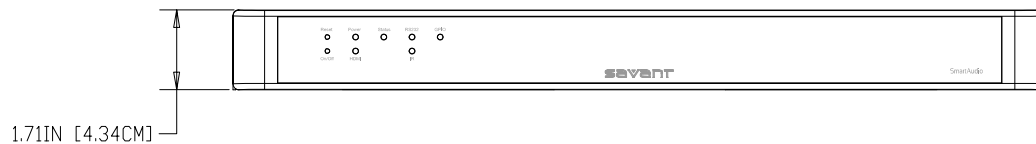
Dimensions

The next figures show the dimensions of the SSA-4000.

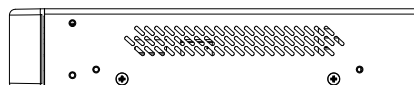
Top View (below)



Front View (below)



Side View (below)



Specifications

| | |
|--|---|
| Environmental | |
| Temperature | 32° to 104° F (0° to 40° C) |
| Humidity | 10% to 90% Relative Humidity (non-condensing) |
| Cooling | 3 cubic feet per minute (CFM) recommended. |
| Maximum BTUs | 61 BTUs per hour |
| Dimensions and Weight | |
| Height | 1.71 in/4.34 cm |
| Width | 17.30 in/43.94 cm |
| Depth | 8.69 in/22.08 cm |
| Weight | 5.25 lb/2.38 kg (net weight) 7.80 lb/3.54 (shipping weight) |
| Rack Space | 1U |
| Power | |
| Input Power | 100-240V AC, 50/60 Hz, 1.8 Amp |
| Nominal Power | 12 watt |
| Maximum Power | 18 watt |
| Stereo Preamp Parameters | |
| Total Harmonic Distortion (THD) | <0.005%, 20Hz - 20KHz, -100dB@1kHz |
| Dynamic Range | 115dB |
| Signal-to-Noise Ratio (SNR) | >105dB |
| Frequency Response | 20Hz - 20kHz +0dB +/-0.1dB |
| Output Impedance | 50 ohms |
| Crosstalk | <-80dB |
| Supported Sample Rates | 44.1 kHz/48 kHz/96 kHz/192 kHz at 16-bit or 24-bit resolution |
| 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 SmartAudio (SSA-4000) Quick Reference Guide. | |
| Rear Panel | |
| See <i>Rear Panel Capabilities and Connectors</i> , page 6. | |
| Supported Audio Output Formats | |
| Audio Source Signal Type | Audio Output Connector Type |
| Stereo PCM | RCA Stereo Jack Connectors, Left and Right |
| Enclosure | |
| Metal enclosure, black | |

Included Items

The individual components contained in the installation kit (075-0144-XX) for the Savant SmartAudio (SSA-4000-00) are outlined in the next table.

| Description | Quantity |
|---|----------|
| 1U Rack Mounting Brackets (071-0603-xx) | 2 |
| Phillips Screws for Brackets (M3 x 8MM Flat) (039-0017-xx) | 4 |
| Power cord C13, (6 feet) (N. America) (064-0079-xx) or appropriate international power cord | 1 |
| 6-Pin Screw Down Plug in Connector for IR and GPIO Ports (028-9352-xx) | 2 |
| HDMI Locking Cable (3 feet) (CBL-3LHDMI-xx) | 1 |
| Quick Reference Guide | 1 |

Required System Components

The system components required for use with the SSA-4000 are outlined in the next table.

| Description | Model Number |
|------------------|-------------------------------------|
| Savant Host | HST-XXXX or SVR-XXXX |
| Ethernet Network | Enterprise-grade network deployment |

Optional Accessories

The optional accessories available for use with the SSA-4000 are outlined in the next table.

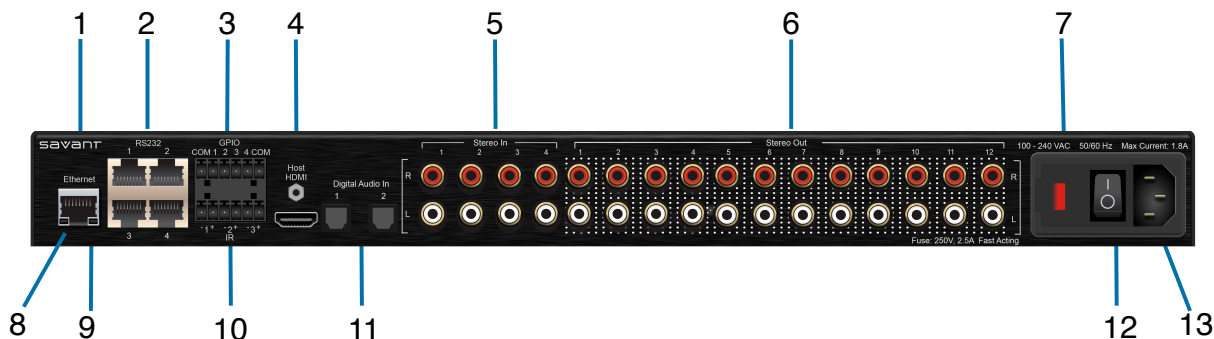
| Description | Model Number |
|---|----------------------|
| Savant Host | HST-XXXX or SVR-XXXX |
| 16-Channel Power Amplifier | AMP-2000, AMP-2000I |
| 8-Channel Power Amplifier | AMP-8125 |
| SmartMedia Server (2-Source) | SMS-002A |
| SmartMedia Server (5-Source) | SMS-005A |
| Desktop Media Dock | DDL-P200 |
| Savant Select Remote | SSR-1000 |
| Infrared (IR) Emitter | IRB-1000 |
| Infrared (IR) Emitters (10 pack) | IRB-1010 |
| Serial Adapter Kit | SAK-1000 |
| HDMI locking cable (6 ft) | CBL-6LHDMI |
| 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 |
| Mini Gender Changer (10-pack) | CON-10GEN |

Optional Accessories (cont.)

| Description | Model Number |
|---|--------------|
| 4-Inch In-Wall Speaker | SPK-40IW-00 |
| 6.5-Inch In-Wall Speaker Pair | SPK-60IW-00 |
| 6.5-Inch In-Wall Speaker | SPK-65IW-00 |
| 8-Inch In-Wall Speaker Pair | SPK-80IW-00 |
| 7-Inch DVC In-Ceiling Speaker | SPK-72IC-00 |
| 7-Inch In-Ceiling Speaker | SPK-75IC-00 |
| 7-Inch Audiophile In-Ceiling Speaker | SPK-78IC-00 |
| In-Wall Subwoofer Speaker | SPK-USUB-00 |
| Speaker Bracket for SPK-40IW Pair | SPK-BR40-00 |
| In-Wall Speaker Bracket | SPK-BR60-00 |
| Speaker Bracket for Pair | SPK-BR68-00 |
| In-Wall Sub Bracket | SPK-BR70-00 |
| In-Ceiling Speaker Back Box | SPK-MFLR-00 |
| PC Series 70 Volt Transformer (For SPK-70IC, SPK-72IC, SPK-75IC) | SPK-PC70V-00 |

Rear Panel Capabilities and Connectors

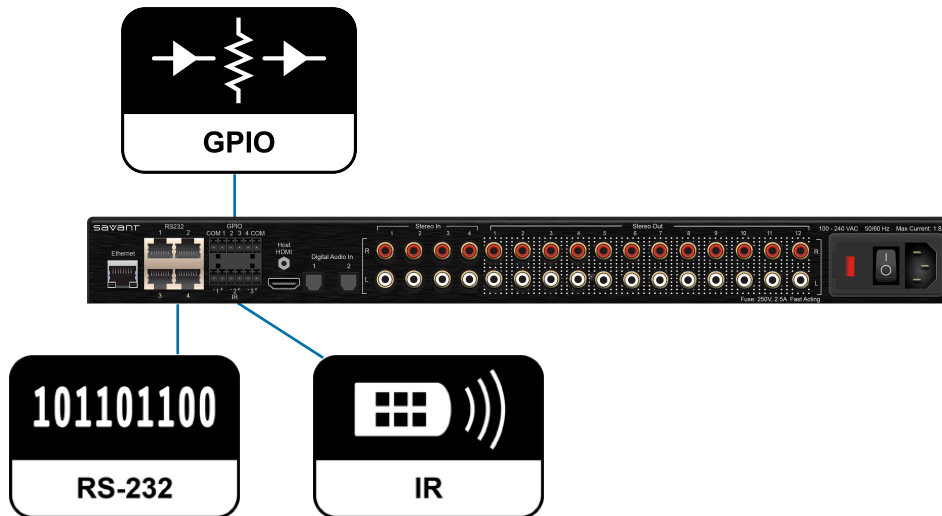
The next figure shows the rear panel of an SSA-4000. The numbered callouts on the figure are explained in the next table.



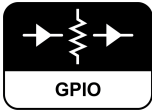
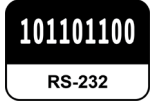

| Number | Item | Description |
|--------|-----------------------|---|
| 1 | Ethernet (1) | RJ-45 10/100 Base-T, auto-negotiating port with Link/Activity LEDs. |
| 2 | RS232/422/485 (1-4) | RJ-45 female-connector ports used to transmit and receive serial binary data. |
| 3 | GPIO (1-4) | General Purpose Input and Output ports. Uses 6-pin screw-down connector. The digital GPIO ports are binary I/O ports used for contact closure, trigger (output), or detect (input). The COM pin is used for common ground. Pin 1 - 4 is used for input or output. |
| | GPIO Input | When configured as an input, the port detects a voltage present and 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 below 12V DC. The maximum current per port is 150 milliamps. The combined maximum current for all GPIO outputs is 550 milliamps. An overcurrent condition shuts down the output if that number is exceeded. |
| 4 | Host HDMI (1) | HDMI iHost Audio Input port with locking HDMI connector. Used for receiving up to 4 PCM streams (iTunes®) from the Host (such as HST-XXXX). |
| 5 | Stereo In (4) | 4 Analog Audio Inputs (4 Right and Four Left RCA jacks) |
| 6 | Stereo Out (12) | 12 Stereo line-level audio outputs (12 Right and 12 Left RCA jacks) |
| 7 | Fuse (1) | 100-240V, 2.5A—Fast acting fuse. This is field-replaceable. |
| 8 | Link/Activity LED (1) | Green indicates an Ethernet link has been established. Green flashing indicates Ethernet activity. Off indicates an Ethernet link has not been established. |
| 9 | Speed LED (1) | Green indicates an Ethernet speed of 100 Mb. |
| 10 | IR (1-3) | Infrared transmitter ports. Uses 6-pin screw down connectors (3.81mm each). |
| 11 | Digital Audio In (2) | Receives stereo PCM signal from TosLink digital audio connection. |
| 12 | I/O (1) | On/Off switch - I is used to power the controller to the On state. O is used to power the controller to the Off state. |
| 13 | Input Power (1) | 100-240V AC, 50/60 Hz, (1.8 Amp Maximum) |

Devices Supported by SSA-4000

The next figure shows a rear view of the SSA-4000. The devices that can be controlled with an SSA-4000 are described in the next table.

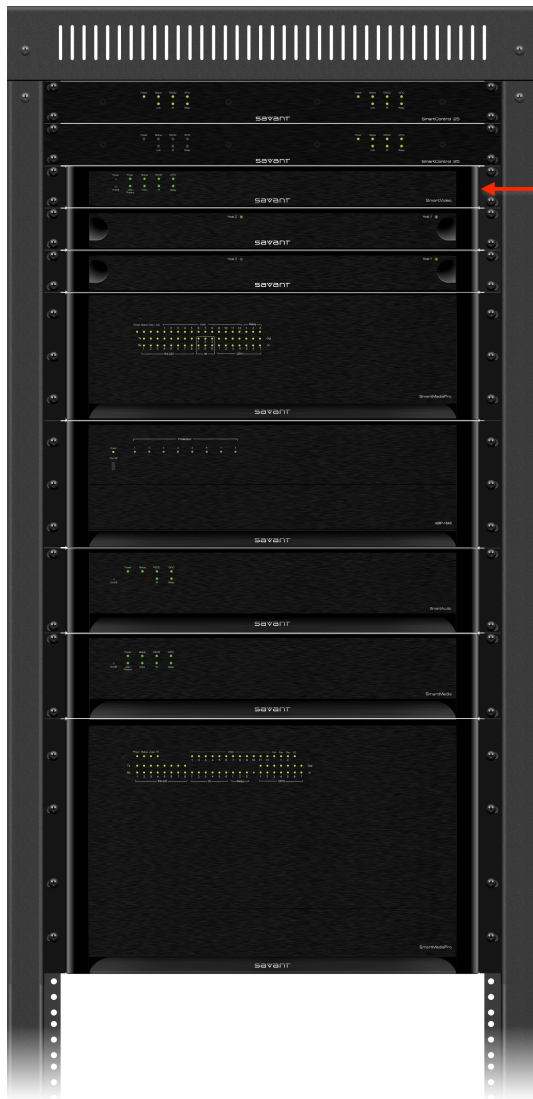


The next table describes the typical uses associated with the ports on the SSA-4000.

| Port Quantity | Port Type | Port Icon | Typical Uses |
|---------------|------------------------------|---|---|
| 4 | General Purpose Input/Output |  | Equipment Power Sensing and Voltage Control Applications |
| 4 | Serial |  | Lighting, Displays, Door Entry Systems, and Heating Ventilation Air Conditioning (HVAC) |
| 3 | Infrared |  | Blu-ray Players, Displays, and Set Top Boxes (Cable and Satellite) |

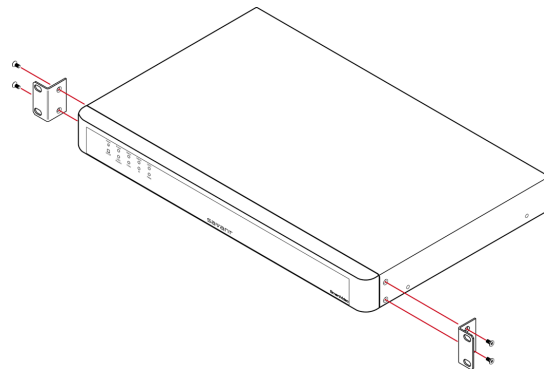
Specifications for Installing Device in Rack

The SSA-4000 can be mounted in a 1U rack style enclosure. The next figure shows a partial view of a typical rack used to house an SSA-4000 and other devices. The SSA-4000 is compatible with all standard 19-inch National Electrical Manufacturers Association (NEMA) rack-mounts.



SSA-4000

SSA-4000 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.

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