

# SmartMediaPro



SmartMediaPro (SSP-1200) is part of the Savant SmartSystems™ line of high-bandwidth matrix switchers and controllers. Supporting 12 card slots, this flexible design allows the SSP-1200 to be field upgraded by adding audio and video processing modules, or audio and video input and output modules based on the needs and complexity of your installations.

Audio and video switching, and audio and video processing features and capabilities are based on specific configurations and available by ordering the appropriate optional modules (see product catalog). Based on the modular design, up to 24 x 24 1080p HD video switching, or up to 48 x 48 audio only switching is supported per SSP-1200 in a 6U form factor.

SSP-1200 directly addresses the needs of single-solution matrix switchers with the added benefits of high capacity multizone audio and video processing, integrated control ports, and the added convenience and flexibility for dealers and system integrators with its modular and scalable design.

SSP-1200 is ideal for commercial applications with a field replaceable fan tray and optional redundant (dual) load-sharing power supplies for added reliability. The optional master host controller selected and paired with the SSP-1200 provides iTunes® Media Server capabilities.

With limitless flexibility and creativity, the SSP-1200 empowers you to meet the stringent needs, personal preferences and demands of your customers and installations.

With Savant Solutions **Now You Can™**...

## BENEFITS AND FEATURES

- ▼ Video switching up to 1080p60
  - 24 x 24 HD Video Switch
  - Supports HDMI™ 1.4 and HDCP
  - 3D - Capability to pass 3D stereoscopic signal formats
- ▼ Audio processing and multizone audio distribution\*
  - World class audio processing supporting surround sound decoding, matrix and post processing
  - Powerful audio mixing and overlay—useful for audio alerts and cues
  - Audio distribution up to 48 line-level stereo zones\*
  - Up to six 7.1 surround sound zones\*
- ▼ Video processing and multizone video distribution\*
  - Broadcast quality video processing
  - Professional video processor and scalar
  - Video distribution up to twenty-four 1080p60 video zones\*
- ▼ Integrated controller
  - 24 Control Ports - See Specifications
- ▼ Paired with master host controllers
- ▼ 48 x 48 multizone audio switch
- ▼ Field replaceable fan tray (front access)
- ▼ Optional redundant (dual) power supplies for added reliability
- ▼ Six universal input and six universal output slots
- ▼ 6U (rack units) metal chassis
- ▼ Scalable and flexible platform
  - Add additional audio and video service cards to meet your installation needs
- ▼ Configured and customized with RacePoint Blueprint™ Design Tool

\*Using Optional Modules

## Modularity and Scalability

The modular and scalable design allows the SSP-1200 to be field upgraded. This is accomplished by simply adding audio and video processing modules, and/or audio and video input and output modules.

SSP-1200 comes with twenty-four control ports. If additional control ports are required, you can easily add more by selecting any one of the Savant *SmartControllers* from the cost-effective *SmartControl 7* (SSC-0007) to the higher capacity *SmartControl 25* (SSC-0025).

## High Reliability, Optional Redundant Host Controllers

SSP-1200 can be optionally paired with Savant Redundant Host Controllers (HST-3002, sold separately) to provide additional reliability in case of an unlikely single host controller failure. A Redundant Host Controller configuration delivers higher availability to the Savant SmartSystems™ architecture using a 1+1 redundancy scheme for the primary Savant Host Controller. The secondary Host Controller will be in standby mode ready to take on the active role should a failure occur.

**What does this provide?** The 1+1 redundancy scheme allows the secondary host controller to seamlessly switch over to the role of the primary host controller without intervention. This means you will avoid any critical disruptions of your automation and control installations and your customers will avoid service interruptions. This redundancy (high-availability) option is an added benefit to dealers and customers alike to continuously ensure an enjoyable automation and control experience.



## High Definition Video and Audio Matrix Switching

SSP-1200 is a high capacity matrix switch ideal for installations requiring high definition (HD) video switching and high capacity audio switching. Based on the modular design up to 12 x 12 HD video switching up to 1080p60 and 24 x 24 audio switching, or 24 x 24 HD video only switching or 48 x 48 audio only switching, or combinations of, is supported per SSP-1200.

- Video switching up to 1080p60 or 1920x1200
- 24 x 24 HD video switch
- Supports HDMI™ 1.4 and HDCP
- Low-latency HDMI™ switching
- 3D, Capability to pass 3D stereoscopic signal formats
- Configurable inputs support a broad range of digital and analog signal types
- Audio distribution up to 48 stereo zones
- Video distribution up to 24 1080p60 video zones
- Drives up to 12 TrueCommand user interfaces

## World-Class Audio Processing and Distribution

SSP-1200 provides audio processing and audio distribution by adding optional Surround Sound (AOM-SS8U or AOM-SSXLR) or optional Stereo Output modules (AOM-016U or AOM-8XLR), and Audio Input Modules (digital or analog, unbalanced or balanced). SSP-1200 can support up to 48 stereo audio zones in a single solution. The world-class audio processing module supports surround sound decoding and matrix processing, including the most popular Dolby® and DTS decoders. The digital preamplifier stage features 16 independent channels, of which eight are designed to provide multichannel sound in the main listening room, while the other eight feed an additional four stereo zones.

The AOM-SS8U module creates an ideal configuration for installations requiring a single surround sound zone, plus four distributed stereo zones. The AOM-SS8U has 16 RCA jack connections grouped in one eight channel main zone (7.1 surround sound) and four stereo pairs for passing analog line-level audio signals to an external multichannel amplifier (see Savant AMP-1640). For audiophiles, Savant offers both balanced (XLR) Surround Sound and Stereo Preamp Output modules. Additionally, this versatile audio processing module enables audio mixing and overlay capabilities useful for applications requiring audio alerts and cues.

## Broadcast-Quality Video Processing and Distribution

The SSP-1200 platform provides video processing and distribution capabilities by adding optional *Video Processing Modules* (VOM-VP02H), and Video Input Modules (digital or analog - see product catalog). SPP-1200 can support up to 24 HD 1080p60 video zones in a single solution. The world-class *Video Processing Module* enhances image detail and quality with four-field motion adaptive de-interlacing, expanded 12-bit color processing and detail enhancement. The result transforms standard-definition sources to HD quality and makes HD look even more detailed. Moreover, the VOM-VP02H also provides real-time clean up of highly compressed artifacts of block and mosquito noise from lower-quality sources.

With increased viewing of low-resolution and highly compressed Internet content on larger screen displays, compression artifacts and noise are highly visible and distracting to viewers. The VOM-VP02H incorporates three noise reduction techniques — adaptive mosquito, block and temporal — to selectively reduce these image artifacts. Moreover, the VOM-VP02H also contains resolution enhancement technology that generates pristine and detailed upscaled images to make standard definition content look near-HD in quality and can even further enhance detail in HD content.

VOM-VP02H also functions as a video scalar. For example, it can be used to scale video sources commonly found in conference rooms or boardrooms, such as computers or projectors. Video scaling features include aspect ratio—anamorphic and panoramic full screen, and pillar box. Video processing features include hue, saturation, brightness, contrast (HSBC) and noise reduction.

Moreover, the VOM-VP02H enables Savant's award-winning TrueCommand technology, which is an On-TV Menu System overlaid over live video up to 1080p60. The VOM-VP02H includes two integrated video processors outputting high-definition video up to 1080p60 to two displays or projectors. The multifunctional design provides video processing, scaling and deinterlacing, coupled with a revolutionary user interface. Up to six VOM-VP02Hs can be added to the SSP-1200 Matrix Switcher and Controller 6U platform, which is the only platform available in the market delivering video processing on a per port basis.

## TrueCommand

TrueCommand revolutionizes interaction with HD displays, transforming them into 'control portals,' previously only available with Touch Panel technology. TrueCommand provides a visually engaging way to navigate, browse and select diverse control subsystems and multimedia content by boldly presenting them on HD displays (see figure below). TrueCommand is powered by Savant's innovative video mixing and overlay technology, combining and supporting HD and semi-transparent graphics up to 1080p60 overlaid onto live video.

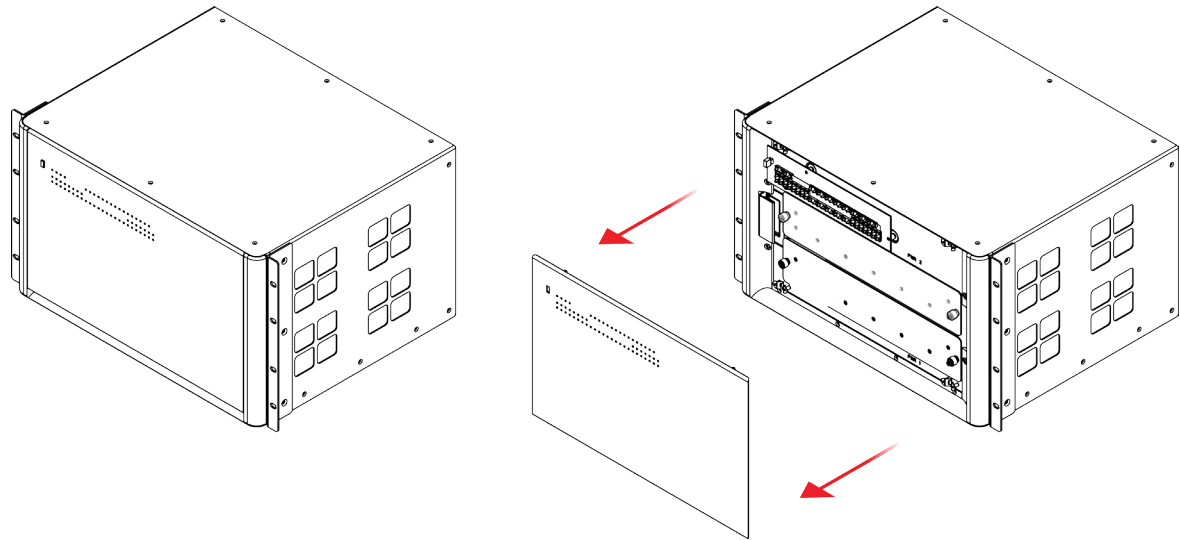
By using TrueCommand in tandem with Savant *Remotes*—or an iPhone®, iPod touch®, or iPad® running our TrueControl App—you can easily navigate and switch from cable to the DVD player, play music, adjust the heat, dim the lights, get the weather, view security cameras and obtain sport scores all from the comfort of your couch, or from a podium lectern.



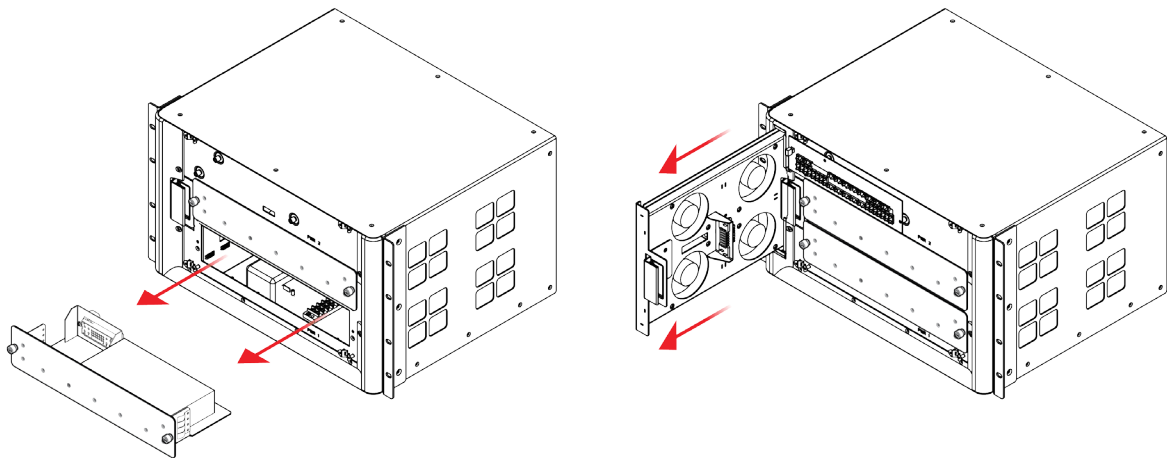
TrueCommand overlaid on live video

## Versatile Chassis Design

The Savant family of Matrix Switchers are designed to be used the way A/V system designers and installers build and maintain systems—offering modular designs, compact size, connectorization, remote monitoring, and mounting configurations needed for architectural integration, plus the level of control and system monitoring needed for high performance. The SSP-1200 has been designed for ease of maintenance with front access to allow field replacements of power supplies or the fan tray (see figures below).

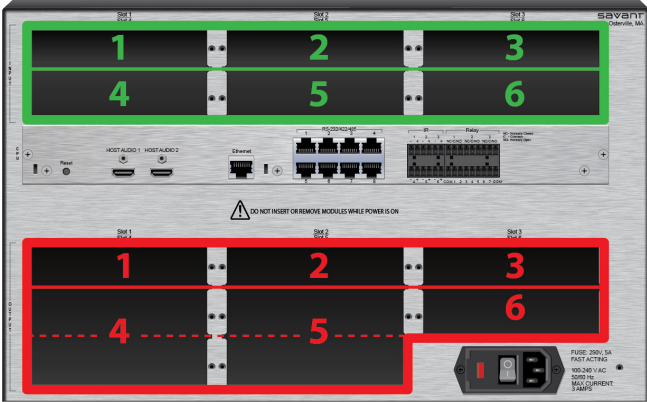


Removal of Faceplate



Removal of Fantray and Power Supply

# TECHNICAL SPECIFICATIONS

Model Numbers	<ul style="list-style-type: none"> <li>• SSP-1200 is the Base Configuration, which includes the integrated CPU Processor Card, front loading field replaceable fan tray, and power supply.</li> <li>• SSP-1200R is an optional model available with redundant load-sharing power supplies.</li> </ul>
Front Panel I/O	Status Indicators
Rear Panel I/O	<p><b>Control Ports</b></p> <p>Ethernet 10/100/1000: (1) RJ45 Ethernet 10/100/1000 base-T ports, which automatically negotiate connection speed.</p> <p>Serial (Ports 1–8): Eight RS-232/422/485 control ports using RJ45 connectors. Two ports (1 &amp; 2) are CTS/RTS (clear to send/ready to send).</p> <p>IR (Ports 1 – 6): Six IR control ports</p> <ul style="list-style-type: none"> <li>• Two 6-pin screw-down connector (3.8 mm) provides IR port termination</li> </ul> <p>Relay (Ports 1 – 3): Three Relay ports, Normal Open / Normal Close contacts</p> <ul style="list-style-type: none"> <li>• One 9-pin screw-down connector (3.8 mm) provides Relay port termination</li> </ul> <p>General Purpose IO (Ports 1 – 7): 7 GPIO (12V Trigger IO)</p> <ul style="list-style-type: none"> <li>• One 9-pin screw-down connector (3.8 mm) provides GPIO port termination</li> </ul> <p>(2) Host Audio Inputs with HDMI Locking Connectors</p>
Navigation and Control	Paired with Savant User Interfaces
Audio Processing Features (Optional modules)	<p><b>Built-to-Order Option:</b> Requires Audio Processing Modules; Model Numbers AOM-SS8U, AOM-SSX-LR, AOM-8XLR, and/or AOM-016U (see product catalog)</p> <ul style="list-style-type: none"> <li>• Surround Sound (DTS support pending) <ul style="list-style-type: none"> <li>♦ Decoders <ul style="list-style-type: none"> <li>• DTS-96/24, DTS-ES Discrete, Dolby Digital, PCM-96/24 and AAC</li> </ul> </li> </ul> </li> <li>• Matrix Processing <ul style="list-style-type: none"> <li>♦ Pro Logic II/IIx, Dolby Digital EX, DTS-ES Matrix, DTS NEO:6</li> </ul> </li> <li>• Post Processing <ul style="list-style-type: none"> <li>♦ Tone Controls, 7 Channel Stereo/Mono, Loudness Control</li> <li>♦ Effects Modes: Studio, Club, Hall, Cathedral, Theater... 18 total</li> </ul> </li> <li>• Stereo Preamp Processing <ul style="list-style-type: none"> <li>♦ Independent Control of Volume, Balance, Bass, Treble, Mono and Mute</li> </ul> </li> </ul> <p><b>Audiophile Performance</b></p> <ul style="list-style-type: none"> <li>• THD+N: -102dB</li> <li>• Dynamic Range: 115dB</li> <li>• Signal-to-Noise Ratio: &gt; 105dB</li> <li>• Frequency Response: 20Hz to 20KHz +/- 0.1dB</li> <li>• Total Harmonic Distortion (THD +N): &lt; 0.001%</li> </ul>
Card Slots and Capabilities	<p>SSP-1200 can be configured with up to 12 modules. Savant currently offers several service cards for the SSP-1200 including audio and video processing, and audio/video input and output modules to meet your diverse installation needs (see product catalog).</p> <p>SSP-1200 card slot capabilities are captured in the figure below:</p>  <p>Audio and/or Video In: Slots 1- 3</p> <p>Audio and/or Video In: Slots 4- 6</p> <p>Audio and/or Video Out: Slots 1 - 3</p> <p>Audio and/or Video Out: Slots 4 - 6</p>

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<p>Video Processor Features (Optional modules)</p>	<p><b>Built-to-Order Option:</b> Requires Video Processing Module (Model Number VOM-VP02H)</p> <p><b>Advanced Noise Reduction</b> - Powerful noise reduction algorithms use advanced adaptive motion, power and spatial estimation techniques to selectively reduce image artifacts. The following noise reduction algorithms are available:</p> <ul style="list-style-type: none"> <li>• Mosquito Noise Reduction (MNR) - Noise around the edges of objects due to compression loss</li> <li>• Temporal Noise Reduction (TNR) - Film grain, random noise and sensor noise</li> <li>• Block Artifact Reduction (BAR) - Block artifacts caused by over compression</li> </ul> <p><b>Motion Adaptive Video Processing</b></p> <ul style="list-style-type: none"> <li>• Four-field, motion adaptive, de-interlacing</li> <li>• Multi cadence support</li> <li>• Adaptive motion processing for trick-mode play and poor quality video</li> </ul> <p><b>Scalar and Resolution Enhancement</b></p> <ul style="list-style-type: none"> <li>• Edge-adaptive up-scaling</li> <li>• Per-pixel resolution enhancement</li> <li>• Support for wide, zoom and non-linear panoramic scaling             <ul style="list-style-type: none"> <li>- Full Screen Aspect Ratio Mode</li> <li>- Pillar Box Screen Aspect Ratio Mode</li> <li>- Panoramic Screen Aspect Ratio Mode</li> </ul> </li> </ul> <p><b>Adaptive Contrast Enhancement</b></p> <ul style="list-style-type: none"> <li>• Optimizes image dynamic range</li> <li>• Improves black and white level detail</li> <li>• Adaptive Detail Enhancement</li> <li>• Adaptive Brightness Enhancement</li> </ul> <p><b>Adaptive Color Support</b></p> <ul style="list-style-type: none"> <li>• 12-bit color space conversion on input and output</li> <li>• 12-bit color Gamma conversion</li> <li>• Adaptive Detail Enhancement</li> <li>• xvYCC/custom display color gamut mapping</li> <li>• Full 6-axis hue and saturation control</li> <li>• Hue, saturation, brightness and contrast (HSBC) adjustment</li> </ul> <p><b>High Bandwidth Input and Output</b></p> <ul style="list-style-type: none"> <li>• 36-bits/pixel deep color input and output</li> <li>• Input and output resolutions up to a maximum of 1920 x 1080p @ 60Hz (video) and 1920 x 1200 @ 60Hz with reduced blanking (graphics)</li> <li>• 12-bit color Gamma conversion</li> <li>• 1080p @ 24Hz Pass through support</li> <li>• Video Frame Latency, Fixed Sub-Frame</li> <li>• Graphics Frame Latency, Fixed 1 Frame</li> <li>• Graphics Frame Rate, 1080p @ 60 Hz and 720p @ 60 Hz</li> </ul>
<p>Dimensions and Weight</p>	<p>6U (rack unit high) 10.5 x 17.25 x 14 inches (HWD) 45 lbs (Base Configuration)</p>
<p>Power (Input)</p>	<p>100 - 240 VAC, 50/60 Hz, 350 Watt maximum power consumption (fully populated)</p>
<p>Enclosure</p>	<p>Metal with black matte finish with Savant's Signature Industrial Design</p>
<p>Included Items</p>	<p>Removable rack ears, mounting hardware, and AC power cord Installation kit and Quick Reference Guide</p>
<p>Optional Accessories</p>	<p>Master Host Controller, Model Number HST-1001 or HST-3002</p>
<p>Compliance</p>	<p>Safety and Emissions • CSA NRTL/C and FCC Part 15 Class B RoHS Compliant</p>
<p>Design Tool</p>	<p>RacePoint Blueprint™ is an advanced, intelligent and easy to use graphical user interface (GUI) tool for configuring, programming, and customizing Savant systems—without the need for low-level programming.</p>

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