### HVS-100/110 Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>HVS-100AO</th>
<th>HVS-100EXP3G</th>
<th>HVS-100DO</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Video Formats</strong></td>
<td>1080/24p, 2400/24i, 1080/59.94p, 1080/50p, 1080/25p, 1080/24PsF, 1080/23.98PsF, HD-SDI: 1.5 Gbps or SD-SDI: 270 Mbps, 75 ohm, BNC x 4, HDMI x 1</td>
<td>1080/24p, 2400/24i, 1080/59.94p, 1080/50p, 1080/25p, 1080/24PsF, 1080/23.98PsF, HD-SDI: 1.5 Gbps or SD-SDI: 270 Mbps, 75 ohm, BNC x 4, HDMI x 1</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Video Inputs (optional)</th>
<th>4-4-4 bpc, 10-bit (1/2 to 2/3 ratio)</th>
<th>4-4-4 bpc, 10-bit (1/2 to 2/3 ratio)</th>
<th>4-4-4 bpc, 10-bit (1/2 to 2/3 ratio)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HVS-100AO</td>
<td>10 bpc.</td>
<td>10 bpc.</td>
<td>10 bpc.</td>
</tr>
<tr>
<td>HVS-100EXP3G</td>
<td>8 bpc.</td>
<td>8 bpc.</td>
<td>8 bpc.</td>
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<tr>
<td>HVS-100DO</td>
<td>8 bpc.</td>
<td>8 bpc.</td>
<td>8 bpc.</td>
</tr>
<tr>
<td><strong>Number of Video Inputs</strong></td>
<td>Standard: 4 or 8 I, 8 O (Max.: 10 I, 10 O for iNEWS). Refer to “I/O Expansion Card Configuration.”</td>
<td>Standard: 4 or 8 I, 8 O (Max.: 10 I, 10 O for iNEWS). Refer to “I/O Expansion Card Configuration.”</td>
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</tr>
<tr>
<td>HVS-100AO</td>
<td>4 or 8 I, 8 O (Max.: 10 I, 10 O for iNEWS). Refer to “I/O Expansion Card Configuration.”</td>
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</tr>
<tr>
<td>HVS-100EXP3G</td>
<td>4 or 8 I, 8 O (Max.: 10 I, 10 O for iNEWS). Refer to “I/O Expansion Card Configuration.”</td>
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<td>4 or 8 I, 8 O (Max.: 10 I, 10 O for iNEWS). Refer to “I/O Expansion Card Configuration.”</td>
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<tr>
<td>HVS-100DO</td>
<td>4 or 8 I, 8 O (Max.: 10 I, 10 O for iNEWS). Refer to “I/O Expansion Card Configuration.”</td>
<td>4 or 8 I, 8 O (Max.: 10 I, 10 O for iNEWS). Refer to “I/O Expansion Card Configuration.”</td>
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<tr>
<th><strong>Video Outputs</strong></th>
<th>HVS-100AO</th>
<th>HVS-100EXP3G</th>
<th>HVS-100DO</th>
</tr>
</thead>
<tbody>
<tr>
<td>HVS-100AO</td>
<td>4-4-4 bpc, 10-bit (1/2 to 2/3 ratio)</td>
<td>4-4-4 bpc, 10-bit (1/2 to 2/3 ratio)</td>
<td>4-4-4 bpc, 10-bit (1/2 to 2/3 ratio)</td>
</tr>
<tr>
<td>HVS-100EXP3G</td>
<td>8 bpc.</td>
<td>8 bpc.</td>
<td>8 bpc.</td>
</tr>
<tr>
<td>HVS-100DO</td>
<td>8 bpc.</td>
<td>8 bpc.</td>
<td>8 bpc.</td>
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<tbody>
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<td>HVS-100AO</td>
<td>4 or 8 I, 8 O (Max.: 10 I, 10 O for iNEWS). Refer to “I/O Expansion Card Configuration.”</td>
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</tr>
<tr>
<td>HVS-100EXP3G</td>
<td>4 or 8 I, 8 O (Max.: 10 I, 10 O for iNEWS). Refer to “I/O Expansion Card Configuration.”</td>
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<tr>
<td>HVS-100DO</td>
<td>4 or 8 I, 8 O (Max.: 10 I, 10 O for iNEWS). Refer to “I/O Expansion Card Configuration.”</td>
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<tr>
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</thead>
<tbody>
<tr>
<td>Interface</td>
<td>Isolated HD/SDI, 10-bit pictures</td>
<td>Isolated HD/SDI, 10-bit pictures</td>
<td>Isolated HD/SDI, 10-bit pictures</td>
</tr>
<tr>
<td><strong>System Support</strong></td>
<td>Standard: HD-SDI x 8, HDMI x 1</td>
<td>Standard: HD-SDI x 8, HDMI x 1</td>
<td>Standard: HD-SDI x 8, HDMI x 1</td>
</tr>
<tr>
<td>HVS-100AO</td>
<td>HD-SDI: 1.5 Gbps or SD-SDI: 270 Mbps, 75 ohm, BNC x 8</td>
<td>HD-SDI: 1.5 Gbps or SD-SDI: 270 Mbps, 75 ohm, BNC x 8</td>
<td>HD-SDI: 1.5 Gbps or SD-SDI: 270 Mbps, 75 ohm, BNC x 8</td>
</tr>
<tr>
<td>HVS-100EXP3G</td>
<td>HD-SDI: 1.5 Gbps or SD-SDI: 270 Mbps, 75 ohm, BNC x 8</td>
<td>HD-SDI: 1.5 Gbps or SD-SDI: 270 Mbps, 75 ohm, BNC x 8</td>
<td>HD-SDI: 1.5 Gbps or SD-SDI: 270 Mbps, 75 ohm, BNC x 8</td>
</tr>
<tr>
<td>HVS-100DO</td>
<td>HD-SDI: 1.5 Gbps or SD-SDI: 270 Mbps, 75 ohm, BNC x 8</td>
<td>HD-SDI: 1.5 Gbps or SD-SDI: 270 Mbps, 75 ohm, BNC x 8</td>
<td>HD-SDI: 1.5 Gbps or SD-SDI: 270 Mbps, 75 ohm, BNC x 8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Power Consumption</th>
<th>HVS-100AO</th>
<th>HVS-100EXP3G</th>
<th>HVS-100DO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interface</td>
<td>140 W</td>
<td>160 W</td>
<td>240 W</td>
</tr>
<tr>
<td><strong>Dimensions/Weight</strong></td>
<td>Standard: HD-SDI x 8, HDMI x 1</td>
<td>Standard: HD-SDI x 8, HDMI x 1</td>
<td>Standard: HD-SDI x 8, HDMI x 1</td>
</tr>
<tr>
<td>HVS-100AO</td>
<td>290×119×216 mm, approx. 14 kg</td>
<td>290×119×216 mm, approx. 14 kg</td>
<td>390×229×45 mm, approx. 24 kg</td>
</tr>
<tr>
<td>HVS-100EXP3G</td>
<td>350×136×238 mm, approx. 26 kg</td>
<td>350×136×238 mm, approx. 26 kg</td>
<td>490×287×63 mm, approx. 35 kg</td>
</tr>
<tr>
<td>HVS-100DO</td>
<td>300×146×248 mm, approx. 20 kg</td>
<td>300×146×248 mm, approx. 20 kg</td>
<td>440×295×65 mm, approx. 30 kg</td>
</tr>
</tbody>
</table>

| Options           | For details, see “Options” in the body text. | For details, see “Options” in the body text. | For details, see “Options” in the body text. |
HVS-100/110: True Successors to the World Standard in Small HD/SD Switchers!

Enhanced Multi-functionality and Unbelievable Cost Performance

The HVS-100 and the HVS-110, portable video switchers, boast exceptional cost performance. Both mixers inherit and improve upon the diverse functions and features of the popular HVS-300HS, including mixed HD/SD input, frame synchronizing, re-sizing engine, 2.5D wipe effects, DVE, Chroma keyer and DSK. The HVS-100 and HVS-110 also have a built-in Web server that lets you change settings from a PC or a tablet. A clip memory feature has been added to the still store to support playback of video or animations and enhances productions through the use of CG wipes, while the multi-viewer meets a diverse range of monitoring needs. The equipment can be used in all types of locations, including live events, sports, news studios, OB vans, editorial offices and presentation venues, making it the ideal tool for shaping the imaginative ideas of video creators.

Product Line-up

Two models are available: one with separate main unit and control panel, and one with compact, integrated design, both of which can be adapted to a wide variety of applications and operation configurations.

HVS-100

Separate Main Unit/Control Panel Type

The control panel has been laid out specifically with professionals in mind with a design that leverages the knowledge of expert operators. It includes dedicated bus buttons, AUX buttons, a fader controller and direct use buttons for various functions. The main unit offers exceptional expandability to facilitate the addition of a redundant power source unit and various input/output cards.

HVS-110

Integrated Main Unit/Control Panel Type

Featuring operability almost on par with the HVS-100, the HVS-110 also boasts a compact design enabling simple portability. The inclusion of simple video input and output functionality, making it ideal for use in small broadcasting vans and broadcasting helicopters. Despite being portable, a redundant power source is also possible using an optional AC adaptor.

HVS-100/110 Main Features

Standard 8, Maximum 14 Inputs; Standard 4 + 1, Maximum 9 outputs (HVS-100)
12 HD/SD-SDI inputs, 4 HD/SD-SDI outputs and 1 HDMI output come as standard. Mixed HD/SD input is supported in the standard configuration. The 5 outputs can all be freely assigned. Three slots enable various inputs and outputs to be added, such as analog component, analog composite, HDMI and VGA in addition to more HD/SD-SDI.

12 Inputs; 6 + 1 Outputs (HVS-110)
12 HD/SD-SDI inputs, 9 HD/SD-SDI outputs and 1 HDMI output come as standard. Mixed HD/SD input is supported in the standard configuration. The 9 outputs can all be freely assigned.

Input/Output Card Combinations

The following outlines combinations of input/output cards that can be used in the HVS-100 slots. Refer to “Options” for details of cards.

<table>
<thead>
<tr>
<th>Slot A</th>
<th>Slot B</th>
<th>Slot C</th>
<th>Number of Inputs / Outputs</th>
</tr>
</thead>
<tbody>
<tr>
<td>HD/SD-SDI Input x 8, Output x 4 / Analog Input x 2 / PC Input x 2, Output x 1</td>
<td>HD/SD-SDI Input x 8, Output x 4 / Analog Input x 4 / PC Input x 2, Output x 1</td>
<td>HD/SD-SDI Input x 8, Output x 4 / Analog Input x 2 / PC Input x 2, Output x 1</td>
<td>12 Inputs; 8 + 1 Outputs (HVS-110)</td>
</tr>
<tr>
<td>HD/SD-SDI Input x 8, Output x 4 / Analog Input x 2 / PC Input x 2, Output x 1</td>
<td>HD/SD-SDI Input x 8, Output x 4 / Analog Input x 2 / PC Input x 2, Output x 1</td>
<td>HD/SD-SDI Input x 8, Output x 4 / Analog Input x 2 / PC Input x 2, Output x 1</td>
<td>Standard 4 + 1, Maximum 9 outputs (HVS-100)</td>
</tr>
</tbody>
</table>

*1 HVS-100/110 Main Unit/Control Panel Type

*2 HVS-100DI-A input card can be used in slot A and B (used in slot B, only 2 HD/SD-SDI channels are expanded).

*3 HVS-100AI and HVS-100PCI input cards can only be used in slots A and B.
HVS-100/110: True Successors to the World Standard in Small HD/SD Switchers!

Enhanced Multi-functionality and Unbelievable Cost Performance

The HVS-100 and the HVS-110, portable video switchers, boast exceptional cost performance. Both mixers inherit and improve upon the diverse functions and features of the popular HVS-300HS, including mixed HD/SD input, frame synchronizing, re-sizing engine, 2.5D wipe effects, DVE, Chroma keyer and DSK. The HVS-100 and HVS-110 also have a built-in Web server that lets you change settings from a PC or a tablet. A clip memory feature has been added to the still store to support playback of video or animations and enhances productions through the use of CG wipes, while the multi-viewer meets a diverse range of monitoring needs. The equipment can be used in all types of locations, including live events, sports, news studios, OB vans, editorial offices and presentation venues, making it the ideal tool for shaping the imaginative ideas of video creators.

Product Line-up

Two models are available: one with separate main unit and control panel, and one with compact, integrated design, both of which can be adapted to a wide variety of applications and operation configurations.

HVS-100/110

Separate Main Unit/Control Panel Type

The control panel has been laid out specifically with professionals in mind with a design that leverages the knowledge of expert operators. It includes dedicated bus buttons, AUX buttons, a fader controller and direct user buttons for various functions. The main unit offers exceptional expandability to facilitate the addition of a redundant power source unit and various input/output cards.

HVS-100

Integrated Main Unit/Control Panel Type

Featuring operability almost on par with the HVS-100, the HVS-110 also boasts a compact design enabling simple portability. The inclusion of simple video input and output functionality, making it ideal for use in small broadcasting vans and broadcasting helicopters. Despite being portable, a redundant power source is also possible using an optional AC adaptor.

HVS-100/110 Main Features

Standard 8, Maximum 14 Inputs;
Standard 4 + 1, Maximum 9 outputs (HVS-100)
8 HD/SD-SDI inputs, 4 HD/SD-SDI outputs and 1 HDMI output come as standard. Mixed HD/SD input is supported in the standard configuration. The 5 outputs can all be freely assigned. Three slots enable various inputs and outputs to be added, such as analog component, analog composite, HDMI, and VGA in addition to more HD/SD-SDI.

12 Inputs; 6 + 1 Outputs (HVS-110)
12 HD/SD-SDI inputs, 8 HD/SD-SDI outputs and 1 HDMI output come as standard. Mixed HD/SD input is supported in the standard configuration. The 9 outputs can all be freely assigned.

Input/Output Card Configurations

The following outlines combinations of input/output cards that can be used in the HVS-100 slots. Refer to “Options” for details of cards.

<table>
<thead>
<tr>
<th>Input/Output Card Configuration</th>
<th>Number of Inputs / Outputs</th>
</tr>
</thead>
<tbody>
<tr>
<td>HVS-100AI HVS-100AI HVS-100AO HD/SD-SDI Input x 8, Output x 4 / Analog Input x 2, Output x 2 / PC Input x 2, Output x 1</td>
<td></td>
</tr>
<tr>
<td>HVS-100AI HVS-100AI HVS-100PCO HD/SD-SDI Input x 8, Output x 4 / Analog Input x 4, Output x 2 / PC Output x 3</td>
<td></td>
</tr>
<tr>
<td>HVS-100AI HVS-100AI HVS-100DO HD/SD-SDI Input x 8, Output x 6 / Analog Input x 2, Output x 2 / PC Output x 3</td>
<td></td>
</tr>
<tr>
<td>HVS-100AI HVS-100AI HVS-100DO HD/SD-SDI Input x 8, Output x 6 / Analog Input x 2, Output x 2 / PC Output x 1</td>
<td></td>
</tr>
<tr>
<td>HVS-100AI HVS-100PCI HVS-100PCO HD/SD-SDI Input x 8, Output x 4 / Analog Input x 2 / PC Input x 2, Output x 3</td>
<td></td>
</tr>
<tr>
<td>HVS-100AI HVS-100PCI HVS-100DO HD/SD-SDI Input x 8, Output x 6 / Analog Input x 2 / PC Input x 2, Output x 1</td>
<td></td>
</tr>
<tr>
<td>HVS-100AI HVS-100PCI HVS-100AO HD/SD-SDI Input x 8, Output x 4 / Analog Input x 2, Output x 2 / PC Input x 2, Output x 1</td>
<td></td>
</tr>
<tr>
<td>HVS-100AI HVS-100PCI HVS-100AO HD/SD-SDI Input x 8, Output x 4 / Analog Input x 2, Output x 2 / PC Input x 2, Output x 1</td>
<td></td>
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<td>HVS-100AI HVS-100PCI HVS-100DO HD/SD-SDI Input x 8, Output x 6 / Analog Input x 2 / PC Input x 2, Output x 1</td>
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<td>HVS-100AI HVS-100PCI HVS-100AO HD/SD-SDI Input x 8, Output x 4 / Analog Input x 2, Output x 2 / PC Input x 2, Output x 1</td>
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<td>HVS-100AI HVS-100PCI HVS-100DO HD/SD-SDI Input x 8, Output x 6 / Analog Input x 2 / PC Input x 2, Output x 1</td>
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<td></td>
</tr>
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</table>

*3 HVS-100DI-A input card can be used in slot A and B (used in slot B, only 2 HD/SD-SDI channels are expanded).
HVS-100/110 Main Features

Frame Synchronizers
Every input in the HVS-100 and 8 inputs in the HVS-110 are fitted with frame synchronizers that enable switching of synchronous and asynchronous video signals. Installation of optional expansion cards supports asynchronous picture input from PCs, etc. Each input is also equipped with a process amplifier capable of adjusting the video level and chroma level, etc., of the input signal.

Re-sizing Engine
Up-re-sizing engines are provided on 4 of the standard inputs. This achieves a fully mixed SD/HD environment with the switcher alone. The optional input cards also have re-sizing engine on each input. This is readily suitable for re-sizing not only SD signals but also PC video (Up-re-sizing engines are not supported at 1080p).

Macro Function
A macro function enables you to store and register a series of operations and then perform complicated operations with one push of a button.

Event Memory and User Button
The main unit is equipped with an event memory function allowing up to 100 events to be stored. Event memories can be simply recalled by the user buttons. Miner set-ups and useful operational tools such as key set up, DVE position/size etc. can all be stored in event memories. Operators can freely set the transition time and effect for loading events. By setting up in advance, event memories can bring extra power and creativity, simply by pressing buttons during the live event. User buttons can also be used for many other features, such as instant navigation to a selectable menu page, or grab a still, or send a GPI, or preview a key etc as well as many other functions to make life easier in a live production.

FREELY Assignable DSK
The 2 Downstream keyers can be assigned to either the M/E PGM, M/E PST or an AUX output. As we also include the ability to mix on an Aux crosspoint selection, the Aux outputs can effectively and creatively be used to do away with the need for multiple M/Es, when creating different outputs for different screens or feeds at a live venue.

External Interfaces
External interfaces include GPI port supporting up to 24 inputs/outputs and two RS-422 ports as standard. The RS-422 ports support for connecting an HVS-33RU remote unit, tally expansion boxes, device specific VDCP, VTR, MFR routers, or TSL. An Ethernet port is used during PC control. An editor interface option allow to connect to an editor/automation system or other external control system.

GUI Control Function via Web Browser
An in-built Win server enables the settings of the HVS-100 and HVS-110 to be changed from a PC via a network. Mobile and tablet terminals can also be used through a wireless access point.

Redundant Power Supply
An optional redundant power supply unit enables doubling-up of power source (redundant AC adapter for the HVS-110). An enlarged fan and improved exhaust process guarantees quiet operation.

4K (Ultra-HD) Switcher Capability
The HVS-100 and HVS-110 can be used as 4K switchers with HVS-100/3PSG. HVS-100 supports 2 inputs/1 output (expandable to 3 inputs/2 outputs with optional Input/Output cards). HVS-110 supports 3 inputs/2 outputs. In conjunction with MFR series, 4K input channels can be expanded. Cut and mix are provided as transitions.

Other
- Safety area marker display
- Color bar generator
- Mat generator, etc.

HD/SD PORTABLE VIDEO SWITCHER
HVS-100/110

HVS-100OOU/HVS-110 Front View

HVS-100OOU/HVS-110 Rear View

HVS-100 Front View

HVS-110 Rear View
HVS-100/110 Main Features

Frame Synchronizers
Every input in the HVS-100 and 8 inputs in the HVS-110 are fitted with frame synchronizers that enable switching of synchronous and asynchronous video signals. Installation of optional expansion cards supports asynchronous picture input from PCs, etc. Each input is also equipped with a process amplifier capable of adjusting the video level and chroma level, etc. of the input signal.

Re-sizing Engine
Up-resizing engines are provided on 4 of the standard inputs. This achieves a fully mixed SD/HD environment with the switcher alone. The optional input cards also have re-sizing engine on each input. This is readily suitable for re-sizing not only SD signals but also PC video (Up-resizing engines are not supported at 1080p).

2 Keyers and 2 DSKs
Further proof of the power of these new small mixers is that they come as standard with 2 keyers, 2 DSKs and 4 powerful 2.5D DVE engines.

Advance Chroma Key
An advanced, high quality Chroma keyer can be assigned to any one of the two M/E Keyers or two Downstream Keyers.

4 DVE 2.5D (rotation and perspective)
The 4 powerful DVE engines, can be assigned to any keyer or used for transitions etc, and with their standard 2.5D ability, allow flexible creativity for the operator to enhance productions.

Abundant Transitions and DVEs
Cut, mix and wipe can be chosen for the transition. Diverse DVE wipes include 100 2.5D wipe patterns. Along with wipes, effects like mosaic and defocus are also provided.

2 Still/Clip Stores
Powerful, high capacity clip stores are now a standard feature. Each store can hold up to 227 frames of HD video. Images can be recorded and played back from incoming video or PC output, or animations transferred over FTP (Simple, gzip, tigs, tigs sequence). Clip store images can be used as CG wipe source but also PGM output. Each channel offers title display and tally display functions.

Macro Function
A macro function enables you to store and register a series of operations and then perform complicated operations with one push of a button.

Event Memory and User Button
The main unit is equipped with an event memory function allowing up to 100 events to be stored. Event memories can be simply recalled by the user buttons. Newer set-up and useful operational tools such as key set up, DVE position/size, etc. can be stored in event memories. Operators can freely set the transition time and effect for loading events. By setting up in advance, event memories can bring extra power and creativity, simply by pressing buttons during the live event. User buttons can also be used for many other features, such as instant navigation to a selectable menu page, or grab a still, or send a GPI, or preview a key etc as well as many other functions to make life easier in a live production.

Freely Assignable DSK
The 2 Downstream keyers can be assigned to either the M/E PGM, M/E PGT or an Aux output. As we also include the ability to mix on an Aux crosspoint selection, the Aux outputs can effectively be controlled and can be used to do away with the need for multiple M/Es, when creating different outputs for different screens or feeds at a live venue.

External Interfaces
External interfaces include GPI port supporting up to 24 inputs/outputs and two RS-422 ports as standard. The RS-422 ports support for connecting an HVS-330U remote unit, tally expansion boxes, device specific VDC, VTR, MFR, routers, or TSL. An Ethernet port is used during PC control. An editor interface option allow to connect to an editor/automation system or other external control system.

GUI Control Function via Web Browser
An in-built 1960 server enables the settings of the HVS-100 and HVS-110 to be changed from a PC via a network. Mobile and tablet terminals can also be used through a wireless access point.

Redundant Power Supply
An optional redundant power supply unit enables doubling-up of power source (redundant AC adapter for the HVS-110). An enlarged fan and improved exhaust process guarantee quiet operation.

4K (Ultra-HD) Switcher Capability
The HVS-100 and HVS-110 can be used as 4K switchers with HVS-100/110PSG. HVS-100 supports 2 inputs/1 output (expandable to 3 inputs/2 outputs with optional Input/Output cards). HVS-110 supports 3 inputs/2 outputs. In conjunction with MFR series, 4K input channels can be expanded. Cut and mix are provided as transitions.

Other
- Safety area marker display
- Color bar generator
- Mat generator, etc.
Options for the HVS-100

With the HVS-100, you can add just the input and output formats you need, in just the amount needed. There are three expansion slots so that other inputs and outputs can be installed, such as analog component, analog composite, HDMI and RGB in addition to HD/SD-SDI.

HVS-100DI-A
HD/SD-SDI Input Card
4 channels of HD/SD-SDI input are possible with a single card. A frame synchronizer function for all inputs and re-size (separater) function for 2 inputs are provided. SD images can be processed internally as HD images.

HVS-100DO
HD/SD-SDI/SDI Output Card
2 channels of HD/SD-SDI output are possible with a single card. 2 output channels are possible using both. SD images can be processed internally as HD images.

HVS-100AO
Analog Video Output Card
2 channels of analog video signal output are possible with a single card. Output terminal 2 is a deactivate connector (conversion connector supplied). The user can select between analog composite and analog component (HD or SD) input for each output terminal.

HVS-100AI
Analog Video Input Card
2 channels of analog video signal input are possible with a single card. 2 input channels are possible using both. SD image can be processed internally as HD images.

HVS-100PCI
PC (HDMI/VGA) Input Card
HDMI and VGA terminals have been mounted onto a single card. 2 input channels are possible using both.

HVS-100PCO
PC (HDMI/VGA) Output Card
HDMI and VGA terminals have been mounted onto a single card. 2 output channels are possible using both.

HVS-100PSM/XT100PSO
Redundant Power Supply Unit
- HVS-100PSM: For the HVS-100
- HVS-100PSO: For the HVS-100U Control Panel

Options for the HVS-110

HVS-110DO
HD/SD-SDI/SDI Output Card
2 channels of HD/SD-SDI output are possible with a single card. 2 output channels are possible using both. SD images can be processed internally as HD images.

HVS-110PSM
Redundant Power Supply Unit
For the HVS-110

Options for the HVS-100/110

HVS-TALOC20/32
HVS-TALR20/32
Tally Face Unit
Open collector type HVS-TALOC20/32 or relay type HVS-TALR20/32 can be connected. They are both full-size units, and can work as 3 units can be connected to the HVS-100 or HVS-110.
- HVS-TALOC20/32: open collector system with 20/32 terminals
- HVS-TALR20/32: relay system with 20/32 terminals

HVS-30RU
Remote Control Panel
This 1U compact control panel can be attached to the main unit. It comes with full size crosspoint buttons on the operating surface, a compact liquid crystal display that shows the wipe pattern selected, and has been optimized for ease of use in a Live environment. This panel can also be used as a remote AUX panel.

HVS-AUX8/AUX16
AUX Remote Control Panel
We have arranged AUX remote control panels with either 8 or 16 buttons. The 8-button panel is half a rack wide and the 15-button panel is of full rack width. 5 AUX remote control units can be slave-chained via ARCNET. A panel extension kit enables the button interface to be extended.
- HVS-AUX8R: Panel extension kit for HVS-AUX8
- HVS-AUX16R: Panel extension kit for HVS-AUX16

HVS-AUX8/16
AUX Remote Control Panel
AUX remote control panels with either 16, 32 or 64 buttons. The 15-button panel is half a rack wide and the 32-button panel is of full rack width.
- HVS-AUX8/16: AUX remote control panel
- HVS-AUX16/32: Panel extension kit for HVS-AUX8/16
- HVS-AUX64: Panel extension kit for HVS-AUX16/32

HVS-3Gbps Expansion Software
HVS-100EXP3G
Software to support 1080p format and 4K Square Division transmission methods.

HVS-100ED
Editor Interface Software
Interface software to connect with an external device that supports B/VS-3000/DVS and GVG-100 protocols.

Dimensions
HVS-100/110
Options for the HVS-100

With the HVS-100, you can add just the input and output formats you need, in just the amount needed. There are three expansion slots so that other inputs and outputs can be installed, such as analog component, analog composite, HDMI and RGB in addition to HD/SD-SDI.

Options

HVS-100DI-A
HD/SD-SDI Input Card
4 channels of HD/SD-SDI input are possible with a single card. A frame synchronizer function for all inputs and re-size (separating) function for 2 inputs are provided. SD images can be processed internally as HD images.

HVS-100D0
HD/SD-SDI Output Card
2 channels of HD/SD-SDI output are possible with a single card. Output terminal 2 is a dedicated connector (conversion connector supplied). The user can select between analog composite and analog component (HD or SD) output for each output terminal.

HVS-100AO
Analog Video Output Card
2 channels of analog video signal output are possible with a single card. Output terminal 2 is a dedicated connector (conversion connector supplied). The user can select between analog composite and analog component (HD or SD) output for each output terminal.

HVS-100PCI
PC (HDMI/VGA) Input Card
HDMI and VGA terminals have been mounted onto a single card. 2 input channels are possible using both.

HVS-100PCO
PC (HDMI/VGA) Output Card
HDMI and VGA terminals have been mounted onto a single card. 2 output channels are possible using both.

HVS-100AOI
Analog Video Input Card
2 channels of analog video signal input are possible with a single card. Input terminal 2 is a dedicated connector (conversion connector supplied). The user can select between analog composite and analog component (HD or SD) input for each input terminal.

HVS-100A0
Analog Video Output Card
2 channels of analog video signal output are possible with a single card. Output terminal 2 is a dedicated connector (conversion connector supplied). The user can select between analog composite and analog component (HD or SD) output for each output terminal.

HVS-100DI
HD/SD-SDI Input Card
4 channels of HD/SD-SDI input are possible with a single card. A frame synchronizer function for all inputs and re-size (separating) function for 2 inputs are provided. SD images can be processed internally as HD images.

HVS-100DO
HD/SD-SDI Output Card
2 channels of HD/SD-SDI output are possible with a single card. Output terminal 2 is a dedicated connector (conversion connector supplied). The user can select between analog composite and analog component (HD or SD) output for each output terminal.

HVS-TALOC20/32
Tally/Control Unit
20/32 relay system with 20/32 terminals - HVS-100/110

HVS-TALR20/32
Remote Control Panel
This 1U compact control panel can be attached to the main unit. It comes with full size crosspoint buttons on the operating surface, a compact liquid crystal display that shows the wipe pattern selected, and has been optimized for ease of use in a Live environment. This panel can also be used as a remote AUX panel.

HVS-AUX8/AUX16
AUX Remote Control Panel
We have arranged AUX remote control panels with either 8 or 16 buttons. The 8-button panel is half a rack wide and the 16-button panel is of full rack width. 5 AUX remote control units can be daisy-chained via ARCNET. A panel extension kit enables the button interface to be extended.

HVS-AUX16A/32A/64A
Remote Control Panel
AUX remote control panels with either 16, 32 or 64 buttons. The 16-button panel is half a rack wide and the 32-button panel is full. 5 AUX remote control units can be daisy-chained via Ethernet.

HVS-AUX8RK
Panel extension kit (for HVS-AUX8)
A panel extension kit enables the button interface to be extended.

HVS-AUX16RK
Panel extension kit (for HVS-AUX16)
A panel extension kit enables the button interface to be extended.

HVS-30RU
Editor Interface Software
This enables connection to HVS-3000/DVS and GVG-100 protocols.

HVS-100ED
Editor Interface Software
Interface software to connect with an external device that supports BVE-3000/105 and GVG-100 protocols.

Options for the HVS-110

HVS-110PSM
Redundant Power Supply Unit
- HVS-100PSM: For the HVS-100
- HVS-100PSO: For the HVS-110

Dimensions

HVS-100/110

HVS-110

HVS-100D0

HVS-100PCI

AC100-240V 50/60Hz IN
HVS-100/110 Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>HVS-100/110</th>
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### Video Formats
- 1920/1080i, 1080/50i, 1080/60i, 1080/50p, 1080/60p, 720/50p, 720/60p, 720/50i, 720/60i, HD/SD-SDI

### Video Inputs
- 1 HD-SDI: 1.5 Gbps or SD-SDI: 270 Mbps, 75 Ω, BNC x 1
- 2 HD-SDI: 1.5 Gbps or SD-SDI: 270 Mbps, 75 Ω, BNC x 1

### Interface (optional)
- HVS-100/110: HDMI 2.0a (4K 60Hz/4:4:4, 4K 60Hz/4:2:0, 4K 60Hz/4:2:2 [10-bit], 4K 50Hz/4:4:4, 4K 50Hz/4:2:0, 4K 50Hz/4:2:2 [10-bit], 4K 30Hz/4:4:4, 4K 30Hz/4:2:0, 4K 30Hz/4:2:2 [10-bit])
- HVS-100/110: HDMI 2.0a (4K 60Hz/4:4:4, 4K 60Hz/4:2:0, 4K 60Hz/4:2:2 [10-bit], 4K 50Hz/4:4:4, 4K 50Hz/4:2:0, 4K 50Hz/4:2:2 [10-bit], 4K 30Hz/4:4:4, 4K 30Hz/4:2:0, 4K 30Hz/4:2:2 [10-bit])

### Number of Video Inputs
- Standard: 10, max. Refer to I/O Expansion Card Configuration
- Standard: 12

### Video Outputs
- Standard: 5, HDMI x 1

### Number of Video Outputs
- Standard: 5, HDMI x 1

### Signal Processing
- RGB: SXGA to WUXGA/HDTV (1080i), SXGA to WXGA/HDTV (720p), SVGA (SD)

### Quantization
- 10-bit A/D conversion

### Display
- Refresh rate: 60 Hz (NTSC), 50 Hz (PAL)

### Resolution
- 1920 × 1080 pixels

### Interface
- HDMI 1.4a, HDMI 2.0a (4K 60Hz/4:4:4, 4K 60Hz/4:2:0, 4K 60Hz/4:2:2 [10-bit]), HDMI 2.0a (4K 60Hz/4:4:4, 4K 60Hz/4:2:0, 4K 60Hz/4:2:2 [10-bit], 4K 50Hz/4:4:4, 4K 50Hz/4:2:0, 4K 50Hz/4:2:2 [10-bit], 4K 30Hz/4:4:4, 4K 30Hz/4:2:0, 4K 30Hz/4:2:2 [10-bit])

### Number of HDMI Outputs
- Standard: 5, HDMI x 1

### Power Consumption
- Approx. 120 W

### Dimensions / Weight
- Approx. 420 (W) x 129.3 (H) x 246 (D) mm / Approx. 4 kg

### Accessories
- CD-ROM (user’s manual), Quick setup guide, AC power adaptor