SONY

XVS-9000

4K / 3G / HD multi-format IP-ready video switcher



NETWORKED LIVE

Overview

Unprecedented power and flexibility for high-end productions

Building on the worldwide success of Sony's long-established XVS switcher family, the flagship XVS 9000 addresses the requirements of advanced 4K, HD and High Dynamic Range (HDR) productions.
The XVS-9000 expands 4K production capacity, offering more inputs and outputs plus new 4K 3D DME capabilities. Advanced IP and SDI interfaces are compatible with the full XVS switcher line-up. Optional 100G IP interface boards support SMPTE ST 2110 standards, both in 4K and HD in a single stream, while 12G SDI interface boards increase flexibility further by enabling IP/SDI hybrid operation.
The modular design of the ICP-X7000 assignable control panel (available separately) allows highly flexible configuration to suit a wide range of operational needs.

Ready for IP Live

A core component of Sony's IP Live production system, the XVS-9000 supports the SMPTE ST 2110 suite of open standards for professional media over managed IP networks, enabling a mixed IP and SDI production environment. 100G IP boards support 4K and HD in a single stream, with on-board format conversion offered.

12G-SDI interfaces

The XVS-9000 supports 12G-SDI interfaces functioning on-board format conversion for incoming and outgoing video signal to offer greater options for applications such as in-house studios, OB vehicles and flypacks.

Powerful 4K production capabilities

4K production capabilities include 5 M/E, 80 inputs, 40 assignable outputs for 4K and format converter outputs, plus up to 10 full keyers and 10 sub keyers, enabling simultaneous 4K and HD operation. Key freeze is a new feature in 4K to store a still image in a 4K full keyer. With the optional mix effect board XKS-8215 the number of full keyers can be increased up to 20.

4K 3D Digital Multi Effects (DME)

The newly developed 4K DME board option offers up to 4 channels of floating 4K 3D DME capability.

Evolutionary switcher controller

The XVS-9000 utilises the ICP-X7000 X-Panel for flexible panel configuration with a modular style design, OLED display, RGB XPT buttons and LCD button pad, with a redesigned button layout. The X-Panel has a flexible mounting style for flat or curved mounting, or for splitting into two positions.

Switcher processor options

Multi-format Switcher Processor
• XKS-S9112 - 12G-SDI Input Board
• XKS-S9167 - 12G-SDI Output Board
• XKS-C9111 - 100G IP Input Board
• XKS-C9121 - 100G IP Input and Output Board
• XKS-8210 - Mix Effect Board

• XKS-8215 - Mix Effect Board
• XKS-8440 - Frame Memory Board
• XKS-8460 - Format Converter Board
• XKS-8470 - HD DME Board
• XKS-8475 - DME Board
• XZS-9200 - Multi Programme 2 Software
• XZS-9510 - Switcher Upgrade Software (4K Upgrade for 1st ME Board)
• XZS-9520 - Switcher Upgrade Software (4K Upgrade for 2nd ME Board)
• XZS-9530 - Switcher Upgrade Software (4K Upgrade for 3rd ME Board)
• XZS-9540 - Switcher Upgrade Software (4K Upgrade for 4th ME Board)
• XZS-9550 - Switcher Upgrade Software (4K Upgrade for 5th ME Board)
• XZS-9600 - HDR Conversion Software (for 12G-SDI Input Board)

Switcher Control Panel

ICP-X7000 Series
• MKS-X7011 – Menu Panel
• MKS-X7017 – 36 XPT Module
• MKS-X7018 – 28 XPT Module
• MKS-X7019 – 20 XPT Module
• MKS-X7020 – Standard Transition Module
• MKS-X7021 – Simple Transition Module
• MKS-X7023 – Key Transition Module
• MKS-X7024 – FlexiPad Module
• MKS-X7026 – 10-key Pad Module
• MKS-X7031TB – Track Ball Module
• MKS-X7032 – Key Fader Module
• MKS-X7033 – Utility/Shot Box Module
• MKS-X7035 – Key Control Module
• MKS-X7040 – Blank Panel (1/3)
• MKS-X7041 – Blank Panel (1/2)
• MKS-X7042 – Blank Panel (1/6)
• MKS-X7075 – Extension Adapter
• PWS-110SC1 – Switcher Control Station

Aux Bus Remote Panel

• MKS-R1620 – 16 Button Remote Control Panel
• MKS-R3210 – 32 button Remote Control Panel

Device Control Unit

• MKS-X2700 – System Interface Unit
• MKS-X7700 – System Interface Unit
• MKS-X7701 – Tally/GPI Output Board
• MKS-X7702 – Serial Interface Board

Virtual Shot Box Software

• BZPS-7020 - Virtual Shot Box Base Softwarez
• BZPS-7021 - Virtual Shot Box Additional Software

Virtual Menu

• BZPS-7030 - Virtual Menu Base Software
• BZPS-7031 - Virtual Menu Additional Software

Virtual Panel

• BZPS-7040 - Virtual Panel Base Software
• BZPS-7041 - Virtual Panel Additional Software

Automation Software

• BZPS-7700 Automation Interface Software

SNMP Agent Software

• XZS-C91SN – ST2110 SNMP Agent Software

Features

SMPTE ST 2110 over 100G IP interface in 4K and HD

Sony's IP Live Production System enables efficient, flexible workflows with support – via 100G based IP interface boards – for SMPTE ST 2110 Media Transport and AMWA NMOS Control and Management Layer standards. While conventional systems require multiple cabling types to carry various signals (video, audio, reference, metadata and control data), SMPTE ST 2110 requires only a single network cable connection through standard network switches. The 100G IP board supports input or output conversion. Remote monitoring with SNMP Agent Software is also available.

12G-SDI interfaces
12G-SDI input and output boards further expand the line-up of XVS interface options. 12G-SDI interface boards feature on-board input or output format conversion, and input or output signals can be converted to an appropriate video signal.

Highly flexible, scalable configuration
The XVS-9000 can be freely configured to suit specific needs in terms of operation, resolution, frame rate, number of inputs/outputs, number of M/E banks and more.

5 M/E for large 4K production systems
5 M/E functionality allows operation with different video formats per M/E, allowing 4K and HD simultaneous operation.

80 inputs and 40 assignable outputs for 4K
Up to 80 inputs and up to 40 assignable outputs are configurable depending on operational needs. In addition, four channels of multi-viewer are also available.

Resource sharing for multiple productions
Support for resource sharing enables a flexible and efficient production environment, with a single processor configurable to perform multiple disparate tasks. Processing features such as inputs/outputs and mix effect banks can be allocated to different control panels either within or outside the facility, providing the ultimate in scalable local and/or remote operations.

Extensive video format support
4K 2160p (2SI/SQD) /59.94, 50
4K 2160PsF (1.5G quad-link) / 29.97, 25, 24, 23.98
1080p Level-A / 59.94,50
1080i / 59.94,50
1080PsF / 29.97, 25, 24, 23.98
720p / 59.94, 50

Up and down conversion between 4K and HD
The XVS-9000 switcher allows up/down/cross/level conversion between 4K and HD using the 100G IP board or 12G SDI board. These options provide up and down conversion between 4K (2160p) and HD (1080p, 1080i) and between HD (1080p, 1080i and 720p), cross-conversion between 4K 2SI and 4K SQD, and between 1080i and 720p.

HDR conversion for Sony SR-Live workflow
SDR to HDR conversion (or vise versa) for source input is supported on 12G-SDI input board by an optional license. The HDRC channel assignment and HDRC parameter settings are available by operational menu. (version up required)

Sophisticated layering on M/E cards
Eight keyers in HD or four keyers in 4K on individual M/E cards permit sophisticated layering techniques. Each keyer has its own auto-transition control separate from the main fader, allowing insertion or removal of keys on an individual basis with dissolves or wipes or DME wipes*. All full keyers with 2.5D resizer and chroma key are available in both 4K and HD, as well as additional sub keyers* with linear and luminance key in 4K.

* Sub keyer is an additional keyer which allows linear and luminance keying for 4K content. In new Mix Effect board XKS-8215, all keyers will be full keyer.

Variety of M/E mode selections
Using advanced mix effect modes available with the XVS-9000, one bank can be configured to control not only the main M/E output, but also a sub mix from that M/E. This Multi Program 2 mode is ideal for producing multiple outputs of the same event: for example ‘clean’ and ‘dirty’ feeds of a football match from within the same M/E.

Adjustable resizer function for each keyer
The resizer function allows creation of simple 2.5D DME effects with every full keyer, with adjustable parameters such as Expand, Shrink, Locate, Rotate X and Rotate Y.

Precise effects
Fine key technology allows precise adjustment of key positions and border widths on a sub-pixel level within the range of 8H on these switchers. For additional power and user convenience, the XVS-9000 also features Sony's unique processed key mode and DME-link function.

Enhanced frame memory system with 4K CG wipe
4K CG wipe is available, together with audio. The processor has an enhanced frame memory system, whereby instant recall of up to 1,250 frames (equivalent to an approx. 20 seconds) are available as source in 4K. Additionally, more frames are available from the embedded high capacity SSD drive.

Mix function on aux bus outputs
The switcher provides a mix transition, rather than a hard cut on aux bus outputs.

Color correction function
Colour correction (CCR) is available on every aux output as standard. CCR is also available for inputs where the format conversion is available.

Simplified live operations with programmable macros
Macros are invaluable in live environments when time is critical and there is no tolerance for operational mistakes. Using the FlexiPad module or the UTIL/ShotBox module, users can simply record operational sequences, then store and assign them to any desired button. Not only can macros record complex panel operational sequences, but menu operation can also be recorded as a Menu macro. Macros can be edited either directly from the control panel or by using the touch-screen menu display.
Software version 3.4 later, multiple Macro can run simultaneously.

Optional integrated 4K DME processor
Up to four channels of 3D DMEs, not only 3D linear effects but 3D non-linear effects, for 4K system is available via new 4K DME option boards.

External device control
External devices such as video servers and graphics systems can be controlled using MKS-X7700 or MKS-X2700 device control units via RS-422 and IP. The system supports a variety of remote protocols including VDCP, Odetics, AMP and Rosstalk.

Intelligent multi-functional tally system
The XVS-9000 provides an intelligent multi-functional tally system that seamlessly integrates switcher and router tally functions via parallel tally ports, serial tally ports and IP port. Multiple on-air and recording tallies can easily be programmed on the switcher system so that even complex tally requirements are accommodated. Extra parallel tally ports can be obtained simply by adding tally boards to the MKS-X7700 or by using the MKS-X2700.

Flexible X-Panel assignable modular designs

The ICP-X7000 X-Panel offers flexible panel configuration with a modular style design, OLED display, RGB XPT buttons and LCD button pad. The button layout is also re-designed. The X-Panel has a flexible mounting style for flat or curved mounting, or even for splitting into two positions. XPT FlexiPad allows function mapping customisation according to operator preferences.

Multi-panel configurations increase production options
Up to four control panels can be connected to further increase production options.

More freedom of control with Virtual Panel, Virtual Menu, and Virtual Shot Box
The XVS Series switcher can be controlled remotely via Ethernet using Virtual Panel, Virtual Menu and Virtual Shot Box web applications.
Virtual Panel is a GUI version of the control panel which can be easily configured to suit user preferences. In Virtual Shot Box, buttons and functions are customisable to allow assignment of macro, snapshot, shotbox, XPT switching and other functions as you wish, whereas the operational menus on the Menu Panel MKS-X7011 can be utilised in the Virtual Menu application by which the engineering operation can be free.
These applications can be used on a PC or a tablet* with a web browser and network connection.

*Tablet PC is not recommended for Virtual Panel.

There are many possibilities using these applications. For example, Virtual Shot Box can be used with the control panel as additional shot box buttons or assist the main switcher operator from any location. In addition the anchor or talent can use it themselves, switching on-air images from a sports arena and more.

Remote operation by new Inter-Group connection
For customers needing scalable and flexible systems in multi-studio and remote setups, the XVS series switcher is capable of supporting network routing function to enable multiple LAN/WAN network connectivity. This allows the remote operation capabilities by connecting the processor and the panel over Layer 3 network. The control panel can be located at a remote site away from the processor to support remote production over the long distance.
With optional Virtual Panel, Virtual Menu, and Virtual Shot Box software, the XVS Series switcher can be configured to best fit for remote production. (version up required)

Specifications

General	
Power requirements	100 to 240 V ± 10% AC 50/60 Hz
Current consumption	42 A to 17.7 A (when equipped with all installable option boards)
Operating temperature	5°C to 40°C (41°F to 104°F)
Performance guaranteed temperature	10°C to 35°C (50°F to 95°F)
Storage temperature	- 20°C to 60°C (- 4°F to 140°F)
Operating humidity	10% to 90%
Dimensions (W/H/D) (excluding projections)	440 x 665 x 582.9 mm
Mass	Approx. 92 kg (when equipped with all installable option boards)

Remote Control Connector	
NETWORK (MVS LAN)	RJ-45, complies with 1000BASE-T standard
NETWORK (UTL LAN*)	RJ-45, complies with 1000BASE-T standard
GPIO	GPI D-sub 25-pin, female Relay contact outputs: 4 (30 V AC/DC, 0.1A) Open collector outputs: 4

Reference Input	
Reference Input	REF IN BNC type, 75Ω with loop-through output HDTV systems: HD tri-level sync / SDTV analog black burst / SDTV analog sync

AC Input	
AC IN A, B, C, D, E, F	3-pin AC connector

Input/Output	
Maximum number of inputs	BNC (x 160) for primary inputs**
Maximum number of outputs	BNC (x 80) for outputs** BNC (x 16) for format converter outputs/Multi Viewer (4CH)**

Notes	
*	For future use
**	Alternative connections for QSFP28 are available

Related products



XVS-8000

4K/3G/HD multi-format IP-ready video switcher



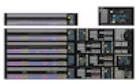
XVS-7000

Mid-range 4K/3G/HD video switcher for IP and SDI



XVS-6000

Entry-level 4K/3G/HD video switcher for IP and SDI



ICP-X7000

Control panel for MLS-X1 and XVS series switchers



PWA-LEO1 [Live Element Orchestrator]

System orchestration and management software for IP Live production.



OTM-100GSR

QSFP28 Optical Transceiver Module (SR)

Gallery



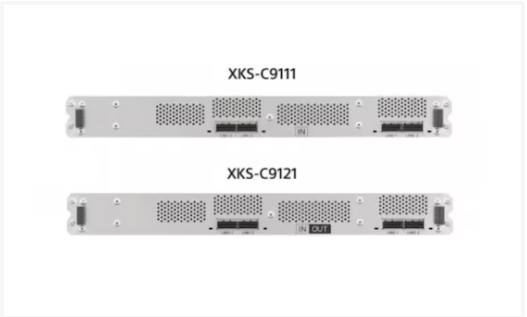












© 2004 - 2026 Sony Corporation. All rights reserved. Reproduction in whole or in part without written permission is prohibited. Features and

specifications are subject to change without notice. The values for mass and dimension are approximate. All trademarks are the property of their respective owners.

Export PDF : November 18 2026