

12G/3G/HD Video Switcher  
**HVS-Q12** “HANABI”

Preliminary

**NDI**

**FOR.A**<sup>®</sup>

12G/3G/HD Video Switcher

**HVS-Q12**

HANABI

花火  
HANABI



Image is under development and may differ from the final product.

NDI<sup>®</sup> is a registered trademark of Vizrt NDI AB.

## Powerful and highly configurable switcher with compact body



The number of inputs/outputs can be expanded to 60 inputs and 32 outputs\*<sup>1</sup> for HD and 42 inputs and 23 outputs\*<sup>1</sup> for 4K\*<sup>2</sup>. The HVS-Q12 has a compact 4RU size body and up to 8 keys available on each ME in 3G/HD-SDI. It features FOR-A functions such as HDR/SDR conversion\*<sup>2</sup>, up/down conversion\*<sup>2</sup>, and audio pass through – even in Frame Synch mode. As for IP I/F, not only NDI®\*<sup>2</sup>, but even Dante®\*<sup>2</sup> I/F is available on the switcher, simplifying workflows. From 3G-SDI to 12G-SDI\*<sup>2</sup>, it can be flexibly configured for any application and requirement.

\*<sup>1</sup> Including 2 HDMI outputs. Maximum varies and supporting signals are dependent on the options configured. For details, contact your FOR-A dealer.

\*<sup>2</sup> Optional. Image is under development and may differ from the final product. NDI is a registered trademark of Vizrt NDI AB.

### Key takeaways

#### 1. Highly customizable video switchers

Provides highly stable video processing. The number of inputs/outputs, functions, interfaces, etc. can be added according to the operation. Inputs and outputs can be expanded by up to 60 inputs and 32 outputs\* to support large-scale operation of a 4RU switcher.

\* Including 2 HDMI outputs.

#### 2. Further enhancement on intuitive web GUI for creative operation

While maintaining the usability of HVS series, which is well perceived in the market, the web-based GUI has been further enhanced for intuitive operation and ease of use.

#### 3. Unique functions to enhance workflow

To accelerate ease of use and creative workflow, the HVS Series' unique functions are available, such as event memory, sequences, macros, GPI for external control, user flags, user button, bus follow, etc.

##### Intuitive Web GUI



##### Highly customizable

M/E, MELITE	Keyer
HD/UHD(4K)	Input/Output
External I/F	HDR/SDR conversion
Up/Down conversion	Built-in MV



##### Unique Functions

Event memory	Sequence
Macro	External control GPI
User flag	User buttons

## HVS-NIF for NDI Connectivity

HVS-NIF interface cards provide NDI High Bandwidth connectivity for high-quality, low-latency video transmission and NDI HX for low bit rate transmission. The cards make it easy to build a mixed baseband/IP system you can use to exchange video and audio over a network with other NDI equipment. This is extremely effective for live video production -whether you are shooting remotely or enjoying easy streaming from computers connected via NDI.

### HVS-NIF Features



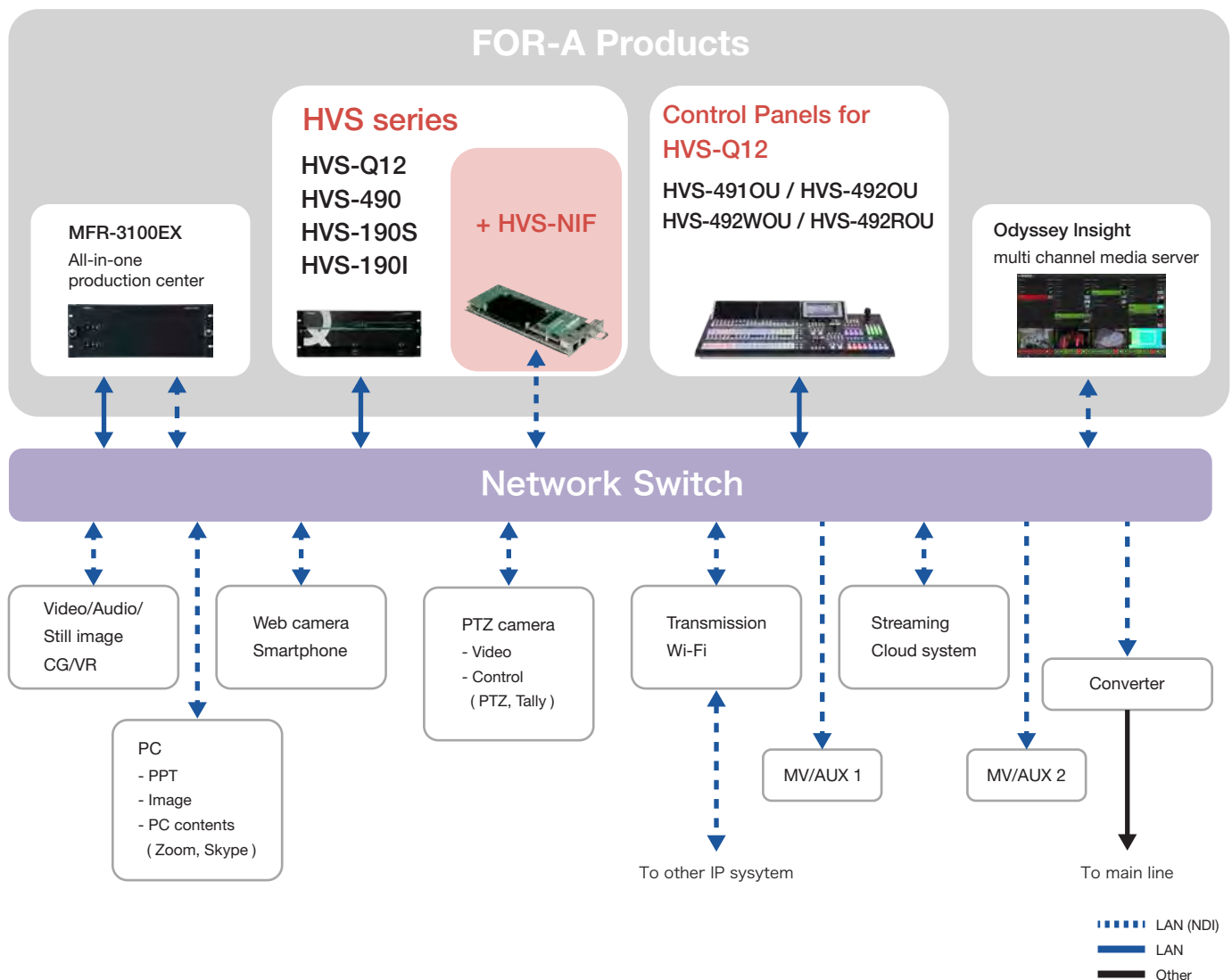
- Supports NDI High Bandwidth and NDI HX input and output.
- Supports 3G/HD-SDI format, with 4 MoIP inputs<sup>\*1</sup>/2 MoIP outputs per card.
- Supports alpha channel receiving<sup>\*2</sup>.
- Add up to 3 cards to HVS-Q12<sup>\*3</sup> and HVS-190S, 2 to HVS-190I and HVS-490<sup>\*3\*4</sup>.
- Frame sync for all inputs.
- Proc amp functionality: adjust source video luminance, saturation or hue.
- Remote camera operation.
- Dual Gigabit Ethernet ports.
- Hardware-based codec processing for peace of mind when building MoIP systems.

<sup>\*1</sup> NDI High Bandwidth: up to 3 inputs for 1080/59.94p or 50p signals.    <sup>\*2</sup> NDI High Bandwidth only.

<sup>\*3</sup> HVS-NIF does not support 4K formats.

<sup>\*4</sup> HVS-190S/190 is 1 M/E, HVS-490 is 2M/E vide switcher. For details, visit our website.

### Live Solutions with NDI

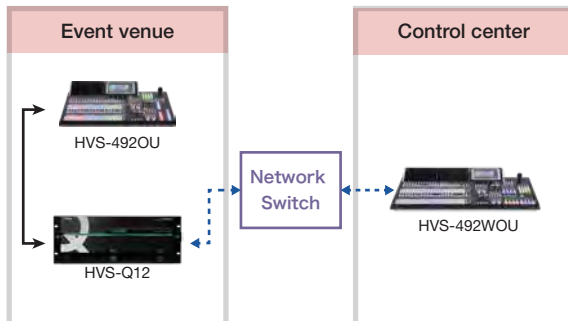


## HVS-NIF for NDI Connectivity

### ■ Remote Control

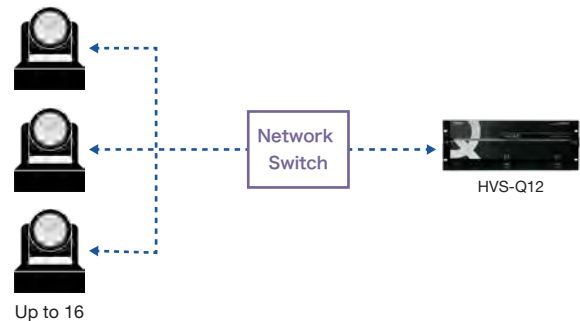
Set up HVS-Q12\* at venues to manage events remotely from a control panel at your base of operations.

\* HVS-4920U/HVS-492WO are shown in the following example.



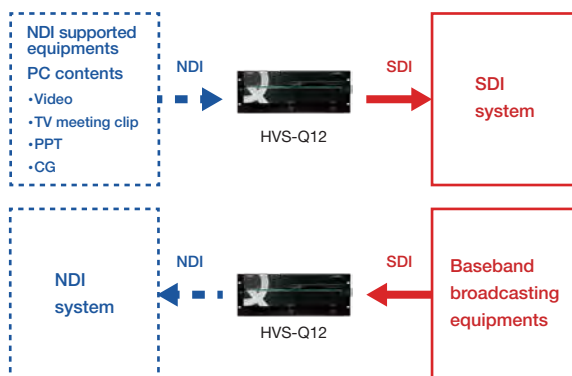
### ■ PTZ Camera Control

Control multiple PTZ cameras—pan, tilt, or zoom, activate tally lights, set or apply presets, or use stored macros for video switching coordinated by bus buttons. Connect to up to 16 cameras.



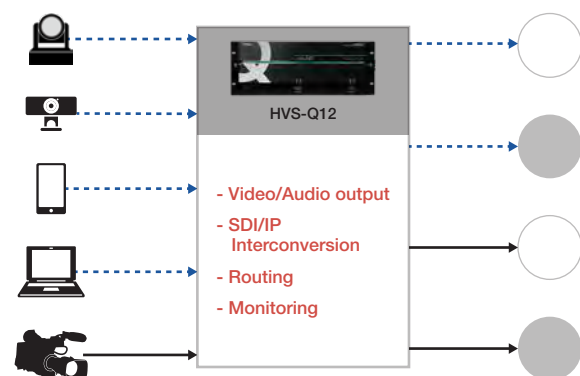
### ■ Support to Build SDI/NDI Mixed System

Easily add devices or computer content compatible with NDI output (such as videos, videoconferencing streams, presentations, or computer graphics) to SDI systems. Reliable baseband switchers can also be added to your NDI system.



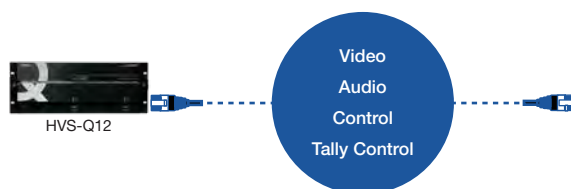
### ■ SDI/IP Conversion and Routing

Add PTZ camera output, computer content, or other sources to SDI equipment, and freely convert between SDI and IP while routing video/audio from a single switcher to multiple devices. SDI/IP sources and output can be arranged side by side with the built-in multi viewer for monitoring over IP.



### ■ 2-way Transfer of Many Signals Using only LAN Cable

Two-way transfer with multiple video, audio, control, or tally systems using only one LAN cable.



### ■ Excels in Many Applications

Beneficial for broadcasting, live production, corporate events, or other applications, regardless of the market.



## Examples of Application

### Mixed SDI/NDI Production

Video feeds with both on-site and remote performers can be sent to the switcher along with computer content. In addition to the PGM bus, provides an ample selection of Aux buses (12) that can be used to send any video back to remote talent.

### SDI/IP Simulcasts

Simultaneously with SDI payout, connect to streaming sites via an IP stream, enabling mixed or coordinated broadcasts of both sources.



## Features

### Input/Output

- 3G/HD-SDI 12 inputs/6 outputs as a standard. Supports 4K and NDI with options.
- Supports 12G-SDI and 6G-SDI when using 4K format.\*<sup>1</sup>
- Expandable up to 60 inputs/32 outputs\*<sup>2</sup> for HD and 42 inputs/23\*<sup>2</sup> outputs for 4K\*<sup>1</sup>.
- Equipped with frame synchronizers and proc amps for all inputs. Audio data can pass through even when frame synchronizer is in use.
- For 4K\*<sup>1</sup>, optional up/down conversion, SDR/HDR conversion, and color gamut conversion can be installed.
- 2 HDMI outputs - each capable of UHD output. When outputting UHD, HD video can be displayed on 4 screens.
- 2 independent multi viewers. Each channel can be split into up to 16 windows. Option to expand up to 2 more channels.

\*<sup>1</sup> Optional.

\*<sup>2</sup> Including 2 HDMI outputs. Maximum varies and supporting signals are dependent on the options configured. For details, contact your FOR-A dealer.

### Dante

- Support for up to 64 channels of Dante audio input/output per card with optional HVS-DNT.
- Up to 3 cards can be mounted.
- Support for redundancy with primary connector and secondary connector.
- Provides 2 BNCs and expansion up to 2 channels by switching between SDI input/output.
- By remapping Dante audio inputs, HVS-DNT can output Dante audio as SDI output or use as input source of video switcher.
- Available gain adjustment, tone signal output, and audio delay setting when using SDI signal.



### Keyer/DVE

- 3 M/E equivalent operation is available with 2 M/E + 1 MELite.
- 4 keyers for 3G/HD are standard. Expandable up to 8 for 3G/HD and up to 4 keyers for 4K\*<sup>1</sup> are available as an option.
- The format, number of M/Es and number of keyers can be increased with optional configurations.
- Both chroma key generation and compositing are available.
- The keyer is equipped with a 2.5D DVE, and the FLEXaKEY is equipped with a 2D DVE.\*<sup>2</sup>

\*<sup>1</sup> Optional.

\*<sup>2</sup> The number of channels varies depending on the format.

### Still/Clip Stores

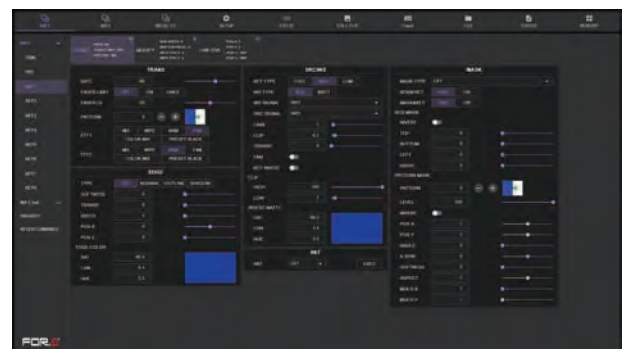
- 6 still image channels are available for HD and 3 for 4K\*. Each still image memory has a key.
- Still image memory can be used as video memory, with 4 systems available in HD and 3 systems available in 4K\*.
- Built-in RAM can be used as a still image or video memory.
- Optional SSD can be mounted to back up images.

\* Optional.

With video storage, sequential still image files are played. Image data will be erased when the power is turned off.

### Web GUI

- The unit has a built-in web server, allowing various settings to be made via a web browser. Redesigned web GUI provides enhanced operability.



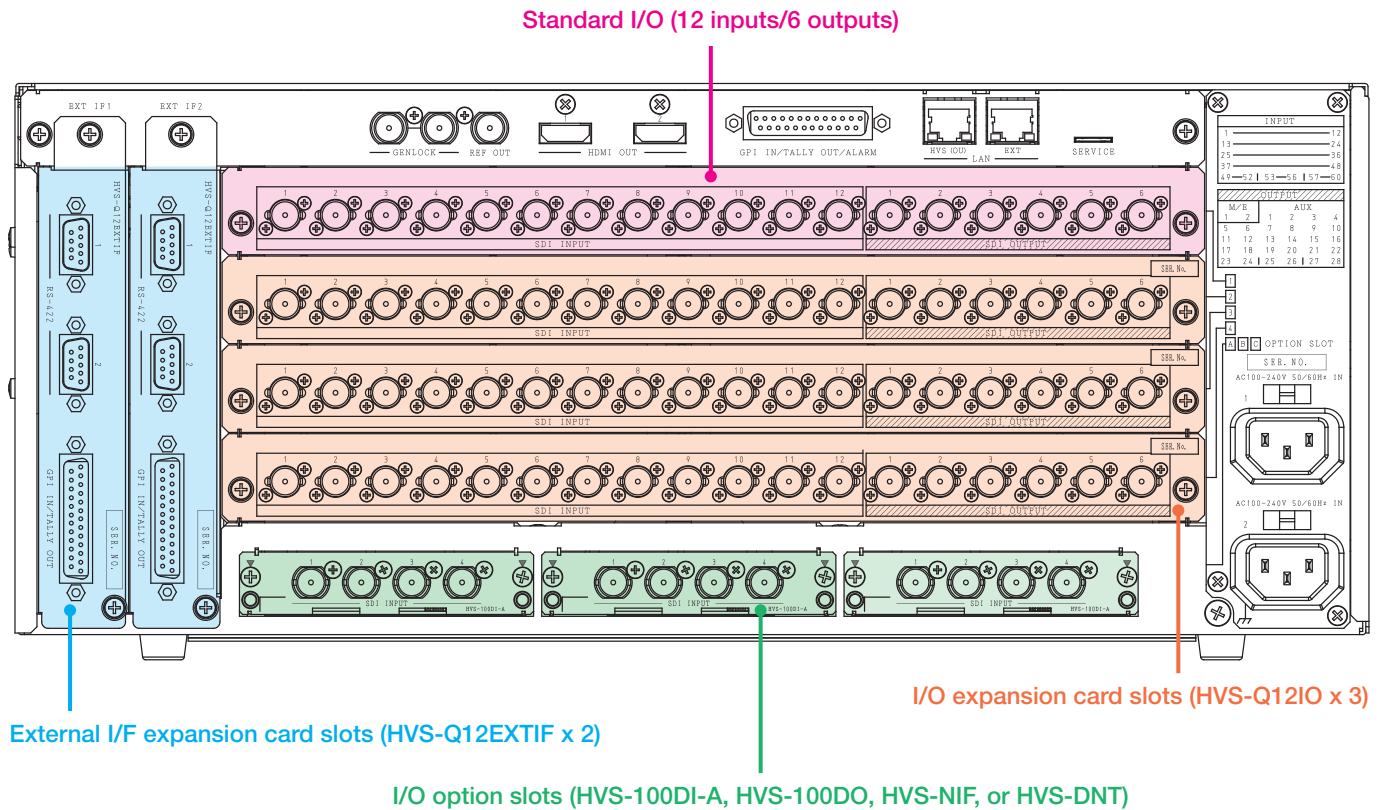
HVS-Q12 WEB-GUI

### Other features

- GPI-in/out (20 input/output), POWER and FAN alarm output are standard equipment.
- Expandable up to 4 RS-422 systems and up to 2 GPI in/out with optional expansion board.
- Redundant power supply is available as an option.
- Built-in color bar.

## Options

### HVS-Q12 Rear



#### Expansion Card

- HVS-Q12IO - I/O Expansion Card <sup>\*1</sup>
- HVS-Q12ME - M/E, Keyer Expansion Card <sup>\*2</sup>
- HVS-Q12FLX - FLEaKEY Expansion Card <sup>\*2</sup>
- HVS-100DI-A - 4 Channel Digital Input Card <sup>\*3</sup>
- HVS-100DO - 2 Channel Digital Output Card <sup>\*3</sup>
- HVS-NIF - NDI I/F Card <sup>\*3</sup>
- HVS-DNT - Dante Audio Card <sup>\*3</sup>
- HVS-Q12EXTIF - External I/F Expansion Card

<sup>\*1</sup> With a 12G-SDI signal, only odd numbers can be used for both input/output for slot 4.  
All input/output can support 12G-SDI for slots 2 and 3.

<sup>\*2</sup> HVS-Q12ME and HVS-Q12FLX can be mounted from the front.

<sup>\*3</sup> HVS-100DI-A/100DO/NIF/DNT can be mixed and up to 3 expansion cards can be mounted.

#### Software

- HVS-Q12MV1 - Multi viewer Software (for MV3)
- HVS-Q12MV2 - Multi viewer Software (for MV4)
- HVS-Q12UHD - UHD Software (for 12G -SDI supports)
- HVS-Q12CNV - Converter Software (for HD to 4K, SDR to HDR)

#### OU panels

- HVS-492OU
- HVS-492WOU
- HVS-491OU
- HVS-492ROU

#### Others

- HVS-Q12PSM - Power Supply Unit
- HVS-Q12SSD - SSD Option (for Clip, Still, log.)
- HVS-AUX16A/32A/64A/16B/16C/16D - AUX Bus Control Box
- HVS-TALR32 - Tally Control Unit



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