FOR.**A**®

INNOVATIONS IN VIDEO
and AUDIO TECHNOLOGY

Video Production System

VPS-700 "GINGA"

GINGA
MULTI LAYERING
VIDEO PRODUCTION SYSTEM

VPS-700 Big Bang

The VPS-700 "GINGA" (the Japanese word for "Galaxy") from FOR-A features completely new work flows, and is bursting with special effects that were not available until now. It paves the way for ground-breaking creativity in LIVE productions and editing suites. Be prepared to have all your ideas about video switchers shattered by the VPS-700!

■ Multi Layer & Multi DVE

All inputs have independent 2D DVEs (option), making it equivalent to a monstrous 32-channel DVE. Mix/Effect (M/E) transitions are combined by two independent pre-combiners, and two-channel combined outputs can be assigned to the PGM and PST buses. This means that all videos that are input to the switcher can be combined and displayed at one time. This video representation delivers dramatic impact unattainable with previous video switchers.

VPS-700 Main Features

■ Maximum of 16 Input/Outputs

All inputs in the VPS-700 include a frame synchronizer (FS) that provides asynchronous input. It also features a freeze frame function using FS memory and still store, can display video captured by M/E as still video for each input, and can display CG images that were created elsewhere. Basic input includes eight SD-SDI channels, and SDI input or analog input are also available as an option. As a digital/analog mixed switcher, the VPS-700 supports expansion up to 16 inputs. Basic output provides a total of eight channels: two PGM channels, PVW, Clean, and four AUX channels. Available options include eight SDI outputs (in four-output units) or four analog outputs (in two-output units for composite). The PVW and Clean output channels can also be used as KEY OUT, and the AUX outputs including the additional outputs can be freely assigned for enabling output of the required video from a selected terminal.

■ M/E Bus

The M/E bus can handle switching of 16 inputs (optional configuration), 4 matte generators, 2 still stores, 2 pre-combiners, and black for a total of 25 inputs. Transitions can be selected from cut, mix, wipe, and DVEs. More than 100 wipe patterns, including swirl and other distinctive patterns, are available that enable wipe borders and positioning adjustment.

■ Wide Range of Still Stores

All inputs can be frozen using FS memory. The frozen images at M/E bus can also be saved built-in-storage and can be assigned using two cross-points independent from other inputs.

■ Input DVE Card (Pre-combiner)

2D DVE functions are added to all 16 inputs. The position, size and rotation of each input can be adjusted, borders can be added, and the transparency can be set. The input DVE card has a pre-combiner function where inputs can be assigned as an M/E bus or key source. Also, up to 2 cards can be installed for enabling transitions to another image from each card's combined output image.

■ Proc Amp/Clip Function

A process amplifier and white clip function are provided for each input as standard. This enables level and other adjustments within the switcher without the need for peripherals.

■ Flash Recorder Function

VPS-70FR flash recorder card (option) can be used to enable recording and playback of uncompressed SD video. Up to two cards can be installed (the slot is shared with the VPS-70DS). A single card enables a maximum recording time of 120 seconds and simultaneous playback of video with key channel for two channels. Various types of playback are also supported, including regular playback, reverse playback, loop control, and trigger control. In addition, recorded video is stored in memory so that it remains saved even when the power is turned off. This eliminates the need to make recordings at each startup.

■ 6 Keyers

6 keyers are available in the standard configuration, and 4 keyers can select from cut, mix, wipe, and DVE transitions. The 2 DSKs enable cut and mix transitions. All keyers incorporate chroma keys using the 4:4:4 process and can perform masking with wipe patterns, edge and shadow effects, and key channel effects with assigned DVEs.

■ Compact Main Unit

The main unit incorporates up to 16 inputs and 16 outputs, FS function, still store, Proc Amp, clip function, DVEs, keyers, and a wide array of other functions in a compact EIA 2RU size. A special main unit with a built-in redundant power supply is also available with all these functions incorporated into an EIA 3RU body size.

VPS-700 main unit

■ *Compact and Instinctively Comprehensible Control Panel*

The compact and easy-to-use control panel of the VPS-700 has basic PGM/PST rows and fader levels, 3-axis joystick, parameter display, and optional touch panel controller. Despite these numerous ground-breaking functions, the VPS-700 will not overwhelm you with complicated operations.

■ *6-channel 3D DVEs*

In addition to the DVEs provided for each input channel, the VPS-700 also provides 6-channel 2.5D DVEs. The addition of a 3D warp module option enables usage of Ripple, Swirl, Slats, Page Turn and a wide variety of other warp effects and a total of 12 lighting effects. The result when combined with the input DVEs will even surpass your imagination.

■ *Other Features*

*4 matte generator available

*USB port on operation unit for support of memory devices (up to 2GB)

*Enables saving of 100 patterns of sequences containing 31 settable key frames

*96-event memory can be called using 8 pages x 12 direct buttons

*Incorporates 3-serial port for control and other operations from an editing device

*Free assignment of 8 GPI inputs and 24 tally outputs

Options

VPS-70SDI:
4-input Digital Expansion Card

Each card enables an additional 4 SD-SDI inputs. It incorporates a frame synchronizer, still store, and process amplifier functions. Up to 2 cards can be installed.

VPS-70AI:
2-Input Analog Expansion Card

Each card enables an additional 2 analog composite inputs or 1 analog composite input and 1 analog component input. It incorporates a frame synchronizer, still store, and process amplifier functions. Up to 4 cards can be installed.

VPS-70SDO:
4-output Digital Expansion Card

Each card enables an additional 4 SD-SDI outputs. It also enables free assignment of outputs. Up to 2 cards can be installed.

VPS-70AO:
2-Output Analog Expansion Card

Each card enables an additional 2 analog composite outputs, or 1 analog composite output and 1 analog component output, or 1 RGB output. It also enables free assignment of outputs. Up to 2 cards can be installed.

VPS-70WARP:
DVE Warp Engine Module

This option adds warp effects to the installed standard DVEs and is separate from the input DVEs.

VPS-70DPUIF:
Display Interface

This is a software package for connecting an external display to the VPS-700. It is required when connecting the VPS-70DPU Touch Panel Display.

VPS-70DS:
Input DVE Card (Pre-combiner)

This option adds DVE functions to each input. It features a 16-channel DVE and 2-channel combiner. Up to 2 cards can be installed.

VPS-700RPS:
Main frame with a redundant power suppry

A special main unit with a built-in redundant power supply

HVS-AUX16:
16-button AUX control panel

32 inputs are manageable by using the shift button. Connect up to 10 units with customizable assignment for each panel.
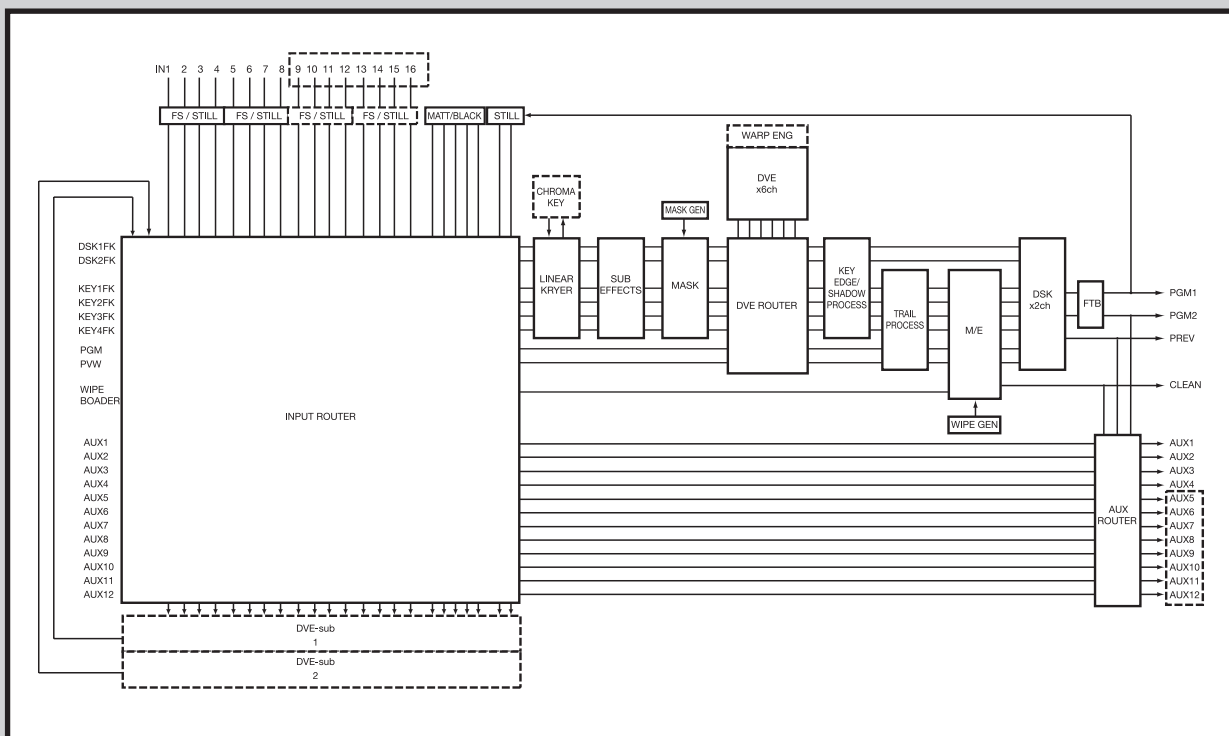*A PC-3168-1 cable (separate purchase) is required for the connection.

VPS-70DPUA:
Display Panel Unit

This option enables touch panel control of the various functions of the VPS-700. It presents the multi-layer and multi-DVE functions in an easy to understand and easily operation.
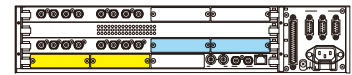

■ Block Diagram

Specifications

Standard	525/60 (NTSC), 625/50 (PAL) (Selectable at menu)
Processing	4:2:2 digital component, 10-bit
Video Input	8 standard inputs, optionally expandable 16 inputs
	Digital component: 270Mbps, 75Ω, BNC
Video Input (option)	Refer to right pattern
	SD-SDI: 270Mbps, 75Ω, BNC
	Analog component: Y: 1.0Vp-p, B-Y/R-Y: 0.7Vp-p, BNC
	Analog composite: 1.0Vp-p, 75Ω, BNC
Reference Input	BB: 0.429Vp-p (NTSC)/0.45Vp-p (PAL), 75Ω or Loopthrough, 1ea., BNC
Video Output	8 standard output (PGM x 2, PREV, Clean, AUX x 4), optionally expandable 16 outputs
	Digital component: 270Mbps, 75Ω, BNC
Video Output (option)	Refer to right pattern
	SD-SDI: 270Mbps, 75Ω, BNC
	Analog component: Y: 1.0Vp-p, B-Y/R-Y: 0.7Vp-p, BNC
	Analog composite: 1.0Vp-p, 75Ω, BNC
	RGB: R/G/B: 0.7Vp-p, 75Ω, BNC
Reference Output	BB: 0.429Vp-p (NTSC)/0.45Vp-p (PAL), 75Ω or Loopthrough, 1ea., BNC
Quantization	Y: 10-bit, C: 10-bit, Key: 10-bit
I/O Delay	1H (When FS, edge/shadow and DVE not applied to output)
	Max. 4 frames
Interfaces	OU: Ethernet 10/100BASE-T, 1ea., RJ-45
	RS-422: 3ea., 9-pin D-sub (female) (for Editor)
	GPI IN/TALLY: 1ea., 37-pin D-sub (female) (8 inputs / 24 outputs)
Temperature / Humidity	5ºC - 40ºC / 30% - 90% (no condensation)
Power	100VAC - 240VAC ±10%, 50/60Hz
Consumption	Main unit (VPS-700): 100W (max. 160W)
	Main unit (VPS-700RPS): 120W (max. 180W)
	Operation unit: 50W
Dimensions / Weight	Main unit (VPS-700): 430(W) x 88(H) x 425(D)mm, EIA2RU / Approx. 15kg
	Main unit (VPS-700RPS): 430(W) x 132(H) x 425(D)mm, EIA3RU / Approx. 18kg
	Operation unit: 430(W) x 155.8(H) x 221(D)mm / Approx. 5kg
Accessories	Main unit (VPS-700): AC cord, OU connection cable, Rack mount brackets
	Main unit (VPS-700RPS): AC cord, OU connection cable, Rack mount brackets, Redundant power supply (pre-installed)
	Operation unit: Operation manual, AC cord (Rack mount brackets are option)
Option	VPS-70SDI: 4-input SD-SDI expansion card / VPS-70AI: 2-input analog expantion card /
	VPS-70SDO: 4-output SD-SDI expansion card / VPS-70AO: 2-output analog expansion card /
	VPS-70WARP: DVE warp engine module / VPS-70DPUIF: Display interface /
	VPS-70DPUA: Display panel unit / VPS-70DS: Input DVE card (pre-combiner) /
	VPS-70FR: Flash Recorder card / HVS-AUX16: 16-button AUX control panel / PC-3168-1: Connection Cable

Notes on Input Expansion

Digital/analog input expansion slots

Expansion with one of the VPS-70SDI or VPS-70AI
■ VPS-70SDI: 4 SD-SDI inputs occupies one slot
■ VPS-70AI: 2 composite inputs or 1 composite + 1 component input occupies one slot
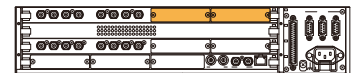
Analog input expansion slots

Expansion with the VPS-70AI only is possible.

The following combinations for the maximum expansion can be made as below.
● SD-SDI x 8 (STD) + Analog composite x 8
● SD-SDI x 8 (STD) + Analog composite x 4 + Analog component x 4
● SD-SDI x 8 (STD) + SD-SDI x 4 + Analog composite x 2
   + Analog component x 2
● SD-SDI x 8 (STD) + SD-SDI x 8
*Expansion allows up to 16 inputs. Therefore, if two VPS-70SDI cards are added, the VPS-70AI cannot be added.

Notes on Output Expansion

Digital/analog output expansion slots
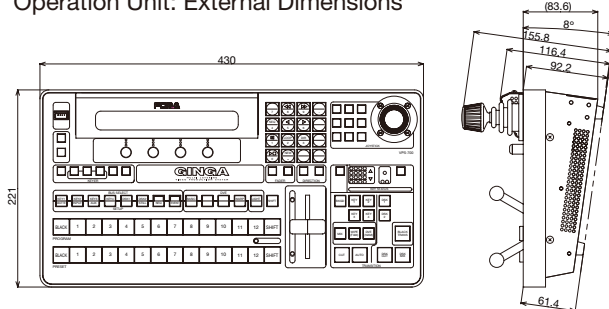
Expansion with one of the VPS-70SDO or VPS-70AO
■ VPS-70SDO: 4 SD-SDI outputs occupies one slot
■ VPS-70AO: 2 composite outputs, or 1 composite + 1 component, or 1 composite + 1 RGB/SYNC output occupies one slot

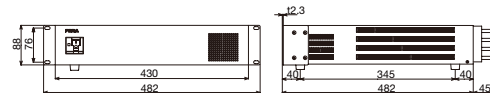The following combinations for the maximum expansion can be made as below.
● SD-SDI x 8 (STD) + Analog composite x 4
● SD-SDI x 8 (STD) + Analog composite x 2 + Analog component x 2
● SD-SDI x 8 (STD) + Analog composite x 2 + RGB/SYNC x 2
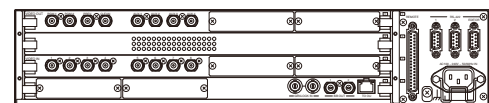● SD-SDI x 8 (STD) + SD-SDI x 8
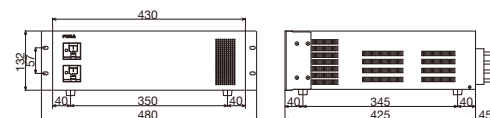
External Dimensions

Operation Unit: External Dimensions
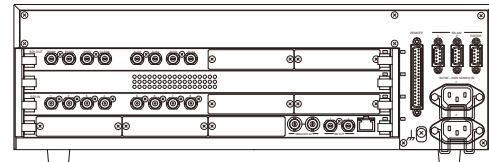
VPS-700 Main Unit: External Dimensions

VPS-700 Main Unit: Rear Panel

VPS-700RPS Main Unit: External Dimensions

VPS-700RPS Main Unit: Rear Panel