



*Compact 3RU offering a wide range
of advanced functions*

Multi-format Live Switcher
AV-HS5200

Cost Performance

Comprehensive solutions for a smooth migration path to digital broadcasting at minimal cost.

Multi-format compatible

The AV-HS5200 offers top quality multi-format operation across a variety of SD and HD formats. Both formats can be quickly switched either by menu operation on the control panel of the main unit or by remote operation via GPI. Also, mixed video signals of 16:9/4:3 aspect ratios can be smoothly processed by using wipe aspect mode selection or background insert function. Furthermore, it is possible to upgrade from SD to HD after installing SD format.

Supported formats HD format: 1080/59.94i, 50i, 1080/23.98Psf
SD format: 480/59.94i, 576/50i

Many functions in spite of compact size

The AV-HS5200 main-frame can configure 2-M/E +4-DVP in spite of the compact body, 3RU in height. This switcher has 18 standard inputs which can be expanded to a maximum of 36. It also has 6 standard outputs (ME1 PGM, ME2 PGM, AUX 1 - 4) with 6 additional outputs (AUX 5 - 10) as an option. Each switcher has 2 distributed outputs (BNC terminals).

In each M/E two systems of full function keyers (Linear Key, Luminance Key, Chroma Key), capable of attaching borders, combine with two systems of utility keyers that use utility buses as key materials, making a total of 4 systems of standard-installation keyers.



USER DVP 4CH+UTIL KEY1 (BKGD INS)
+UTIL KEY2 (BKGD INS)+WIPE+KEY1+KEY2



Each M/E is equipped with 4 utility buses

Since 4 utility buses can be used for 2 utility keyers, a total of 4 keyers (two full function keyers and two utility keyers) are available in each M/E. Using the background insert function of the utility keyer, the background videos selected from 4 utility buses can be inserted in the input video selected in advance. Also, videos in utility buses can be used as border video for WIPE or they can be inserted in the background.

Environment / user-friendly design

With the development of its broadcasting system, Panasonic is promoting the "eL (eco-Light) project", with the following two concepts in mind. One is "Eco" which means lightening the load on the environment. The other is "Light" which means lightening the operation load. Panasonic follows the most advanced paths for environmental compatibility, including RoHS-friendliness through a wide-range reduction in product parts and electromagnetic emissions.



Merchandise production, taking into account respect for the global environment and consideration of the operation load

"eL (eco-Light) Project"
This is a fundamental attitude for production of merchandise in Corporate Broadcast & Multimedia Division.
Out of respect for the environment, Panasonic adopted a policy of resource saving, power saving and lead-free soldering. In addition to these considerations, life-time cost of equipment and systems or the load of system operation are reduced. Consideration of the environment from the viewpoint of respecting customers is Panasonic's original concept.

Paving the way for the coming digital broadcasting era The compact Multi-format Live Switcher with many functions

The newly developed Panasonic Multi-format Live Switcher AV-HS5200 looks ahead to the advent of a full-fledged digital broadcasting era.

In spite of the compact size of 3RU height, Panasonic multi-format live switcher offers intuitive and reliable operability while supporting appealing program productions by providing a rich array of image portrayal functions.

Its multi-format specifications assure a smooth transition from SD to HD operation as well as operation in tandem, thus reducing installation costs, making it possible to build the most advanced system for meeting virtually every customer's specific production needs.

The AV-HS5200 is effective in preparing the change to digital broadcasting and this provides the opportunity to construct the most advanced and complete broadcasting system. The AV-HS5200 is core equipment for appealing programs in the new era of HD production.

Cost Performance
Reduced installation costs

Multi Function
Rich image creation repertoire
AV-HS5200 development concept

Simple Operation
Intuitive and reliable operability



*Optional connection arm between control panel and menu panel



Multi-format Live Switcher
AV-HS5200

Multi Function

Supporting attractive program production with rich and creative video.

Optional DVP supports advanced video effects

A maximum of 4 channels of DVP with 3-D effects such as 'Page Turn' or "Perspective Effect" can be installed. Using the floating system, DVP effects of each channel can be easily assigned to the background transition or the key transition.



DSK with 4 inputs and Quad split video functions (option)

By installing the optional DSK/QUAD unit, two channels of DSK (which make possible keying two pairs of Key Fill / Key Source) can be used and desired Quad split pictures from input videos of the switcher and output video of the effect bus can be displayed in the monitor.

Examples of video effects

DVPWIPE (COMB)+4:3SMOOTH



DVPWIPE (PAGETURN)



Optional 'Clip-store (video memory)' function

Clip-store is the video memory to record and play 62 frames video with key signal for approx. two seconds. The AV-HS5200 can support 2 clip-stores optionally. This recorded video data can be stored in memory cards installed in the main-frame or the control panel.

Example of use of Clip-store: Logo Wipe



Clip-store menu screen

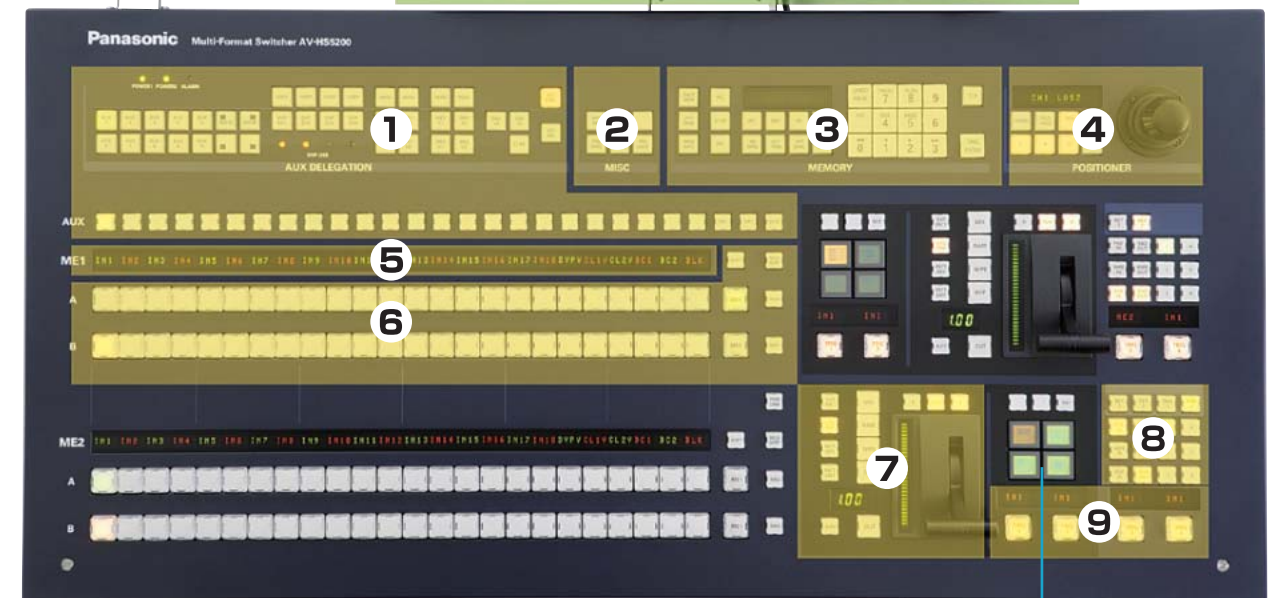


Simple Operation

Intuitive and reliable operation for live production.

Wide 12.1 inch color LCD touch screen

The wide 12.1 inch color LCD touch screen with high clarity and an interactive screen configuration is operated by direct touch. The screen buttons provide shortcuts to various menus thanks to a shallow menu hierarchy, offering intuitive and reliable operation through easy access to desired menus.



1 AUX DELEGATION BLOCK

Input video selection in each bus of AUX, QUAD, USER DVP, KEY, Ukey, DSK, and CLIP

2 MISCELLANEOUS BLOCK

Short-cut to the menu of cross-point inhibition and cross-point assignment, etc.

3 MEMORY BLOCK

Event memory, shot memory, auto transition operation, etc.

4 POSITIONER BLOCK

Positioning of Wipe and DVP

5 Source NAME DISPLAY BLOCK (AV-HS52K3 only)

Display of the source name which is assigned to cross-point switches

6 CROSS-POINT BLOCK

Video input selection of PGM/PST(A/B) busses

7 TRANSITION BLOCK

Transition type selection of background and transition fader operation

8 KEY PRESET BLOCK

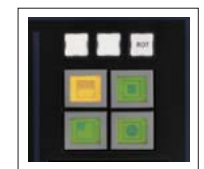
Transition type selection of key and key preset memory operation

9 TRIGGER ASSIGN BLOCK

Assignment of key take, etc., to 4 trigger buttons in each ME

Wipe pattern select buttons

Small LCD panel is used for wipe pattern select buttons. The wipe pattern on the buttons helps to prevent mistakes and ensures accurate operation.



Rating / Performance

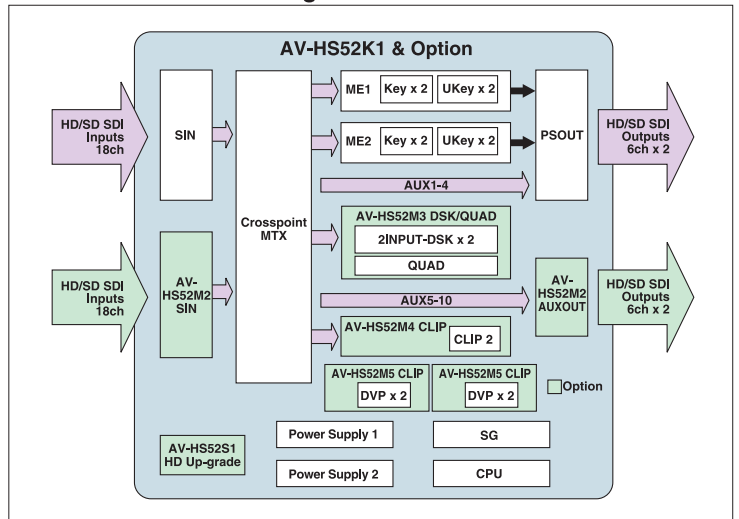
Compatible video formats	SD	480/59.94i,576/50i
	HD	1080/59.94i,50i 1080/23.98Psf...(planned)
Main unit rack		
M/E units	2M/E	
Video input (SDI)	HD: serial digital (SMPTE292M)/ SD: component serial (SMPTE259M)	MAX36
	IN 1-18	18
	IN 19-36 (SIIN option)	18
	HD (SMPTE292M (BTA S - 004B) compliant) • 0.8 Vp-p (75 ohm) • Input return loss 15+ dB (5 MHz - 750 MHz) 10+ dB (750 MHz - 1.5 GHz) • Auto-equalizer 100+ m (Belden)	
Video output (SDI)	SD (SMPTE259M compliant) • 0.8 Vp-p (75 ohm) • Input return loss 15+ dB (5 MHz - 270 MHz) • Auto-equalizer 200+ m (Belden)	
	HD: serial digital (SMPTE292M) SD: component serial (SMPTE259M)	MAX12
	ME1, ME2, AUX1-4	6 systems x2 outputs
	AUX5 - 10 (AUXOUT option)	6 systems x2 outputs
Selectable for AUX bus	INPUT1-36	
	BC1, BC2, BLK	
	ME1 PGM, CLEAN, NEXTPVW, KEYPVW1, KEYPVW2, KEYOUT	
	ME2 PGM, CLEAN, NEXTPVW, KEYPVW1, KEYPVW2, KEYOUT	
	DSK PGM, CLEAN, KEYPVW1, KEYPVW2, KEYOUT	
	AUTO-KEYPVW	
	DVPV, DVPK, QUAD	
	CLIP1V, CLIP1K, CLIP2V, CLIP2K	
	HD (SMPTE292M compliant) • Output return loss 15+ dB (5 MHz - 750 MHz) 10+ dB (750 MHz - 1.5 GHz) • Output level 0.8 Vp-p±10 % • Startup time under 270 ps • Shutdown time under 270 ps • Difference between startup and shutdown time within 100 ps • Alignment jitter 0.2 UI or below • Timing jitter 1.0 UI or below	
	SD (SMPTE259M compliant) • Output return loss 15+ dB (5 MHz - 270 MHz) • Output level 0.8 Vp-p±10 % • Startup time 1.5 nS or below • Shutdown time 1.5 nS or below • Difference between startup and shutdown time 0.5 nS or below • Jitter 0.2 UI or below	

Reference input	REF 1 (SD Black Burst / HD tri-level sync) (loop through output)	1			
	REF 2 (HD tri-level sync) (loop through output) (AUXOUT option)	1			
Control I/O	Coaxial LAN I/F	Panel	BNC	1	
		Remote	BNC	1	
		Tally	BNC	1	
	Ethernet I/F	Panel	RJ45	1	
		Service	RJ45	1	
	Serial communication I/F	RS422(Editor)	Dsub9 female	1	
	Parallel I/F	TALLY OUT 1	Dsub37 female	1	
		Open collector 32 output			
		TALLY OUT 2	Dsub37 female	1	
		Open collector 32 output			
GPI		Dsub37 female	1		
Video phase	AVDL range	Standard: -0.3H - +0.3H But 1H in output phase (Range varies according to output phase setting value)			
	Output phase	Standard 1H (adjustable range +0.5H - 1.2H) But 2 frames when KEY, DVP is 1 pass.			
Operational temperature	0 °C - 40 °C				
Humidity	10 % - 90 % (no condensation)				
Power		AC100 V - 240 V ±10 % 50 Hz/60 Hz			
	Power consumption	400 VA			
Outside dimensions	482 mm(W)×132 mm(H)×525 mm(D) (with front cover and prong removed) 3RU (EIA)				
Weight	30 kg (fully mounted)				
Control panel					
M/E units	2M/E				
Controller I/O	Coaxial LAN I/F	Main Frame (loop through attached)	BNC	1 pair	
	Ethernet I/F	Main Frame	RJ45	1	
		Service/SUB PANEL	RJ45	1	
		MENU PANEL	RJ45	1	
	Parallel I/F	GPI (fixed layout)	Dsub37 female	1	
		8 photo coupler inputs, 8 open collector outputs, ALARM,PS1,PS2,FAN	Dsub9 male	1	
	MENU PANEL I/F	MENU PANEL	Dsub25 female	1	
	MENU PANEL I/O	Ethernet I/F	Controller	RJ45	1
		MENU PANEL I/F	Controller	Dsub25 male	1
	Operative temperature	0 °C - 40 °C			
Humidity	10 % - 90 % (no condensation)				
Power source		AC100 V - 240 V ±10 % 50 Hz/60 Hz			
	Power consumed	100 VA			
Outside dimensions	891.5 mm(W)×127.8 mm(H)×451 mm(D) (Menu Panel, prong removed)				
Mass	40 kg				

AV-HS5200 configuration

Main frame	AV-HS52K1
SIIN module	AV-HS52M1
AUXOUT module	AV-HS52M2
DSK/QUAD module	AV-HS52M3
Clip module	AV-HS52M4
DVP module	AV-HS52M5
HD upgrade	AV-HS52S1
Control panel (without XPT materials indication)	AV-HS52K2
Control panel (with XPT materials indication)	AV-HS52K3

Overview of basic configuration



Panasonic

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