

Live Switcher Specification Comparison

As of April, 2017

		AV-HS6000*1	AV-HS450	AV-HS410	AW-HS50
ME		2ME		1ME	
Video Format	4K/3G	2160/59.94p (4K mode)**, 2160/50p (4K mode)**, 1080/59.94p (3G mode), 1080/50p (3G mode)	—	—	—
	HD	1080/59.94i, 1080/50i, 1080/24PsF, 1080/23.98PsF, 1080/25PsF, 1080/29.97PsF, 720/59.94p, 720/50p	1080/59.94i, 1080/50i, 1080/24PsF*, 1080/23.98PsF*, 720/59.94p, 720/50p	1080/59.94i, 1080/50i, 1080/24PsF*, 1080/23.98PsF*, 720/59.94p, 720/50p	1080/59.94i, 1080/50i, 1080/24PsF, 1080/23.98PsF, 720/59.94p, 720/50p
	SD	480/59.94i, 576/50i			
Video Processing	Y:P _s :P _a	4 : 2 : 2 10 bit	4 : 2 : 2 10 bit (8 bit for FMEM)	4 : 2 : 2 10 bit (8 bit for video memory)	4 : 2 : 2 10 bit (8 bit for FMEM)
	RGB	4 : 4 : 4, 8 bit			
Video Input	Input	34 signal lines	16 signal lines, standard 20 signal lines, maximum	9 signal lines, standard 13 signal lines, maximum	5 signal lines
	SDI	32 lines, BNC x 32 HD (SMPTTE292M)/3G (SMPTTE424M)/SD (SMPTTE259M) standard, 0.8 V [p-p] ± 10 % (75 Ω)	Standard SDI: 16 lines, BNC x 16 HD (SMPTTE292M)/SD (SMPTTE259M) standard, 0.8 V [p-p] ± 10 % (75 Ω)	Standard SDI: 8 lines, BNC x 8 (IN 1 to 8) HD (SMPTTE292M)/SD (SMPTTE259M) standard, 0.8 V [p-p] ± 10 % (75 Ω)	4 lines, BNC x 4 HD (SMPTTE292M)/SD (SMPTTE259M) standard, 0.8 V [p-p] ± 10 % (75 Ω)
	DVI-D/DVI-I	2 signal line DVI-D x 2 Digital RGB: XGA (1024 x 768), WXGA (1280 x 768), SXGA (1280 x 1024), WSXGA+ (1680 x 1050), UXGA (1600 x 1200), WUXGA (1920 x 1200) Vertical frequency: 60 Hz Video format inputs: 1080/59.94p, 1080/50p, 1080/59.94i, 1080/50i, 720/59.94p, 720/50p	—	Standard DVI-D: 1 signal line, DVI-D x 1 Digital RGB: XGA (1024 x 768), WXGA (1280 x 768), SXGA (1280 x 1024), WSXGA+ (1680 x 1050), UXGA (1600 x 1200), WUXGA (1920 x 1200) Vertical frequency: 60 Hz Video format inputs: 1080/50p, 1080/59.94p (Analog input signals are not supported)	—
	Optional Board	—	Maximum of 4 inputs (IN A1, A2, B1, B2)(Up to 2 optional	boards may be inserted into the 2 input/output optional slots)	—
Video Output	Output	16 signal lines	6 signal lines, standard 10 signal lines, maximum	6 signal lines, standard 10 signal lines maximum	3 signal lines
	SDI	16 lines, BNC x 32 (2 distributed outputs per line) HD (SMPTTE292M)/3G (SMPTTE424M)/SD (SMPTTE259M) standard, 0.8 V [p-p] ± 10 %	Standard SDI: 4 lines, BNC x 5 (2 output distribution for OUT 1) HD (SMPTTE292M)/SD (SMPTTE259M) standard, 0.8 V [p-p] ± 10 % (75 Ω)	Standard SDI: 5 lines, BNC x 6 (2 output distribution for OUT 1) HD (SMPTTE292M)/SD (SMPTTE259M) standard, 0.8 V [p-p] ± 10 % (75 Ω)	SDI: 2 lines, BNC x 3 (2 output distribution for OUT1) HD (SMPTTE292M)/SD (SMPTTE259M) standard, 0.8 V [p-p] ± 10 % (75 Ω)
	DVI-D	—	Standard DVI-D: 2 lines, DVI-D x 2, (OUT 5, 6) Digital RGB: XGA (1024 x 768), WXGA (1280 x 768), SXGA (1280 x 1024), WSXGA+ (1680 x 1050), UXGA (1600 x 1200), WUXGA (1920 x 1200) Vertical frequency: 60 Hz Video format outputs: 1080/50P, 1080/59.94P (Analog output signals are not supported)	Standard DVI-D: 1 lines, DVI-D x 1 Digital RGB: XGA (1024 x 768), WXGA (1280 x 768), SXGA (1280 x 1024), WSXGA+ (1680 x 1050), UXGA (1600 x 1200), WUXGA (1920 x 1200) Vertical frequency: 60 Hz Video format outputs: 1080/50p, 1080/59.94p, 1080/50i, 1080/59.94i, 720/50P, 720/59.94P (Analog output signals are not supported)	Standard DVI-D: 1 lines, DVI-D x 1 Digital RGB: XGA (1024 x 768), WXGA (1280 x 768), SXGA (1280 x 1024), WSXGA+ (1680 x 1050), UXGA (1600 x 1200), WUXGA (1920 x 1200) Vertical frequency: 60 Hz Video format outputs: 1080/50p, 1080/59.94p (Analog output signals are not supported)
	Optional Board	—	Maximum of 4 outputs (OUT A1, A2, B1, B2)(Up to 2 optional	boards may be inserted into the 2 input/output optional slots)	—
Reference Input/Output		Mainframe BNC GENLOCK mode: Black burst or Tri-level Sync input signals (with loop-through) • Same field frequencies as those of the system formats supported. • With the 1080/23.98PsF, 1080/24PsF format, only GENLOCK mode supported. • With the 1080/23.98PsF format, black burst with 10F-ID (SMPTTE318M standard met) or TRI signals supported. Internal sync mode: Black burst output signals x 2		GENLOCK mode: Black burst or Tri-level Sync input signals (with loop-through) • Same field frequencies as those of the system formats supported. • With the 1080/24PsF format, only GENLOCK mode supported. • With the 1080/23.98PsF format, black burst with 10F-ID (SMPTTE318M standard met) or TRI signals supported. Internal sync mode: Black burst output signals x 2	—
Interface	PANEL/MAIN-FRAME	RJ45 x 1, Compatible with 100Base-TX and AUTO-MDIX (to connect between the mainframe and the control panel)	RJ45 x 1, 100 Mbps (to connect between the mainframe and the control panel)	—	—
	EDITOR	—	Mainframe, D-sub 9 pin x 1, RS-422 (GVG protocol compatible)	D-sub 9 pin x 1, RS-422	—
	COM	Mainframe, D-sub 9 pin x 4, RS-422*3 Control Panel: D-sub 9 pin x 2 (RS-422 x 1, RS-232C x 1)	Mainframe, D-sub 9 pin x 1, RS-422 (pan-tilt system control)	D-sub 9 pin x 1, RS-422	—
	TALLY/GPI	Mainframe: D-sub 25 pin x 1 GPI IN x 18 (general-purpose, photocoupler sensing), GPIOUT x 48 (selected from general purpose, tally, Open collector output), ALARM OUT x 1 (open collector output, negative logic) Control Panel: D-sub 25 pin x 1 GPI IN x 8 (general-purpose, photocoupler sensing), GPIOUT x 10 (selected from general purpose, tally, Open collector output), ALARM OUT x 1 (open collector output, negative logic)	Mainframe: D-sub 50 pin x 1 GPI IN x 8 (general-purpose, photocoupler sensing), GPI OUT x 31 (general-purpose, selected from R/G tally, open collector output), ALARM OUT x 1 (open collector output, negative logic) Control Panel: D-sub 25 pin x 1 GPI IN x 8, GPI OUT x 8, ALARM OUT x 1	D-sub 15 pin x 2 GPI IN x 8 (general-purpose, photocoupler sensing), GPI OUT x 19 (general-purpose, selected from R/G tally, open collector output), ALARM OUT x 1 (open collector output, negative logic)	D-sub 15 pin x 1, GPI IN x 5 (photocoupler sensing), GPI OUT x 7 (open collector output, negative logic)
	LAN	Mainframe: Compatible with 100Base-TX and AUTO-MDIX (For IP control)	Mainframe, RJ45 x 1, 10 BASE-T/100 BASE-TX	RJ45, 10 BASE-T/100 BASE-TX	
Control Panel	Discrete (menu DVI-D output; USB mouse menu control)	Discrete	Integrated		
Menu Panel	Discrete		Integrated		
Multi-Selection Panel	Provided for each ME		—		
Removable Media	SD Memory Card Supported by the control panel, Capacity: Maximum 32 GB (SDHC Memory Card compatible) Still image file/movie clip file/Project file (including memories): Loading/saving, Software: Loading, Log data: saving	SD Memory Card Supported by the control panel, Capacity: Maximum 32 GB (SDHC Memory Card compatible) Still image file: Loading/saving, setup data: backup	SD Memory Card Capacity: Maximum 32 GB (SDHC Memory Card compatible) Still image file/movie clip file/shot memory/ event memory: Loading/saving, Setup data: backup	—	

*1: For information on 4K/3G mode, see page 59.

*2: Firmware Ver. 4 or later required. For details, see "Service and Support" on the Panasonic website (<http://pro-av.panasonic.net/en/>).

*3: Switchable between master connection and slave connection via menu

*4: 1080/24PsF and 23.98PsF are not supported with the AV-HS04M option board series.