2ME Live Switcher

AV-HS6000

The main unit is equipped with an abundance of inputs and outputs for great system integration that includes 32 SDI and 2 DVI inputs plus 16 SDI outputs. 4 DVEs per ME enable diverse transitions when producing creative video in demanding fast-paced situations. Three types of control panels can be used. C1 and C2 panels offer 24 XPT buttons and 4 pages and allow easy switching among 96 total crosspoints. The compact panel C4 is 30% shorter than the C1/C2 version and offers an easier integration into small studios and OB Vans.

Key Features

34 inputs (SDI X32, DVI×2) and 16 SDI outputs; all inputs have built-in frame synchronizers

Simultaneous output in both 1080p and 1080i formats

4 independent MultiViewer displays; Single MultiViewer can display a maximum of 16 video sources

Equipped with real-time high-quality chroma keying that employs Primatte® algorithms / Standard 1 channel, expandable up to 4 channels

The switcher can be set by the 10,1-type touch-operated Menu Panel AV-HS60C3G (optional) or by a PC monitor and USB mouse

4K PROFESSIONAL

AV-HS6000

https://oc.connect.panasonic.com/nz
/en/av-hs6000

Mainframe AV-HS60U2P/E	
Power Supply	AC100 V to 240 V, 50 Hz/60 Hz
	(AV-HS60U2 supports redundant power supply)
Power Consumption	110 W
Ambient Operating Temperature	0℃ to 40℃ (32°F to 104°F)
Operating Ambient Humidity	10% to 90% (no condensation)
Storage Temperature	0℃ to 40℃ (32°F to 104°F)
Storage Humidity	10% to 90% (no condensation)
Weight	482 mmx132 mmx418 mm
	(18-31/32 inchesx5-3/16 inchesx16-15/32 inches)(excluding protrusions)
Dimensions (W x H x D)*4	482 mmx132 mmx418 mm
	(18-31/32 inchesx5-3/16 inchesx16-15/32 inches)(excluding protrusions)
Video Terminal	
SDI In 1 to SDI In 32 Terminals	During Standard mode
	32 lines
	• Connectors: BNCx32
	• SDI IN 27, SDI IN 28, SDI IN 31, SDI IN 32 terminals are equipped with up-converters.
	• SDI IN 25 to SDI IN 32 terminals are equipped with color correctors.
	HD-SDI
	SMPTE292M (BTA S-004) standard compliant
	• 0.8 V [p-p]±10% (75 ohm)
	• Automatic equalizer 100 m (328 ft)
	(when 1.5 Gbps/5C-FB cable is used)
	SD-SDI
	SMPTE259M standard compliant
	• 0.8 V [p-p]±10% (75 ohm)
	• Automatic equalizer 200 m (656 ft)
	(when 5C-2V cable is used)
	During 3G mode
	16 lines
	• Connector: BNCx16 (only the odd numbered terminals can be used)
	・The even numbered terminals [SDI IN 2],[SDI IN 4] ... [SDI IN 32] cannot be used. ・[SDI IN 25], [SDI IN 27], [SDI IN 29], and [SDI IN 31] terminals are equipped with color correctors.
	During 4K mode
	4K signal x 8 lines
	• Connector: BNC x 32 (3G-SDI x 4 SQD/2SI)
	• Can use the 4K signal in SQD format and 2SI format
	3G-SDI
	3G serial digital, SMPTE424M standard compliant
	• 0.8 V[p-p] ±10% (75 ohm)
	• Automatic equalizer 100 m (328 ft) (when 3 Gbps/5C-FB cable is used)
	• 3G?SDI Level B
	3G-SDI Level A (FS ON)

DVI-D In 1 to DVI-D In 2 Terminals	2 lines
	Digital RGB:XGA (1024x768), WXGA (1280x768), SXGA (1280x1024), WSXGA+ (1680x1050),UXGA (1600x1200), WUXGA (1920x1200)
	Vertical frequency: 60 Hz
	Video format inputs: 1080/59.94p, 1080/50p, 1080/59.94i, 1080/50i, 720/59.94p, 720/50p
	• Connectors: DVI-Dx2
	• The terminals do not support HDCP.
	• The DVI-I connector cable cannot be used.
	• For the DVI-D connector cable, use a cable with a length of up to 5 m.(16.4 ft)
	• [DVI-D IN1]/[DVI-D IN2] terminals cannot be used during 3G mode and 4K mode.
SDI Out 1 to SDI Out 16 Terminals	During Standard mode
	16 lines (2 distributed outputs per line)
	• Connectors: BNCx32
	• ME1PGM, ME1PVW, ME1CLN, ME1KEYPVW, ME2PGM, ME2PVW,
	ME2CLN, ME2KEYPVW, DSKPGM1, DSKPGM2, DSKPVW1,
	DSKPVW2, DSK1CLN, DSK2CLN, DSK3CLN, DSK4CLN, SEL
	KEYPVW, MV1 to MV4, and AUX1 to AUX16 can be assigned.
	HD-SDI SMPTE292M (BTA S-004) standard compliant
	• Output level: 0.8 V [p-p]±10%
	SD-SDI SMPTE259M standard compliant
	• Output level: 0.8 V [p-p]±10%
	During 3G mode
	3G-SDI output: 8 lines (2 distribute outputs per line)
	HD-SDI output: 2 lines (2 distribute outputs per line)
	• Connector
	3G-SDI: BNCx16 (odd numbered terminals only)
	HD-SDI: BNCx4 (and terminals only)
	• 3G?SDI signal is not output from the even numbered terminals.
	- No signal is output from the [SDI OUT 13] and [SDI OUT 15] terminals.
	- The HD-SDI signal converted to the 1080i format is output from the and terminals. This signal is converted to the 1080i format by decimating the 1080p signal from the and terminals.
	• [SDI OUT 13] and [SDI OUT 15] terminals are equipped with color correctors. The same color corrector setting is also applied to [SDI OUT 14] and [SDI OUT 16] terminals.• ME1PGM, ME1PVW, ME1CLN, ME1KEYPVW, ME2PGM, ME2PVW, ME2CLN, DSKPGM1, DSKPGM2, DSKPVW1, DSKPVW2, DSK1CLN, DSK2CLN, SEL KEYPVW, MV1 to MV2, and AUX1 to AUX8 can be assigned.
	During 4K mode
	4K signal output: 3 lines (two distribute outputs per line)
	2K signal output: 2 lines (two distribute outputs per line)
	• Connector
	3G-SDI (for 4K signal): BNC x 24 (terminal number 1 to 12)
	3G-SDI (for 2K signal): BNC x 4 (terminal number 13 and 15)
	HD-SDI (for 2K signal): BNC x 4 (terminal number 14 and 16)
	• The 4K signal is output in SQD format.
	• The HD-SDI signal converted to the 1080i format is output from the [SDI OUT 14] and [SDI OUT 16] terminals. This signal is converted to the 1080i format by decimating the 1080p signal output from the [SDI OUT 13] and [SDI OUT 15] terminals.
	• ME1PGM, ME1PVW, ME1CLN, ME1KEYPVW, ME2PGM, ME2PVW, ME2CLN, DSKPGM1, DSKPGM2, DSKPVW1, DSKPVW2, DSK1CLN, DSK2CLN, SEL KEYPVW, MV1 to MV2, and AUX1 to AUX8 can be assigned.
	3G-SDI
	3G serial digital, SMPTE424M standard compliant
	• Output level: 0.8 V [p-p] ±10%
	• 3G-SDI Level B Mapping

Signal Formats	SD
	480/59.94i, 576/50i
	HD
	1080/59.94i, 1080/50i, 720/59.94p, 720/50p, 1080/24PsF, 1080/23.98PsF, 1080/25PsF, 1080/29.97PsF,
	3G
	1080/59.94p, 1080/50p
	4K
	2160/59.94p, 2160/50p(SQD)
Signal Processing	Y:PB:PR 4:2:2 10 bit
	R:G:B 4:4:4 8 bit
ME Number	2 ME
Synchronous Terminal	
REF Terminal	• Connectors: BNC
	• Same field frequencies as those of the system formats supported
	In Genlock mode: Black burst or Tri-level Sync input signals (with loop-through)
	• If the loop-through output is not used, provide a 75 ohm termination.
	• In the 1080/24PsF and 1080/23.98PsF formats, only Genlock mode supported
	• In the 1080/23.98PsF format, black burst signals with 10 Field ID
	(SMPTE318M standard compliant) or Tri-level Sync signals supported
	• In the 1080/24PsF format, Tri-level Sync signals supported
	In internal sync mode: Black burst output signal x 2
LTC In Terminal	This is the LTC (linear time code) input terminal.
	• Connectors: BNC
	• Impedance: 1 kohm
	• Level: 1 to 2 V [p-p]
Video Delay Time	During Standard mode
	1 line (H)
	When the frame synchronizer is set to"Off" and the up-converter is set to"Off"
	2 field (V)
	When the frame synchronizer is set to "On", or the up-converter is set to "On"
	• When the signals have passed through PinP, DVE, MultiView, down-converter, or DVI-IN, a maximum delay of 1 frame is applied in each case.
	During 3G mode
	2 line (H)
	When the frame synchronizer is set to [Off]
	2 frame (V)
	When the frame synchronizer is set to [On]
	• Maximum of 2 frame delay is added to each when passed through PinP, DVE, or MultiView.
Control Terminal	
LAN Terminal	Compatible with 100Base-TX and AUTO-MDIX (For IP control)
	• Connection cable: LAN cable (CAT5E), max. 100 m (328 ft),
	STP (Shielded Twisted Pair) cable recommended
	• Connector: RJ-45
Panle Terminal	Compatible with 100Base-TX and AUTO-MDIX
	(For Control Panel AV-HS60C2/AV-HS60C4 connection)
	• Connection cable (supplied with AV-HS60C2/AV-HS60C4): LAN cable
	(CAT5E), straight cable, STP (Shielded Twisted Pair), 10 m (32.8 ft)
	• Connector: RJ-45
COM1(M)/COM2(M)/COM3(M) Terminals	RS-422 Control Terminal
	For master connection for controlling external devices
	• Connector: D-sub 9-pin (female) x 3, inch screw
COM4 (M/S) Terminal	RS-422 Control Terminal
	For master/slave connection for controlling external devices
	• Connector: D-sub 9-pin (female), inch screw
	• Switchable between master connection and slave connection via menu

GPI In Terminal	GPI IN: 18 inputs, general-purpose, photocoupler sensing
	ALARM OUT: 1 output, open collector output (negative logic)
	• Connector: D-sub 25-pin (female), inch screw
GPI Out1/GPI Out 2 Terminal	GPI OUT: 48 outputs, selected from general purpose, tally
	Open collector output
	• Connector: D-sub 25-pin (female) x 2, inch screw
Accessories	• AC cable AV?HS60U2P: 2 cables
	AV?HS60U2E: 4 cables
	• Rack-mounted rear panel support bracket
	• Screws for the rack-mounted rear panel support bracket: 8 screws
	• Operating Guide for the AV-HS6000 series (Excerpted Version)