



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 $\!\times\!2)$ 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



Panasonic **CONNECT**









AV-HS6000

https://latam.connect.panasonic.com <u>/pa/es/av-hs6000</u>

Mainframe -> Model No.	AV-HS60U2P/E
Mainframe -> General -> Power	AC 100 V to 240 V, 50 Hz/60 Hz
Supply	(supports redundant power supply)
Mainframe -> General -> Power	110 W
Consumption	
Mainframe -> General -> Operating	0 °C to 40 °C (32 °F to 104 °F)
lemperature	
Mainframe -> General -> Operating	10 % to 90 % (no condensation)
Humidity	
Mainframe -> General -> Storage	0 °C to 40 °C (32 °F to 104 °F)
lemperature	
Mainframe -> General -> Storage	10 % to 90 % (no condensation)
Humidity	
Mainframe -> General -> Weight	Approx. 13.5 kg (29.7 lbs.) (excluding accessories)
Mainframe -> General -> Dimensions	W 482 mm x H 399 mm x D 418 mm
	(18-31/32 inches x 5-3/16 inches x 16-15/32 inches)
	(excluding protrusions)
/lainframe -> Video Terminal -> SDI	During Standard mode Standard 32 lines
IN	• Connector: BNC x 32
	• SDI IN 27, SDI IN 28, SDI IN 21, SDI IN 32、SDI IN 32 terminals are equipped with up-
	converters,
	 SDI IN 25 to SDI IN 32 terminals are equipped with color correctors.
	HD-SDI
	SEMPTE 292M (BTQ-004) standard compliant
	• 0.8 V [p-p] ± 10 % (75 Ω)
	• Automatic equalizer 100 m (328 ft) (when 1.5 Gbps/5C-FB cable is used)
	SD-SDI
	SEMPTE 259M standard compliant
	• 0.8 V [p-p] ± 10 % (75 Ω)
	 Automatic equalizer 200 m (656 ft) (when 5C-2V cable is used)
	During 3G mode
	16 lines
	 Connector: BNC x 16 (only the odd numbered terminals can be used)
	• The even numbered terminals , cannot be used.
	 , , and 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 Ω)
	• Automatic equalizer 100 m (328 ft) (when 3 Gbps/5C-FB cable is used)
	• 3G-SDI Level B
	3G-SDI Level A (FS ON)

During Standard mode
16 lines (2 distributed outputs per line)
• Connectors: BNC x 32
ME1PGM, ME1PVW, ME1CLN, ME1KEYPVW, ME2PGM, ME2PVW, ME2CLM, ME2KEYPVW,
DSKPGM1, DSKPGM2, DSKPVW1, DSKPVW2, DSK1CLN, DSK2CLN, DSK3CLN, DSK4CLN, SE KEYPVW, MV1 to MV4, and AUX1 to AUX16 can be assigned.
HD-SDI
SMPTE292M (BTQ 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: BNC x 16 (odd numbered terminals only)
HD-SDI: BNC x 4 (and terminals only) • 3G-SDI signal is output from the even numbered terminals.
- No signal is output from the , 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.
and terminals are equipped with color correctors. The same color corrector setting is
also applied to and terminals.
ME1PGM, ME1PVW, ME1CLN, ME1KEYPVW, ME2PGM, ME2PVW, ME2CLM, DSKPGM1, DSKPGM2, DSKPGM2, DSKPGM2, DSK2CLN, SELKEVPVM, M21 to M24, and AUX
DSKPGM2, DSKPVW1, DSKPVW2, DSK1CLN, DSK2CLN, SEL KEYPVW, MV1 to MV4, and AUX to AUX8 can be assigned.
During 4K mode
4K signal output: 3 lines (2 distribute outputs per line)
2K signal output: 2 lines (2 distribute outputs per line) • Connector
 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 and
-D2 lines
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
• Connectors: DVI-D x 2
 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)
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 For the DVI-D connector cable, use a cable with a length of up to 5 m. (16.4 ft) / terminals cannot be used during 3G mode and 4K mode DSD: 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) AK: 2160/59.94p, 2160/50p (SQD) IP: Y:PE;PR] 4:2:2 10 bit [R:G:B] 4:4:4 8 bit 2 ME I- 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 Ω termination In the 1080/24PsF and1080/23.98PsF formats, only Genlock mode supported In the 1080/24PsF format, black burst signals with10 Field ID (SMPTE318M standard compliant) or Try-level with 10 Sync signals supported In the 1080/24PsF format, 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 I- This is the LTC (linear time code) input terminal. Connector: BNC Impedance: 1 kΩ Level: 1 to 2 V [p-p] I-During Standard mode I 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" and the up-converter,
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 For the DVI-D connector cable, use a cable with a length of up to 5 m. (16.4 ft) / terminals cannot be used during 3G mode and 4K mode DS: 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) III (Y:PB:PR] 4:2: 21 0 bit [R:G:B] 4:4:4 8 bit 2 ME I- 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 Ω termination In the 1080/24PsF and1080/23.98PsF formats, only Genlock mode supported In the 1080/24PsF format, black burst signals with10 Field ID (SMPTE318M standard compliant) or Try-level with 10 Sync signals supported In internal sync mode: Black burst output signals xupported In internal sync mode: Black burst output signals xupported In internal sync mode: Black burst output signals xupported In internal sync mode: Black burst output signals xupported In internal sync mode: Black burst output signal x 2 I-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 "Off" 2 finame (H) When the frame synchronizer is set to "Off" 2 frame (V) When the frame synchronizer is set to "Off" 2 frame (V) When the frame synchronizer is set to "Off" 4 Maximum of 2 frame delay is added to each when passed through PinP, DVE, or
 For the DVI-D connector cable, use a cable with a length of up to 5 m. (16.4 ft) / terminals cannot be used during 3G mode and 4K mode Io 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, 1080/50p 4K: 2160/59.94p, 2160/50p (SQD) II (Y:PB:PR] 4:2:2 10 bit [R:G:B] 4:4:4 8 bit 2 ME I - 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 Ω termination In the 1080/24PsF and1080/23.98PsF formats, only Genlock mode supported In the 1080/24PsF and1080/23.98PsF formats, only Genlock mode supported In the 1080/24PsF format, black burst signals with10 Field ID (SMPTE318M standard compliant) or Try-level with 10 Sync signals supported In the 1080/24PsF format, Tri-level Sync signals supported In internal sync mode: Black burst output signals x 2 I- This is the LTC (linear time code) input terminal. Connector: BNC Impedance: 1 kΩ Lower: 1 to 2 V [p-p] I- During Standard mode I 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 "Off" 2 fined (V): When the frame synchronizer is set to "Off" 2 fined (V): When the frame synchronizer is set to "Off" 2 line (H) When the frame synchronizer is set to "Off" 2 line (H) When the frame synchronizer is set to "Off" 2 frame (V) When the frame synchronizer is set to "Off" 2 frame (V) When the frame synchronizer is set to "Off" 2 frame (V) When the frame synchronizer is set to "Off" 2 frame (V) When the frame synchronizer is set to "Off"
 For the DVI-D connector cable, use a cable with a length of up to 5 m. (16.4 ft) / terminals cannot be used during 3G mode and 4K mode DS: 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) al[V:PB:PR] 4:2: 21 0 bit [R:G:B] 4:4:4 8 bit 2 ME I- 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 Ω termination In the 1080/24PsF and1080/23.98PsF formats, only Genlock mode supported In the 1080/24PsF format, black burst signals with10 Field ID (SMPTE318M standard compliant) or Try-level with 10 Sync signals supported In internal sync mode: Black burst output signal x 2 I-This is the LTC (linear time code) input terminal. Connector: BNC Impedance: 1 kΩ Levei: 1 to 2 V [p-p] I-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 "Off" 2 fine (H) When the frame synchronizer is set to "Off" 2 frame (V) When the frame synchronizer is set to "Off" 2 frame (V) When the frame synchronizer is set to "Off" 2 frame (V) When the frame synchronizer is set to "Off" 2 frame (V) When the frame synchronizer is set to "Off" Maximum of 2 frame delay is added to each when passed through PinP, DVE, or

Mainframe -> Control Terminal -> PANEL Terminal	Compatible with 100BASE-TX and AUTO-MDIX (For Control Panel AV-HS60C2/AV-HS60C 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
Mainframe -> Control Terminal -> COM1 (M) / COM2(M) / COM3 (M)	RS-422 Control Terminal For master connection for controlling external devices
Terminals	Connector: D-sub 9-pin (female) x 3, inch screw
Mainframe -> Control Terminal ->	RS-422 Control Terminal
COM4 (M/S) Terminal	For master/slave connection for controlling external devices
	Connector: D-sub 9-pin (female), inch screw Switchable between meters connection and along connection via many
Mainframe -> Control Terminal -> GB	 Switchable between master connection and slave connection via menu I GPI IN: 18 inputs, general-purpose, photocoupler sensing ALARM OUT: 1 output, open
IN Terminal	collector output (negative logic) · Connector: D-sub 25-pin (female), inch screw
Mainframe -> Control Terminal -> GP	I GPI OUT: 48 outputs, selected from general purpose, tally
OUT1 / GPI OUT2 terminal	Open collector output
Control Panel -> Model No.	Connector: D-sub 25-pin (female) x 2, inch screw
Control Panel -> Model No.	AV-HS60C2P/E, AV-HS60C4P/E AC 100 V to 240 V, 50 Hz/60 Hz
Supply	(supports redundant power supply)
Control Panel -> General -> Power Consumption	40 W
Control Panel -> General -> Operating Temperature	g 0 ℃ to 40 ℃ (32 °F to 104 °F)
Control Panel -> General -> Operating Humidity	g 10 % to 90 % (no condensation)
Control Panel -> General -> Storage Temperature	0 °C to 40 °C (32 °F to 104 °F)
Control Panel -> General -> Storage Humidity	10 % to 90 % (no condensation)
Control Panel -> General -> Weight	AV-HS60C2P/E: Approx. 13.9 kg (30.6 lbs.) (excluding accessories) AV-HS60C4P/E: Approx. 15.0 kg (33.0 lbs.) (excluding accessories)
Control Panel -> General ->	AV-HS60C2P/E:
Dimensions	W 980 mm x H 153.4 mm x D 267 mm
	(38-19/32 inches x 6-1/32 inches x 10-1/2 inches) (excluding protrusions) AV-HS60C4P/E:
	656 mm×160 mm×400 mm
	(25-53/64 inches×6-19/64 inches×15-3/4 inches) (excluding protrusions)
Control Panel -> Control Terminal ->	Compatible with 100Base-TX and AUTO-MDIX (For Mainframe AV-HS60U2 connection)
Mainframe Terminal	Connection cable (supplied with AV-HS60C2): LAN cable (CAT5e), Straight cable, STP (Shielded Twisted Pair), 10 m (32.8 ft)
	• Connector: RJ-45
	When connected to the terminal, no video will be displayed on the Menu Panel AV-
	HS60C3G.
Control Panel -> Control Terminal -> MENU PANEL Terminal	Used only for the Menu Panel AV-HS60C3G • Connector: DVI-D
MENO PANEL TELIMINAL	Connected to DVI-D monitor.
	Cannot be used concurrently with a DVI-D monitor connected to the terminal. Select
	with the display selector switch.
Control Panel -> Control Terminal -> DVI-D Terminal	Used for displaying menus to the DVI monitor • Connector: DVI-D
	Monitor resolution: 1366 x 768 compatible monitor
	• Cannot be used concurrently with the <menu panel=""> terminal. Select with the display</menu>
	selector switch.
Control Panel -> Control Terminal -> USB Terminal	For DVI monitor menu operation • Connector: USB (type A, female)
	• Cannot be used for the Menu Panel AV-HS60C3G.
Control Panel -> Control Terminal -> Display Selector Switch	Switch for selecting <menu panel=""> terminal or <dvi-d> terminal</dvi-d></menu>
Control Panel -> Control Terminal ->	RS-422 Control Terminal
COM1 (M) Terminal	For master connection for controlling external devices
Control Panel -> Control Terminal ->	Connector: D-sub 9-pin (female), inch screw RS-232 Control Terminal
	For external device control connections
COM2 (RS-232) Terminal	
сом2 (RS-232) Terminal	• Connector: D-sub 9-pin (male), inch screw
Control Panel -> Control Terminal ->	• Connector: D-sub 9-pin (male), inch screw GPI IN: 8 inputs, general-purpose, photocoupler sensing
Control Panel -> Control Terminal ->	• Connector: D-sub 9-pin (male), inch screw GPI IN: 8 inputs, general-purpose, photocoupler sensing ALARM OUT: 1 output, open collector output (negative logic)
Control Panel -> Control Terminal ->	• Connector: D-sub 9-pin (male), inch screw GPI IN: 8 inputs, general-purpose, photocoupler sensing ALARM OUT: 1 output, open collector output (negative logic) GPI OUT: 10 outputs, selected from general purpose, tally
Control Panel -> Control Terminal ->	• Connector: D-sub 9-pin (male), inch screw GPI IN: 8 inputs, general-purpose, photocoupler sensing ALARM OUT: 1 output, open collector output (negative logic)
Control Panel -> Control Terminal -> GPI I/O Terminal Control Panel -> Control Terminal ->	Connector: D-sub 9-pin (male), inch screw GPI IN: 8 inputs, general-purpose, photocoupler sensing ALARM OUT: 1 output, open collector output (negative logic) GPI OUT: 10 outputs, selected from general purpose, tally Open collector output
Control Panel -> Control Terminal -> GPI I/O Terminal Control Panel -> Control Terminal -> ME Number	Connector: D-sub 9-pin (male), inch screw GPI IN: 8 inputs, general-purpose, photocoupler sensing ALARM OUT: 1 output, open collector output (negative logic) GPI OUT: 10 outputs, selected from general purpose, tally Open collector output Connector: D-sub 25-pin (female), inch screw
Control Panel -> Control Terminal -> GPI I/O Terminal Control Panel -> Control Terminal -> ME Number Menu Panel -> Model No.	Connector: D-sub 9-pin (male), inch screw GPI IN: 8 inputs, general-purpose, photocoupler sensing ALARM OUT: 1 output, open collector output (negative logic) GPI OUT: 10 outputs, selected from general purpose, tally Open collector output Connector: D-sub 25-pin (female), inch screw 2 ME
Control Panel -> Control Terminal -> GPI I/O Terminal Control Panel -> Control Terminal -> ME Number Menu Panel -> Model No. Menu Panel -> General -> Power Supply	Connector: D-sub 9-pin (male), inch screw GPI IN: 8 inputs, general-purpose, photocoupler sensing ALARM OUT: 1 output, open collector output (negative logic) GPI OUT: 10 outputs, selected from general purpose, tally Open collector output Connector: D-sub 25-pin (female), inch screw 2 ME AV-HS60C3G DC 12 V/0.54 A (Supplied from AV-HS60C2/AV-HS60C4 using the supplied cable)
Control Panel -> Control Terminal -> GPI I/O Terminal Control Panel -> Control Terminal -> ME Number Menu Panel -> Model No. Menu Panel -> General -> Power Supply Menu Panel -> General -> Power Consumption	Connector: D-sub 9-pin (male), inch screw GPI IN: 8 inputs, general-purpose, photocoupler sensing ALARM OUT: 1 output, open collector output (negative logic) GPI OUT: 10 outputs, selected from general purpose, tally Open collector output Connector: D-sub 25-pin (female), inch screw 2 ME AV-HS60C3G DC 12 V/0.54 A (Supplied from AV-HS60C2/AV-HS60C4 using the supplied cable) 6.48 W
COM2 (RS-232) Terminal Control Panel -> Control Terminal -> GPI I/O Terminal Control Panel -> Control Terminal -> ME Number Menu Panel -> Model No. Menu Panel -> General -> Power Supply Menu Panel -> General -> Power Consumption Menu Panel -> General -> Ambient Operating Temperature	 Connector: D-sub 9-pin (male), inch screw GPI IN: 8 inputs, general-purpose, photocoupler sensing ALARM OUT: 1 output, open collector output (negative logic) GPI OUT: 10 outputs, selected from general purpose, tally Open collector output Connector: D-sub 25-pin (female), inch screw 2 ME AV-HS60C3G DC 12 V/0.54 A (Supplied from AV-HS60C2/AV-HS60C4 using the supplied cable) 6.48 W 0 °C to 40 °C (32 °F to 104 °F)
Control Panel -> Control Terminal -> GPI I/O Terminal Control Panel -> Control Terminal -> ME Number Menu Panel -> Model No. Menu Panel -> General -> Power Supply Menu Panel -> General -> Power Consumption Menu Panel -> General -> Ambient Operating Temperature Menu Panel -> General -> Ambient Operating Humidity	 Connector: D-sub 9-pin (male), inch screw GPI IN: 8 inputs, general-purpose, photocoupler sensing ALARM OUT: 1 output, open collector output (negative logic) GPI OUT: 10 outputs, selected from general purpose, tally Open collector output Connector: D-sub 25-pin (female), inch screw 2 ME AV-HS60C3G DC 12 V/0.54 A (Supplied from AV-HS60C2/AV-HS60C4 using the supplied cable) 6.48 W 0 °C to 40 °C (32 °F to 104 °F) 10 % to 90 % (no condensation)
Control Panel -> Control Terminal -> GPI I/O Terminal Control Panel -> Control Terminal -> ME Number Menu Panel -> Model No. Menu Panel -> General -> Power Supply Menu Panel -> General -> Power Consumption Menu Panel -> General -> Ambient Operating Temperature Menu Panel -> General -> Ambient	 Connector: D-sub 9-pin (male), inch screw GPI IN: 8 inputs, general-purpose, photocoupler sensing ALARM OUT: 1 output, open collector output (negative logic) GPI OUT: 10 outputs, selected from general purpose, tally Open collector output Connector: D-sub 25-pin (female), inch screw 2 ME AV-HS60C3G DC 12 V/0.54 A (Supplied from AV-HS60C2/AV-HS60C4 using the supplied cable) 6.48 W 0 °C to 40 °C (32 °F to 104 °F)

Menu Panel -> General -> Weight	Approx. 1.7 kg (3.7 lbs.) (excluding accessories)
Menu Panel -> General -> Dimensior	ns W 290 mm x H 177 mm x D 46.1 mm
	(11-13/32 inches x 6-31/32 inches x 1-13/16 inches)
	(excluding protrusions)
	4RU
Menu Panel -> Control Terminal ->	Used only for the Control Panel AV-HS60C2/AV-HS60C4
Control Panel Terminal	• Connectors: DVI-D
	• Because an independent signal format is used, DVI-D source cannot be displayed.
	• Cannot be used concurrently with a DVI-D monitor connected to the terminal of the
	Control Panel
	AV-HS60C2/AV-HS60C4. Set the display selector switch of the Control Panel AV-
	HS60C2/AV-HS60C4 to the <menu panel=""> terminal side.</menu>
Storage Module -> Model No.	AV-HS60D1G
Storage Module -> General -> Weigh	nt Approx. 7.0 g (0.3 oz.)
Storage Module -> General ->	H 29.85 mm x W 4.0 mm x D 50.8 mm
Dimensions	(1-3/16 inches x 5/32 inches x 2 inches)