

AW-HE50 Main Specifications

	AW-HE50S (SDI Model)	AW-HE50H (HDMI Model)
Imaging Sensors	1/3" Full-HD MOS	
Lens	Motorized 18x zoom, f1.6 to 2.8 (f=4.7 to 84.6 mm, 35 mm equivalent: 36.9 mm to 664.5 mm)	
Focus	Auto/Manual switchable	
Horizontal Resolution	850 TV Lines Typ (Centre area)	
Minimum Illumination	3 lx (50 IRE, F1.6, +36 dB)	
S/N	54 dB Typ	
Gain Selection	Auto, 0 dB, 3 dB, 6 dB, 9 dB, 12 dB, 15 dB, 18 dB	
Storage Mode	0 dB, 6 dB, 12 dB, 18 dB	
Electronic Shutter Speed	Step 1/100, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 Syncro-scan 60.24 Hz to 646.21 Hz	
Gamma	Off, Normal (Low, Mid, High), Cinema	
White Balance	AWB A, AWB B, ATW	
Chroma Amount Variability	7 levels variability	
Scene File	FullAuto, Manual1, Manual2, Manual3	
Color Bar	FULL BAR	
Output Format	HD: 1080/59.94i, 720/59.94p SD: 480/59.94i	
Video Output	HD/SD-SDI HD/SD analog component* Composite*	HDMI HD/SD analog component* Composite*
Interface	LAN: 10BASE-T/100BASE-TX, IPv4 RJ45 x 1 RS-422: AW-series protocol, plus selected third-party support*	
Synchronization System	Internal/External synchronization (BBS)	Internal synchronization
Rotation Range	Pan: ±175°, Tilt: +90° to -30°	
Rotation Speed	Max. 90°/sec. or more	
Quietness	NC35 (at normal speed), NC40 (at fastest speed when preset)	
Power Supply / Power Consumption	DC12 V ±10% (AC adaptor provided), 1.3 A	DC12 V ±10% (AC adaptor provided), 1.2 A
Operating Temperature	0 °C to +40 °C (32 °F to 104 °F)	
Operating Humidity	20% to 90% (no condensation)	
Dimensions (W x H x D)	160 mm x 178 mm x 166 mm (6-5/16" x 7" x 6-9/16") (excluding protrusions, cable cover, direct ceiling mount bracket)	
Weight	Approx. 1.4 kg (3.1 lbs.)	
Standard Accessories	Mounting Bracket (for table or ceiling), Mounting Bracket (for main unit), Mounting Screws, AC Adaptor, Power Cable, Cable Cover	

●Be sure to use the included AC adaptor and power cable

*Multi-interface Cable (AW-CA20T6) is required

AW-HS50 Main Specifications

Video Format	HD (1080/59.94i, 1080/50i, 1080/23.98PsF, 1080/24PsF, 720/59.94p, 720/50p) SD (480/59.94i, 576/50i)	BKGD	Wipe Pattern	Wipe x 13
Video Processing	Y:Cb:Cr, 4:2:2 10 bit (8 bit for FMEM) RGB, 4:4:4 8 bit	FTB	Transition Type	Cut, Mix, Wipe (including DVE)
M/E	1 M/E	KEYER	Selectable Materials	Black, White, CBGD, FMEM1, FMEM2
Video Input	Standard: 4 SDI inputs (SDI-IN1 to 4) Standard: 1 DVI-D input (DVI-IN) 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 1080/50p, 1080/59.94p ●Video output formats of the AW-HE50H are not supported. ●Analog input signals are not supported.		Number of Keys	1
		PinP	Key Type	Linear key, Luminance key, Chroma key
Video Output	Standard: 2 SDI outputs (SDI-OUT1 to 2 each, 2 output distribution for SDI-OUT1) Standard: 1 DVI-D output (DVI-OUT) 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 1080/50p, 1080/59.94p ●High-resolution multi view mode supported: Signals are also output with a high resolution even when SD has been selected as the system mode. When the high-resolution multi view mode is enabled, MV is assigned to the DVI-OUT connector, and MV cannot be assigned to the SDI-OUT1 connectors or SDI-OUT2 connector. ●Analog output signals are not supported.	AUX BUS	Transition Type	Mix
		Input Function	Number of PinP	1
		Output Function	Transition Type	Mix
		MultiViewer	BUS Transition	Yes (Mix)
Interface	LAN: 10BASE-T/100BASE-TX (for IP control) TALLY/GPI: GPI INPUT x 5 channels GPI OUTPUT x 7 channels	Frame Memory	Number of AUX BUS	1
Power Supply / Power Consumption	DC12 V ±10% (AC adaptor provided), 2.0 A		Selectable Materials	SDI-IN1 to 4, DVI-IN, CBAR, CBGD, BLACK, FMEM1, FMEM2, PGM, PVW, KOUT, CLN, MV
Operating Temperature	0 °C to +40 °C (32 °F to 104 °F)		BUS Transition	Yes (Mix)
Operating Humidity	10% to 90% (no condensation)		Frame Synchronizer	SDI-IN1 to 4, DVI-IN (DVI-IN is always-on)
Dimensions (W x H x D)	210 mm x 67 mm x 177 mm (8-1/4" x 2-5/8" x 6-15/16") (excluding protrusions)		Freeze	SDI-IN1 to 4, DVI-IN
Weight	Approx. 1.4 kg (3.1 lbs.) (without options)		Dot by Dot	SDI-IN1 to 4
Standard Accessories	AC Adaptor, Power Cable		Video Processing	SDI-IN1 to 4
			Up-converter	SDI-IN3, IN4
			MultiViewer	Single Screen Display Labels, Tally indication, Split-screen (the screen may be split into 4, 5a/5b, 6a/6b, 9 and 10a/10b sections) MV frames, Labels, Tally indications, camera setting information, and Audio Level Meters are not shown on SDI-OUT1.
			OSD	Single Screen Display SDI-OUT2, DVI-OUT (unshown on SDI-OUT1)
			Audio Level Meter	SDI embedded audio (group1/ 1 ch, 2 ch) 2 channels The image data in the Frame Memory is stored even when the power is off. ●Video processing for the Frame Memory is 8-bit. ●OSD, Frames, Labels, Tally indications, camera setting information, and Audio Level Meters for MultiViewer are not stored in the Frame Memory.
			Memory Function	PinP Preset ●Effect Dissolve Function

●Specifications and functions are subject to change without notice.

●The image on the screen is a composite image. ●Composite images, photographs, and illustrations are included for reference use only.

Panasonic®

www.panasonic.com/broadcast

The Compact New 50 Series: Production Quality Video with IP Network Control



HD Integrated Camera
AW-HE50S/H

Compact Live Switcher
AW-HS50

Remote Camera Controller
AW-RP50

Actual Size



Small and Versatile: 1/3-inch Full-HD MOS Integrated Pan-Tilt/Cameras with Production Quality HD/SD Video

**HD Integrated Camera
AW-HE50S** **NEW**
[SDI Model] indoor use only

**HD Integrated Camera
AW-HE50H** **NEW**
[HDMI Model] indoor use only

Wireless Remote Control
(option)
AW-RM50
(Size "AA" dry battery x 2,
obtained separately)

Multi-interface Cable
(option)
AW-CA20T6

Direct ceiling mount bracket
(option)
WV-Q105



HD 1080/59.94i, 720/59.94p
SD 480/59.94i

- 1/3-inch Full-HD MOS Sensor with Optical 18x Zoom Lens & 10x Digital Zoom
- Innovative Features Deliver Realistic, Production Quality HD Video
- Camera, zoom lens, and pan-tilt in one smart, compact body

Dynamic Range Stretch (DRS)

The gamma curve and knee slope are optimized to match the contrast of each pixel in real time. This increases the dynamic range without affecting the normal pixels.



DRS OFF: With the iris expanded, this blown highlight appears on the blackboard



DRS OFF: With the iris contracted, a blocked shadow appears on the figure



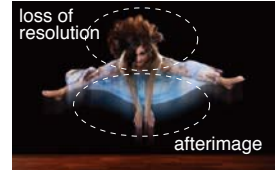
DRS ON: Both highlights and shadows are clearly visible

New Hybrid Digital Noise Reduction (Hybrid DNR)

The innovative New Hybrid (2D/3D) Digital Noise Reduction function also suppresses afterimages, even in difficult lighting conditions.



Without Noise Reduction
Some noise is evident when gain control is turned up



3D Noise Reduction Alone
Afterimage and some loss of resolution is seen



New Hybrid Digital Noise Reduction
Clearer images in difficult conditions

Flesh Tone Mode

Flesh Tone Mode produces a more pleasing and realistic picture.



Flesh Tone Mode: OFF **Flesh Tone Mode: ON**
• The effectiveness may be affected by lighting, etc.

● In addition to the AW-RP50, conventional camera controllers are connectable

- A maximum of five units can be operated by serial control from one of Panasonic's currently available controllers (AW-RP655 and AW-RP555). (It may be necessary to upgrade the version of the controller in order to support the unit. For details, please contact your distributor.)

- The neutral form fitting in the ambience and the cable cover decreasing untidiness ensure the shooting without spoiling the ambience.

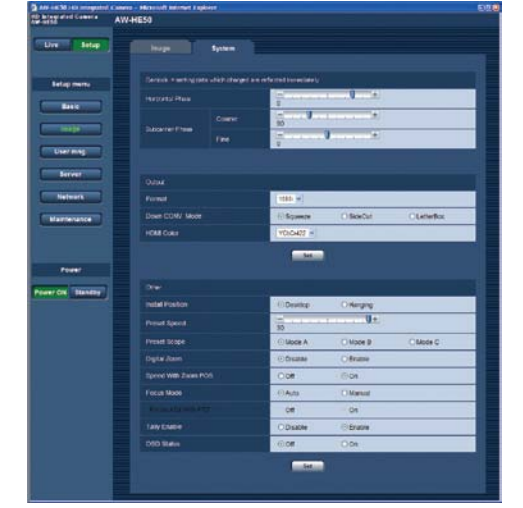
■ Adaptable to a wide range of locations



● Setting camera menus with a PC

- Camera menus can be set up via a web browser by connecting the AW-HE50S/H to a PC.

■ Configuration window on the web browser



■ Rear AW-HE50S



AW-HE50H



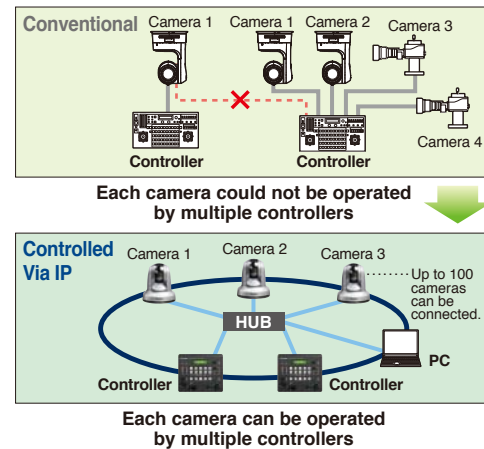
Small and Powerful: An Easy-to-Use Camera Controller with Great Features

Remote Camera Controller **AW-RP50** **NEW**



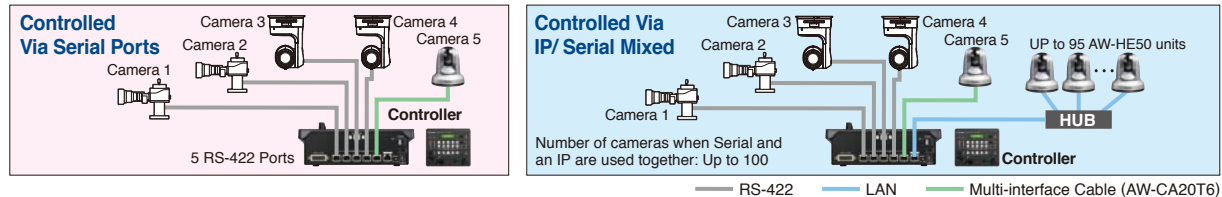
Simple to connect and operate, with both IP and Serial control functions

- Up to a hundred AW-HE50S/H units can be controlled via IP connections when using network hub (switching hub).
- IP addresses are automatically assigned to the AW-HE50S/H or AW-HS50 by the Automatic IP Address Setup function.
- One remote camera can be controlled simultaneously by up to five AW-RP50 units via an IP connection.
- Connection settings for the AW-RP50 can be configured with a PC. (configuration software supplied)
 - IP-control performance depends on network conditions.
 - Video signals cannot be transmitted via IP.
 - Connection is not available with using the public network.



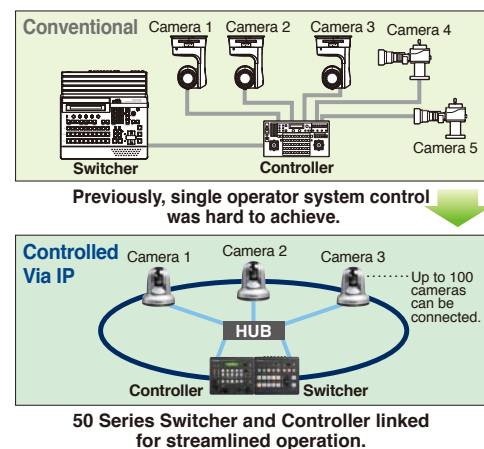
Serial Control also Supported

- Up to 5 existing Panasonic pan-tilt heads*, integrated cameras** and box cameras*** such as the AW-HE50S/H, etc. can be linked using the serial control (RS-422 protocol).
- * Compatible models: AW-PH405, AW-PH400 (AW-IF400 is required), AW-PH360, AW-PH650 ** Compatible model: AW-HE100
*** Compatible models: AK-HC1800, AK-HC1500, AW-HE870, AW-E860, AW-E750, AW-E655, AW-E650, AW-E350



Linking the AW-HS50 to IP control enables highly efficient and stress-free operations

- The camera setting information (such as iris and gain) acquired by the unit is displayed through the AUX output of the switcher or on the split-screen of MultiViewer.
- Acquires the ON AIR tally information of the switcher and lights the tally LED on the panel.
- Bus images can be changed by linking them to the camera selection. (Control bus targets : AUX, PVW, PinP, KEY-F)
- The switcher's MultiViewer screen can be changed to the camera image full screen with a one-touch button operation. (Control bus target : AUX only)
- Parameters such as the PinP position of the switcher can be changed with the pan/tilt lever.



AW-RP50 Main Specifications

Remote Camera Control	Protocol	IPv4, RS-422 (Panasonic AW series protocol)	Interface	LAN	10BASE-T/100BASE-TX (for IP control)	RJ45 x 1
Remote Camera Control	Connection	Serial : Up to 5 cameras IP : Up to 100 cameras (Up to 100 when Serial and IP are used together)	Interface	TO PAN/TILT HEAD	RS-422 (for Serial control)	RJ45 x 5
	Adjustment functions	Pan/Tilt, Zoom, Focus, Iris, Gain, Pedestal, Shutter, Detail, White Balance (Auto, R/B Gain), Black Balance (Auto, R/B Pedestal), Switch scene files		TALLY/GPI	TALLY INPUT x 5 channels GPI INPUT x 4 channels GPI OUTPUT x 4 channels	D-sub 15 pin (female) x 1
	Preset Memory	Up to 100 sets		Operating Temperature	0 °C to +40 °C (32 °F to 104 °F)	
	Connection	IP : 1		Operating Humidity	10 % to 90 % (no condensation)	
Switcher Control	Switcher supported	AW-HS50	Power Supply/Power Consumption	DC12 V ±10 % (AC adaptor provided), 0.5 A	DC IN x 1	
	Linkage	Camera information display, Tally information imported, Bus material selection (AUX/PVW/PinP/KEY-F), Parameter Changes (Pan/Tilt lever, Zoom button)	Dimensions (W x H x D)	210 mm x 67 mm x 177 mm (8-1/4" x 2-5/8" x 6-15/16") (excluding protrusions)		
			Weight	Approx. 1.1 kg (2.4 lbs.) (without options)		
			Standard Accessories	AC Adaptor, Power Cable		

• Be sure to use the included AC adaptor and power cable

Full rack size with the AW-RP50 and AV

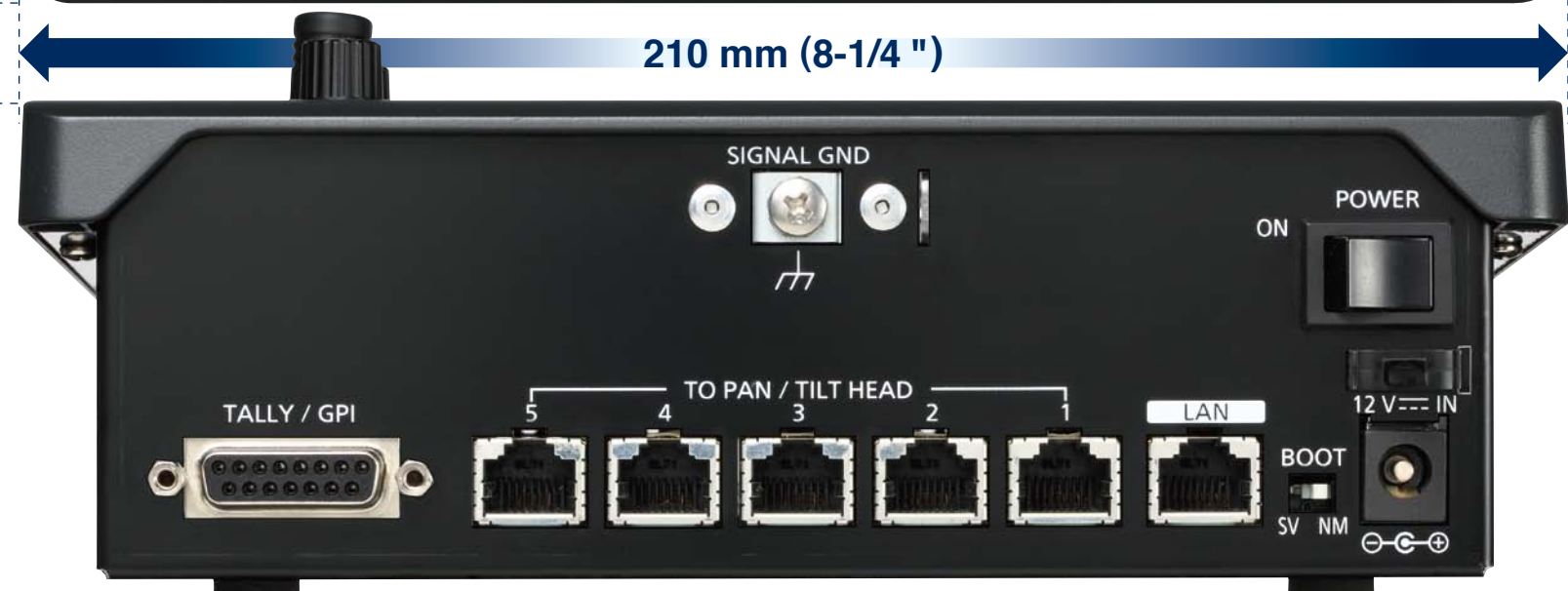
Actual Size



177 mm
(6-15/16")

210 mm (8-1/4")

67 mm
(2-5/8")

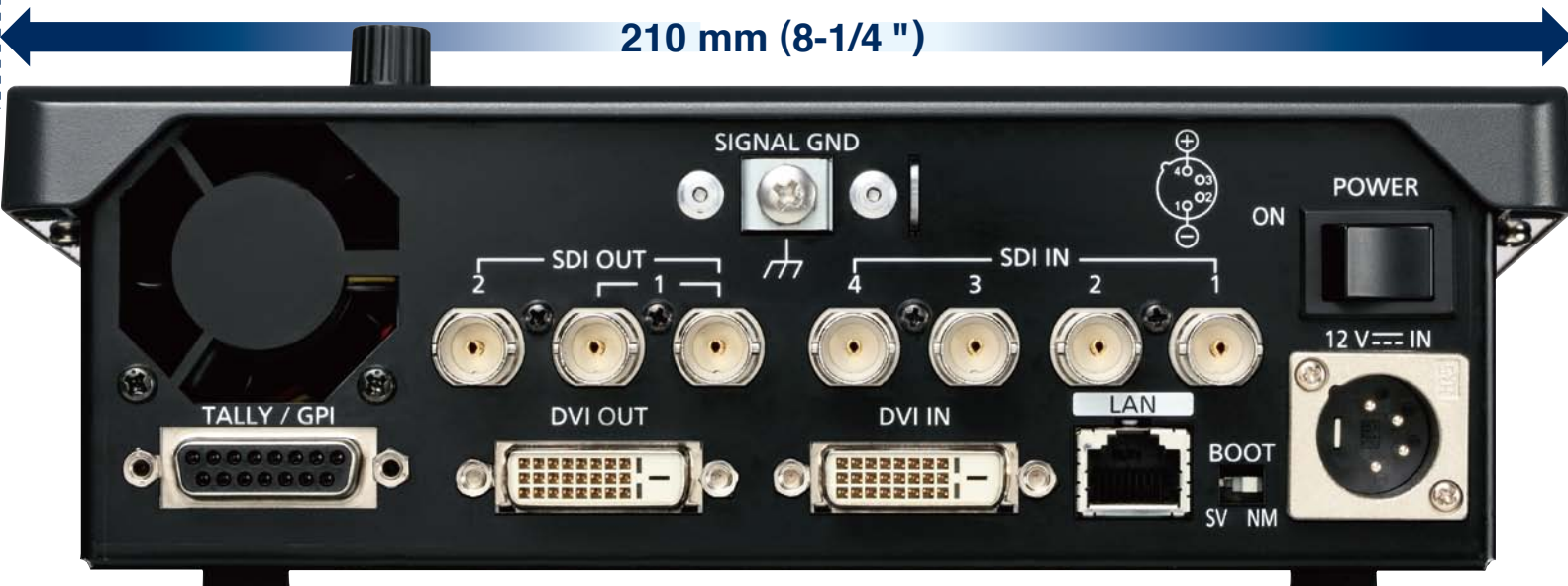


V-HS50 positioned alongside each other



Actual Size

177 mm
(6-15/16 ")



210 mm (8-1/4 ")

67 mm
(2-5/8 ")

Small and Professional: A High-Performance HD/SD Live Switcher with Built-in MultiViewer



Compact Live Switcher **AW-HS50** **NEW**

5 inputs and 3 outputs

- Standard features include 5 inputs (4 HD/SD-SDI, 1 DVI-D) and 3 outputs (2 HD/SD-SDI, 1 DVI-D).

HD 1080/59.94i, 1080/50i,
1080/23.98PsF, 1080/24PsF
720/59.94p, 720/50p

SD 480/59.94i, 576/50i

MultiViewer display functionality comes installed as standard

- The built-in MultiViewer can display up to ten image windows at one time on a single monitor, including program, preview, inputs, and more!



Audio Level Meter Display Function

- Embedded audio levels of SDI (group1/ 1 ch, 2 ch) inputs can be displayed.



Audio Level Meter

Bus Transition Functions

- Cut and Mix transitions are available through AUX bus and PinP bus.

Frame Synchronizers on All Inputs

- Frame Synchronizer is embedded in all inputs. This enables asynchronous video signals to be switched without glitches. (SDI-IN1 to 4 10 bit, DVI-IN 8 bit)

More Powerful Features

- 2 Switchable Up-converters. (SDI-IN3, IN4)
- Color Correction on SDI Inputs (SDI-IN1 to 4) for convenient matching of video sources.
- Dot-by-Dot feature on 4 inputs (SDI-IN1 to 4) enables insertion of SD images into HD frames with virtually no image distortion.
- 13 wipe patterns, plus PinP, Chroma/Linear Key, Aux Bus.

