

# Panasonic

ideas for life

PRELIMINARY

50 Hz

4/2010

HD Integrated Camera **AW-HE50S/H**

Compact Live Switcher **AW-HS50**

Remote Camera Controller **AW-RP50**

# 50 Series

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

HD Integrated Camera  
**AW-HE50S/H**



Remote Camera Controller  
**AW-RP50**



Compact Live Switcher  
**AW-HS50**



**Actual Size**



■ Rear  
AW-HE50S



AW-HE50H



# 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]

Wireless Remote Controller (option)  
**AW-RM50**  
\*Two AA size batteries required  
(batteries not included)



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

Multi-interface Cable (option)  
**AW-CA20T6**

**HD** 1080/50i, 720/50p  
**SD** 576/50i

● 1/3-inch Full-HD MOS Sensor with 18x HD Optical Zoom & 10x Digital Zoom

● Innovative Features Deliver Realistic, Production Quality HD Video

● Setting camera menus with a PC

## 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



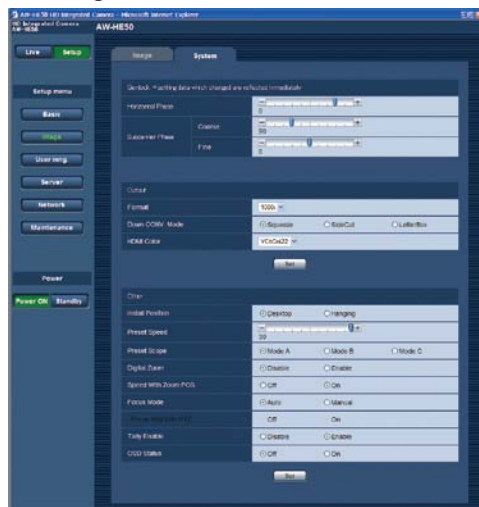
**DRS OFF:** With the iris contracted, a blocked shadow appears on the figure



**DRS ON:** Both highlights and shadows are clearly visible

● 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

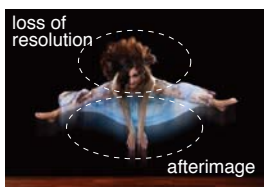


## Hybrid (2D/3D) Noise Reduction

The innovative Hybrid (2D/3D) 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



**The Hybrid (2D/3D) Noise Reduction**  
Clearer images in difficult conditions

● Quick integration, thanks to simple connections, IP control, and included Turn-lock mount

## 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.



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

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

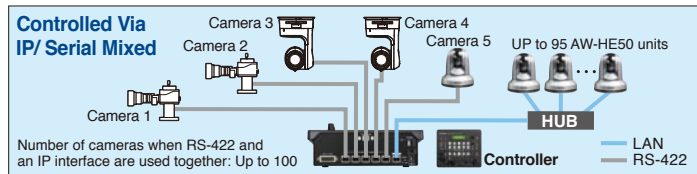
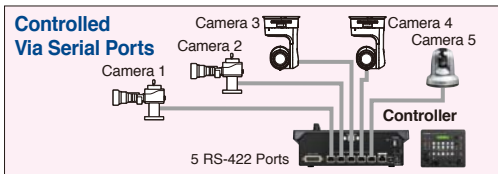


### Simple to connect and operate, with both IP and Serial control functions

- Up to a hundred AW-HE50S/H units can be controlled via IP connections when using Ethernet hubs.
- 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. Various 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.

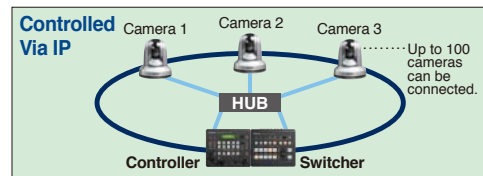
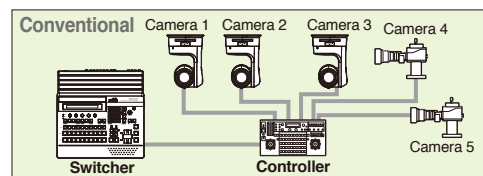
### Serial Control also Supported

- 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-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.



50 Series Switcher and Controller linked for streamlined operation.

#### AW-RP50 Main Specifications

Remote Camera Control	Protocol	IPv4, RS422 (Panasonic AW series protocol)	Interface	LAN	10BASE-T/100BASE-TX (for IP control)	RJ45 x 1
	Connection	Serial : Up to 5 cameras IP : Up to 100 cameras		TO PAN/TILT HEAD	RS422 (for Serial control)	RJ45 x 5
	Adjustment functions	Pan/Tilt (Joystick), Zoom (Seesaw Switch), Focus, Iris, Gain, Pedestal, Shutter, Detail, White Balance (Auto, Adjust R/B Gain), Black Balance (Auto, Adjust 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
Switcher Control	Connection	IP: 1	Operating Temperature	0 °C to 40 °C		
	Supported Switcher	AW-HS50	Operating Humidity	10 % to 90 % (no condensation)		
	Linkage	Camera Send, Tally Receive, Switcher BUS selection	Power Supply	DC12 V ±10 %, 0.5 A [TBD]	DC IN x 1	
		Pan/Tilt (Joystick) (PinP positioning etc...)	Dimensions (W x H x D)	210 mm x 65 mm x 177 mm [TBD] (excluding protrusions)		
		Weight	Approx. 1.1 kg [TBD] (without options)			
		Standard Accessories	AC Adaptor, Power Cable			

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

177 mm

65 mm

# Full rack size with the AW-RP50 and AV

**Actual Size**

**Panasonic** Remote Camera Controller AW-RP50



210 mm



# AW-HS50 positioned alongside each other



210 mm



# 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 inputs can be displayed. (1 ch, 2 ch)

### Bus Transition Functions

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



Audio Level Meter

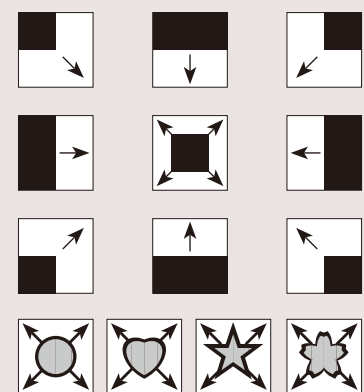
### Frame Synchronizers on All Inputs

- 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.

#### 13 wipe patterns



Circle Heart Star Flower  
Border ON/ OFF, Color, Wide, and Blur are selectable



177 mm



65 mm

## AW-HE50 Main Specifications

		AW-HE50S (SDI Model)	AW-HE50H (HDMI Model)
Image Elements		1/3-inch Full-HD MOS	
Lens		18x HD Zoom Lens F1.6 to 2.8 (f=4.7 to 84.6 mm, 35 mm conversion: 36.9 mm to 664.5 mm)	
Focus		Auto/Manual switchable	
Horizontal Resolution		850 TV Lines (Center)	
Minimum Illumination		3 lx (50 IRE, F1.6, +36 dB)	
S/N		54 dB	
Gain Selection		0, 3, 6, 9, 12, 15, 18 dB/AGC 0 dB, 6 dB, 12 dB, 18 dB (Integral mode)	
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, Low, Mid, High, Cinema	
White Balance		AWB A, AWB B, ATW	
Variable Chroma Levels		7 levels	
Scene Files		Full-Auto, Manual	
Color Bar		Full-Bar	
Output Format		HD: 1080/50i, 720/50p SD: 576/50i	
Video Output		HD/SD-SDI HD/SD analog component* Composite*	HD/HDMI HD/SD analog component* Composite*
Interface		LAN RS-422	10BASE-T/100BASE-TX, IPv4 RJ45 x 1
Synchronization System		AW-series protocol, plus selected third-party support*	
Rotation Range		Internal/External synchronization (BBS)	
Rotation Speed		Internal synchronization	
Noise		Pan: -175 to +175 degrees, Tilt: -30 to +90 degrees Over 90 °/s (at maximum)	
Stopping Accuracy		NC35 (Moving normally), NC40 (When Preset recalled) PAN/Tilt ±0.3 °	
Power Supply		DC12 V ±10 %, 1.3 A	DC12 V ±10 %, 1.2 A
Operating Temperature		0 °C to +40 °C	
Operating humidity		20 % to 90 % (no condensation)	
Dimensions (W x H x D)		160 mm x 178 mm x 166 mm [TBD] (excluding the cable cover and mounting brackets)	
Weight		Approx. 1.4 kg	
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

\*Breakout cable 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/DVE pattern Transition Type	Wipe x 13 Cut, Mix, Wipe (including DVE)	
	Video Processing	Y:Cb:Cr, 4:2:2 10 bit (8 bit for FMEM) RGB, 4:4:4 8 bit		FTB	Selectable Materials Number of Keys	Black, White, CBGD, FMEM1, FMEM2 1
M/E		1 M/E		KEYER	Key Type Transition Type	Linear key, Luminance key, Chroma key Mix
Video Input	Standard: 4 SDI inputs (SDI-IN 1 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		PinP	Number of PinP Transition Type	1 Mix	
	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		AUX BUS	BUS Transition Number of AUX BUS Selectable Materials	Yes (Mix) 1 SDI-IN1 to 4, DVI-IN, CBGD, BLACK, FMEM1, FMEM2, PGM, PVW, KOUT, CLN, MV
		Frame Memory	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.		Input Function	Frame Synchronizer Freeze Dot by Dot Video Processing Up-converter
Memory Function	Wipe Reset, PinP Preset Effect Dissolve Function		Output Function	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.	
Interface	LAN	10BASE-T/100BASE-TX (for IP control)		RJ45 x 1	OSD	Single Screen Display SDI-OUT2, DVI-OUT (unshown on SDI-OUT1) The MultiViewer frames are cleared when the borders between the OSD and the split-screen of MultiViewer cross.
Power Supply	DC12 V ±10 %, 2.5 A [TBD]			Audio Level Meter	SDI embedded audio 1 ch, 2 ch	
Operating Temperature	0 °C to +40 °C					
Operating Humidity	10 % to 90 % (no condensation)					
Dimensions (W x H x D)	210 mm x 65 mm x 177 mm [TBD] (excluding protrusions)					
Weight	Approx. 1.4 kg [TBD] (without options)					
Standard Accessories	AC Adaptor, Power Cable					

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

● 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®

<http://panasonic.net/pss/broad/>

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AW-JEB50-2