

■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 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 Syncro-scan 50.20 Hz to 538.51 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: 1080/50i, 720/50p SD: 576/50i	
Video Output	HD/SD-SDI HD/SD analog component* Composite*	HDMI HD/SD analog component* Composite*
Interface	LAN RS-422 10BASE-T/100BASE-TX, IPv4 RJ45 x 1 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	
Operating Humidity	20% to 90% (no condensation)	
Dimensions (W x H x D)	160 mm x 178 mm x 166 mm (excluding protrusions, cable cover, direct ceiling mount bracket)	
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

\*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 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	Black, White, CBGD, FMEM1, FMEM2	
M/E	1 M/E	KEYER	Number of Keys Key Type	1 Linear key, Luminance key, Chroma key	
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.	PinP	Transition Type	Mix	
			Number of PinP	1	
			Transition Type	Mix	
			BUS Transition	Yes (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 ●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.	Input Function	Number of AUX BUS	1	
			AUX BUS	Selectable Materials	SDI-IN1 to 4, DVI-IN, CBAR, CBGD, BLACK, FMEM1, FMEM2, PGM, PVW, KOUT, CLN, MV
			BUS Transition	Yes (Mix)	
			Frame Synchronizer	SDI-IN1 to 4, DVI-IN (DVI-IN is always-on)	
			Freeze	SDI-IN1 to 4, DVI-IN	
			Dot by Dot	SDI-IN1 to 4	
			Video Processing	SDI-IN1 to 4	
			Up-converter	SDI-IN3, IN4	
			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.
			OSD	OSD	Single Screen Display SDI-OUT2, DVI-OUT (unshown on SDI-OUT1)
Audio Level Meter	Audio Level Meter	SDI embedded audio (group1/ 1 ch, 2 ch)			
Interface	LAN	10BASE-T/100BASE-TX (for IP control)	RJ45 x 1	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.
	TALLY/GPI	GPI INPUT x 5 channels GPI OUTPUT x 7 channels	D-sub 15 pin (female) x 1		
Power Supply / Power Consumption	DC12 V ±10% (AC adaptor provided), 2.0 A				
Operating Temperature	0 °C to +40 °C				
Operating Humidity	10% to 90% (no condensation)				
Dimensions (W x H x D)	210 mm x 67 mm x 177 mm (excluding protrusions)				
Weight	Approx. 1.4 kg (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/>

[Countries and Regions]

Argentina	+54 1 308 1610	Italy	+39 02 67 88 449	Russia & CIS	+7 495 980 42 06
Australia	+61 2 9986 7400	Jordan	+962 585 9801	Saudi Arabia	+966 1 465 0709
Austria	+49 (0)611 235 401	Kazakhstan	+7 3272 980 891	Singapore	+65 6270 0110
Bahrain	+973 252292	Korea	+82 2 2106 6666	Slovak Republic	+421 (0)2 52 92 14 23
Belgium	+32 (0)2 481 04 57	Kuwait	+965 481 2123	Slovenia, Croatia, Bosnia, Macedonia	+44 (0)20 76 63 36 57
Bulgaria	+359 2 946 0786	Lebanon	+961 1 216827	South Africa	+27 11 313 1400
Brazil	+55 11 3889 4035	Malaysia	+60 3 5549 5422	Spain	+34 (93) 425 93 00
Canada	+1 905 624 5010	Mexico	+52 5 488 1000	Sweden	+46 (8) 680 26 41
China	+86 10 6515 8828	Montenegro, Serbia	+41 (0)26 466 25 20	Switzerland	+41 (0)41 259 96 32
(Hong Kong)	+852 2313 0888	Netherlands	+31 73 64 02 577	Taiwan	+886 2 2227 6100
Czech Republic	+420 236 032 552/511	New Zealand	+64 9 272 0100	Thailand	+66 2 731 8888
Denmark	+45 43 20 08 57	Norway	+47 67 91 78 00	Turkey	+90 216 578 3700
Egypt	+20 2 23938151	Pakistan	+92 5370320 21	U.A.E.	+971 4 282201
Finland, Latvia, Lithuania, Estonia	+358 (9)521 52 53	Panama	+507 229 2955	Ukraine	+380 44 4903437
France	+33 (0)1 49 46 43 59	Peru	+51 145 29470		+380 44 4903438
Germany	+49 (0)611 235 401	Philippines	+63 2 633 6162		[ext. 112]
Greece	+30 210 96 92 300	Poland	+48 (22)338 1100	U.K.	+44 (0) 1344 70 69 20
Hungary	+36 (1)382 60 60	Portugal	+351 21 425 77 04	U.S.A.	+1 201 348 5300
Indonesia	+62 21 385 9449	Puerto Rico	+1 787 750 4300		+1 800 528 8601
Iran	+98 212 2271463	Romania	+40 21 211 4855	Vietnam	+84 8 38370280

AW-JEC50S10

**Panasonic**  
ideas for life

50 Hz

6/2010

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**



## 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 "R6" or "LR6" dry battery x 2,  
obtained separately)

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

Direct ceiling mount bracket  
(option)  
**WV-Q105**



<b>HD</b>	<b>1080/50i, 720/50p</b>
<b>SD</b>	<b>576/50i</b>

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

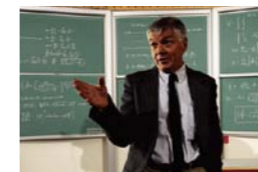
● **Innovative Features Deliver Realistic, Production Quality HD Video**

### 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.

● **Camera, zoom lens, and pan-tilt in one smart, compact body**

● 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**



Education



Auditoriums / Legislative halls



Halls / Theaters

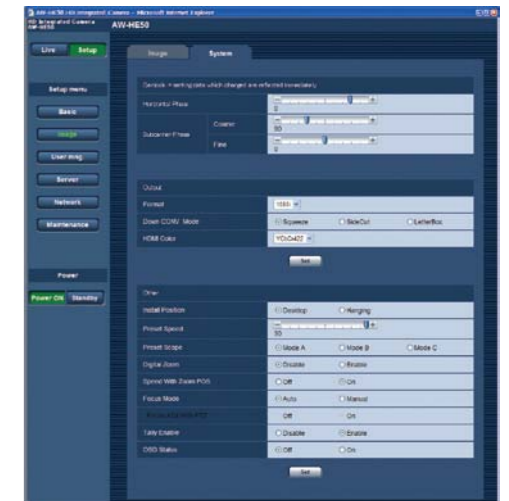


Business setting

● **Setting camera menus with a PC**

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

■ **Configuration window on the web browser**



● **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.)

■ **Rear AW-HE50S**



**AW-HE50H**



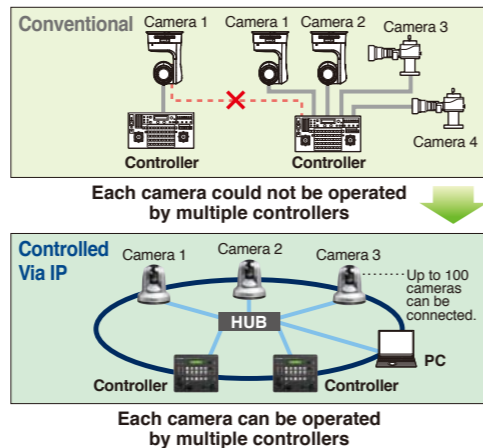
# Small and Powerful: An Easy-to-Use Camera Controller with Great Features

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



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

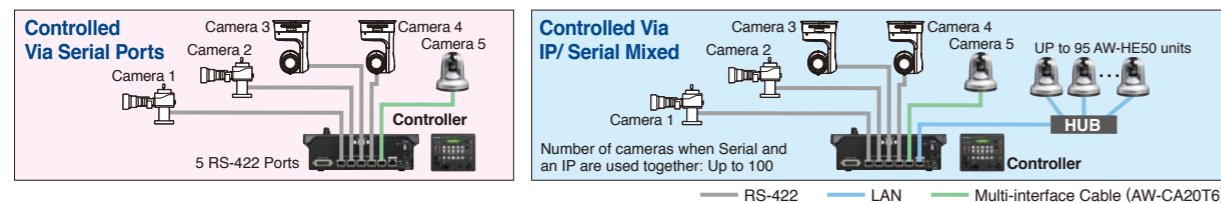
- Up to a hundred AW-HE50S/H units can be controlled via IP connections when using network hub (switching hub).
- IP addresses are automatically assigned to the AW-HE50S/H or AW-HS50 by the Automatic IP Address Setup function.
- One remote camera can be controlled simultaneously by up to five AW-RP50 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

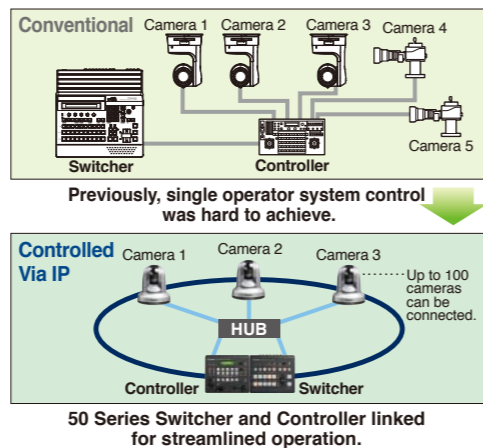
- Up to 5 existing Panasonic pan-tilt heads\*, integrated cameras\*\* and box cameras\*\*\* such as the AW-HE50S/H, etc. can be linked using the serial control. (RS-422 protocol)

\* 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
	Connection	Serial : Up to 5 cameras IP : Up to 100 cameras (Up to 100 when Serial and IP are used together)		TO PAN/TILT HEAD	RS-422 (for Serial control)	RJ45 x 5
Switcher Control	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		
Switcher Control	Connection	IP : 1	Operating Humidity	10 % to 90 % (no condensation)		
	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 (excluding protrusions)		
			Weight	Approx. 1.1 kg (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



210 mm

# V-HS50 positioned alongside each other



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



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

<b>HD</b>	1080/59.94i, 1080/50i, 1080/23.98PsF, 1080/24PsF 720/59.94p, 720/50p
<b>SD</b>	480/59.94i, 576/50i

#### 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).

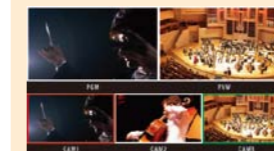
#### MultiViewer display functionality comes installed as standard

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

##### 4 Split Pictures



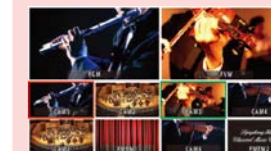
##### 5a Split Pictures



##### 6a Split Pictures



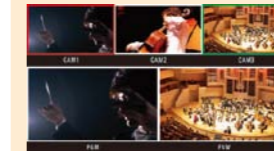
##### 10a Split Pictures



##### 9 Split Pictures



##### 5b Split Pictures



##### 6b Split Pictures



##### 10b Split Pictures



#### 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.

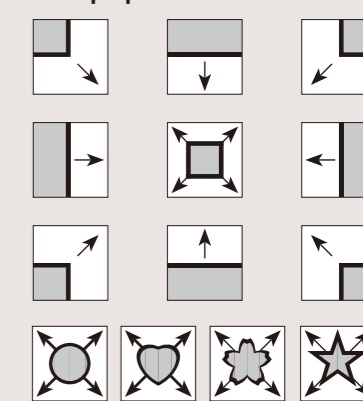
#### Frame Synchronizers on All Inputs

- 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.

##### 13 wipe patterns



Border ON/ OFF, Color, Wide, and Blur are selectable