

DATE: 6/08/2018

INVITATION TO BID  
THIS IS NOT AN ORDER

Page: 4

BID NO.: 50-00123294

**JEFFERSON PARISH**

PURCHASING DEPARTMENT  
P.O. BOX 9  
GRETNA, LA. 70054-0009  
504-364-2678

VENDOR: 27118 BLANK BID COPY VENDOR

BUYER: MCamardelle

As per LSA-RS 47:301 et seq., all governmental bodies are excluded from payment of sales taxes to any Louisiana taxing body. Quotations shall be based on F.O.B. Agency warehouse or jobsite, anywhere within the Parish as designated by the Purchasing Department.

JEFFERSON PARISH reserves the right to cancel all or any part of an order if not shipped promptly. No charges will be allowed for parking or cartage unless specified in quotation. The order must not be filled at a higher price than quoted. JEFFERSON PARISH reserves the right to cancel at any time and for any reason by issuing a THIRTY (30) day written notice to the contractor.

JEFFERSON PARISH is expecting all products to be new and all work to be done in workman-like manner, according to standard practices. Any deviations or alteration from the specifications must be indicated on the bid form for each item and upon request, product data for same must be submitted by the time specified by the Purchasing Department.

<b>DELIVERY: FOB JEFFERSON PARISH</b>	
INDICATE DELIVERY DATE ON EQUIPMENT AND SUPPLIES	<u>3 weeks ARO</u>
INDICATE STARTING TIME (IN DAYS) FOR CONSTRUCTION WORK	<u>N/A</u>
INDICATE COMPLETION TIME (IN DAYS) FOR CONSTRUCTION WORK	<u>N/A</u>

In the event that addenda are issued with this bid, bidders MUST acknowledge all addenda on the bid form. Bidder must acknowledge receipt of an addendum on the bid form as indicated. Failure to acknowledge any addendum on the bid form will result in bid rejection.

Acknowledge Receipt of Addenda: NUMBER: N/A

NUMBER: \_\_\_\_\_

NUMBER: ✓

NUMBER: \_\_\_\_\_

LOUISIANA CONTRACTOR'S LICENSE NO.: (if applicable) N/A

<b>*** ALL BIDDERS MUST COMPLETE SECTION BELOW ***</b>	
FIRM NAME: <u>Industrial Video + Control</u>	
SIGNATURE: <u>Jennifer Williams</u> <small>(Must be signed here)</small>	TITLE: <u>Director of Sales</u>
PRINT OR TYPE NAME: <u>Jennifer Williams</u>	
ADDRESS: <u>105 McDougall Ct.</u>	
CITY, STATE: <u>Greenville, SC</u>	ZIP: <u>29607</u>
TELEPHONE: <u>(617) 467-3059 ext. 147</u>	FAX: <u>(617) 621-4062</u>
EMAIL ADDRESS: <u>j.williams@ivcco.com</u>	

TOTAL PRICE OF ALL BID ITEMS: \$ 25,353.00

INVITATION TO BID FROM JEFFERSON PARISH - continued

BID NO.: 50-00123294

SEALED BID

ITEM NUMBER	QUANTITY	U/M	DESCRIPTION OF ARTICLES	UNIT PRICE QUOTED	TOTALS
1	3.00	EA	<p>PURCHASE A QUANTITY OF OUTDOOR CAMERA SYSTEM FOR THE JEFFERSON PARISH DEPARTMENT OF EMERGENCY MANAGEMENT</p> <p>0010 - PANASONIC OUTDOOR CAMERA SYSTEM (AW-HE40S) D2CD12V40-2, NETWORK SURVEILLANCE CAMERA, PTZ, OUTDOOR, WEATHERPROOF, COLOR (DAY&amp;NIGHT), 1920 X 1080, MOTORIZED, 1000 TVL, AUDIO HD-SDI-DC 12V, PoE PLUS</p> <p>*MUST BE DELIVERED WITHIN 1 YEAR OF THE PURCHASE ORDER DATE*</p>	<p>\$8,451.00</p>	<p>\$25,353.00</p>

Debarment/Suspension Form

**DEBARMENT/SUSPENSION CERTIFICATION**

**Debarment:**

Federal Executive Order (E.O.) 12549 "Debarment" requires that all contractors receiving individual awards, using federal funds, and all subrecipients certify that the organization and its principals are not debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by any Federal department or agency from doing business with the Federal Government. By signing this document you certify that your organization and its principals are not debarred. Failure to comply or attempts to edit this language may disqualify your bid. Information on debarment is available at the following websites: [www.sam.gov](http://www.sam.gov) and <https://acquisition.gov/far/index.html> see section 52.209-6.

Your signature certifies that neither you nor your principal is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any federal department or agency.

NORMAN FAST - PRESIDENT  
(Name and Title of bidder's official)

INDUSTRIAL VIDEO + CONTROL CO., LLC  
(Name of bidder/company)

330 NEVADA ST  
(Address)

NEWTON, MA 02460  
(Address)

PHONE 617-467-3059 FAX 617-687-0757

EMAIL nfast@ivcco.com

Norman Fast Signature JUN 14, 2018 Date

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# Equipment **PROPOSAL**

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Prepared for

**Bid No. 50-00123294**

Jefferson Parish  
Department of Emergency  
Management

By

**Industrial Video & Control**

**Jennifer Williams**

(617) 467-3059 ext 147

[jwilliams@ivcco.com](mailto:jwilliams@ivcco.com)

**Number** AAAQ2641-01

**Date** Jun 13, 2018



ISO 9001 Certified

MADE IN THE  
**USA**

**IVC**  
&  
**INDUSTRIAL  
VIDEO & CONTROL**

Qty	Description	Unit Price	Extended Price
3	<b>Panasonic D2CD12V40-2 Dotworkz Outdoor Enclosure with AW-HE40S Camera, Active Cooling, HD-SDI Output</b>	\$8,451.00	<b>\$25,353.00</b>

The D2CD12V40-2 outdoor camera system houses an AW-HE40S integrated PTZ camera within a a Dotworkz' D2 COOLDOME™ weatherproof enclosure which features Active Cooling, while the camera provides HD-SDI output. Production-quality, remote HD video capture is now possible in virtually any weather environment using this turnkey system that ships complete, and comes ready for immediate installation and deployment.



<b>SubTotal</b>	\$25,353.00
<b>Tax</b>	\$0.00
<b>Shipping</b>	
<b>Total</b>	<b>\$25,353.00</b>

\*Shipping is FOB DELIVERED.



## Built to Stay Cool when the Weather is Beyond Hot

The Dotworkz COOLDOME™ Active Cooling technology offers the most advanced outdoor camera protection system available, and has been designed to protect both IP and Analog cameras from extreme heat and direct sunlight.

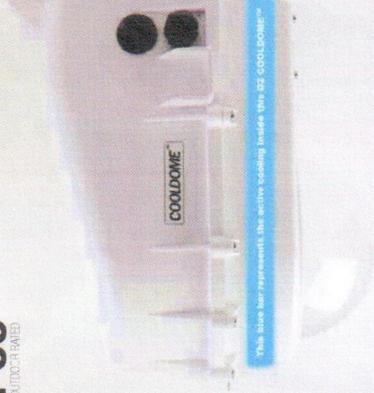
The COOLDOME™ is engineered for climates where heat damage can occur. It is IP66 rated: airtight and sealed against outside air, dust, water and salt water, and integrated IP68 waterproof cable ports. Internal mounting space designed for routers, cell networks, hard drives, UPS, WiMax, mesh hardware and more.



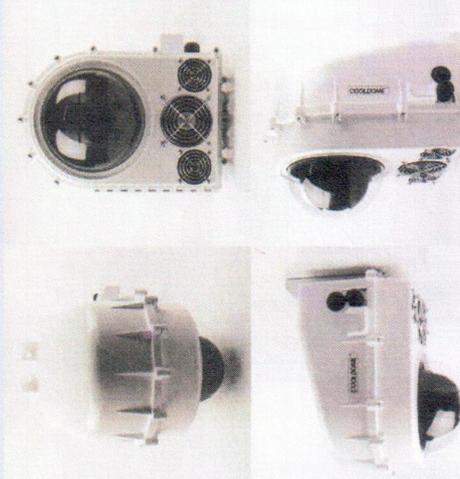
innovative

## D2-CD: Dotworkz D2 COOLDOME™ 12VDC Active Cooling Camera Enclosure (IP66)

**IP66**  
OUTDOOR RATED



This blue stripe represents the active cooling device (SKU: D2-COOLDOME™)



**12VDC**

\*Camera added for example purposes only

### Features:

- COOLDOME™ Thermostatically controlled Active Cooling technology.
- Up to 167° F (75° C) protection - up to a 45° F (25° C) differential with the outside.
- Compatible with most brands and models of cameras: IP, CCTV, & HD PTZ's, including mini-dome cameras.
- Integrated Dual Layer (Foil/Foam) Internal thermo-blanket protects electronics from solar-heat and UV Rays to reduce solar-loading and protects from cold weather conditions, creating a stable internal camera environment.
- Internal bracket included for perfect fit for PTZ, megapixel or mini domes.
- Internal mounting space for: routers, cell networks, NVR, hard drives, UPS, WiMAX, etc.
- IP66 Rated D2 housing with IP68 Cable Glands when properly installed with appropriate power & data cable that meets IP68 transversely sealed cable ratings.

### Description:

The D2 COOLDOME™ is the most advanced outdoor camera protection system available. The COOLDOME™ is designed with an active on-board & thermostatically controlled air conditioning, to protect both cameras and other system related hardware in one easy to install engineered form factor.

Dotworkz D2 COOLDOME™ uses solid state cooling technology which takes protection to the next level for climates where temperatures exceed 105° F (41° C) and reach as high as 167° F (75° C) the COOLDOME™ is the answer. Engineered for climates where heat damage can occur.

### Specs:

**Operating Temperature (Absolute/Rec.):**

-40° to 167°F (-40°C to 75°C)

30° to 145°F (-1° to 63°C)

**Power Consumption (without camera):**

9 amps @ 12 VDC typical at full load

**Input Power Source Options:**

12 VDC, 110 VAC, or 220 VAC

**Output for Camera Power:**

12 VDC (24 VDC model available by special order)

**Internal Power Available for Camera:**

3 amps @ 12 VDC on typical model

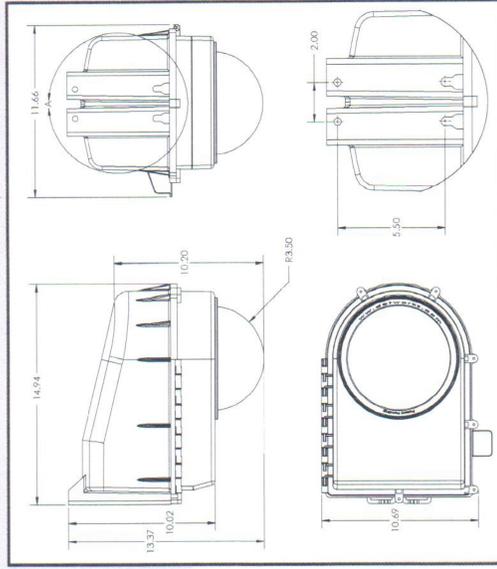
**Shipping:**

17" x 13" x 16"

15 lbs (6.8 Kg)



ITE E473074



www.dotworkz.com (866) 575-4689

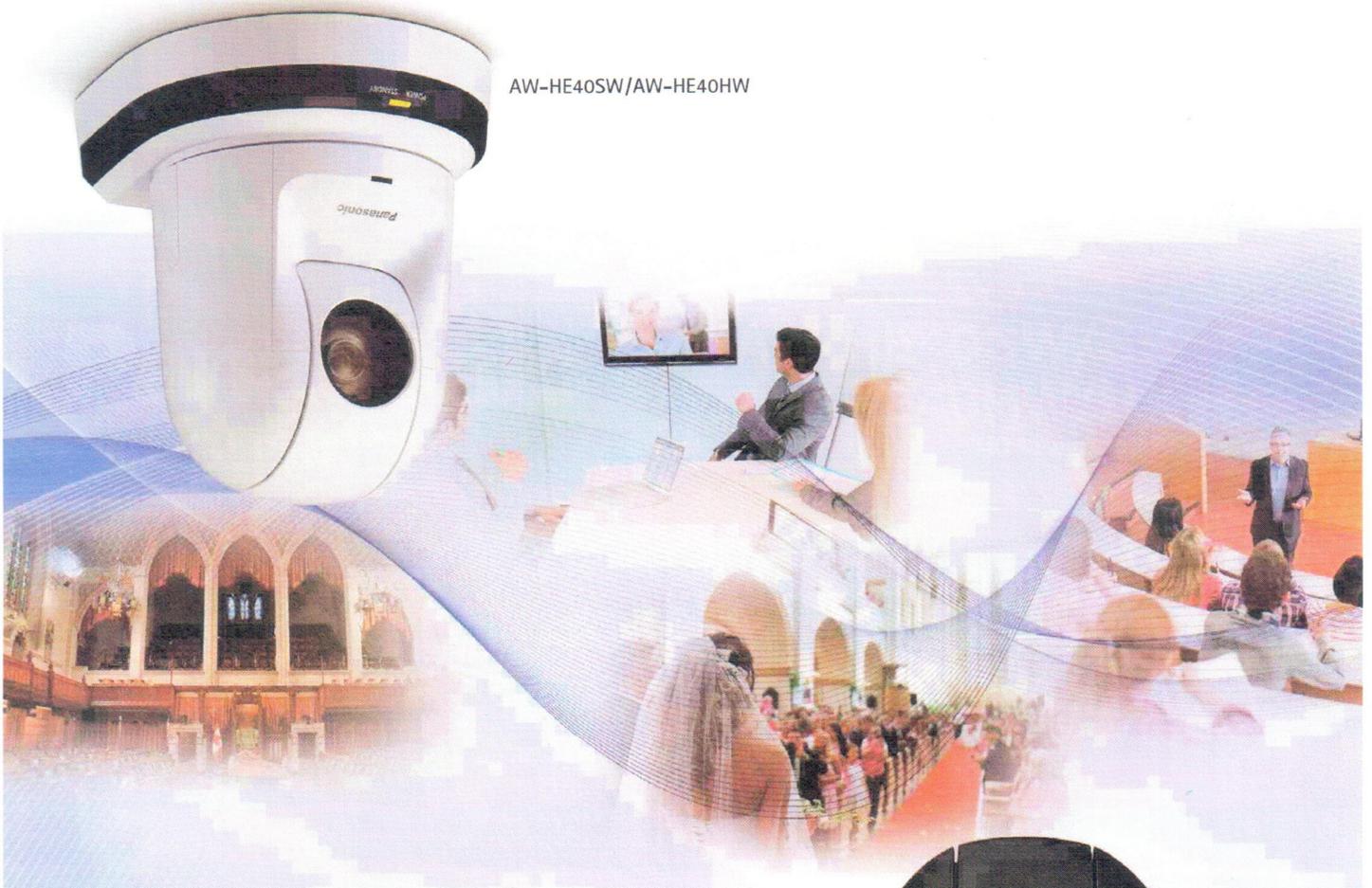
remote video solutions

# Panasonic

BUSINESS

AW-HE40SW/SK [SDI Model]  
AW-HE40HW/HK [HDMI Model]  
HD Integrated PTZ Camera

For indoor use



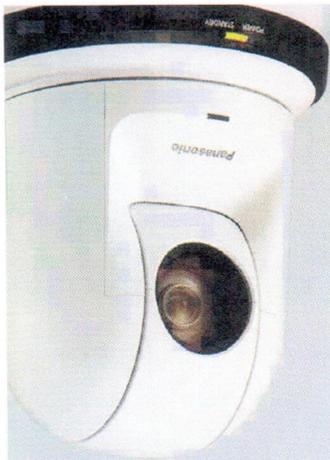
AW-HE40SW/AW-HE40HW

Features 30x optical zoom lens  
and support for PoE+\*  
for outstanding operability  
and installation flexibility



AW-HE40SK/AW-HE40HK

\* Abbreviation of Power over Ethernet Plus.



## Full HD camera with integrated pan-tilt for lectures, meetings and a wide variety of applications.

The AW-HE40 series of integrated full HD cameras performs in a wide variety of onsite shooting applications that require high-quality video, such as conferences, lecture capture and other events, thanks to its high-performance zoom, wide angle of view and outstanding color reproducibility. In addition to IP video transmission, support for PoE+\*1 enables power to be supplied via a LAN cable\*2. The result is installation flexibility. It also supports HD-IP video output, output of video and audio via USB, and SD card recording.

### Developed 1/2.3-type MOS Sensor

Equipped with a developed 1/2.3-type MOS sensor and DSP (Digital Signal Processor) for high sensitivity and high resolution.

### High Performance Optical 30x Zoom Lens/ Super Resolution 40x Zoom

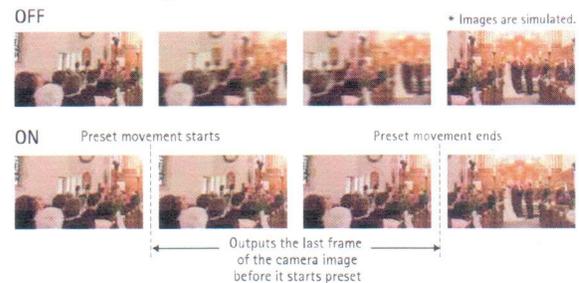
In addition to a 30x optical zoom, the AW-HE40 series can zoom up to 40x while maintaining high resolution thanks to Super Resolution technology. It also features a 16x digital zoom\*3 and a 1.4x digital extender, which enables the AW-HE40 series to shoot in large conference halls and classrooms.



### Outputs Still Image During Preset Movements; Supports One-Camera Operations

The new Freeze During Preset function enables to freeze the video during preset playback. The immediately preceding still image is output during preset movements so that the swiveling movement is not displayed, making operations possible with one camera.

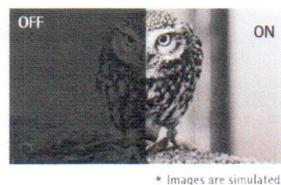
#### With Freeze During Preset function OFF and ON



### Night Mode (supports automatic switching)

Switching to Night Mode makes shooting possible even in low light conditions in which shooting is normally difficult, such as when observing wildlife\*4.

The AW-HE40 series can also be set to switch to the mode automatically depending on surrounding light levels.

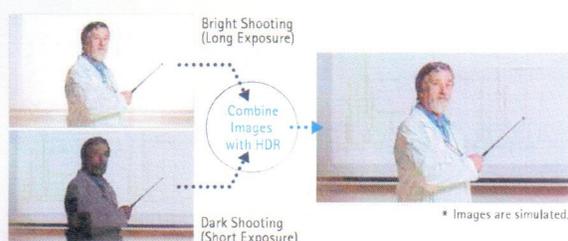


### Either SDI Model or HDMI Model Can Be Selected To Match Usage Needs

Supports 1080/59.94p (HDMI model only), 29.97p\*5, 59.94i, 29.97PsF, 1080/50p (HDMI model only), 25p\*5, 50i, 25PsF, 720/59.94p, and 50p video formats. Flexible operation in line with the application is made possible by a lineup that includes an SDI output model (AW-HE40SW/SK), optimal for video content production, and an HDMI output model (AW-HE40HW/HK), optimal for video streaming, both of which come in two body colors (white and black) that can be selected depending on the usage environment.

### Equipped with High Dynamic Range (HDR) Mode

In addition to conventional Dynamic Range Stretch (DRS) and Digital Noise Reduction (DNR), the AW-HE40 series are newly equipped with High Dynamic Range (HDR) mode. When shooting and synthesizing two images with differing exposure times, the AW-HE40 series can create video with high visibility that corrects for halation and black defects even under backlit conditions.



### Video/Audio Output with USB

USB Video Class and USB Audio Class are supported. This enables video and audio output via USB so the cameras can be used as high-image-quality Web cameras for Web conferencing, distance learning, and other applications utilizing communication software.

### Audio Input Function

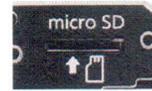
The AW-HE40 series also supports audio input, embedding and encoding.

Audio output to IP is also supported. The ALC (Audio Automatic Level Control) in the original AW-HE40 series can be switched ON/OFF and an equalizer function can be used. By reducing low-frequency sound from air conditioners, projectors, and other devices, it is possible to emphasize and increase the clarity of the spoken words.

\*1: Abbreviation of Power over Ethernet Plus. \*2: The software for the AW-HE40 series may need to be updated depending on the existing software version. For details, see the Panasonic website (<https://pro-av.panasonic.net/>). \*3: Picture quality is lower with the digital zoom. \*4: Video output is monochrome. \*5: Native output.

## microSD Card Recording Function

MicroSD card recording is supported. Camera video and audio can be recorded in MP4 format on microSD card (sold separately) inserted into the unit. In addition, using an IP network, it is possible to externally control recording start/stop and download the recorded files.



## Full HD Video Output Via IP Transmission

In addition to HD-SDI and HDMI output, production quality full HD video output via IP transmission is supported. The camera delivers up to four channels of IP streaming video (H.264), with a maximum quality level of 1080/60p at 24 Mbps\*1. Simultaneous transmission to as many as 14 devices is also supported\*2. Flexible system setup is possible to meet various application needs.



List of Supported Multi-Streaming Outputs (When IP output priority is selected)\*

Settings	H.264				JPEG
	CH1	CH2*5	CH3*3/CH4*4	CH1/CH2/CH3	
Resolution	1920x1080 1280x720*3 640x360*5	1280x720 640x360 320x180	1280x720 640x360 320x180	1920x1080*4 1280x720*5 640x360 320x180*5	
Frame rate	59.94 Hz 50 Hz	60 fps/30 fps/15 fps/5 fps 50 fps/25 fps/12.5 fps/5 fps	30 fps/15 fps/5 fps 25 fps/12.5 fps/5 fps	30 fps/15 fps/5 fps 25 fps/12.5 fps/5 fps	
Bit rate	Up to 24 Mbps				
Voice transmission	Yes (AAC48 kHz)				
PoE+	Yes				

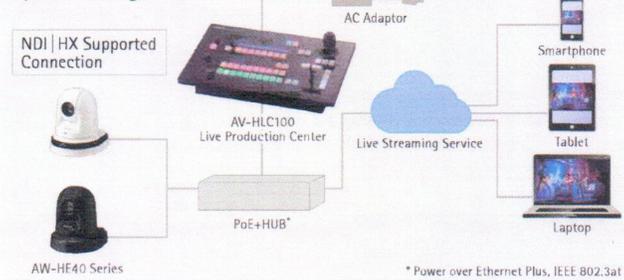
\* Depending on the output mode, certain restrictions apply.

## NDI|HX Compatibility for Excellent Video Streaming Quality

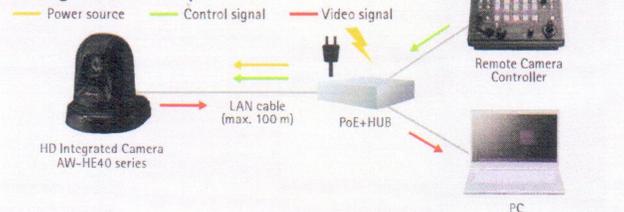
The AW-HE40 series can be upgraded to an NDI|HX compatible model if purchasing a license from the NewTek website ([https://pro-av.panasonic.net/en/ndihx\\_support/index.html](https://pro-av.panasonic.net/en/ndihx_support/index.html)). Highly efficient NDI|HX compatibility enables excellent broadcast streaming by encoding and transmitting high-quality video in real time. This technology eliminates the need for IP decoders, allowing input to be sent directly to the switcher.

\* Contact your local Panasonic vendor for further information.

### System Configuration



### Configuration Example



## Supporting PoE+\*6 for Lower Installation Costs

By connecting network devices that support the IEEE802.3at PoE+ standard, power can be supplied via LAN cable. Since it is not necessary to install a power supply or even a local AC outlet, installation costs can be significantly reduced.

## IP Control with Image Monitoring Using PC, Mac and Mobile Terminals

Using an IP browser, the camera can be controlled from a remote location, and IP video monitoring and remote camera control can be performed from a PC, Mac or mobile terminal such as an iPhone, iPad or Android device, enabling easy operations. IP video\*7 can be transmitted to up to 14 terminals\*1.

\* For the latest information on supported OS/browsers, please refer to the "service and support" section on the Panasonic website (<https://pro-av.panasonic.net/>).

### Camera Control Screen (PC)



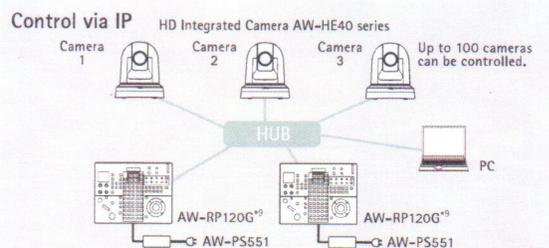
Live Screen

### Mobile Terminal Screen



## Flexible IP Control Architecture Simplifies System Design and Operation\*8

Up to 100 x AW-HE40 series cameras can be controlled via IP from a single AW-RP120G/RP50 or PC. An AW-HE40 series can also be simultaneously controlled by up to five AW-RP120G/RP50 controllers via IP.



\*1: 1920 x 1080 60 fps output is 1ch display only. For 2ch or more, display is max. 30 fps. Also, JPEG output is up to 3ch. \*2: Depends on your network environment. \*3: Settable when HDR is "Off".

\*4: Settable when HDR is set to "Off" and the frame rate is other than 60fps (or 60fps). \*5: Not settable when -DR is "Off". \*6: Abbreviation of Power over Ethernet Plus.

\*7: Supports only SD video output. \*8: Controller upgrade required. For details, please refer to the "service and support" section on the Panasonic website (<https://pro-av.panasonic.net/>).

\*9: AC adaptor AW-PS51 (sold separately) is required for AW-RP120G.

## Exceptional Pan-tilt Performance for Smooth Shooting Over a Wide Area\*1

The pan range of  $\pm 175^\circ$  and the tilt range of  $-30^\circ$  to  $+90^\circ$  cover a wide shooting area\*1. Pan and tilt operate at a maximum speed of  $90^\circ/\text{second}$  and respond quickly to remote control operation. They operate quietly at a sound level of NC35 or lower.

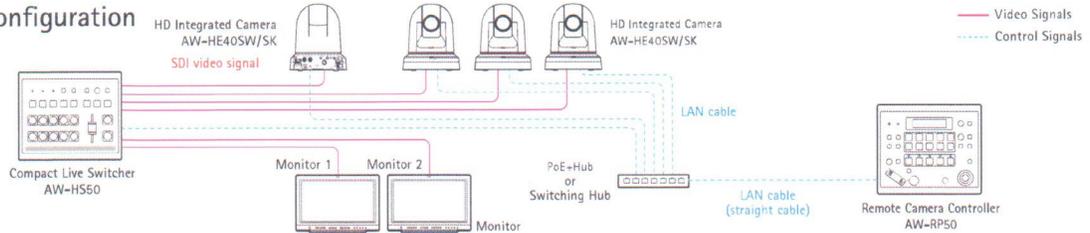


\*1. Depending on the position of the pan and tilt, the unit itself may be reflected in the image.

## Other Functions

- Preset memory up to 100 positions.
- Functions such as freeze during preset, digital extender zoom and color temperature settings can be assigned to the user buttons on Panasonic controllers.
- Equipped with RS422 remote terminal; up to five units can be controlled via serial control from a controller.
- Equipped with RS232C remote terminal (standard serial communication support). Up to seven units can be controlled via daisy chain connection.
- Up to four units can be operated with a wireless remote controller (AW-RM50G sold separately).
- Easy installation thanks to use of turn-lock mechanism.

## System Configuration Example



\*The AC adaptor provided with the unit is not shown in the above figure. \*SDI output supported only by AW-HE40SW/SK.  
\*The camera unit automatically recognizes straight cables and cross cables connected to the LAN terminal.

## Optional Software

### Supporting Lecture Capture with Auto Tracking function

Auto Tracking Software Key  
**AW-SF100/AW-SF200**  
 2 Additional Licenses AW-SF202  
 3 Additional Licenses AW-SF203  
 A 30-day Free Trial is Available



Camera View Screen Settings-PTZ Ctrl Screen

### (Main Features)

- "Motion detection" system using video streaming from camera achieves smooth auto tracking regardless of the person is facing.
- GUI designed for intuitive operation.
- Using IP-based software to support installation/operation of camera in classroom in remote location.
- Selectable as a Web application for flexible installation and operation, enabling control from a tablet, smartphone, desktop PC, etc.
- Easy to set up software installed on a PC by connecting AW-HE40 series. Installation of sensors and other devices are not necessary.

\*This refers to the standalone version. In case the Web application version is used, the Auto Tracking Software is installed on an HTTP server and used from there.

\*Depending on the usage conditions, there may be errors in detection of tracking subjects or proper tracking. Please use this software in an environment in which corrections can be made by an operator.

\*There is a 30-day free trial available for Auto Tracking Software. Please purchase this "Auto Tracking Software Activation Key" after checking precautions and confirming that this will work in your environment during this free trial period. When purchasing optional software please refer to the Panasonic website <<https://pro-av.panasonic.net/>> "Software Download".

### PTZ Control Center

Free Software

- Intuitive GUI with the capability to control multiple cameras.
- Image quality adjustment and pan-tilt-zoom control on a GUI.
- Easy to recall presets by clicking preset buttons with thumbnails.



Main View

### PTZ Virtual USB Driver

Free Software

- High quality video perfect for web conferencing, utilizing a PTZ camera on the network as a USB camera.
- Automatic detection of connected cameras, and network settings supported.

\* For further information on the optional software, please see "Software Download" on the Panasonic website <<https://pro-av.panasonic.net/>>.

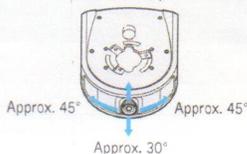
## Easy Wireless Control Using an iPad\*2 with a Control Assist Camera\*3



Control Assist Camera  
**AW-HEA10W**

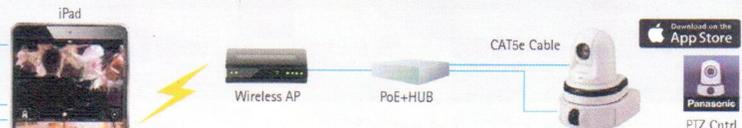
Control Assist Camera  
**AW-HEA10K**

■ Range of lens movement  
 This is adjustable  $30^\circ$  vertically and  $45^\circ$  horizontally.



■ Usage example

4K/HD Integrated Camera video  
 Control Assist Camera video  
 Images simulated



- Used in combination with a 4K/HD Integrated Camera\*3.
- $95^\circ$  wide-angle view from the Control Assist Camera is displayed on an iPad.
- Tapping the desired area of the wide-angle view displayed on the iPad\*2 turns the field of view of the 4K/HD Integrated Camera\*3 to the tapped position.

\*2: An iPad (sold separately) and a wireless AP (sold separately) are required. Please install the iPad application "PTZ Ctrl" (free). For details, please visit Panasonic AW-HEA10W/K website (<[https://pro-av.panasonic.net/en/sales\\_of/camera/aw-hea10/](https://pro-av.panasonic.net/en/sales_of/camera/aw-hea10/)>).

\*3: AW-HE130/HH130 series, AW-UE70/JN70 series, AW-HE40/HH40 series, and AW-HE38/JH38 series only.

The iPad application "PTZ Ctrl" can be downloaded for free from the App Store. This application enables control of pan, tilt, zoom, focus, iris and gain. For details, please visit the Panasonic AW-HEA10W/K product site (<[https://pro-av.panasonic.net/en/sales\\_of/camera/aw-hea10/](https://pro-av.panasonic.net/en/sales_of/camera/aw-hea10/)>).

Specifications

As of April, 2018

GENERAL	Power requirements	DC 12 V (Supplied AC adaptor) DC 42 V to 57 V (PoE+ power supply)		
	Current consumption	1.2 A (Supplied AC adaptor) 0.4 A (PoE+ power supply)		
	Ambient operating temperature	0 °C to 40 °C (32 °F to 104 °F)		
	Storage temperature	-20 °C to 50 °C (-4 °F to 122 °F)		
	Allowable humidity ranges	20 % to 90 % (no condensation)		
	Mass	Approx. 1.5 kg (3.30 lb)		
	Dimensions (W x H x D)	160 mm x 186 mm x 166 mm (6-5/16 inches x 7-41/128 inches x 6-17/32 inches) [excluding protrusions, direct ceiling mount bracket]		
	Finish	[AW-HE40HWFP], [AW-HE40SWFP], [AW-HE40HWEL], [AW-HE40SWEEL], Pearl white [AW-HE40HCP], [AW-HE40SCP], [AW-HE40HKE], [AW-HE40SKE], Metallic black		
	Controller supported <sup>1)</sup>	AW-RP120G, AW-RP50, AK-HSP200G, AK-HRP1000G, AK-HRP1005GJ		
	INPUT	Power	DC 12 V IN, PoE+ (IEEE802.3at standard)	
Mic/line input		Stereo mini-jack (ø3.5 mm) Input impedance: Approx. 2 kΩ (unbalanced) [Mic input] Supported microphones: Stereo mic (plug-in power, on/off switching via menu) Supplied voltage: 2.5 V ± 0.5 V Mic input level: -60 dBV ± 3 dBV [Line input] Input level: -10 dBV ± 3 dBV		
OUTPUT	Video output	HDMI [AW-HE40HW/HK] HDMI connector * HDCP is not supported. * VIERA Link is not supported. HD SDI OUT [AW-HE40SW/SK] Compliant with the SMPTE292M standards/75 Ω(BNC x 1)		
	LAN	LAN connector for IP control (RJ-45) Equipped with straight/crossover cable auto detection function		
INPUT/ OUTPUT	Input/ Output connector	RS-232C	Mini DIN 8-pin (IN) Mini DIN 8-pin (OUT)	
		RS-422	CONTROL IN RS422A (RJ-45)	
		USB	Mini-B port	
		SD card	microSD card slot	
FUNCTIONS AND PERFORMANCE	<b>[Camera unit]</b>			
	Imaging sensors	1/2.3-type MOS		
	Lens	Motorized 30x zoom, F1.6 to F4.7 [F=4.3 mm (11/64 inches) to 129 mm (5-1/8 inches), 35 mm (1-3/8 inches) equivalent: 31.6 mm (1-11/128 inches) to 962.0 mm (37-7/8 inches)]		
	Focus	Switching between auto and manual		
	Focus distance	Entire zooming range 1.2 m (3.94 ft) Wide end: 10 cm (0.33 ft)		
	Color separation optical system	On-chip color filter system		
	Minimum illumination	59.94 Hz	0.7 lx (50 IRE, F1.6, 48 dB, 1/60 without accumulation) 0.35 lx (50 IRE, F1.6, 48 dB, 1/30 with accumulation)[Frame Mix 6 dB]	
		50 Hz	0.7 lx (50 IRE, F1.6, 48 dB, 1/50 without accumulation) 0.35 lx (50 IRE, F1.6, 48 dB, 1/25 with accumulation)[Frame Mix 6 dB]	
	Horizontal resolution	1000 TV lines Typ (Center area)		
	Gain selection <sup>2)</sup>	Auto, 0 dB to 48 dB (3 dB step)		
	Frame mix <sup>3)</sup>	Auto, Off, 6 dB, 12 dB, 18 dB, 24 dB		
	Electronic shutter speed	During Auto	1/60 to 1/2000 [59.94 Hz] 1/50 to 1/2000 [50 Hz]	
		During Manual	1/100, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 [59.94 Hz] 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 [50 Hz]	
	Synchro scan	59.94 Hz : 59.94 Hz to 660.09 Hz 50 Hz : 50.00 Hz to 570.12 Hz		
	Gamma	Off, Normal (Low, Mid, High), Cinema		
White balance	AWB A, AWB B, ATW, 3200K, 5600K, VAR [2400K to 9900K]			
FUNCTIONS AND PERFORMANCE	Chroma amount variability	±3 step		
	Scene file	Full Auto, Manual1, Manual2, Manual3		
	Output format	HD	1080:59.94p/50p <sup>4)</sup> 1080:59.94i/50i 1080:29.97p/25p 1080:29.97Pf/25Pf 720:59.94p/50p	
			Synchronization system Internal synchronization	
			[USB connection] * This may vary depending on the operating environment.	
			Video output USB Video Class Ver1.0	
	Video compression format	Motion JPEG		
	Resolution	1920 x 1080, 1280 x 720, 640 x 360		
	Frame rate	max 30 fps (System frequency 59.94 Hz) max 25 fps (System frequency 50 Hz)		
		Audio output	USB Audio Class Ver1.0	
Audio compression format	Linear PCM, 48 kHz, 16-bit, 2 channels			
Supported models	Devices standardly equipped with a USB 2.0 compatible port			
<b>[Pan-tilt head unit]</b>				
Installation method	Stand-alone (Desktop) or suspended (Hanging) <sup>5)</sup>			
Pan/tilt operation speed	Maximum speed during preset: 300°/s Maximum speed during manual: 90°/s			
Panning range	±175°			
Tilting range	-30° to 90° <sup>6)</sup>			
Quietness	During preset: NC40 or less During manual: NC35 or less			
<b>[Camera/pan-tilt head control]</b>				
IP connecting cable	When connecting through a hub: LAN cable <sup>7)</sup> (category 5 or above), max. 100 m (328 ft) When using a PoE+ hub: LAN cable <sup>7)</sup> (category 5e or above), max. 100 m (328 ft) When a hub is not used: LAN cable <sup>7)</sup> (category 5 or above), max. 100 m (328 ft)			
	AW protocol connecting cable	LAN cable <sup>7)</sup> (category 5 or above, straight cable), max. 1000 m (3280 ft)		
Standard protocol connecting cable	Mini DIN 8-pin cable, male			
<b>[SD card recording]</b>				
SD card type	micro SDHC (4 GB to 32 GB), micro SDXC (64 GB to 128 GB), Speed class 10 or higher			
System frequency	59.94 Hz/50 Hz			
Video compression format	MPEG-4 AVC/H.264 High Profile			
Audio compression format	AAC-LC (48 kHz, 16 bit, 2 ch, 128 kbps)			
SD card recording	MPEG-4 AVC file standard compliant (MP4)			
Recording format	1920 x 1080/59.94p, 1920 x 1080/50p, 1920 x 1080/29.97p, 1920 x 1080/25p, 1280 x 720/59.94p, 1280 x 720/50p, 1280 x 720/29.97p, 1280 x 720/25p			
<b>[Network]</b>				
Resolution	JPEG	VGA (640 x 360), QVGA (320 x 180) max.30 fps 1920 x 1080, 1280 x 720, 640 x 360, 320 x 180 max.30 fps		
	H.264	1920 x 1080, 1280 x 720, 640 x 360, 320 x 180 max.60 fps		
Supported protocol	IPv4	TCP/IP, UDP/IP, HTTP, HTTPS, RTSP, RTP, RTP/RTCP, FTP, DHCP, DNS, NTP, IGMP, L2P, ICMP, ARP, RTP/PowerTCP, RTSPoverHTTP, SSL(TLS), MultiCast/UniCast		
	IPv6	TCP/IP, UDP/IP, HTTP, HTTPS, RTSP, RTP, RTP/RTCP, FIP, DHCPv6, DNS, NTP, ICMPv6(MLD), RTSPoverTCP, RTSPoverHTTP, SSL/TLS, Multi-Cast/UniCast		
i-OS, Android support	JPEG image display			
<b>ACCESSORIES</b>				
Mount bracket for installation surface (Hanging <sup>8)</sup> / Desktop), 1 Drop-prevention wire (already attached to the unit): 1 Bracket mounting screws (blind-head) M4 x 10 mm: 4 Main unit mounting screw (with flat washer, spring washer) M3 x 6 mm: 1 Power cable (1.5 m [4.92 ft]): 1 AC adaptor: 1 CD-ROM: 1				

\* 1: It may be necessary to upgrade the version of the controller so that the controller will support the unit. \* 2: During Auto, 6 dB to 48 dB (6 dB step) are available for AGC Max Gain setting.  
\* 3: During Auto, 0 dB, 6 dB, 12 dB and 18 dB are available for Auto F.Mix Max Gain setting. \* 4: AW-HE40HW/HK only \* 5: To ensure safety, the unit must be secured using the mount bracket supplied.  
\* 6: Depending on the pan or tilt position, the camera may be reflected in the image. \* 7: Use of an STP (shielded twisted pair) cable is recommended.  
\* 8: To ensure more safety, AW-HE40 series can be secured by using the direct ceiling mount bracket (WV-Q105A).

Required personal computer environment

As of April, 2018

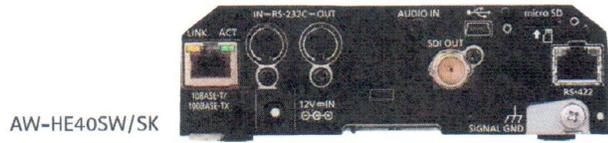
CPU	When using 1080/60p [59.94 Hz] and 1080/50p [50 Hz] Intel® Core™ i7 3.4 GHz or higher recommended Other than above Intel® Core™2 Duo 2.4 GHz or higher recommended	
Memory	For Windows	1 GB or higher (2 GB or higher for Microsoft® Windows® 8.1, Microsoft® Windows® 8, Microsoft® Windows® 7 64-bit edition)
	For Mac	2 GB or more
Network function	10BASE-T or 100BASE-TX port x 1	
Image display function	Resolution: 1024 x 768 pixels or more	Color generation: True Color 24-bit or more
Supported operating system and Web browser	Windows	Microsoft® Windows® 8.1 Pro 64-bit/32-bit <sup>9)</sup> , Windows® Internet Explorer® 11.0 <sup>10)</sup> , Microsoft® Windows® 8 Pro 64-bit/32-bit <sup>9)</sup> , Windows® Internet Explorer® 10.0 <sup>11)</sup> , Microsoft® Windows® 7 Professional SP1 64-bit/32-bit <sup>11)</sup> , Windows® Internet Explorer® 8.0 / 9.0 / 10.0 / 11.0 <sup>11)</sup>
	Mac	OS X 10.8 Safari 6.2 / OS X 10.9 Safari 7.1 / OS X 10.10 Safari 8.0
	iPhone / iPad / iPod touch	iOS 8.3 Standard browser
	Android	Android OS 4.4 Standard browser
Other	CD-ROM drive (for using the Operating Instructions and various software) Adobe® Reader® (for viewing the Operating Instructions on the CD-ROM)	

\* 9: Use the desktop version of Internet Explorer. (Internet Explorer for Windows UI is not supported.) \* 10: Windows® XP compatibility mode is not supported.  
\* 11: The 64-bit version of Internet Explorer® is not supported.

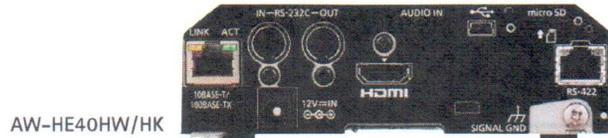
For the latest information on supported OS/browser, please refer to the "service and support" on the Panasonic website (<https://pro-av.panasonic.net>).

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● Apple, Mac, OS X, iPhone, iPod Touch, iPad, and Safari are registered trademarks of Apple Inc., in the United States and other countries.  
● Android™ is a trademark of Google Inc.

## Rear View



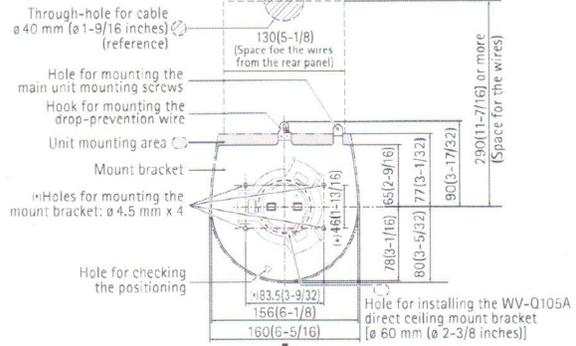
AW-HE40SW/SK



AW-HE40HW/HK

## Bottom View

Unit: mm(inches)



The front panel of the unit on this side.

## System Camera Options

As of April, 2018

<p>Live Production Center AW-HLC100</p> 	<p>Control Assist Camera AW-HEA10W/K</p> 	<p>Remote Camera Controller AW-RP50</p> 
<p>Wireless Remote Control AW-RM50G <small>(“AA”, “RG” or “LR6” battery x 2 are not included.)</small></p> 	<p>Remote Camera Controller AW-RP120G <small>(AC adaptor (DC12 V) is required separately.)</small></p> 	<p>Remote Operation Panel AK-HRP200G <small>(AC adaptor (DC12 V) is required separately.)</small></p> 
<p>Compact Live Switcher AW-HS50</p> 	<p>Direct Ceiling Mount Bracket WV-Q105A</p> 	

For more information, please visit Panasonic web site



<https://pro-av.panasonic.net/>

\*Specifications are subject to change without notice.

# Panasonic®

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Factories of AVC Networks Company have received ISO14001:2004-the Environmental Management System certification. (Except for 3rd party's peripherals.)