Panasonic CONNECT

Full-HD PTZ Camera with simultaneous 3G-SDI, HDMI & USB output

AW-HE20

PTZ cameras play an increasingly important role in teleworking such as online meetings and online classes. The AW-HE20 offers high image quality, wide shooting angle and high-magnification zoom to provide more comfortable communication through high-quality video images and stable transmission. The AW-HE20 is compatible with a wide range of systems such as SDI, HDMI, USB and IP, thus allowing flexible camera setup and operation. The AW-HE20 is a high-quality entry model. The compact unit can be installed in a small place without getting in the way.

Key Features

- Compact size & wide angle
- Simultaneous 3G-SDI, HDMI & USB output
- High-Quality Video Streaming for More Comfortable Online Communication
- Excellent system flexiblility to achieve smart wiring and smooth operation

HDMI HIGH DEFINITION MULTIMEDIA INTERFACE

zoom Certified

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AW-HE20

https://ap.connect.panasonic.com/vn/en/aw-he20

General -> Power Requirements	12 V DC (10.8 V to 13.2 V) (Supplied AC adapter)
General -> PoE	PoE+ IEEE802.3at compliant: DC42.5 to 57 V
General -> Current Consumption	1.3 A (Supplied AC adaptor), 0.4 A (PoE+ power supply)
General -> Ambient Operating Temperature	0 °C to 40 °C (32°F to 104°F)
General -> Ambient Operating Humidity	20 ﷺ to 90 ﷺ (no condensation)
General -> Storage Temperature	-20 °C to 50 °C (-4 °F to 122 °F)
General -> Weight	Approx. 1.9 kg (4.19lbs) (excluding ceiling mounting bracket)
General -> Dimensions	W 165.1 mm x H 176.2 mm x D 176.1mm (6.5 inches x 6.94 inches x 6.93 inches) (Excluding protrusions, cable cover, mounting bracket)
General -> Finish	AW-HE20W: white AW-HE20K: black
General -> Controller Supported	See the "Compatibility Chart for Operation Devices and Application Software" page
Camera Unit -> Imaging Sensor	1/2.8-type MOSx1
Camera Unit -> Effective Pixels	Approx. 8,460,000 pixels
Camera Unit -> Zoom	• Optical zoom: 12x • i.Zoom UHD 1.33x, FHD 1.33x • Digital extender zoom: 1.4x , 2x • Max Digital Zoom: 2x, 3x, 4x
Camera Unit -> Lens	Motorized Optical 12x zoom, F1.6 to F2.8 [f=3.9 mm to 46.8 mm; 35 mm equivalent: 26.4 mm to 316.4 mm]
Camera Unit -> Conversion Lens	Not supported
Camera Unit -> Angle of View Range	Horizontal angle of view: 71.0° (wide) to 6.0° (tele) Vertical angle of view: 43.0° (wide) to 3.0° (tele) Diagonal angle of view: 79.0° (wide) to 7.0° (tele)
Camera Unit -> Minimum Illumination	0.4 lx (50IRE, Gain=42dB, Shutter Speed 1/30, IRIS=F1.6)
Camera Unit -> Horizontal Resolution -> HD	1,000 Typ (Center area)
Camera Unit -> Gain Selection	Auto, 0dB to 42dB *1
Camera Unit -> Frame Mix	Auto, 0dB, 6dB, 12dB, 18dB, 24dB
Camera Unit -> Electronic Shutter Speed -> Manual	1/1、1/2、1/3、1/7、1/15、1/30、1/60、1/120、1/240、1/480、1/1000、1/2000、1/4000、1/8000、1/16000 [60Hz/59.94Hz] 1/1、1/2、1/3、1/6、1/12、1/25、1/50、1/100、1/250、1/500、1/1000、1/2000、1/4000、1/8000、1/16000 [50Hz]
Camera Unit -> Synchro Scan -> 59.94p/59.94i	60.0Hz ~ 660.0Hz
Camera Unit -> Synchro Scan -> 50p/50i	50.0Hz ~ 570.1Hz
Camera Unit -> Synchro Scan -> 29.97p	60.0Hz ~ 660.0Hz
Camera Unit -> Synchro Scan -> 25p	50.0Hz ~ 570.1Hz
Camera Unit -> White Balance	ATW, AWB A, AWB B, 3200K, 5600K
Camera Unit -> Chroma Amount Variability	11 steps (0 to 10)
Camera Unit -> Output Format (SDI) -> HD	[60Hz]1080/60p, 1080/60i, 1080/30p, 720/60p [59.94Hz]1080/59.94p, 1080/59.94i, 1080/29.97p, 720/59.94p [50Hz]1080/50p, 1080/50i, 1080/25p, 720/50p
Camera Unit -> Output Format (HDMI) -> 4K	[60Hz]1080/60p, 1080/60i, 1080/30p, 720/60p [59.94Hz]1080/59.94p, 1080/59.94i, 1080/29.97p, 720/59.94p [50Hz]1080/50p, 1080/50i, 1080/25p, 720/50p
Input Connector -> DC IN	DC 12 V IN
Output Connector -> HDMI	HDMI Connector 4:4:4/8 bit • HDCP is not supported. • Viera Link is not supported.
Output Connector -> 3G-SDI OUT	75Ω BNC • Level-A supported *2
Input/Output Connector -> LAN	LAN terminal for IP control (RJ-45) 100BASE-TX/1000BASE-T
Input/Output Connector -> RS-232C	Mini DIN 8-pin (IN)/Mini DIN 8-pin (OUT)
Input/Output Connector -> RS-422	CONTROL IN RS422A (RJ-45)
Input/Output Connector -> USB	Type-C connector

Input/Output Connector -> MIC/LINE Input	MIC/LINE input compatible (SDI/HDMI/IP/USB) AAC compatible (compatible with IP only) ø 3.5 mm stereo mini jack Imbalance • During MIC input Input level: –40 dBV (0 dB=1 V/Pa、1 kHz) Compatible Plug-in power, Supply voltage: 2.5 V ± 0.5 V • During LINE input Input level: Approx. –10 dBV • Variable input volume range: –36 dB to +12 dB (3 dB step) • Embedded audio output level: –12 dBFS • Sampling frequency: 48 kHz • Number of quantization bits: 16 bits
Pan-tilt Head Unit -> IP connecting cable	• If you have a PoE+ ethernet hub LAN cable *3(category 5e or above, straight cable) Max 100 m (328 ft) • If you don't have a PoE+ ethernet hub LAN cable *3
Pan-tilt Head Unit -> AW protocol connecting cable	• LAN cable *3(category 5e or above, straight cable) Max 1000 m (3280 ft)
Pan-tilt Head Unit -> Standard Protocol Connecting Cable	Mini Din 8-pin cable (male)
Pan-tilt Head Unit -> Installation Method *4	Stand-alone (Desktop) or suspended (Hanging) *4
Pan-tilt Head Unit -> Pan/tilt Operation Speed	Speed range: Manual: 0.1°/s to 100°/s Preset: 0.1°/s to 200°/s (Tilt: to 140°/s)
Pan-tilt Head Unit -> Panning Range	±170°
Pan-tilt Head Unit -> Tilting range	-30° to 90° *5
Pan-tilt Head Unit -> Quietness	NC40 or less (60 deg/sec or less) NC55 or less (100 eg/sec or less)
Supported Operating Systems and Web Browsers -> Windows *6	Windows 10 Windows® Internet Explorer® 11 (32 bit / 64 bit) Microsoft Edge Google Chrome
Supported Operating Systems and Web Browsers -> Mac *6	Mac OS v10.15 Mac OS v10.14 Mac OS v10.13 Mac OS v10.12 Safari Google Chrome
IP Streaming -> Image Streaming Mode	MJPEG (HTTP), H.264 (RTSP/RTMP/RTMPS), H.265 (RTSP)
IP Streaming -> Image Resolution	[MJPEG] 1280×720、640×360 [H.264/H.265] 1920×1080、1280×720、640×360
IP Streaming -> Image Transmission Setting (MJPEG) -> Frame Rate *7	Max 30fps (25fps)
IP Streaming -> Image Transmission Setting (MJPEG) -> Max Bit Rate *7	Unspecified*7
IP Streaming -> Image Transmission Setting (H.264) -> Frame Rate	[60Hz/59.94Hz] 5fps/15fps/30fps/60fps [50Hz] 5fps/10fps/25fps/50fps
IP Streaming -> Image Transmission Setting (H.264) -> Max Bit Rate	RTSP/RTMP: 1024kbps to 32768kbps RTMPS: 1024kbps to 8192kbps
IP Streaming -> Image Transmission Setting (H.265) -> Frame Rate	[60Hz/59.94Hz] 5fps/15fps/30fps/60fps [50Hz] 5fps/10fps/25fps/50fps
IP Streaming -> Image Transmission Setting (H.265) -> Max Bit Rate	1024kbps to 32768kbps
IP Streaming -> Audio Compression Format	AAC-LC, 48kHz/16bit/2ch
IP Streaming -> Supported Protocol -> IPv6	TCP/IP, UDP/IP, HTTP, RTSP, RTP, RTP/RTCP, DNS, ICMPv6, NTP
IP Streaming -> Supported Protocol -> IPv4	TCP/IP, UDP/IP, HTTP, RTSP, RTP, RTP/RTCP, DHCP, DNS, ICMP, ARP、RTMP, RTMPS, NTP
USB web camera -> Image output	USB Video Class Ver1.1
USB web camera -> Image output type	YUV (Uncompressed), MJPEG, H.264
USB web camera -> Image resolution -> YUV	640x360
USB web camera -> Image resolution -> MJPEG	1920x1080, 1280x720, 640x360
USB web camera -> Image resolution -> H.264	1920x1080, 1280x720, 640x360
USB web camera -> Image Transmission Setting (frame rate) -> YUV	[60Hz/59.94Hz]:15fps [50Hz]:10fps
USB web camera -> Image Transmission Setting (frame rate) -> MJPEG	[60 Hz/59.94 Hz] 30fps/ 15fps/ 5fps [50 Hz] 25fps/ 10fps/ 5fps
USB web camera -> Image Transmission Setting (frame rate) -> H.264	[60Hz/59.94Hz] 5fps, 15fps, 30fps, 60fps [50Hz] 5fps, 10fps, 25fps, 50fps
USB web camera -> Audio Output	USB Audio Class Ver1.0
USB web camera -> Audio Compression Format	Linear PCM, 48KHz/16bit/2ch

Footnote Description	1. Can be set in 3 dB step increments. 2. Embedded audio is not supported. 3. STP (Shielded Twisted Pair) is recommended. 4. To ensure safety, the unit must be secured using the mount bracket supplied. 5. The main unit may appear in the video depending on the pan/tilt position. 6. Supported OS indicated are for browsers current as of September 2021. See “Service and Support / PASS” for the latest information on browser support. 7. JPEG and H.264, H.265 simultaneous operation is possible.