Panasonic CONNECT

Full HD Remote Camera with NDI®*1 HX Support

AW-HN38H

The AW-HN38 pan/tilt/zoom camera incorporates newly-developed 1/2.3-type full HD MOS sensors and Digital Signal Processors (DSP) for high sensitivity, high resolution and superior video capture in a wide range of shooting conditions.

Key Features

- 1/2.3-Type MOS
- 22x Optical Zoom plus 30x i.Zoom & 16x Digital Zoom
- IP Connectivity for web interface and control plus PoE+ support for single cable power, streaming and camera control
- HDMI Video Output, in addition to USB and microSD card built-in recording
- NDI®*1 HX - PoE+ for Power, Ultra Low Latency Audio/Video, Tally & Control via a Single Cable

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https://eu.connect.panasonic.com/be/en/broadcast-proav/aw-hn38h

General -> Power Requirements	DC 12 V (Supplied AC adaptor), DC 42 V to 57 V (PoE+ power supply)
General -> Current Consumption	1.2 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 % to 90 % (no condensation)
General -> Storage Temperature	-20 °C to 50 °C (-4 °F to 122 °F)
General -> Weight	Approx. 1.5 kg (3.30 lb)
General -> Dimensions	W 160 mm x H 186 mm x D 166 mm (6-5/16 inches x 7-41/128 inches x 6-17/32 inches) (excluding protrusions, direct ceiling mount bracket)
General -> Finish	AW-HN38HW: Pearl white AW-HN38HK: Metallic black
General -> Controller Supported	See the "Compatibility Chart for Operation Devices and Application Software" page
Camera Unit -> Imaging Sensor	1/2.3-type MOSx1
Camera Unit -> Focus	Switching between auto and manual
Camera Unit -> Focus Distance	Entire zooming range: 1.2 m (3.94 ft) Wide end: 10 cm (0.33 ft)
Camera Unit -> Color Separation Optical System	On-chip color filter system
Camera Unit -> Minimum Illumination -> 59.94Hz	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])
Camera Unit -> Minimum Illumination -> 50Hz	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])
Camera Unit -> Horizontal Resolution -> HD	1000 TV lines Typ (Center area)
Camera Unit -> Gain Selection	Auto, 0 dB to 48 dB (3 dB steps)
Camera Unit -> Frame Mix^{*2}	Auto, Off, 6 dB, 12 dB, 18 dB, 24 dB
Camera Unit -> Electronic Shutter Speed -> FullAuto	1/30 to 1/2000[59.94 Hz] 1/25 to 1/2000 [50 Hz]
Camera Unit -> Electronic Shutter Speed -> Auto	1/60 to 1/2000 [59.94 Hz] 1/50 to 1/2000 [50 Hz]
Camera Unit -> Electronic Shutter Speed -> 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 [50Hz]
Camera Unit -> Synchro Scan -> 59.94Hz	59.94 Hz to 660.09 Hz
Camera Unit -> Synchro Scan -> 50Hz	50.00 Hz to 570.12 Hz
Camera Unit -> Gamma	Off, Normal (Low, Mid, High), Cinema
Camera Unit -> White Balance	AWB A, AWB B, ATW, 3200K, 5600K, VAR (2400K to 9900K)
Camera Unit -> Chroma Amount Variability	±3 steps
Camera Unit -> Scene File	Full Auto, Manual1, Manual2, Manual3
Synchronization System	Internal synchronization
Input Connector -> DC IN	DC 12 V IN, PoE+ (IEEE802.3at standard)
Output Connector -> HDMI	HDMI connector • HDCP is not supported. • VIERA Link is not supported.
Input/Output Connector -> LAN	LAN connector for IP control (RJ-45), Equipped with straight/crossover cable auto detection function
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	Mini-B port
Input/Output Connector -> SD Card	microSD card slot

Input/Output Connector -> 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
USB Connection -> Video Output^{*4}	USB Video Class Ver1.0
USB Connection -> Video Compression Format^{*4}	Motion JPEG
USB Connection -> Resolution^{*4}	1920 x 1080, 1280 x 720, 640 x 360
USB Connection -> Frame Rate^{*4}	max 30 fps (System frequency 59.94 Hz), max 25 fps (System frequency 50 Hz)
USB Connection -> Audio Output^{*4}	USB Audio Class Ver1.0
USB Connection -> Audio Compression Format^{*4}	Linear PCM, 48 kHz, 16-bit, 2 channels
USB Connection -> Supported Models^{*4}	Devices standardly equipped with a USB 2.0 compatible port
Pan-tilt Head Unit -> IP connecting cable^{*5}	・When connecting through a hub: LAN cable *7 (category 5 or above), max. 100 m (328 ft) ・When using a PoE+ hub: LAN cable *7 (category 5e or above), max. 100 m (328 ft) ・When a hub is not used: LAN cable(category 5 or above), max. 100 m (328 ft)
Pan-tilt Head Unit -> AW protocol connecting cable	LAN cable *7 (category 5 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	Stand-alone (Desktop) or suspended (Hanging) *5
Pan-tilt Head Unit -> Pan/tilt Operation Speed	Maximum speed during preset: 300°/s, Maximum speed during manual: 90°/s
Pan-tilt Head Unit -> Panning Range	±175°
Pan-tilt Head Unit -> Tilting range	-30° to 90° *6
Pan-tilt Head Unit -> Quietness	During preset: NC40 or less During manual: NC35 or less
SD Card Recording -> SD Card Recording	MPEG-4 AVC file standard compliant (.MP4)
SD Card Recording -> SD Card Type	micro SDHC (4 GB to 32 GB), micro SDXC (64 GB to 128 GB), Speed class 10 or higher
SD Card Recording -> System Frequency	59.94 Hz/50 Hz
SD Card Recording -> Video Compression Format	MPEG-4 AVC/H.264 High Profile
SD Card Recording -> Audio Compression Format	AAC-LC (48 kHz, 16 bit, 2 ch, 128 kbps)
SD Card Recording -> Recording Format -> 59.94Hz	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
SD Card Recording -> Recording Format -> 50Hz	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
Network -> 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
Network -> Resolution -> H.264	1920 x 1080, 1280 x 720, 640 x 360, 320 x 180 max.60 fps
Network -> Supported Protocol -> IPv4	TCP/IP, UDP/IP, HTTP, HTTPS, RTSP, RTP, RTP/RTCP, FTP, DHCP, DNS, NTP, IGMP, UPnP, ICMP, ARP, RTSPoverTCP, RTSPoverHTTP, SSL (TLS), MultiCast/UniCast
Network -> Supported Protocol -> IPv6	TCP/IP, UDP/IP, HTTP, HTTPS, RTSP, RTP, RTP/RTCP, FTP, DHCPv6, DNS, NTP, ICMPv6 (MLD), RTSPoverTCP, RTSPoverHTTP, SSL (TLS), MultiCast/UniCast
Network -> iOS, Android Support	JPEG image display
Footnote Description	
	It may be necessary to upgrade the version of the controller so that the controller will support the unit.
	During Auto, 6 dB to 48 dB (6 dB steps) are available for AGC Max Gain setting.
	During Auto, 0 dB, 6 dB, 12 dB and 18dB are available for Auto F. Mix Max Gain setting.
	This may vary depending on the operating environment.
	To ensure safety, the unit must be secured using the mount bracket supplied.
	Depending on the pan or tilt position, the camera may be reflected in the image.
	Use of an STP (shielded twisted pair) cable is recommended.