

H4 Edge Solution (ES) Camera Line

The H4 Edge Solution Camera line combines high-definition imaging, self-learning video analytics, network video recorder functionality, and embedded Avigilon Control Center™ video management software to create an all-in-one intelligent surveillance solution.



Onboard Solid-State Drive (SSD) storage

The H4 Edge Solution Camera records video directly to an onboard solid-state drive, eliminates the need for a separate network video recorder, and reduces installation and system costs.

Avigilon Control Center (ACC Software) Built-in

The H4 Edge Solution Camera line provides unique flexibility and versatility, with deployment options ranging from standalone installation, multi-camera solutions, to seamless integration into a conventional network video surveillance system.

As an Internet of Things device, the solution acts as both a camera and out-of-the-box video management software platform, providing a uniquely easy-to-install and cost-effective surveillance solution.

Avigilon HDSM SmartCodec technology™ H4 platform optimizes the video stream in real time using automatic ROI encoding to save bandwidth and storage requirements while maintaining image quality.

KEY FEATURES

1-3 megapixel models
Factory installed and licensed with ACC Video Management software running on the camera
Up to 256 GB on-board Solid-State Drive (SSD)
Up to 30 days of video retention
Self-learning video analytics
Patented Advanced Video Pattern Detection and Teach by Example Technology
Patented High Definition Stream Management (HDSM)™ Technology maintains image quality while reducing bandwidth
Idle Scene Mode lowers the bandwidth and storage usage if there are no motion events detected in the scene
Wifi camera configuration support
Avigilon LightCatcher™ technology provides exceptional image quality in low light environments
Triple Exposure Ultra Wide Dynamic Range
Avigilon HDSM SmartCodec technology for reduce bandwidth and storage requirements

Specifications

		1.0 MP	2.0 MP	3.0 MP					
IMAGE PERFORMANCE	Image Sensor	1/2.8" progressive scan CMOS							
	Aspect Ratio	16:9		4:3					
	Active Pixels (H x V)	1280 x 720		2048 x 1536					
	Imaging Area (H x V)	4.8 mm x 2.7mm; 0.189" x 0.106"		5.12 mm x 3.84 mm ; 0.202" x 0.151"					
	Minimum Illumination	0.08 lux (F1.6) in color mode; 0.016 lux (F1.6) in monochrome mode							
	Image Rate	High Framerate	30 fps	30 fps	30 fps				
		Full Feature		12 fps	12 fps				
	Dynamic Range	67 dB							
	Dynamic Range (WDR enabled)	120 dB triple exposure (20 fps or less); 100 dB dual exposure (30 fps)		120 dB triple exposure (Full Feature Mode). WDR is disabled in High Framerate Mode					
	Resolution Scaling	Down to 768 x 432							
	Camera Operating Mode	N/A		High Framerate = Camera will prioritize maximum image rate over other features. WDR is disabled.					
				Full Feature = Camera will prioritize feature capabilities over image rate.					
	3D Noise Redcution Filter	Yes	Yes	Yes					
ONBOARD STORAGE	Solid-State Drive (SSD)	128 G	256 G	256 G					
	Retention Rate	Up to 30 days (2 Mbps stream based on 30% motion duty cycle)							
LENS	Lens	4.7 - 84.6 mm F1.6 P-Iris, remote focus and zoom							
	Angle of View	3.3° – 55°		3.5° – 59°					
IMAGE CONTROL	Video Compression	H.264 (MPEG-4 Part 10/AVC), Motion JPEG, HDSM SmartCodec Technology							
	Streaming	Multi-stream H.264 and Motion JPEG							
	Bandwidth Management	HDSM							
	Motion Detection	Selectable sensitivity and threshold							
	Electronic Shutter Control	Automatic, Manual (1/6 to 1/8000 sec)							
	Iris Control	Automatic, Manual							
	Day/Night Control	Automatic, Manual							
	Flicker Control	50 Hz, 60 Hz							
	White Balance	Automatic, Manual							
	Backlight Compensation	Adjustable							
	Privacy Zones	Up to 64 zones							
	Audio Compression Method	G.711 PCM 8 kHz							
	Audio Input/Output	Line level input/output, A/V mini-jack (3.5 mm)							
	Video Output	(1.0 - 2.0 MP only) NTSC/PAL, A/V mini-jack (3.5 mm)							
	External I/O Terminals	Alarm In, Alarm Out							
	USB Port	USB 2.0 Micro							
NETWORK	Network	100BASE-TX							
	Cabling Type	CAT5							
	Connector	RJ-45							
	ONVIF	ONVIF compliant with version 1.02, 2.00, Profile S and 2.2.0 of the Analytics Service Specification ("bounding boxes" and scene descriptions not available with third-party VMS)							
	Security	Password protection, HTTPS encryption, digest authentication, WS authentication, user access log, 802.1x port based authentication							
	Protocol	IPv6, IPv4, HTTP, HTTPS, SOAP, DNS, NTP, RTSP, RTCP, RTP, TCP/UDP, IGMP, ICMP, DHCP, Zeroconf, ARP							
	Streaming Protocols	RTP/UDP, RTP/UDP multicast, RTP/RTSP/TCP, RTP/RTSP/HTTP/TCP, RTP/RTSP/HTTPS/TCP, HTTP							
	Device Management Protocols	SNMP v2c, SNMP v3							
	MECHANICAL	Dimensions (LxWxH)	168 mm x 76 mm x 67 mm; 6.6" x 3.0" x 2.6"						
		Weight	0.62 kg (1.4 lbs)						
Camera Mount		1/4"-20 UNC (top and bottom)							
ELECTRICAL	Power Consumption	8 W							
	Power Source	VDC: 12 V +/- 10%, 8 W min	VAC: 24 V +/- 10%, 12 VA min	PoE: IEEE802.3af Class 3 compliant					
	Power Connector	2-pin terminal block							
	RTC Backup Battery	3V manganese lithium							
ENVIRONMENTAL	Operating Temperature	-10 °C to +60 °C (14 °F to 140 °F)							
	Storage Temperature	-10 °C to +70 °C (14 °F to 158 °F)							
	Humidity	0 - 95% non-condensing							
CERTIFICATIONS	Certifications	UL	cUL	CE	ROHS	WEEE	RCM		
	Safety	UL 60950-1			CSA 60950-1		IEC/EN 60950-1		
	Electromagnetic Emissions	FCC Part 15 Subpart B Class B	IC ICES-003 Class B		EN 55032 Class B	EN 61000-6-3	EN 61000-3-2	EN 61000-3-3	EN55011
	Electromagnetic Immunity	EN 55024			EN 61000-6-1				

**SUPPORTED
RULE BASED VIDEO
ANALYTICS
EVENTS****

Objects in Area	The event is triggered when the selected object type moves into the region of interest.
Object Loitering	The event is triggered when the selected object type stays within the region of interest for an extended amount of time.
Objects Crossing Beam	The event is triggered when the specified number of objects have crossed the directional beam that is configured over the camera's field of view. The beam can be unidirectional or bidirectional.
Object Appears or Enters Area	The event is triggered by each object that enters the region of interest. This event can be used to count objects.
Object Not Present in Area	The event is triggered when no objects are present in the region of interest.
Objects Enter Area	The event is triggered when the specified number of objects have entered the region of interest.
Objects Leave Area	The event is triggered when the specified number of objects have left the region of interest.
Object Stops in Area	The event is triggered when an object in a region of interest stops moving for the specified threshold time.
Direction Violated	The event is triggered when an object moves in the prohibited direction of travel.
Tamper Detection	The event is triggered when the scene unexpectedly changes.

** Rule based and UMD Analytics cannot operate at the same time .

**SUPPORTED
VIDEO ANALYTICS
EVENTS**

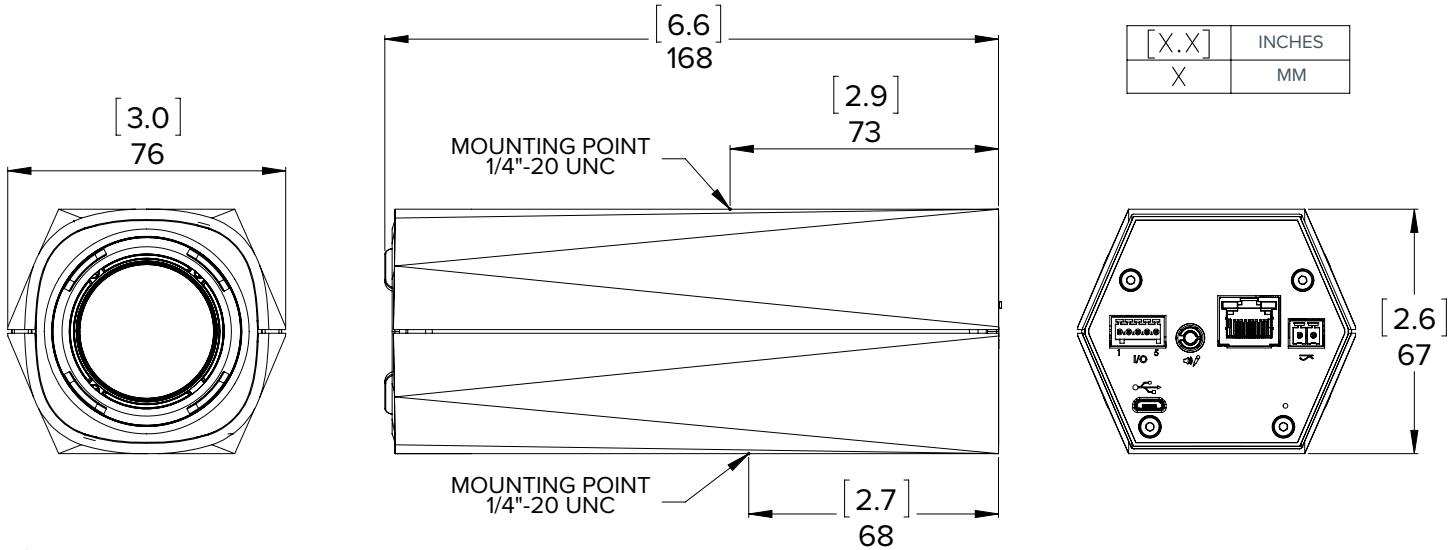
Unusual Motion Detection (UMD)	Detects and tags recorded video based on unusual speed, direction, and location of motion.
--------------------------------	--

**SUPPORTED
ACC FEATURES**

System	<ul style="list-style-type: none"> 1 camera per server (connection to self) 2 simultaneous client connections (override supported) Site supports up to 200 cameras and a total of 100 defined users. H4 ES Cameras can be part of a site with 15 other H4 ES Cameras, ACC ES HD Recorders, or ACC servers
Recording Rate	12 Mbps
Stream Out Rate	24 Mbps
Client	<ul style="list-style-type: none"> Saved Views Maps Web pages Editable Site View Intelligent Virtual Matrix Collaborative investigations
Recording, Searching and Playback	<ul style="list-style-type: none"> Hourly configurable recording schedule Intelligent motion search Live export Video archiving Thumbnail search Event search Alarm search
Integrations	All 3rd party integrations via the ACC SDK Plus: <ul style="list-style-type: none"> CommScope iPatch RS2 AccessIt! DDS Amadeus 5 DSX
Additional Features	<ul style="list-style-type: none"> Email event notification Digital input email trigger Manual digital output trigger Audio recording and talkdown Unlimited rule triggers Failover connections Alarm escalation *Redundant recording

*Depending on level of site activity (site, camera, analytics, etc), redundant recording to a secondary server may exhibit a degradation in performance.

Outline Dimensions



Ordering Information

	MP	WDR	LightCatcher Technology	Analytics	Storage	Lens	Day/Night	HDSM SmartCodec
1.0C-H4A-12G-B1(-B)*	1.0	✓	✓	✓	128 G	4.7 - 84.6 mm	✓	✓
2.0C-H4A-25G-B1(-B)*	2.0	✓	✓	✓	256 G	4.7 - 84.6 mm	✓	✓
3.0C-H4A-25G-B1(-B)*	3.0	✓	✓	✓	256 G	4.7 - 84.6 mm	✓	✓

* These models are physically identical. (-B)* depicts an updated hardware version.

H4-AC-WIFI2-NA	USB Wifi Adapter
H4-AC-WIFI2-EU	USB Wifi Adapter
CM-AC-AVIO1	3.5 mm Jack with 1.8 m Fly Wire