6 MP   10 MP   16 MP

AVIGILON™
Unity H6A Dual Head

Double the sensors, double the coverage

Say goodbye to blind spots in stairwells, hallways and corners with the Avigilon Unity H6A Dual Head camera for bidirectional coverage. Customize your field of view with varifocal lenses, and have 24/7 visibility with built-in IR. Plus, AI-powered video and audio keep you ahead of security threats.

AI-Powered Video Analytics
Stay on top of what's happening at your site with built-in video analytics to alert you on unusual crowds, activity and potentially critical events.

Audio Analytics & Recording
Expand your real-time awareness with audio alerts for gunshots[1], breaking glass, screeching tires and more. Have the option to record audio evidence when you need it.

Custom Field of View & Zoom
Get the perfect perspective with the camera's varifocal lenses that let you customize the field of view. Zoom into a scene for a closer look without losing evidentiary detail.

Two Cameras in One
Lower your total cost of ownership with one H6A Dual Head that can do the job of two cameras, requiring only one VMS license and cable.

24/7 Visibility
Get incredible image detail and situational awareness with 6, 10 and 16 MP total resolutions, plus visibility in low-light areas with built-in IR illumination

Secure and Compliant
Trust that your data is well-protected with advanced cybersecurity features such as an onboard FIPS 140-3 compliant TPM and Secure Boot.

[1]Separate license required.

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Specifications

Image Performance		2 x 3.0 MP	2 x 5.0 MP	2 x 8.0 MP
Image Sensor		1/2.8" CMOS		
Imaging Area (H x V)		5.18 mm x 3.89 mm 0.204" x 0.153"		
Aspect Ratio		4:3		16:9
Dynamic Range	WDR Off	Up to 80 dB		
	WDR On Measured According to IEC 62676 Part 5	Up to 105 dB		
	WDR On	Up to 120 dB		
Camera Operating Mode		Full Feature / No Video Analytics / High Framerate		
Max Frame Rate		(50 Hz/60 Hz): 25 fps/30 fps in High Framerate Mode*, otherwise 20fps/20fps		
Streaming Resolutions	Primary	(4:3) 2048x1536, 1792x134 (16:9) 2048x1152, 1920x1080	(4:3) 2592x1944, 2048x1536 (16:9) 2560x1440, 1920x1080	(4:3) 2880x2160, 2560x1920 (16:9) 3840x2160, 3200x1800, 3072x1728, 1920x1080
	Secondary	(4:3) 1760x1320, 1600x1200, 1280x960, 960x720, 800x600, 640x480, 512x384, 384x288 (16:9) 1920x1080, 1280x720, 768x432, 640x360, 512x288	(4:3) 1440x1080, 1280x960, 800x600, 640x480, 512x384, 384x288 (16:9) 1920x1080, 1280x720, 768x432, 640x360, 512x288	(4:3) 1920x1440, 1600x1200, 1280x960, 800x600, 640x480, 512x384, 384x288 (16:9) 1920x1080 , 1280x720, 768x432, 640x360, 512x288
	Tertiary	(4:3) 640x480, 384x288 (16:9) 640x360	(4:3) 512x384, 384x288 (16:9) 640x360	(4:3) 512x384 (16:9) 640x360
Bandwidth Management		HDSM SmartCodec technology; Idle scene mode		
3D Noise Reduction Filter		Yes		
Signal-to-Noise Ratio (SNR)		>50 dB		

*Analytics are disabled in High Frame Rate mode.

Lens and IR Illumination		
Lens focal length (EFL)		Wide: 3.24 mm Tele 7.33 mm
IR Illumination (high power 850 mm LEDs)*		30 m
Minimum Illumination Without IR	3 MP	Monochrome: 0.lux in monochrome mode Color: 0.005 lux in monochrome mode; 0.02 lux in color mode
	5 MP	Monochrome: 0 lux in monochrome mode Color: 0.005 lux in monochrome mode; 0.02 lux in color mode
	8 MP	Monocrhome: 0 lux in monochrome mode Color: 0.005 lux in monochrome mode; 0.05 lux in color mode
Horizontal Angle of View Based on Aspect Ratio	3 MP	(4:3) Wide: 96°, Tele: 40°
	5 MP	(4:3) Wide: 96°, Tele: 40°
	8 MP	(16:9) Wide: 104°, Tele: 43°
Vertical Angle of View Based on Aspect Ratio	3 MP	(4:3) Wide: 70°, Tele: 30°
	5 MP	(4:3) Wide: 70°, Tele: 30°
	8 MP	(16:9) Wide: 55°, Tele: 24°
Max Aperture		F1.6
Lens Control		Remote Zoom and Focus, Autofocus, IR Cut Filter

Image Control

Image Compression Method	H.264 HDSM SmartCodec, H.265 HDSM SmartCodec, Motion JPEG
Streaming	Multi-stream H.264, Multi-stream H.265, Motion JPEG
Electronic Shutter Control	Automatic, Manual (1/7.5 to 1/30000 sec)
Day/Night Control	Automatic, Color, Monochrome
Flicker Control	50 Hz, 60 Hz
Iris Control	No Iris Control
White Balance	Automatic, Manual
Backlight Compensation	Adjustable
Image Rotation	0°, 90°, 180°, 270°
Privacy Zones	Up to 64 zones
Motion Detection	Pixel motion: Selectable sensitivity and threshold. Classified object detection
Camera Tamper Detection	Yes

Network

Network	100BASE-TX
Cabling Type	CAT5e
Connector	RJ-45
API	ONVIF® compliance Profile S, Profile T, Profile M, and Profile G (www.onvif.org)
Security	Password protection, HTTPS encryption, digest authentication, WS authentication, user access log, 802.1x port based authentication, FIPS 140-2 L1, onboard FIPS 140-2 L3 certified TPM, Secure Boot, Signed and encrypted firmwarekk, CC EAL6+
Protocols	IPv6, IPv4, HTTP, HTTPS, SOAP, DNS, NTP, RTSP, RTCP, RTP, TCP, UDP, IGMPv3, ICMP, DHCP, Zeroconf, HSTS
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

Peripherals

Onboard Storage*	Two microSD/microSDHC/microSDXC slots – video speed class card required. Class V10 or better recommended.
USB Port	USB 2.0

*Maximum tested capacity is 1.5 TB.

Auxiliary I/O

Audio Input/Output	Line level audio I/O
Audio Compression Method	G.711 PCM 8 kHz, Opus
External I/O Terminal	1x Relay In, 1x Relay Out
Microphone	Built-in microphone for audio analytics, with physical disable switch

Mechanical

Mechanical		Direct Surface Mount	Surface Mount with Junction Box	Pendant Mount with NPT Adapter
Dimensions (L x W x H)	Camera Assembly	218 x 125 x 89 mm	250 x 157 x 126 mm	236 x 143 x 151 mm
	Accessory Only	N/A	250 x 157 x 50 mm	236 x 143 x 75 mm
Camera Weight		1.42 Kg	2.43 Kg	1.74 Kg
Dome Bubble		Polycarbonate		
Body		Polycarbonate and aluminum		
Finish		Cast, powder coat grey (Pantone 427C)		
Adjustment Range		Pan: 180°, Azimuth: 360°, Tilt: 30° – 95° tilt (recommended), 10° – 95° tilt (maximum)		

Electrical

Power Consumption		25.4W
Power Source	PoE	IEEE 802.3af Class 3
	PoE+	IEEE 802.3at Class 4
RTC Backup Battery		3V manganese lithium
Memory		4GB RAM 4GB Flash

Environmental		
Operating Temperature		-40 °C to +65 °C (-40 °F to 149 °F) with IEEE 802.3at Class 4 (25.5W PoE+) with ambient convection
		-30 °C to +65 °C (-22 °F to 149 °F) with IEEE 802.3af Class 3 (13W PoE) with ambient convection
IR Illuminator Behavior	PoE	The IR illuminator operates at 40% power regardless of temperature
	PoE+	The IR illuminator operates at 50% power if the temperature is below -30°C (-22°F) or above 60 °C (140 °F)
Startup Temperature		-40°C to +65 °C (-40 °F to 149 °F) with IEEE 802.3at Class 4 (25.5W PoE+) with ambient convection
		-30 °C to +65 °C (-22 °F to 149 °F) with IEEE 802.3af Class 3 (13W PoE) with ambient convection
Absolute Maximum Temperature		74°C (165°F) per NEMA TS2 (Temp.) para 2.2.7.2 - 2.2.7.7
Storage Temperature		-10°C to +70°C (14°F to 158°F)
Humidity		0 - 95% non-condensing

Certifications	
Certifications/Directives	UL, cUL, CE, ROHS, RCM, UKCA, NOM, KC, BIS
Safety	UL 62368-1, CSA 62368-1, IEC/EN 62368-1
	IEC 62471
Environmental	IEC 60529 IP66, IP67, IP68 (1.8m depth for 1 hour)
	ISO 20653 IPX9K
	IEC/EN 62262 Impact (IK10)
	NEMA 4X
	IEC 60068-2-6 Product Vibration
	IEC 60068-2-27 Product Shock
	NEMA TS2 paragraph 2.2.7-2.2.9
Electromagnetic Emissions	FCC Part 15 Subpart B (Class B)
	ICES-003 (Class B)
	EN 55032 (Class B)
	EN 61000-6-3
	EN 61000-3-2
	EN 61000-3-3
Electromagnetic Immunity	EN 55035
	EN 61000-6-1
	EN 50121-4
	EN 50130-4
Warranty	Limited 5-year Warranty

Supported Video Analytics* Events	
Objects in Area	The event is triggered when the selected object type and/or subtype moves into the region of interest.
Object Loitering	The event is triggered when the selected object type and/or subtype 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 and/or subtypes 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 type and/or subtype 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 object type and/or subtype have entered the region of interest.
Objects Leave Area	The event is triggered when the specified number of object type and/or subtype have left the region of interest.
Object Stops in Area	The event is triggered when an object type and/or subtype in a region of interest stops moving for the specified threshold time.
Direction Violated	The event is triggered when an object type and/or subtype moves in the prohibited direction of travel.
Smart Motion Rule	Events are sent for person (including crawling) and vehicle present, against default-unchangable parameters
Tamper Detection	The event is triggered when the scene unexpectedly changes.
Crowd Size	This event is triggered when the number of people is exceeded over a configurable duration.
Unusual Crowd Growth	This event is triggered when a crowd size grows unexpectedly.
Unusual Crowd Size	This event is triggered when an unusual crowd size is detected

*Analytics capabilities, including detection range, may vary by camera line. See the Avigilon Self-Learning Analytics Design Guide for details.

Supported Classified Object Types	
Object Types in Outdoor Mode	Vehicle, sub-types: Car, Pickup Truck, Large TruckVan, Bicycle, Motorcycle, Bus Person
Object Types in Indoor Mode	Person

Teach by Example	
Teach by Example	Yes, when used with AvigilonControl Center™ or AvigilonUnity Video
Object Types in Indoor Mode	Person

Supported Audio Analytics Events	
Gunshot[1]	Up to 100m (300ft)
Scream	Up to 15m (50ft)
Glass Break	Up to 15m (50ft)
Car Alarm	Up to 30m (100ft)
Smoke Alarm	Up to 15m (50ft)
Dog Bark	Up to 15m (50ft)
Tire Screech[2]	Up to 15m (50ft)
Loud Noise	Up to 40m (130ft)
Ultrasonic Panic Alarm[3]	Up to 40m (130ft)

[1] Optional add-on license required.

[2] The detection range is limited to up to 8 meters in loud environments.

[3] The detection range is influenced by the quality and power of the device used to create the panic alarm.

| Avigilon Software Supported Features	
Avigilon Control Center™ 7.2 or higher	All supported analytic events with people and vehicles and all vehicle sub-types as classified objects. Appearance search when paired with appropriate server hardware. Unusual Activity Detection. H.265 supported.
Avigilon Unity Video 8.0 or higher	All supported analytic events with people and vehicles and all vehicle sub-types as classified objects. Appearance search when paired with appropriate server hardware. Unusual Activity Detection. H.265 supported. Audio analytics. Crowd analytics.

Outline Dimensions

[X.X]	INCHES
X	MM

Dual Head Camera with Provided Surface Mount

(H6ADH-DO1-IR)
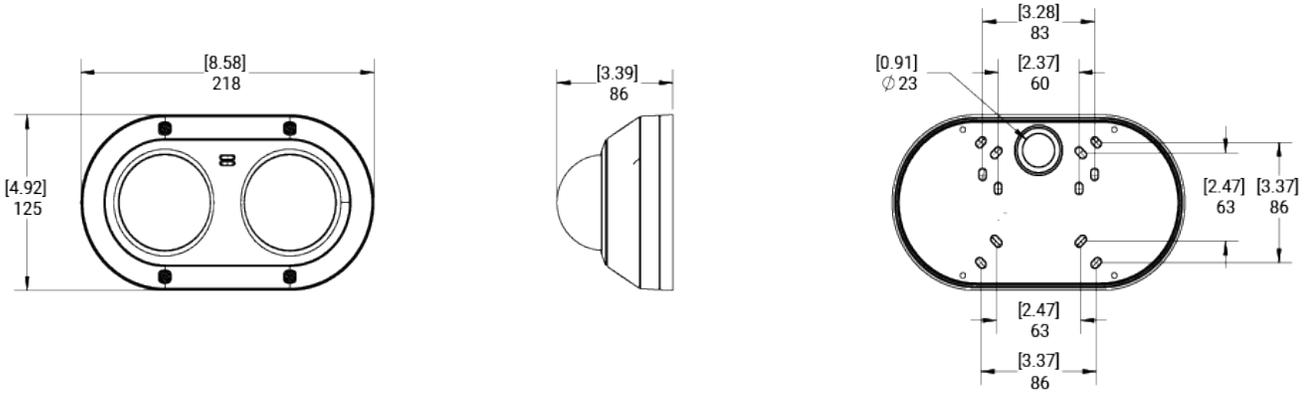
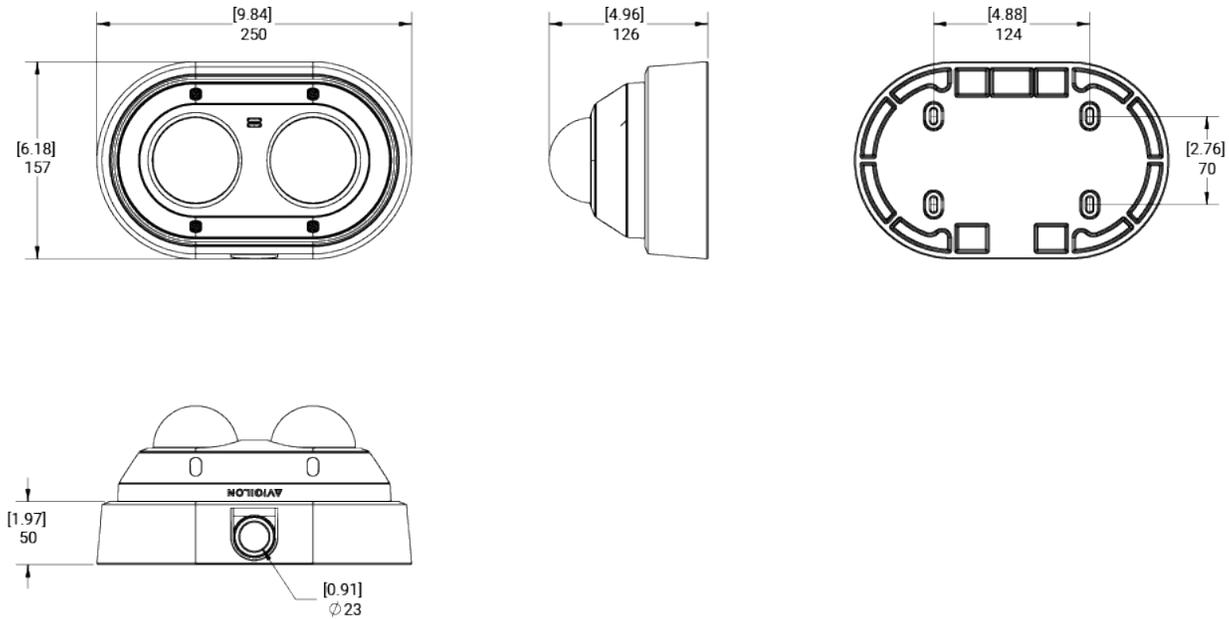

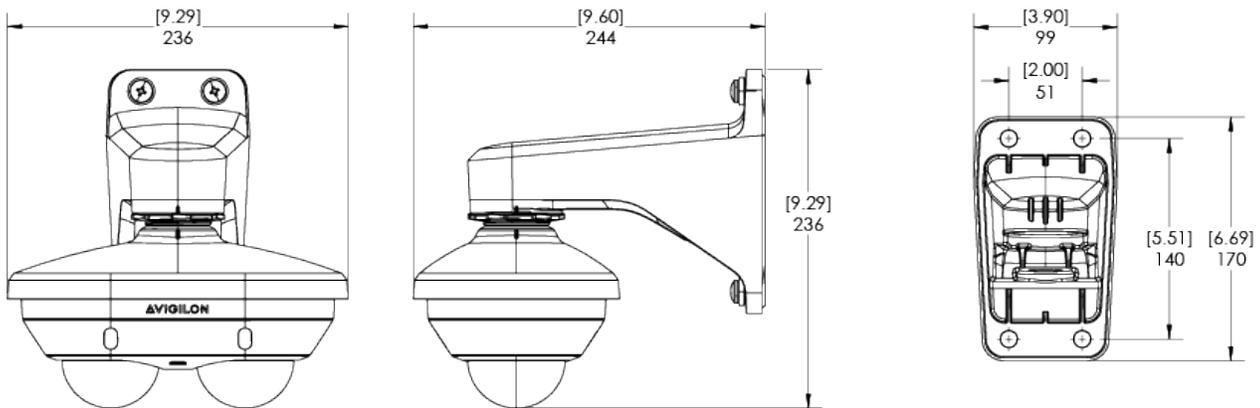## Dual Head Camera with NPT Adapter

(H6ADH-DO1-IR Camera + NPTA-1201)
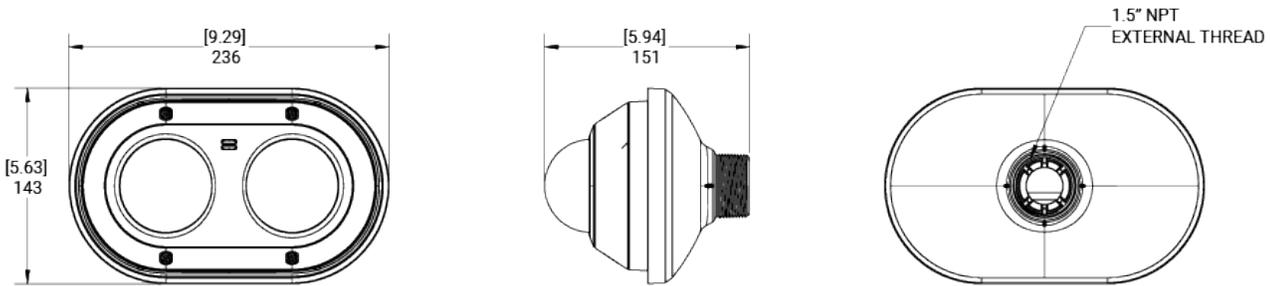
Dual Head Camera with Junction Box Mount

(H6ADH-DO1-IR Camera + JBOX-1201)

Dual Head Camera with Pendant Mount

(H6ADH-DO1-IR Camera + NPTA-1201 + WLMT-1021)

Ordering Information

System Models

	Resolution	WDR	LightCatcher	Lens	IR	Analytics	HDSM SmartCodec	Microphone
6.0C-H6ADH-DO1-IR	2 x 3.0	✓	✓	3.24 - 7.33 mm	✓	✓	✓	✓
10.0C-H6ADH-DO1-IR	2 x 5.0	✓	✓	3.24 - 7.33 mm	✓	✓	✓	✓
16.0C-H6ADH-DO1-IR	2 x 8.0	✓	✓	3.24 - 7.33 mm	✓	✓	✓	✓

Accessories

NPTA-1201	Pendant NPT Adapter
WLMT-1021	Pendant wall arm, 1.5" NPT female, 20 cm (7.8") long
JBOX - 1201	Optional junction box mounting adapter
DMSLD-1201	Weathershield for dual head cameras
PLMT-1001	Pole mount adapter
CRNMT-1001	Corner mount adapter
CAM-AA-GUNSHOT2	Camera Gunshot Audio Analytics Channel, one per camera
CAM-AA-GUNSHOT2-180D	Camera Gunshot Audio Analytics Channel, 180 day demo license. Contact Technical Support
USB-AC56-NA-MSI	USB WiFi Adapter (North America)
USB-AC56-EU-MSI	USB WiFi Adapter (Europe)

Support

Learn more and find additional documentation at avigilon.com or email sales@avigilon.com for specific product support.

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