

# H5A PTZ CAMERA

2 MP

The Avigilon H5A Pan-Tilt-Zoom (PTZ) camera brings wide area coverage, high-speed movement and long range, evidentiary detail for security operators to monitor large areas with ease. As an Avigilon H5A platform camera, the H5A-PTZ camera is embedded with Next-Generation Video Analytics for enhanced object detection and classification, Unusual Activity Detection (UAD), along with support for Facial Recognition technology and Avigilon Appearance Search™ technology to help ensure critical events do not go unnoticed.



## FEATURES



### NEXT-GENERATION VIDEO ANALYTICS WITH AUTO-TRACKING

Detects more objects with expanded object classifications and automatically tracks objects in zone for faster, decisive responses.



### H.264 AND H.265 WITH HDSM SMARTCODEC™ TECHNOLOGY

Optimizes compression levels for regions in a scene to help maximize bandwidth savings and keep internet connectivity costs down.



### LIGHTCATCHER™ TECHNOLOGY

Offers exceptional detail in areas with low lighting.



### ONVIF® COMPLIANT

Native ONVIF Profile S, T, G and M compliance allows easy integration with existing ONVIF infrastructures.



### EASY TRANSITION FROM H4 PTZ TO H5A-PTZ

Field-replaceable parts allow for an easy transition from H4 PTZ cameras to H5A-PTZ cameras.



### LONG RANGE DETAIL

2 MP with 36x or 40x zooming capabilities sets a new standard for high-performance PTZ cameras with greater evidentiary detail.



### WATER, IMPACT AND ENCLOSURE RATED

IP66/67 rating for water resistance, IK10 impact rating for vandal resistance and NEMA 4X enclosure rating for windblown dust, water (e.g. rain, hose-directed water), and corrosion resistance.



### TRUE WIDE DYNAMIC RANGE

Captures details in scenes with both very bright and dark areas.



### FIPS 140-2 COMPLIANT

Brings increased data security with FIPS-compliant cryptography enabled on cameras<sup>1</sup>.



### WIDE AREA COVERAGE

Provides 360° zoomable views in high-resolution to monitor large areas with ease.

ONVIF is a trademark of Onvif, Inc.

<sup>1</sup> Optional purchase of FIPS Level 1 camera license or CRYPTR microSD hardware-based encryption and key management for FIPS Level 3 support and certification.

# SPECIFICATIONS

IMAGE PERFORMANCE		2MP WITH 36X ZOOM	2MP WITH 40X ZOOM
Image Sensor	1/2.8" progressive scan CMOS		
Active Pixels (H x V)	1920 (H) x 1080 (V)	1937 (H) x 1097 (V)	
Imaging Area (H x V)	4.8 mm x 2.7 mm; 0.189" x 0.106"		
Minimum Illumination	0.1 lux (F/1.6) in color mode; 0.03 lux (F/1.6) in monochrome	0.03 lux (F/1.6) in color mode; 0.02 lux (F/1.6) in monochrome	
Dynamic Range	120 dB		
Image Rate	Up to 60 fps		
Aspect Ratio (Resolution Scaling)	Down to (16:9) 384x216 or (5:4) 320x256		
3D Noise Reduction Filter	Yes		

LENS		2MP WITH 36X ZOOM	2MP WITH 40X ZOOM
Lens	4.3 mm to 129 mm, F/1.6 – F/4.7, autofocus		4.25 mm to 170 mm, F/1.6 – F/4.95, autofocus
Angle of View	Horizontal	63.7° – 1.9°	66.35° – 1.9°
Zoom	36x (with image stabilization off), 30x (with image stabilization on)		40x

IMAGE CONTROL		2MP WITH 36X ZOOM	2MP WITH 40X ZOOM
Video Compression	H.264 HDSM SmartCodec, H.265 HDSM SmartCodec, Motion JPEG		
Streaming	Multi-stream H.264, Multi-stream H.265, Motion JPEG		
Motion Detection	Pixel motion: Selectable sensitivity and threshold. Classified object detection		
Electronic Shutter Control	Automatic, Manual (1/1 to 1/10,000 sec)	Automatic, Manual (1/30 to 1/30,000 sec)	
Iris Control	Automatic, Open, Closed		
Day/Night Control	Automatic, Manual		
Flicker Control	60 Hz, 50 Hz		
White Balance	Automatic, Manual		
Backlight Compensation	On/Off		
Privacy Zones	3D, up to 64 zones		
Presets	500 named presets		
Tours	10 named tours		
Audio Compression Method	G.711, Opus		
Digital Zoom	Up to 100x when used with ACC™ Client		
Electronic Image Stabilization	Yes		
Digital Defog	Adjustable/Off		

NETWORK	
Network	100BASE-TX
Cabling Type	CAT5e
Connector	RJ-45
ONVIF	ONVIF compliance version 1.02, 2.00, Profile S, Profile T, Profile G, and Profile M ( <a href="http://www.onvif.org">www.onvif.org</a> )
Security	Password protection, HTTPS encryption, digest authentication, WS authentication, user access log, 802.1x port based authentication, FIPS 140-2 L1 (with optional camera license), FIPS 140-2 L3 (with optional accessory)
Protocol	IPv6, IPv4, HTTP, HTTPS, SOAP, DNS, NTP, RTSP, RTCP, RTP, TCP, UDP, IGMPv2, ICMP, DHCP, Zeroconf, ARP, HSTS
Streaming Protocols	RTP/UDP, RTP/UDP multicast, RTP/RTSP/TCP, RTP/RTSP/HTTP/TCP, RTP/RTSP/HTTPS/TCP, HTTP
Device Management Protocol	SNMP v2c, SNMP v3

## PERIPHERALS

Audio Input/Output	Line level input and output
External I/O Terminals	2 Alarm In, 2 Alarm Out
Onboard Storage	2 × microSD/microSDHC/microSDXC slot – video speed class card required. Class V10 or better recommended.

## MECHANICAL

### IN-CEILING MOUNT

### PENDANT MOUNT

Dimensions (Ø×H)	228 mm × 252 mm; 9.0" × 9.9"	242 mm × 347 mm; 9.5" × 13.7"
Weight	3.4 kg; 7.5 lbs	3.7 kg; 8.2 lbs
Dome Bubble	Polycarbonate	
Body	Aluminum	
Housing	Recessed mount	Pendant mount
Finish	Cast, powder coated, close to RAL9002	
Tilt	-10° to 90°, e-Flip, 300°/second	
Pan	360°, endless, 300°/second	

## ELECTRICAL

Power Consumption	51 W max with 24 VDC aux power, 75 VA with 24 VAC aux power, 51 W max with 60 W PoE++, 25.5 W max with 30 W PoE+	
Power Source	External Power	24 VDC ±10%; 24 VAC rms ±10%, 50 or 60 Hz
	PoE*	60 W PoE: IEEE 802.3bt Class 6 PoE++, 60 W Cisco UPoE, Microsemi 60 W or higher midspans 30 W PoE: IEEE 802.3bt, 802.3at Class 4 PoE+
Power Connector	Red and Black input wires	
RTC Backup Battery	3V manganese lithium	
Memory	2 GB RAM, 512 MB Flash	

\*60W PoE may not be compatible with switches and injectors not listed here. Contact Avigilon sales or Avigilon technical support for more information.

## ENVIRONMENTAL

### IN-CEILING MOUNT

### PENDANT MOUNT

Operating Temperature	-30 °C to +60 °C (-22 °F to 140 °F) with external power or 60 W PoE -10 °C to +60 °C (14 °F to 140 °F) with IEEE 802.3at 30 W PoE+	-40 °C to +60 °C (-40 °F to 140 °F) with external power or 60 W PoE -10 °C to +60 °C (14 °F to 140 °F) with IEEE 802.3at 30 W PoE+
Storage Temperature	-10 °C to +70 °C (14 °F to 158 °F)	
Humidity	0-95%, non-condensing	

## CERTIFICATIONS

Certifications/Approvals	UL, cUL, CE, ROHS, RCM, EAC, KC, BIS, UKCA, NOM	
Safety	UL 62368-1, CSA 62368-1, IEC/EN 62368-1	
Environmental	In-Ceiling	IEC 62262 IK10 Impact Rating, UL 2043
	Pendant	IEC 62262 IK10 Impact Rating, UL/CSA/IEC 60950-22, IEC 60529 IP66 and IP67 Weather Rating, NEMA 4X
Electromagnetic Emissions	FCC Part 15 Subpart B Class B, IC ICES-003 Class B, EN 55032 Class B, EN 61000-6-3, EN 61000-6-4, EN 61000-3-2, EN 61000-3-3, EN 50121-4	
Electromagnetic Immunity	EN 55035, EN 61000-6-1, EN 50121-4	

# ANALYTICS SPECIFICATIONS

## SUPPORTED ANALYTICS EVENTS AT HOME POSITION

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 moves into the region of interest and then stays 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 moves into a region of interest and then 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.

## AUTO-TRACK OBJECTS IN AREA

Auto-track Objects in Area	The event is triggered when the selected object type moves into the region of interest defined at the home position. The camera will automatically reposition to track the object, returning to the preset home position once object is lost.
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## SUPPORTED CLASSIFIED OBJECT TYPES

Object Types in Outdoor Mode	Vehicle, sub-types: Car, Truck, Bicycle, Motorcycle, Bus Person
Object Types in Indoor Mode	Person

## TEACH BY EXAMPLE

Teach By Example	Yes, when used with Avigilon Control Center™
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## AVIGILON CONTROL CENTER (ACC) VERSIONS SUPPORTED FEATURES

ACC Version 6.14.12 or higher	All supported analytic events with two types of classified objects: person or vehicle. Appearance search when paired with appropriate server hardware. Auto-tracking is not supported. H.265 supported.
ACC Version 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. H.265 supported.

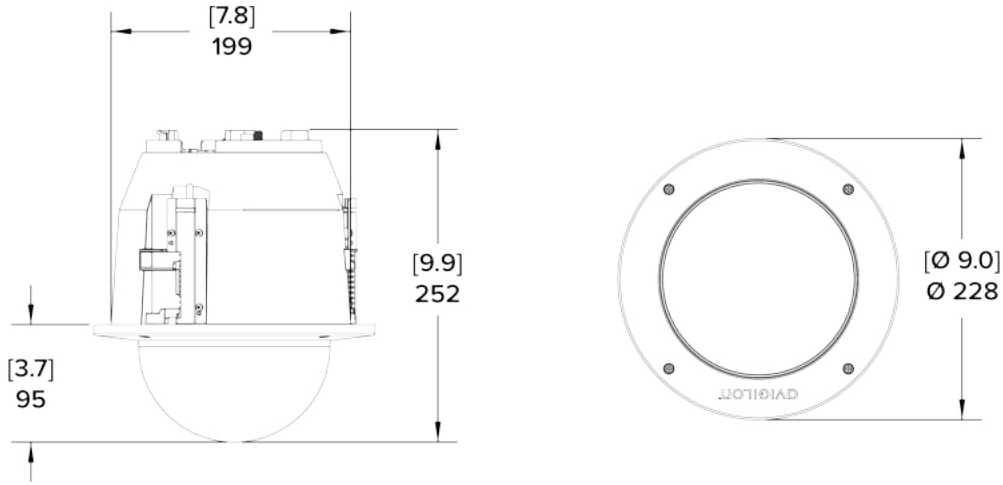
\* Auto-tracking requires ACC 7.14.14 or higher to configure.

# OUTLINE DIMENSIONS

## IN-CEILING PTZ DOME CAMERA

(H5A-PTZ-DC)

[X.X]	INCHES
X	MM

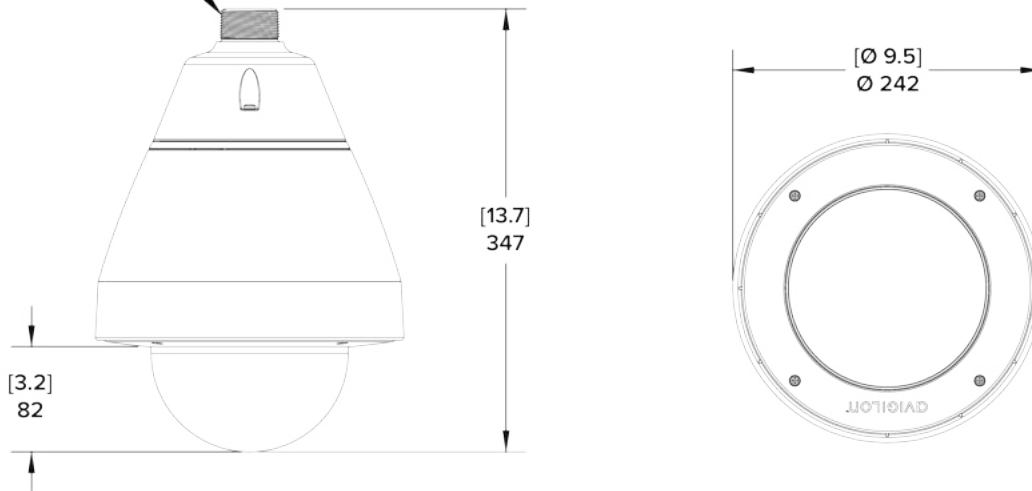


## PENDANT PTZ DOME CAMERA

(H5A-PTZ-DP) WITH NPT MOUNT

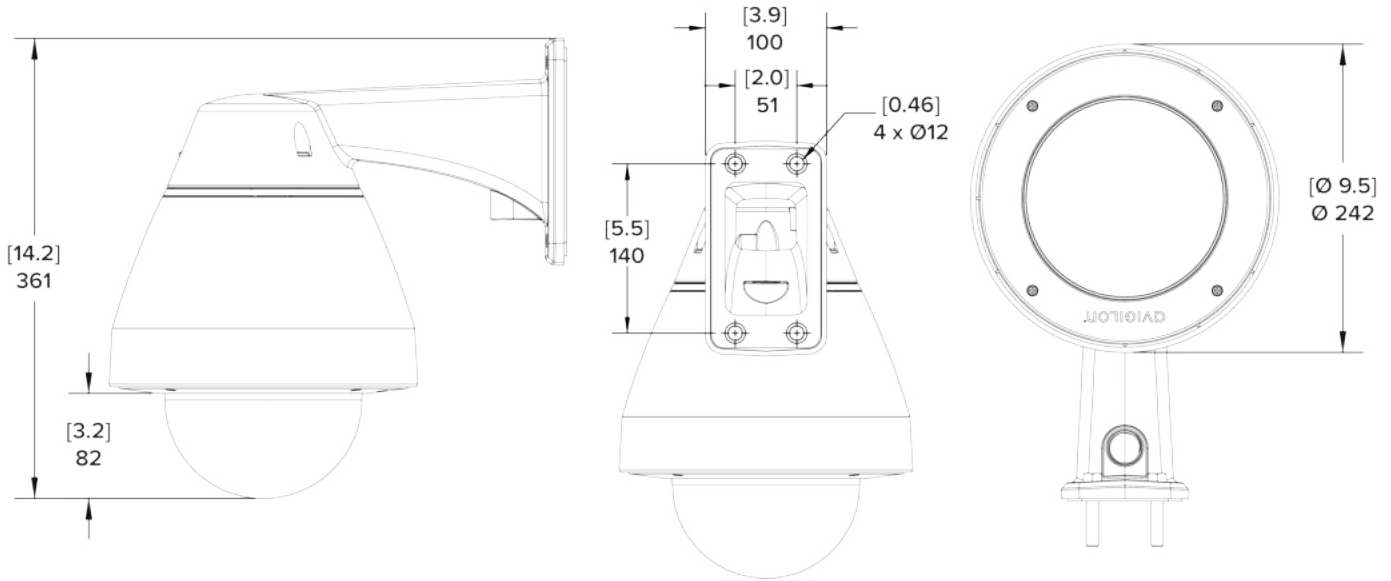
[X.X]	INCHES
X	MM

1 1/2" NPT Thread Mount



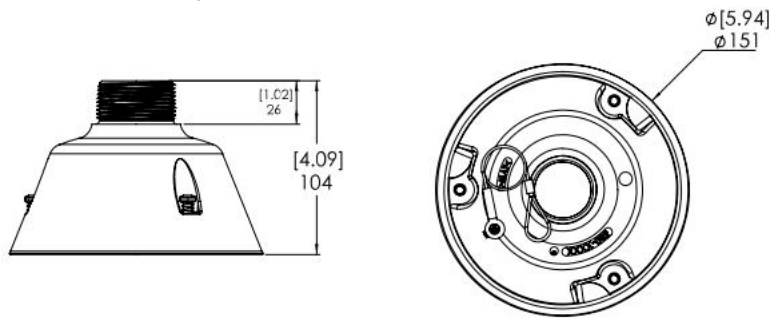
**(H5A-PTZ-DP) WITH WALL ARM**

[X.X]	INCHES
X	MM



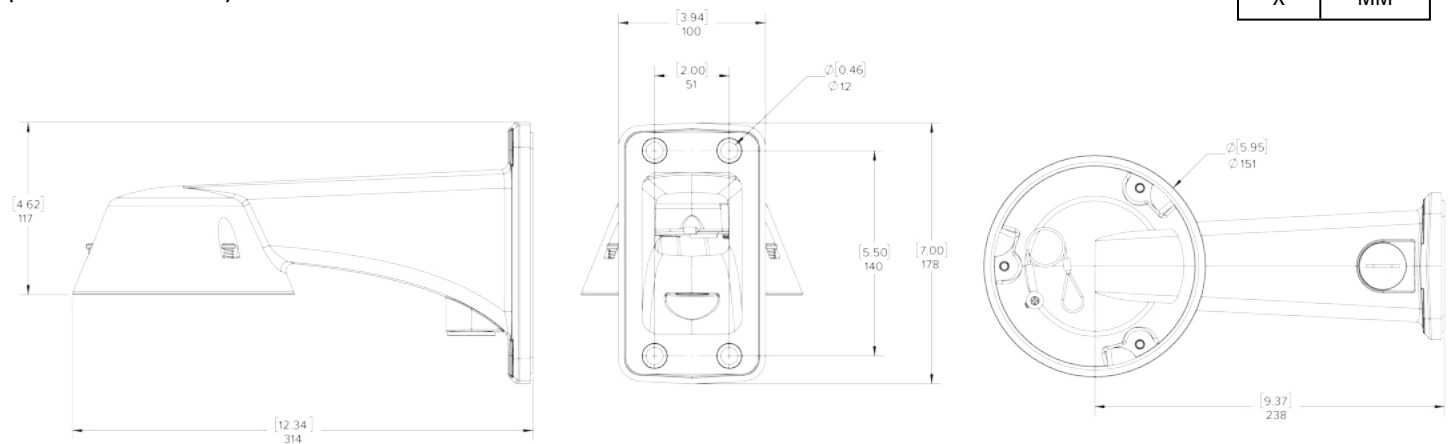
**NPT MOUNT  
(IRPTZ-MNT-NPTA1)**

[X.X]	INCHES
X	MM

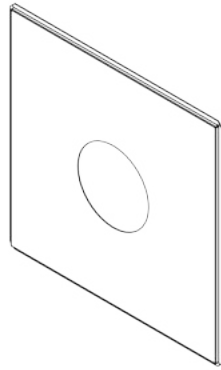
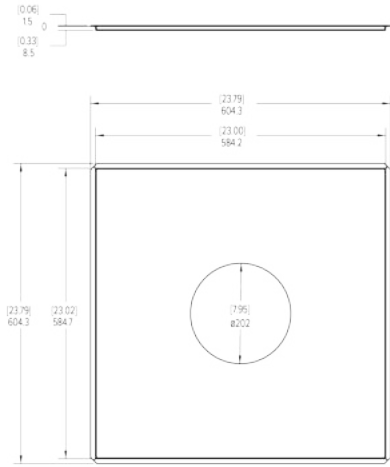


**WALL MOUNT  
(IRPTZ-MNT-WALL1)**

[X.X]	INCHES
X	MM



**METAL CEILING PANEL**  
**(PTZMH-DC-CPNL1)**



[X.X]	INCHES
X	MM

# ORDERING INFORMATION

## PTZ DOME CAMERAS

	MP	WDR	LIGHTCATCHER TECHNOLOGY	ANALYTICS AT HOME POSITION	LENS	ZOOM	IP66/IP67	HDSM SMARTCODEC
2.0C-H5A-PTZ-DP36	2.0	True WDR	✓	✓	4.3 – 129 mm	36x*	✓	✓
2.0C-H5A-PTZ-DC36	2.0	True WDR	✓	✓	4.3 – 129 mm	36x*		✓
2.0C-H5A-PTZ-DP40	2.0	True WDR	✓	✓	4.25 -170 mm	40x	✓	✓
2.0C-H5A-PTZ-DC40	2.0	True WDR	✓	✓	4.25 - 170 mm	40x		✓

\*Up to 36x zoom is achieved with Image Stabilization off. Image Stabilization set to on will provide 30x zoom.

## PTZ CAMERA ACCESSORIES

	PENDANT PTZ	IN-CEILING PTZ	DESCRIPTION
IRPTZ-MNT-NPTA1	✓		NPT Pendant Adapter
IRPTZ-MNT-WALL1	✓		Wall Arm Mount
PLMT-1001	✓		Pole Mounting Bracket, compatible with IRPTZ-MNT-WALL1
CRNMT-1001	✓		Corner Mounting Bracket, compatible with IRPTZ-MNT-WALL1
PTZMH-DC-CPNL1		✓	Metal Ceiling Panel for In-Ceiling Installation
PTZH5A-CLER1	✓	✓	Clear Bubble Assembly - Replacement
PTZH5A-SMOK1	✓	✓	Smoked Bubble Assembly - Replacement
POE-INJ-BT-60W-NA	✓	✓	Gigabit 802.3bt 60W PoE Injector, single port
POE-INJ2-PLUS-NA	✓	✓	30W PoE+ Injector. Injector operational temperature range is -20°C (-4°F) to 40°C (104°F). NA/EU/UK/AU options available
PTZ-ACCS-IC-RETRO		✓	H4 In-Ceiling PTZ audio retrofit kit
H5PTZ-ACCS-CABL1	✓		Cable gland nut kit, pack of 10

## OPTIONAL CAMERA LICENSES AND ACCESSORIES

CAM-FIPS	Camera license to enable FIPS Level 1 cryptographic mode on any H5A camera
CAM-FIPS-CRYPT-R3	MSI CRYPT-R SD with camera license to enable FIPS Level 3 cryptographic mode on H5A cameras <sup>1</sup>

<sup>1</sup> Excludes H5A Explosion-Protected camera line.

## SUPPORT

Learn more and find additional documentation at [avigilon.com](https://www.avigilon.com) or email [sales@avigilon.com](mailto:sales@avigilon.com) for specific product support.



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