SCDATACOM

PROPOSAL
RESPONSE FOR:

Avigilon CCTV Upgrade
For
Effingham County Prison
Springfield, GA
PREPARED FOR:
Director, Information Technology
Noel Webb
Nwebb@effinghamcounty.org

PHONE
912.777.5721

WEBSITE
www.scdatacom.net

MESSAGE
info@scdatacom.net

ABOUT US

scDataCom is a nationally recognized expert in physical and electronic security systems, specializing in large organizations with complex requirements.
We are headquartered in beautiful Savannah, Georgia and serve a large commercial customer base within the South East Region as well as public agencies across the nation.

Owned and operated by a mother daughter duo, scDataCom is, first and foremost, a family owned business with deep ties to our team and to the communities that we serve. Additionally, we are nationally certified as a Woman Owned Small Business (WOSB/WBE), a Service Disabled Veteran Owned Small Business (SDVOSB), and locally certified as a Savannah Small Business Enterprise (SBE).

We are proud of these affiliations and are committed to representing these relationships in a way that reflects positively on the populations that we represent.

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scDataCom provided design and engineering recommendations which were approved and resulted in improved camera coverage in critical areas using fewer devices. These changes improved the overall security posture of the campus and allowed for additional stock camera inventory to be used for future projects.

— Contracting Officer
Department of Veterans Affairs

SC**DATACOM**

WHY WE ARE UNIQUELY QUALIFIED TO ENHANCE THE SECURITY INFRASTRUCTURE FOR THE EFFINGHAM COUNTY PRISON IN SPRINGFIELD GEORGIA.

scDataCom is pleased to provide this proposal in response to the request to bolster the security infrastructure of the Effingham County Prison by upgrading its existing CCTV surveillance system for a modern Avigilon solution. This endeavor involves a comprehensive overhaul, transitioning to state-of-the-art solutions provided by Avigilon. We are a local Security Integrator and certified Avigilon partner. We specialize in customized Access Control System and Video Surveillance System installations which includes a large portfolio of Federal and Public sector projects. We are confident that our proposal will provide competitive value and a great solution to the long-term security needs of the Effingham County Prison.

Our team has extensive relevant contract experience performing work of similar technical complexity, to include Access Control and Video Surveillance installation and maintenance in government facilities. We specialize in the Federal and Government markets and are experienced in the unique requirements related to delivering services in this environment.

SCDATACOM IS EXCEPTIONAL.

– Contracting Officer
Federal Agency

TECHNICAL CERTS:

LVU406739
Low Voltage – Unrestricted (GA)
8.31.2024

Physical Security Professional
01.01.2016 – 12.31.2024

Certified Systems Engineer ICAM PACS (CSEIP)

Registered Communications Distribution Designer (RCDD)

FOA Fiber Optics Certified Technicians

BISCI Certified Technicians

OSHA 30 & 10 Certified

TABLE OF CONTENTS

PART A: COMPLIANCE WITH TECHNICAL SPECIFICATIONS

1. CONTRACTOR ADMINISTRATION

CONTRACTOR: scDataCom LLC
                         2700 Gregory St, Ste 180
                         Savannah, GA 31404

POINT OF CONTACT: Joey Buroker
                         (912) 438-8598
                         j.buroker@scdatacom.net

CAGE CODE #:   6YJ00

UEI/DUN & BRADSTREET#: LDP9B8LHZLA3 / 078863856

TAX ID: 46-2654725

2: TECHNICAL SPECIFICATIONS:

Scope of Work:

Effingham County Prison's security is paramount. scDataCom's proposed Avigilon video surveillance solution delivers precisely that: enhanced security through comprehensive coverage, acting as a true force multiplier for existing security personnel. Strategically placed Avigilon cameras, including specialized models for every need, eliminate blind spots, providing crystal-clear imagery and unparalleled situational awareness. Powerful analytics proactively identify potential threats, enabling preemptive intervention and a safer environment. The robust infrastructure ensures reliable performance, while intuitive workstations empower staff with easy access to real-time and recorded footage. Beyond the technology, scDataCom's commitment extends to long-term system health. The optional preventative maintenance and support agreement provides peace of mind, guaranteeing peak system performance, software updates, expert support, and proactive maintenance, ultimately maximizing the system's longevity and ensuring a safer, more secure future for the facility.

CCTV Surveillance System Upgrade:

- Upgrade the existing surveillance system to an advanced Avigilon solution, leveraging cutting-edge security features.
- Install one (1) NVR6-PRM-FORM-D-72TB-S22-NA Avigilon Server to provide high-capacity video storage and processing.
- Deploy two (2) RM7-WKS-2MN-NA Avigilon Workstations for system management and real-time monitoring.
- Provide and install 2 LG 43" BE43C-H wall mounted LED monitors at each workstation for enhanced monitoring.
- Integrate all new components with the facility's existing security infrastructure to ensure seamless operation.

CCTV Camera Deployment:

To ensure robust security and full surveillance coverage of the Effingham County Prison, the following Avigilon cameras have been strategically selected and positioned. The chosen models provide comprehensive monitoring of the entire prison exterior perimeter, including all entrances and exits. Additionally, surveillance extends to critical areas such as the lobby, corridors, dorms, dayrooms, isolation cells, kitchen and dining areas, maintenance shop, mailroom, and all sensitive areas identified during the site survey.

The deployment consists of:

- **(21) 3.0C-H5A-CR1-IR-SS Avigilon Corner Mount Anti-Ligature Cameras**
    - Designed for secure and tamper-proof surveillance in high-risk areas such as isolation cells and inmate dormitories.
    - Ensures visibility while preventing damage or obstruction attempts.
- **(7) 8.0C-H5A-FE-DO1-IR Avigilon Fisheye Cameras**
    - Provides wide-area surveillance with 360° coverage, reducing blind spots in open spaces, dayrooms, and large inmate common areas.
- **(2) 8.0C-H5A-FE-DO1-IR Avigilon 270° Cameras**
    - Ideal for monitoring hallway intersections, corridor movements, and perimeter corners for complete situational awareness.
- **(1) 12C-H5A-4MH Avigilon 360° Multi-Sensor Camera**
    - Offers comprehensive monitoring in areas requiring full panoramic coverage, such as the prison yard or central control points.
- **(3) 2.0C-H5A-DO1-IR Avigilon Outdoor Dome Cameras**
    - Provides high-definition monitoring of the exterior perimeter and entry/exit points, ensuring perimeter security and detection of unauthorized movements.
- **(7) 2.0C-H5A-D1-IR Avigilon Indoor Dome Cameras**
    - Positioned for general interior monitoring, ensuring surveillance of hallways, administrative offices, sensitive storage areas, and other key locations within the facility.

This carefully selected camera system ensures that all critical security zones within the prison are monitored 24/7, enhancing situational awareness, deterring incidents, and maintaining operational control.

Infrastructure Upgrades:

To support the upgraded surveillance system, scDataCom will implement the following infrastructure enhancements:

- **Fiber Optic Network Installation:**
    - 750 ft of 372-COMOM3-LTD-12 Fiber MM ST for high-speed data transmission.
    - 24 x 95-050-51-X ST Connectors for fiber termination.
    - 2 x WIC-02P Wall Mounted LIUs for fiber management.
    - 2 x CCH-CP12-H3 ST CCH Panels for fiber patching.

- **Network Cabling and Connectivity:**
    - 5000' x Plenum Cat 6 Cable for robust data communication.
    - 6 x DTKMRJ-POE Surge Protectors to safeguard equipment against power surges.
- **Installation and Configuration:**
    - Replacement of existing cabling and installation of new network infrastructure to optimize performance.
    - Proper labeling of all cables at both ends for easy identification and future maintenance.
    - Use of conduit in exposed areas and exterior locations to protect cabling.
    - Testing and validation of all installed components, with electronic test results provided to the site COR.

System Configuration and Testing:

- Configuration of all Avigilon cameras, servers, and workstations to align with operational security protocols.
- Testing of system functionality, including recording, playback, and integration with existing security measures.
- Verification of access control schedules to ensure compliance with facility security policies.
- Ensuring uninterrupted system operation throughout the deployment phase to minimize security risks.

Training and Documentation:

- Hands-on training sessions for Effingham County security personnel to ensure efficient system operation and management.
- Provision of comprehensive as-built documentation, including wiring diagrams, camera placement maps, and system configuration details for future reference and maintenance.

Preventative Maintenance and Support Option

scDataCom is dedicated to maintaining the Effingham County Prison's Video Surveillance System at peak performance and reliability. This commitment is upheld with the availability of a comprehensive annual preventative maintenance and continuous software support agreement.

During each visit, scDataCom will conduct a thorough evaluation of the CCTV servers and workstation infrastructure. This includes assessing both hardware and software components, performing routine updates, checking system health, and verifying that all system elements are fully operational. We will also inspect and maintain disk drives to ensure they are performing optimally, addressing any issues related to disk space and performance through routine cleanup. We will review event logs to identify and correct any errors or warnings, thereby preventing potential system failures. Management of database archives will be undertaken to ensure they are properly stored and retrievable, with archival processes verified for proper functionality.

scDataCom will conduct thorough testing of system functionality, including surveillance hardware inspections to confirm that fields of view are unobstructed, and equipment meets the facility's surveillance needs. Equipment will be cleaned and adjusted as necessary, and security system cabling will be inspected for wear or degradation, with any detected issues addressed. Additionally, firmware on all system components will be updated to the latest versions, with

updates verified for successful application and system stability confirmed with the site representative.

Through these meticulous efforts, scDataCom aims to maintain the highest standards of performance, reliability, and security for the CCTV systems at the Effingham County Prison.

System Software Support Agreements

Included with the optional Preventative Maintenance and Support Agreement scDataCom will deploy an Avigilon Certified Engineer to facilitate the annual renewal of the site's ACC licensing, along with providing any necessary CCTV software or firmware updates. Our engineer will work with the site contacts to verify that the configuration of servers and workstations meets facility needs. Notifications about system upgrades, including software details and versions, will be promptly communicated. All upgraded systems will be tested to verify functionality. All testing results will be reviewed with the site representative upon completion.

Project Deliverables:
- Fully operational Avigilon surveillance system with real-time monitoring and analytics.
- Enhanced security coverage for all critical areas of the prison facility.
- Upgraded infrastructure to support long-term system performance and scalability.
- Comprehensive training and documentation for continued system management.

scDataCom is committed to delivering a state-of-the-art surveillance solution that meets the security demands of Effingham County Prison while ensuring a smooth transition from the existing system.

3. PROJECT MANAGEMENT:

• scDataCom will designate a single Project Manager who will schedule and coordinate all project activities. The Project Manager will generate Weekly Installation Progress Reports for submission to key contacts for the Effingham County team
• The Project Manager will establish and maintain all records and oversee quality control activities
• The Project Manager will be responsible for all scheduled activities and conducting stakeholder meetings and updates in accordance with approved Communications Management Plan.
• Site Supervisor: scDataCom will provide a Senior Supervisor to be on site during the installation, who will serve as the Lead Technician and be responsible for overseeing all aspects of project progress. Site Supervisor that will perform daily inspections on project work, equipment, and compliance. Site supervisor will be minimally OSHA-30 certified with at least 5 years of industry experience. Safety Logs will be completed and compiled electronically for records at company repository.

4. QUALITY MANAGEMENT

 scDataCom fully integrates its quality management system into the organizational structure and performance management systems for each project. We:
1.Maintain a documented quality system consisting of a quality manual with policies and procedures. Copies of this manual will be delivered to the COR and carried by the Project Manager and Supervisor at all times when on site.

2.Tightly control exceptions to the quality system so company standards are applied uniformly to every project. Any deviation for a specific operational reason will be previewed with the COR, other Effingham County staff and documented accordingly.

3. Systematically maintain quality system documents and records.

5. COMMUNICATIONS MANAGEMENT

Formal updates will be provided weekly as project progresses. Updates will be sent to the Effingham County site contacts via email that includes current Gantt chart and total progression status. Immediate communications to external stakeholders for significant impact to scheduling will be conducted as needed. Internal update briefings will be conducted twice a week to identify progress status, challenges and change requests. Immediate communications will be made for any emergencies to include stop work, accidents, site incidents, or significant challenges that will impact scheduling.

6. MOVES/ADDS/CHANGES

All requests for moves, adds and changes will be forwarded to the Effingham County team prior to any work being performed for acceptance prior to any work being performed. All additional work will be approved in writing.

7. PRE-INSTALLATION DELIVERABLES

After receipt of order and prior to beginning work on site, scDataCom will complete the following tasks:
• Kick Off Meeting: schedule a kick-off meeting within 10 days ARO. The purpose of the kick- off meeting is to review the project plan in order to develop a detailed Work Breakdown (WBD) and project schedule, and to review the scope of work.
• Detailed Work Plan: Deliver a detailed Project Plan and Work Breakdown Schedule within 14 days ARO for customer review and acceptance.
• Key Personnel: Within 20 days ARO, scDataCom will provide a list of Key Personnel supporting this
project, to include Project Manager, Quality Control Manager, and Site Supervisor.
• Site Inspection: scDataCom will perform an inspection of the buildings and grounds with the team prior to commencing work.

8. POST-INSTALLATION DELIVERABLES

After installation is complete, scDataCom will inspect and test the system with the COR. A minimum of (2) copies of pre-test results will be furnished to the COR for review prior to Final Acceptance Testing. Additional deliverables include the following:
a. Provide customer with all licenses, entitlements, activation keys, and associated paperwork
b. Provide MAC addresses and ID numbers to customer
c. Provide as-built drawings containing hardware locations, naming conventions, wiring diagrams, equipment ID, patch panel port #, router number and ports utilized

9. AS-BUILT DRAWINGS

scDataCom Registered Communications Distribution Designer team will create and provide As-Built drawings of the installed Avigilon system equipment and their wiring configurations as well as cable and conduit pathways. Provided will be 2 sets of hardcopy drawings and electronic copies.

10. WARRANTY TERMS

scDataCom provides a minimum warranty period of twelve months from the date of final acceptance for all provided and installed equipment. This warranty covers both materials and workmanship under normal use and service, when used for the purpose for which the unit was designed. scDataCom will honor standard Manufacturer warranties of greater than 12 months.

11. EXCLUSIONS/ASSUMPTIONS: The following exclusions/assumptions are included in this proposal

a. scDataCom is not responsible for any high voltage electrical, including installation of power outlets.

b. scDataCom is not responsible for maintenance of fire protection and HVAC controls.

c. Any existing access control cabling or electrified door hardware deemed necessary for replacement would require a change order for replacement.

d. All materials installed will meet the specifications provided in the SOW

e. Damage to equipment due to negligence, willful acts, or acts of God or due power surges is excluded from warranty

12. PAST PERFORMANCE:

scDataCom, LLC is uniquely qualified to perform the work required under this solicitation. We are a verified Service-Disabled Veteran Owned and Woman Owned Small Business headquartered in Savannah Georgia. We specialize in the access control and video surveillance market and are experienced in the unique requirements related to delivering services in this environment. In the following section we have listed past projects and client references that showcase our recent commercial or federal work of a similar scope to that required under this solicitation, with excellent CPARs ratings and results.

A. Improve Security for Effingham County Sheriff's Office. Award #22-17-001

Contract Value:	$280,000
Project Role:	Prime Contractor
Period of Performance:	4/10/2022

Description of Services: Upgrade current VMS, cameras, and switches. We will be replacing current IP cameras with (89) Avigilon H5SL camera's which have built- in analytics to detect unusual motion detection, (23) Avigilon H5A cameras with advanced analytics such as appearance search, (7) Avigilon multi sensor exterior cameras and (1) PTZ with full analytics. (21) cameras will have audio connected to them using Louroe Verifact A microphones and all exterior cameras will have surge suppression on network side. Work includes annual maintenance of all devices.

B. Coastal State Prison Camera and Infrastructure Upgrade
Award # 99999-SPD-SPD00000025-0003

Contract Value:	$650,000
Contract Type:	Time and Materials
Project Role:	Subcontractor to Technology Integration Group
Period of Performance:	July 2021 to May 2022
Customer Reference/Point of Contact:	
Name:	Tracy Morgan, Senior Project Manager
Phone:	678-978-4597
Email:	tracy.morgan@tig.com

Description of Services: Provide materials, labor, and project management services to complete installation of new fiber network, CAT6 cable, and 500 Axis cameras. Work includes supervision of specialty subcontractors as well as project management activities with Prime Contractor and Customer representatives. Work conducted in a medium security correctional facility with a 100% escort requirement.

C. Coatesville VA Medical Center, Coatesville PA. Avigilon NVRs, Award #36C24422P0743.

Contract Value:	$302,887
Contract Type:	Firm Fixed Price
Project Role:	Prime Vendor
Period of Performance:	August 2022 to March 2023
Customer Reference/Point of Contact	
Name:	Tara Callahan
Phone:	610-384-7711 ext. 4304
Email:	tara.callahan2@va.gov

Description of Services: scDataCom provided, installed, and configured (2) 160 TB AI enabled Avigilon NVRs to integrate with existing (500) cameras and Lenel OnGuard Access Control System. Installation included racking new servers, configuring NVRs, developing, and implementing a camera migration plan that allowed for constant migration and testing with both systems working simultaneously until migration is complete. scDataCom also configured (100) axis cameras with Avigilon Analytics Channel licenses and installed software on (106) existing client PCs and provided administrator and end user training upon project completion

D. VA Puget Sound, WA. Security Camera Upgrade, Award #36C26022P0881.

Contract Value:	$838,288
Contract Type:	Firm Fixed Price
Project Role:	Prime Vendor
Period of Performance:	July 2022 to May 2023
Customer Reference/Point of Contact	
Name:	Laura Davis, Contracting Officer
Phone:	253-888-4920
Email:	laura.davis5@va.gov

Description of Services: Provide all resources necessary to complete the installation of third phase of the Seattle campus modernization utilizing Avigilon compatible IP cameras. Approximately 250 cameras installed to cover all main interior corridors, elevators, additional entry points and emergency exits, pharmacy entry doors, and data closets.

PART C: PRICING

scDataCom

2700 Gregory Street
Suite 180
Savannah Georgia 31404
U.S.A

Quote

Estimate #	: QTE-6074	Sales Person	: Joey Buroker
Issue Date	: 03 Feb 2025		

Bill To	Ship To
Effingham County Board of Commissioners 321 GA-119 Springfield 31329 GA	321 GA-119 Springfield 31329 GA

#	Item & Description	Qty	Unit Price	Line Price
1	Avigilon NVR6-PRM-FORM-D-72TB-S22-NA SKU : NVR6-PRM-FORM-D-72TB-S22-NA NVR6 PRM FORM D 72TB 2U Rack Mnt, WS22, 5Y Onsite 4HMC, NA	1.00 ea.	34,385.00	34,385.00
2	Avigilon, RM7-WKS-2MN-NA, Workstation SKU : RM7-WKS-2MN-NA Remote Monitoring Workstation; 2 Monitors; NA	2.00 ea.	1,947.00	3,894.00
3	Samsung BE43C-H 43" LED-backlit LCD 4K TV SKU : BE43C-H 43" LED-backlit LCD TV - Crystal UHD - 4K	4.00 ea.	478.00	1,912.00
4	Hat Design Works 9110-104 LCD Wall Mount - TAA SKU : 9110-104 LCD/TV wall mount supports up to 45 Lbs. Rotate portrait to landscape,pan left to right, and tilt 30 degrees. Mounting hardware not included. TAA Compliant.	4.00 ea.	50.00	200.00
5	3.0C-H5A-CR1-IR-SS SKU : 3.0C-H5A-CR1-IR-SS H5A; Corner; SS; 3.0 MP WDR; 3-9mm; IR	21.00 ea.	1,417.00	29,757.00
6	8MP H5A Fisheye IR Dome Camera SKU : 8.0C-H5A-FE-DO1-IR 8.0 MP; H5A Fisheye Dome Camera; LightCatcher; Day/Night; WDR; 1.41mm f/2.0; Next-Generation Analytics; Integrated IR	7.00 ea.	743.00	5,201.00
7	Avigilon, 9C-H5A-3MH, 3X3MP SKU : 9C-H5A-3MH 3X3MP, WDR, 270 degree max field of view, Lightcatcher, 3.3-5.7MM, Camera Only	2.00 ea.	1,699.00	3,398.00
8	Avigilon, 12C-H5A-4MH, 4X3 MP 360 SKU : 12C-H5A-4MH 4X3MP, WDR, 350 degree max fFOV, Lightcatcher, 3.8-5.7MM Camera Only	1.00 ea.	1,980.00	1,980.00
9	Avigilon 2.0C-H6A-DO1-IR 2MP H6A Indoor IR Dome SKU : 2.0C-H6A-DO1-IR 2MP H6A Outdoor IR Dome Camera with 2.8-12mm Lens	3.00 ea.	984.00	2,952.00
10	Avigilon, 2.0C-H6A-D1-IR, 2MP Dome SKU : 2.0C-H6A-D1-IR 2MP H6A IR Dome Camera	7.00 ea.	831.00	5,817.00
11	IR Illuminator Ring for H4 Multisensor SKU : H4AMH-AD-IRIL1 Optional IR illuminator ring; up to 30m (100ft); for use with H4AMH-DO-COVR1.	3.00 ea.	323.00	969.00
12	Avigilon, H5AMH-DO-COVR1, Dome Cover SKU : H5AMH-DO-COVR1 Clear dome covers for pendant multihead cameras	3.00 ea.	165.00	495.00
13	Avigilon, WLMT-1001, Wall Mount for Large Pendant Camera SKU : WLMT-1001 Wall Mount for Large Pendant Camera	3.00 ea.	101.00	303.00
14	Avigilon,CRNMT-1001,Sarix Multi Pro Camera, Corner Mount SKU : CRNMT-1001 Sarix Multi Pro Camera, Corner Mount for large pendant wall mount WLMT-1001	3.00 ea.	120.00	360.00

#	Item & Description	Qty	Unit Price	Line Price
15	Replacement H5A/H4A Smoke Indoor Dome Cover SKU : H4A-DD-SMOK1 Replacement smoked transparent cover for H5A/H4A indoor dome camera. Reduces light transmission by 50%. Not recommended for low light applications or with the integrated IR illuminator. Includes dome bubble and grey camera cover.	7.00 ea.	39.00	273.00
16	Replacement H5A/H4A Smoke Outdoor Dome Cover SKU : H4A-DO-SMOK1 Replacement smoked transparent cover for H5A/H4A outdoor dome camera. Reduces light transmission by 50%. Not recommended for low light applications or with the integrated IR illuminator. Includes dome bubble and grey camera cover.	3.00 ea.	59.00	177.00
17	Avigilon UNITY8-ENT Unity Enterprise camera channel SKU : UNITY8-ENT Unity Enterprise camera channel	41.00 ea.	262.00	10,742.00
18	DITEK, DTK-MRJPOE, Power Over Ethernet Power-Data Surge Protection, 100 base-T SKU : DTK-MRJPOE DITEK Power Over Ethernet Power-Data Surge Protection, 100 base-T	6.00 ea.	67.00	402.00
19	Commscope 372-COMOM3-LTD-12 12 Fiber, Lazrspeed 300 OM3 Multimode SKU : 372-COMOM3-LTD-12 D-012-LN-5L-F12NS/LTS - Fiber Cable, Single Jacket, All-Dielectric, Gel-Free, Outdoor Stranded Loose Tube, 12 Fiber, Lazrspeed 300 OM3 Multimode	750 ft	1.46	1,095.00
20	Corning 95-050-51-X UniCam Connector, ST Compatible, 50 um Multimode SKU : 95-050-51-X UniCam Connector, ST Compatible, 50 um Multimode	24.00 ea.	28.00	672.00
21	Wall-Mountable Interconnect Center SKU : WIC-02P Wall-Mountable Interconnect Center (WIC), holds 2 CCH connector panels	2.00 ea.	164.00	328.00
22	Corning CCH-CP12-H3 Connector Housing (CCH) With ST Adapters, Multimode SKU : CCH-CP12-H3 Connector Housing (CCH) With ST Adapters, Multimode (OM3/4), (12) Simplex Adapters for 12-Strand Fiber	2.00 ea.	107.00	214.00
23	WCW CAT6P-BLU 23-4P Unshielded Solid CMP-Plenum C6 SKU : CAT6P-BLU 23-4P Unshielded Solid CMP-Plenum C6	5,000 ft	0.42	2,100.00
24	Platinum Tools, 100010B, RJ45 CAT6 Connectors 100 PK SKU : 100010B Cable Connector, 1-Piece, Cat 6, RJ45, 0.26" Cable Outer Diameter, 100 per Box	2.00 ea.	84.00	168.00
25	Shipping & Handling SKU : Shipping Shipping & Freight	1.00	250.00	250.00
26	MISC MATERIALS SKU : MISC MATERIALS Connectors, tools and consumable materials required to deliver fully functional solution	1.00 ea.	2,250.00	2,250.00
27	Labor - Low Voltage Technician SKU : Labor - Low Voltage Technician All inclusive labor rate consisting of certified technicians; programming; project management; and Professional Services for training and RCDD Services.	1.00 ea.	46,678.00	46,678.00

	Sub Total	156,972.00
	Total	**$156,972.00**

Notes

Thank you for choosing scDataCom, we look forward to exceeding your expectations!

Terms & Conditions
Full terms & conditions available here: https://www.scdatacom.net
/terms?rq=terms%20and%20condition

scDataCom

2700 Gregory Street
Suite 180
Savannah Georgia 31404
U.S.A

Quote

Estimate #	: QTE-6080	Sales Person	: Joey Buroker
Issue Date	: 04 Feb 2025		

Bill To	Ship To
Effingham County Board of Commissioners 321 GA-119 Springfield 31329 GA	321 GA-119 Springfield 31329 GA

Subject :

Preventative Maintenance and Software Support Agreement

#	Item & Description	Qty	Unit Price	Line Price
	Base Year			
1	Labor - Preventative Maintenance SKU : Labor - Preventative Maintenance **Annual Avigilon ACC Licensing – Ensure software updates and system performance optimization. **Routine Inspections & Maintenance – Check for physical damage, secure mounting hardware, and inspect weatherproof seals. **System Functionality – Test camera focus, alignment, auto-iris, and connectivity. **Environmental Protection – Clear debris, check for water accumulation, and ensure proper sealing. **Electrical & Wiring Checks – Inspect grounding, cable integrity, terminations, and connections. **Cabinet & Enclosure Maintenance – Secure doors, lubricate locks, clean interior, and test cooling systems.	1.00 ea.	18,551.00	18,551.00
	Option Year 1			
2	Labor - Preventative Maintenance SKU : Labor - Preventative Maintenance **Annual Avigilon ACC Licensing – Ensure software updates and system performance optimization. **Routine Inspections & Maintenance – Check for physical damage, secure mounting hardware, and inspect weatherproof seals. **System Functionality – Test camera focus, alignment, auto-iris, and connectivity. **Environmental Protection – Clear debris, check for water accumulation, and ensure proper sealing. **Electrical & Wiring Checks – Inspect grounding, cable integrity, terminations, and connections. **Cabinet & Enclosure Maintenance – Secure doors, lubricate locks, clean interior, and test cooling systems.	1.00 ea.	19,263.00	19,263.00
	Option Year 2			
3	Labor - Preventative Maintenance SKU : Labor - Preventative Maintenance **Annual Avigilon ACC Licensing – Ensure software updates and system performance optimization. **Routine Inspections & Maintenance – Check for physical damage, secure mounting hardware, and inspect weatherproof seals. **System Functionality – Test camera focus, alignment, auto-iris, and connectivity. **Environmental Protection – Clear debris, check for water accumulation, and ensure proper sealing. **Electrical & Wiring Checks – Inspect grounding, cable integrity, terminations, and connections. **Cabinet & Enclosure Maintenance – Secure doors, lubricate locks, clean interior, and test cooling systems.	1.00 ea.	20,005.00	20,005.00

#	Item & Description	Qty	Unit Price	Line Price

	Sub Total	57,819.00
	Total	**$57,819.00**

Notes

Thank you for choosing scDataCom, we look forward to exceeding your expectations!

Terms & Conditions
Full terms & conditions available here: https://www.scdatacom.net /terms?rq=terms%20and%20condition

3/09/2023

To whom it may concern:

Re: Manufacturer Authorization Letter

This letter is to confirm that the company at the address noted below is a certified Avigilon Service Provider and is a Partner in good standing.

scDataCom LLC
2700 Gregory St. Suite 180
Savannah GA 31401
US

In order to be an Avigilon Service Provider in good standing, a company is promptly paying all invoices, has an adequate number of employees who are fully certified as having been trained through Avigilon training programs on how to install and provide first line of support for all Avigilon products, and has completed several Avigilon solution implementations.

This letter is subject to review and renewal on an annual basis, and good standing can be revoked at any time. Please contact the undersigned if you have any questions.

Sincerely,

AVIGILON CORPORATION

1/12/2022
In Reply Refer To: **00VE**

Mrs. Kathleen M. Ford
scDataCom, LLC
DUNS: 078863856
2700 Gregory St., Ste. 180
Savannah, GA 31404

Dear Mrs. Ford:

On behalf of the U.S. Department of Veterans Affairs (VA), Center for Verification and Evaluation (CVE), I am writing to inform you that your application for reverification has been approved. scDataCom, LLC will remain eligible to participate in Veterans First Contracting Program opportunities with VA as a verified Service-Disabled Veteran-Owned Small Business (SDVOSB).

This verification is valid for three (3) years from the date of this letter. Please retain a copy of this letter to confirm scDataCom, LLC's continued program eligibility in accordance with 38 Code of Federal Regulation (CFR) § 74.12. You may reapply 120 days prior to your new expiration date by logging into https://www.vetbiz.va.gov/.

To promote scDataCom, LLC's verified status, you may use the following link to download the logo for use on your marketing materials and business cards: https://www.va.gov/OSDBU/docs/cve_completed_s.jpg. In addition, please access the following link for information on next steps and opportunities for verified businesses: http://www.va.gov/osdbu/verification/whatsNext.asp.

While CVE has confirmed that scDataCom, LLC is presently, as of the issuance of this notice, in compliance with the regulation, scDataCom, LLC must inform CVE of any changes or other circumstances that would adversely affect its eligibility. Eligibility changes not reported to CVE within 30 days could result in a referral to the Office of Inspector General (OIG), a referral to the Debarment and Suspension Committee, and the initiation of cancellation proceedings—all of which could result in scDataCom, LLC being removed from the VIP Verification Program.

Please be advised all verified businesses may be required to participate in one or more post-verification audits at CVE's discretion. Additionally, this letter and other

"World Class Professionals
Enabling Veteran Business Opportunities by Protecting the Veteran Advantage - One Vet at a Time"

Page 2
Mrs. Kathleen M. Ford

information pertaining to scDataCom, LLC's verification application may be subject to Freedom of Information Act (FOIA) requests. However, FOIA disclosures include exceptions regarding the personal privacy of individuals, and VA policy similarly provides limitations on the release of individuals records.

If scDataCom, LLC receives a negative size determination from the U.S. Small Business Administration (SBA), CVE must act in accordance with 38 CFR § 74.2(e). Also note, if at any time scDataCom, LLC discovers that it fails to meet the size standards for any NAICS Code(s) listed on its VIP profile, CVE requires such NAICS Code(s) be removed within five (5) business days. If these NAICS Codes are not removed within the allotted five (5) business days, CVE may request SBA conduct a formal size determination. In addition, CVE may initiate a referral to OIG, a referral to the Debarment and Suspension Committee and pursue cancellation proceedings. All of the aforementioned referrals and procedures could result in scDataCom, LLC being removed from the VIP Verification Program.

Thank you for your service to our country and for continuing to serve America through small business ownership.

Sincerely,

John Perkins
Director
Center for Verification and Evaluation

WBENC

WOMEN'S BUSINESS ENTERPRISE NATIONAL COUNCIL

JOIN FORCES. SUCCEED TOGETHER.

**HEREBY GRANTS
WOMAN OWNED SMALL BUSINESS (WOSB) CERTIFICATION TO**

scDataCom, LLC

The identified small business is an eligible WOSB for the WOSB Program, as set forth in 13 C.F.R. part 127 and has been certified as such by an SBA approved Third Party Certifier pursuant to the Third Party Agreement, dated June 30, 2011, and available at www.sba.gov/wosb.

The WOSB Certification expires on the date herein unless there is a change to the SBA's regulation that makes the WOSB ineligible or there is a change in the WOSB that makes the WOSB ineligible. If either occurs, this WOSB Certification is immediately invalid. The WOSB must not misrepresent its certification status to any other party, including any local or State government or contracting official or the Federal government or any of its contracting officials.

Majority Female Owner: Kathleen Ford
NAICS: 561621, 238210, 561622 UNSPSC: 43222500, 46171610, 46171612, 46171621
Certification Number: WOSB171777
Renewal Date: August 31, 2025
WOSB Regulation Expiration Date: 08/31/2026

GREATER WOMEN'S BUSINESS COUNCIL

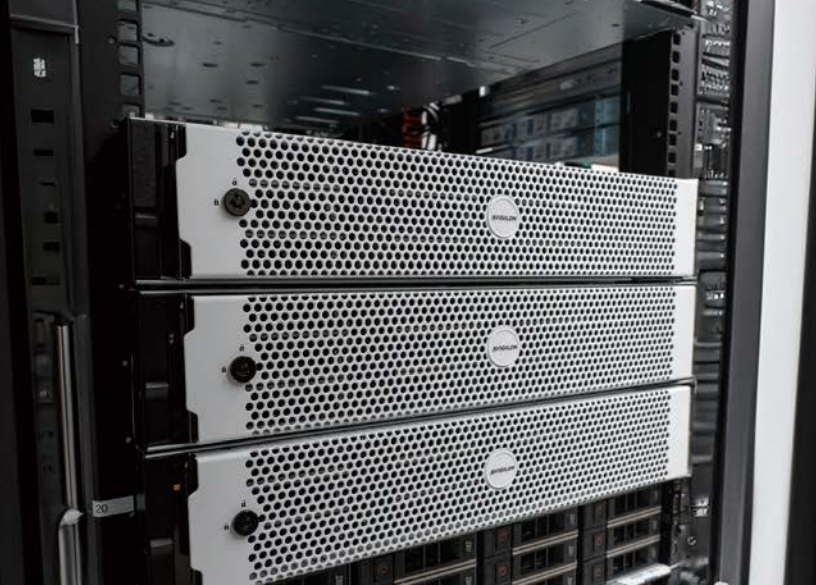Roz Lewis, Women's Business Center President & CEO

Pamela Prince-Easton, WBENC President & CEO

LaKesha White, Sr. Vice President, Certification

AVIGILON™

Network Video Recorders

Uncompromising performance and reliability you can trust

Built to handle heavy-duty video workloads and flexible retention requirements without sacrificing performance, the sixth-generation **Avigilon Network Video Recorder (NVR6)** delivers where it matters: performance, reliability, and security. Quickly scale up from terabytes to petabytes of storage at a single location, as the NVR6 offers 16TB to 440TB storage options in a single NVR. Experience the might of a storage density that matches the compute density, supporting up to 400 recording and live streaming channels. Streamline your server deployment to save time and resources with NVR6, fully optimized and pre-configured with Avigilon Unity Video[1] software and Windows OS.
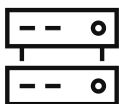
Flexible and scalable tier-1 storage

Offers flexible configurations for security teams to quickly scale up to 440 TB in Tier-1 storage capacity and tailor it to their unique retention requirements.

Quick & simple deployment with Avigilon Unity Video™ pre-configured

The NVR6 comes pre-configured with Avigilon Unity Video[1] software for secure network video recording and management of Avigilon cameras up to 61 MP resolution. Comes with Unity Video 8 installer available for upgrade.

Respond faster with AI-powered analytics support

Security teams can respond faster to critical events with the NVR6's seamless support for Avigilon Appearance Search, Facial Recognition, and LPR technologies.

Strengthen cybersecurity

Designed with cybersecurity in mind, the NVR6 comes with a TPM 2.0 module built-in to support hardware Root of Trust authentication and data encryption.

Superior redundancy & reliable data storage

Reliable storage with RAID-configured redundancy offers a highly available and resilient system that protects your data. Our models include reliable hard drives with RAID6 (STD and PRM) or RAID60 (PRM PLUS) redundancy.

Increase system uptime & productivity

Sites connected to the cloud and subscriber health can use system health monitoring to increase system availability, streamline maintenance time, and minimize on-site service calls.

Resolve technical issues end-to-end with a single-point-of-contact

Our NVR6s are backed by up to a 5-year warranty[2] and 24/7 lifetime technical support dedicated to Avigilon's End-to-End solution.

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[1] Pre-installed with Avigilon Control Center 7. Unity Video 8 Installer for upgrade is available.
[2] NVR Value comes with a 3-year warranty only. Warranty coverage and support Service Level Agreement is subject to end user's geographic location. Please refer to Avigilon Limited Warranty & Product Policies (Supplement #1 for Form D chassis and Supplement #2 for Form H chassis) and our datasheet for more information.

Analytics and Specifications

Avigilon Appearance Search™
Quickly locates a specific person or vehicle of interest across an entire site using a sophisticated deep learning AI search engine.
UNITY8/ACC7-ENT required

Facial Recognition
Detects matches from managed watchlists to alert operators of people of interest. Requires Appearance Search and an additional license.
UNITY8/ACC7-FACE required

License Plate Recognition (LPR)
Significant improvements[2] in LPR performance compared to the previous generations of NVRs. Works with ACC software for accurate license plate capture at a range of distances and speeds. Requires an additional license.
UNITY8/ACC7-LPR required

Occupancy Counting
With cameras at entrances and exits, a running total of occupancy can be monitored in real time.
ACS Required

NVR6 Model	Maximum Supported Cameras By Feature[1]		Number of LPR Lanes[2]			
	Appearance Search Only[3]	Facial Recognition + Appearance Search[3]	5 FPS (<16 KM/H)	10 FPS (<48 KM/H)	20 FPS (<100 KM/H)	30 FPS (<150 KM/H)
Premium Plus	220	60	60	30	15	10
Premium	200	50	40	20	10	6
Standard	90	50	22	11	5	3

[1]Assumes each channel consists of a H.264/H.265 2MP 30 FPS primary stream and a low resolution 30 FPS secondary stream with moderate ONVIF Profile S motion metadata as well as appliance-wide average per camera rates of classified objects leaving field of view:
- H6A/H5A Cameras - One every second;
- H4A Cameras - One every two seconds.
Each multisensor camera with 3-4 sensors is considered equivalent to 3-4 cameras.
Additional licenses may be required. For more information, contact Avigilon Sales.
[2] Assumes a 3 MP camera with 1 MP license plate scan area and Frames Per Second (FPS) to recognize license plates up to vehicle speeds in Kilometers Per Hour (KM/H) . Results may vary according to camera mounting parameters.
[3] Requires H6A/H5A or H4A cameras and ACC 7.14.32 / Unity Video 8.3.0.

Specifications

System	NVR6 Premium Plus Form H	NVR6 Premium Form D	NVR6 Standard Form D
Capacity	200/240/280/360/440 TB	72/96/120/160/200 TB	16/24/32/48/64 TB
Avigilon Unity Video/Avigilon Control Center™ Edition	Version 7 (factory installed), Version 8 upgrade available on machine		

Video Streaming Performance (10 GbE or 1 GbE Teamed - Multiple Connections)[1]		NVR6 Premium Plus Form H	NVR6 Premium Form D	NVR6 Standard Form D
	Recording Rate:	Up to 1500/1675/1870/2300/2700Mbps, increasing with storage capacity	Up to 1500 Mbps	Up to 900 Mbps[2]
	Recording Channels:	Up to 220/245/275/335/400, increasing with storage capacity	Up to 200	Up to 130[2]
	Livestream Rate:	Up to 1500/1675/1870/2300/2700 Mbps, increasing with storage capacity	Up to 1500 Mbps	Up to 900 Mbps[2]
	Livestream Channels:	Up to 220/245/275/335/400, increasing with storage capacity	Up to 200	Up to 130[2]
	Playback Rate:	Up to 340/370/400/500/680 Mbps, increasing with storage capacity	Up to 600 Mbps	Up to 600 Mbps[2]
	Playback Channels:	Up to 50/55/60/75/100, increasing with storage capacity	Up to 80	Up to 80[2]

Video Streaming Performance (1 GbE - Non-Teamed - Multiple Connections)[1]				
	Recording Rate:	Up to 800 Mbps	Up to 800 Mbps	Up to 800 Mbps
	Recording Channels:	Up to 120	Up to 120	Up to 120
	Livestream Rate:	Up to 800 Mbps	Up to 800 Mbps	Up to 800 Mbps
	Livestream Channels:	Up to 120	Up to 120	Up to 120
	Playback Rate:	Up to 340/370/400/500/680 Mbps, increasing with storage capacity	Up to 600 Mbps	Up to 600 Mbps
	Playback Channels:	Up to 50/55/60/75/100, increasing with storage capacity	Up to 80	Up to 80

Operating System		Windows Server 2022 LTSC		Windows Server 2022 LTSC or Windows 10 IoT Enterprise LTSC 2021
Hard Disk Drive Configuration	Video Data:	RAID 60 Up to 26 × 3.5" NLSAS Drives, hot-swappable	RAID 6 Up to 12 × 3.5" SATA Drives, hot-swappable	RAID 6 Up to 10 × 3.5" SATA Drives, hot-swappable
	Operating System:	2 × 480 GB NVMe SSD Drives, RAID 1	2 × 480 GB M.2 SSD Drives, RAID 1	
Recording Storage Capacity		Up to 520 TB raw; 440 TB effective (RAID 60)	Up to 240 TB raw; 200 TB effective (RAID 6)	Up to 80 TB raw; 64 TB effective (RAID 6)
Network Interface[3]		4 × 10 GbE SFP+ ports 4 × 1 GbE RJ-45 ports	4 × 10 GbE SFP+ ports 6 × 1 GbE RJ-45 ports	2 × 10 GbE SFP+ ports[2] (optional) 6 × 1 GbE RJ-45 ports
Memory		8 × 16 GB DDR5	4 × 16 GB DDR5	2 × 16 GB DDR5
Processor		2 × Intel® 16-core Xeon®	2 × Intel® 8-core Xeon®	1 × Intel® 8-core Xeon®
License Plate Recognition		Supported[4]		
Appearance Search and Facial Recognition on Avigilon Analytic Cameras		Supported[4]		

[1]Assumes each channel consists of a H.264/H.265 2MP 30 FPS primary stream and a low resolution 30 FPS secondary stream with moderate ONVIF Profile S motion metadata.

[2]Optional, with 10 GbE Kit (NVR6-AINVR2-FORM-D-10GBE) sold separately.

[3]Direct Attach Cables (NVR6-AINVR2-FORM-H-SFPPLUS-DA for NVR6 Premium Plus or NVR6-AINVR2-FORM-D-SFPPLUS-DA for all NVR6 Premium/Standard) or system-specific SFP+ transceivers (NVR6-AINVR2-FORM-H-SFPPLUS-SR for NVR6 Premium Plus, NVR6-AINVR2-FORM-D-SFPPLUS-SR for NVR6 Premium/Standard) sold separately.

[4]Purchase of license required, refer to the list of features under "Analytics and Specifications" on the previous page for more information.

System (continued)	NVR6 Premium Plus Form H	NVR6 Premium Form D	NVR6 Standard Form D
Video Outputs	1 × VGA		
Local Viewing	No		
Out-of-band Management	iLO Advanced	iDRAC 9 Enterprise	
Warranty	5-year 4-hour mission critical "Form H" warranty with onsite parts delivery service. 5-year keep your drive warranty upgrade available. Refer to Warranty Supplement #2.	5-year 4-hour mission critical "Form D" warranty with onsite parts delivery service. 5-year keep your drive warranty upgrade available. Refer to Warranty Supplement #1.	5-year NBD (Next Business Day) "Form D" warranty with onsite parts delivery service. 5-year keep your drive warranty and 4-hour mission critical warranty upgrades available. Refer to Warranty Supplement #1.

Mechanical	NVR6 Premium Plus Form H	NVR6 Premium Form D	NVR6 Standard Form D
Form Factor	2U Rack Mount Form H High Density Chassis	2U Rack Mount Form D Chassis	
Dimensions (L x W x H)	812.80 mm × 448.0 mm × 87.5 mm 32.00" × 17.63" × 3.44"	721.6 mm × 482.0 mm × 86.8 mm 28.4" × 18.98" × 3.42"	
Weight	Max: 42.8 kg (95 lbs)	Max: 28.6 kg (63 lbs)	

Electrical	NVR6 Premium Plus Form H	NVR6 Premium Form D	NVR6 Standard Form D
Power Input	100 to 240 VAC, 50/60 Hz, auto-switching		
Power Supply	Dual (1+1) 1000 W redundant	Dual (1+1) 1400 W redundant	Single 1400 W, optional redundant power supply available.
Power Consumption	Maximum 1000 W (3413 BTU/h)	Maximum 988 W (3371 BTU/h)	Maximum 725 W (2473 BTU/h)
Power Efficiency	Titanium	Platinum	

Environmental	NVR6 Premium Plus Form H	NVR6 Premium Form D	NVR6 Standard Form D
Operating Temperature	10°C to 30°C (50°F to 86°F)	10°C to 35°C (50°F to 95°F)	
Storage Temperature	-30°C to 60°C (-22°F to 140°F)	-40°C to 65°C (-40°F to 149°F)	
Operating Humidity	8% to 90% relative humidity with 28°C (82.4°F) max dew point	8% to 80% relative humidity with 21°C (69.8°F) max dew point	
Storage Humidity	5% to 95% RH with 38.7°C (101.7°F) max dew point. Atmosphere must be non-condensing at all times.	5% to 95% RH with 27°C (80.6°F) max dew point. Atmosphere must be non-condensing at all times.	
Operating Vibration	0.15 Grms at 10 Hz to 300 Hz	0.21 Grms at 5 Hz to 500 Hz	
Storage Vibration	0.5 Grms at 10 Hz to 500 Hz	1.88 Grms at 10 Hz to 500 Hz	
Operating Shock	2 G	6 G	
Storage Shock	15 G	71 G	
Operating Altitude	3,050 m (10,000 ft)		
Storage Altitude	9,144 m (30,000 ft)	12,000 m (39,370 ft)	

Certifications	NVR6 Premium Plus Form H	NVR6 Premium Form D	NVR6 Standard Form D
Certifications/Approvals	UL, cUL, CE, NRCS, NOM, RCM, VCCI, BSMI, CCC, KC, UKCA, RoHS, BIS, CMIM	UL, cUL, CE, NRCS, NOM, RCM, VCCI, BSMI, CCC, KC, UKCA, RoHS, CMIM, BIS[1]	
Safety Standards	UL/CSA/IEC/EN 62368-1		
Electromagnetic Emissions Standards	FCC Part 15 Subpart B (Class A), ICES-003 (Class A), EN 55032 (Class A), EN 61000-3-2, EN 61000-3-3		
Electromagnetic Immunity Standards	EN 55035		

[1]Not available at launch, coming in second half of 2024.

Supplied Accessories	NVR6 Premium Plus Form H	NVR6 Premium Form D	NVR6 Standard Form D
Rack Rail System	Shelf-Mount Adjustable Rail Kit	ReadyRails Sliding Rails with Cable Management Arm	
Bezel	1, front		
Power Cords	4 total: 2 × C13 / C14, 2 × regional variant (from options below)		2 total: 1 × C13 / C14, 1 × regional variant (from options below)

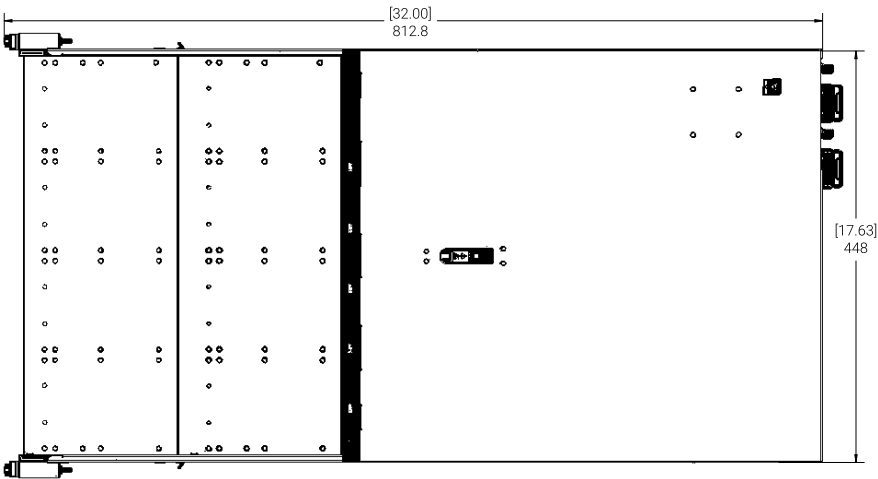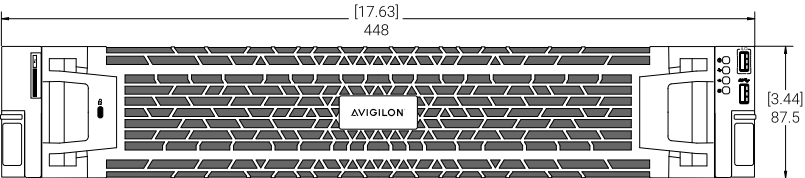(NA) NEMA 5-15P / C13   (UK) BS1363 / C13   (EU) SCHUKO / C13   (AU) AS3112 / C13

Outline Dimensions

[X.X]	INCHES
X	MM

NVR6 Premium Plus Form H (200 240 280 360 440 TB)

Form Factor
2U Rack Mount Form H High Density Chassis

Dimensions (L × W × H)
812.8 mm × 448.0 mm × 87.5 mm
32.00" × 17.63" × 3.44"

Weight (when fully populated with hard drives)
42.8 kg [95 lbs]

NVR6 Premium Form D (72 96 120 160 200 TB) & NVR6 Standard Form D (16 24 32 48 64 TB)

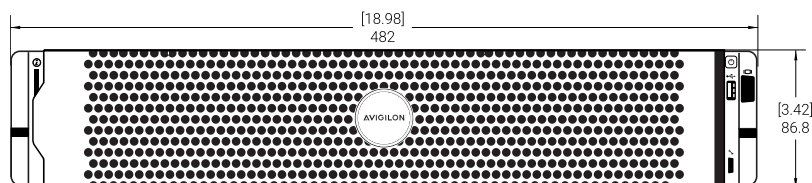**Form Factor**

2U Rack Mount Form D Chassis

Dimensions (L × W × H)

721.6 mm × 482.0 mm × 86.8 mm

28.4" × 18.98" × 3.42"

Weight (when fully populated with hard drives)

28.6 kg [63 lbs]
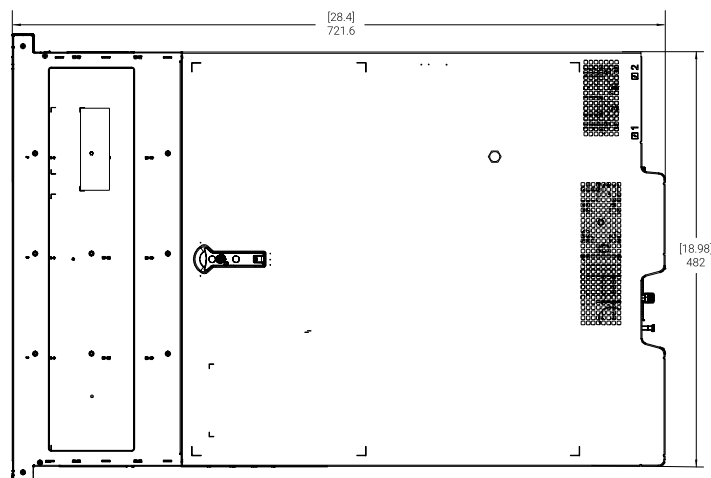
Ordering Information

NVR6 Premium Plus Form H

NVR6-PRM-PLUS-FORM-H-440TB-S22	NVR6 Premium Plus Form H 440 TB (520 TB Raw) with Windows Server 2022 LTSC and ACC 7
NVR6-PRM-PLUS-FORM-H-360TB-S22	NVR6 Premium Plus Form H 360 TB (440 TB Raw) with Windows Server 2022 LTSC and ACC 7
NVR6-PRM-PLUS-FORM-H-280TB-S22	NVR6 Premium Plus Form H 280 TB (360 TB Raw) with Windows Server 2022 LTSC and ACC 7
NVR6-PRM-PLUS-FORM-H-240TB-S22	NVR6 Premium Plus Form H 240 TB (320 TB Raw) with Windows Server 2022 LTSC and ACC 7
NVR6-PRM-PLUS-FORM-H-200TB-S22	NVR6 Premium Plus Form H 200 TB (280 TB Raw) with Windows Server 2022 LTSC and ACC 7

NVR6 Premium Form D

NVR6-PRM-FORM-D-200TB-S22	NVR6 Premium Form D 200 TB (240 TB Raw) with Windows Server 2022 LTSC and ACC 7
NVR6-PRM-FORM-D-160TB-S22	NVR6 Premium Form D 160 TB (200 TB Raw) with Windows Server 2022 LTSC and ACC 7
NVR6-PRM-FORM-D-120TB-S22	NVR6 Premium Form D 120 TB (144 TB Raw) with Windows Server 2022 LTSC and ACC 7
NVR6-PRM-FORM-D-96TB-S22	NVR6 Premium Form D 96 TB (120 TB Raw) with Windows Server 2022 LTSC and ACC 7
NVR6-PRM-FORM-D-72TB-S22	NVR6 Premium Form D 72 TB (88 TB Raw) with Windows Server 2022 LTSC and ACC 7

NVR6 Standard Form D

NVR6-STD-FORM-D-64TB-S22	NVR6 Standard Form D 64 TB (80 TB Raw) with Windows Server 2022 LTSC and ACC 7
NVR6-STD-FORM-D-64TB-W10	NVR6 Standard Form D 64 TB (80 TB Raw) with Windows 10 IoT Enterprise LTSC 2021 and ACC 7
NVR6-STD-FORM-D-48TB-S22	NVR6 Standard Form D 48 TB (64 TB Raw) with Windows Server 2022 LTSC and ACC 7
NVR6-STD-FORM-D-48TB-W10	NVR6 Standard Form D 48 TB (64 TB Raw) with Windows 10 IoT Enterprise LTSC 2021 and ACC 7
NVR6-STD-FORM-D-32TB-S22	NVR6 Standard Form D 32 TB (48 TB Raw) with Windows Server 2022 LTSC and ACC 7
NVR6-STD-FORM-D-32TB-W10	NVR6 Standard Form D 32 TB (48 TB Raw) with Windows 10 IoT Enterprise LTSC 2021 and ACC 7
NVR6-STD-FORM-D-24TB-S22	NVR6 Standard Form D 24 TB (32 TB Raw) with Windows Server 2022 LTSC and ACC 7
NVR6-STD-FORM-D-24TB-W10	NVR6 Standard Form D 24 TB (32 TB Raw) with Windows 10 IoT Enterprise LTSC 2021 and ACC 7

| NVR6-STD-FORM-D-16TB-S22 | NVR6 Standard Form D 16 TB (24TB Raw) with Windows Server 2022 LTSC and ACC 7 |
| NVR6-STD-FORM-D-16TB-W10 | NVR6 Standard Form D 16 TB (24TB Raw) with Windows 10 IoT Enterprise LTSC 2021 and ACC 7 |

Avigilon Unity Video / Avigilon Control Center Software Licenses

ACC7-ENT	ACC 7 Enterprise Edition license
ACC7-STD	ACC 7 Standard Edition license
ACC7-COR	ACC 7 Core Edition license
ACC7-VAC	ACC 7 Video Analytics feature channel license – Required for Classified Object Detection
ACC7-FACE	ACC 7 Facial Recognition feature channel license
ACC7-FACE-10C	ACC 7 Facial Recognition feature 10 channel license
ACC7-LPR	ACC 7 LPR lane license
UNITY8-ENT	Avigilon Unity Video 8 Enterprise Edition license
UNITY8-STD	Avigilon Unity Video 8 Standard Edition license
UNITY8-COR	Avigilon Unity Video 8 Core Edition license
UNITY8-VAC	Avigilon Unity Video 8 Video Analytics feature channel license – Required for Classified Object Detection
UNITY8-FACE	Avigilon Unity Video 8 Facial Recognition feature channel license
UNITY8-FACE-10	Avigilon Unity Video 8 Facial Recognition feature 10 channel license
UNITY8-LPR	Avigilon Unity Video 8 LPR lane license

Options and Accessories

NVR6 Premium Plus Form H

NVR6-AINVR2-FORM-H-SFPPLUS-DA	3 m (10 ft) SFP+ 10 GbE Twinax Direct Attach cable
NVR6-AINVR2-FORM-H-SFPPLUS-SR	SFP+ Transceivers for Short Range (Multi-mode) on server side
NVR6-AINVR2-FORM-H-SFPPLUS-LR	SFP+ Transceivers for Long Range (Single-mode) between network switches
NVR6-AINVR2-FORM-H-HDDN-HOT-20TB	Spare hard drive, 20 TB NLSAS, front/rear bay, compatible with NVR6 / AI NVR 2 Premium Plus Form H
NVR6-AINVR2-FORM-H-10GBASET	Network Card, OCP Dual Port 10 G-Base-T
NVR6-AINVR2-FORM-H-RAM-32GB	32 GB RAM Upgrade Kit, 2 × 16 GB DDR5 DIMMs
NVR6-AINVR2-FORM-H-PSU-1000W	1000 W Flex Slot Titanium Hot Plug/Swappable Power Supply Kit, includes regional variant of power cord
NVR6-AINVR2-PRM-PLUS-FORM-H-KYD-WARR-5YR	5-year Keep-Your-Drive Warranty Upgrade
NVR6-FORM-H-AVA-SAN-CONNECT	Connectivity Kit for AVA SAN networking (requires AVA Transceiver and Fiber Optic Cables included in AVA-HED1-NVR6-FORM-H-CONNECT)
AVA-HED1-NVR6-FORM-H-CONNECT	AVA Connectivity Kit for Direct Attachment

NVR6 Premium Form D

NVR6-AINVR2-FORM-D-SFPPLUS-DA	3 m (10 ft) SFP+ 10 GbE Twinax Direct Attach cable
NVR6-AINVR2-FORM-D-SFPPLUS-SR	SFP+ Transceivers for Short Range (Multi-mode) on server side
NVR6-AINVR2-FORM-D-SFPPLUS-LR	SFP+ Transceivers for Long Range (Single-mode) between network switches
NVR6-AINVR2-PRM-FORM-D-HDDS-HOT-20TB	Spare hard drive, 20 TB SATA, front bay, compatible with NVR6 / AI NVR 2 Premium Form D 160/200 TB
NVR6-AINVR2-FORM-D-HDDS-HOT-12TB	Spare hard drive, 12 TB SATA, front bay, compatible with NVR6 / AI NVR 2 Premium Form D 96-120 TB
NVR6-AINVR2-FORM-D-HDDS-HOT-8TB	Spare hard drive, 8 TB SATA, front bay, compatible with NVR6 / AI NVR 2 Premium Form D 72 TB
NVR6-AINVR2-FORM-D-10GBE	Network Card, Dual Port 10 GbE SFP+
NVR6-AINVR2-FORM-D-10GBASET	Network Card, QP 10 G-Base-T
NVR6-AINVR2-FORM-D-RAM-32GB	32 GB RAM Upgrade Kit for 1 CPU Processor Only, 2 × 16 GB DDR5 DIMMs

NVR6-AINVR2-FORM-D-PSU-1400W	1400 W Hot Plug/Swappable Power Supply Kit, includes regional variant of power cord
NVR6-FORM-D-AVA-SAN-CONNECT	Connectivity Kit for AVA SAN networking
AVA-HED1-NVR6-FORM-D-CONNECT	AVA Connectivity Kit for Direct Attachment
NVR-FORM-D-KYD-WARR-5YR	5-year Keep-Your-Drive Warranty Upgrade
NVR6-AINVR2-STDPRM-FORM-D-STATIC-RAIL	Static Rail Kit

NVR6 Standard Form D

NVR6-AINVR2-FORM-D-SFPPLUS-DA	3 m (10 ft) SFP+ 10 GbE Twinax Direct Attach cable
NVR6-AINVR2-FORM-D-SFPPLUS-SR	SFP+ Transceivers for Short Range (Multi-mode) on server side
NVR6-AINVR2-FORM-D-SFPPLUS-LR	SFP+ Transceivers for Long Range (Single-mode) between network switches
NVR6-AINVR2-FORM-D-HDDS-HOT-8TB	Spare hard drive, 8 TB SATA, front bay, compatible with NVR6 / AI NVR 2 Standard Form D 32-64 TB
NVR6-AINVR2-FORM-D-HDDS-HOT-4TB	Spare hard drive, 4 TB SATA, front bay, compatible with NVR6 / AI NVR 2 Standard Form D 16-24 TB
NVR6-AINVR2-FORM-D-10GBE	Network Card, Dual Port 10 GbE SFP+
NVR6-AINVR2-FORM-D-10GBASET	Network Card, QP 10 G-Base-T
NVR6-AINVR2-FORM-D-RAM-32GB	32 GB RAM Upgrade Kit for 1 CPU Processor Only, 2 × 16 GB DDR5 DIMMs
NVR6-AINVR2-STD-FORM-D-2NDCPU	2nd CPU Upgrade Kit, 2 × 16 GB DDR5 DIMMs
NVR6-AINVR2-FORM-D-PSU-1400W	1400 W Hot Plug/Swappable Power Supply Kit, includes regional variant of power cord
NVR6-FORM-D-AVA-SAN-CONNECT	Connectivity Kit for AVA SAN networking, (requires AVA Transceiver and Fiber Optic Cables included in AVA-HED1-NVR6-FORM-D-CONNECT)
AVA-HED1-NVR6-FORM-D-CONNECT	AVA Connectivity Kit for Direct Attachment (requires 2nd CPU for NVR6 Standard)
NVR-FORM-D-KYD-WARR-5YR	5-year Keep-Your-Drive Warranty Upgrade
NVR6-AINVR2-STD-FORM-D-WARR-5Y4HMC	5-year 4-Hour-Mission-Critical Warranty Upgrade
NVR6-AINVR2-STDPRM-FORM-D-STATIC-RAIL	Static Rail Kit

Support

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

Remote Monitoring Workstation

2 Monitor   4 Monitor

The Avigilon Remote Monitoring Workstation lineup offers a simple and easy way to bring high-resolution video monitoring to new and existing systems. Optimized to support ACC Client workloads, these pre-provisioned workstations are quick to deploy and reliable in the field.

Features

Tested Performance
The Avigilon Workstation lineup has been stress tested through various component combinations for the highest performance for ACC Client workloads.

Small Form Factor
Its streamlined size and design reduces hardware footprint for space-constrained areas.

Easy Recovery
A purpose-built and turnkey solution that is simple and secure for Security and IT teams to deploy.

Simple Setup
Plug-and-play is made easy with DisplayPort and HDMI adapters included for typical monitor connections.

MOTOROLA SOLUTIONS

AVIGILON

Specifications

Video Playback Performance‡	RM7-WKS-4MN	RM7-WKS-2MN
2 MP @ 30 fps	22 Primary Streams + 14 Secondary Streams	18 Primary Streams
4 MP @ 30 fps	22 Primary Streams + 14 Secondary Streams	18 Primary Streams
8 MP @ 30 fps	4 Primary Streams + 32 Secondary Streams	4 Primary Streams + 14 Secondary Streams
16 MP @ 24 fps	2 Primary Streams + 34 Secondary Streams	2 Primary Streams + 16 Secondary Streams
61 MP @ 7 fps	6 Primary Streams + 30 Secondary Streams	4 Primary Streams + 14 Secondary Streams
Video Wall: 4 MP @ 30 fps†	144 secondary streams (6x6 streams on 4 monitors)	60 secondary streams (5x6 streams on 2 monitors)
Video Wall: 8 MP @ 30 fps†	80 secondary streams (4x5 streams on 4 monitors)	40 secondary streams (4x5 streams on 2 monitors)
Video Wall: 16 MP @ 24 fps†	80 secondary streams (4x5 streams on 4 monitors)	40 secondary streams (4x5 streams on 2 monitors)
Video Wall: 61 MP @ 7 fps†	224 secondary streams (7x8 streams on 4 monitors)	84 secondary streams (6x7 streams on 2 monitors)

‡ Primary streams are high resolution/bandwidth, secondary streams are low resolution/bandwidth.

† Video wall playback performance assumes minimal interaction with the ACC Client after initial setup. Testing was done with analytic bounding boxes disabled.

System		
Supported Monitor Interfaces	Combination of up to 4: mDP, DP, and HDMI (DP and HDMI adapters are supplied)	Combination of up to 2: DP, and HDMI (HDMI adapters are supplied)
Operating System	Microsoft Windows 10 IoT Enterprise LTSC (2021)	
Processor	Intel® Core™ i5 (12th Gen)	Intel® Core™ i3 (12th Gen)
Memory	32 GB DDR4 RAM	8 GB DDR4 RAM
OS Drive	M.2 256 GB PCIe NVMe Class 35 SSD	
Network Interface	2 × 1 Gigabit Ethernet RJ-45 ports (1000Base-T)	
Optical Drive	DVD-RW	
Graphics	NVIDIA T1000 (8GB)	Intel Integrated graphics
Warranty	Lifetime 24/7 Avigilon technical phone support and a 3 year next business day warranty	

Mechanical	
Form Factor	Small form factor
Dimensions (DxWxH)	292.8 mm × 92.6 mm × 290 mm (11.53" × 3.65" × 11.42")
Weight	5.956 kg (13.13 lbs)

Electrical	
Power Input	90 to 264 VAC, 50/60 Hz, auto-switching
Power Supply	Single non-redundant
Power Consumption	300W

Environmental	
Operating Temperature	5°C to 45°C (41°F to 113°F)
Storage Temperature	-40° to 70°C (-40° to 158°F)
Humidity	20% to 80% relative humidity with 26°C (79°F) maximum dew point (non-condensing)
Operating Vibration	0.26 Grms random at 5 Hz to 350 Hz
Operating Shock	Bottom/right half-sine pulse of 40 G for up to 2.0 ms
Operating Altitude	Up to 3048 m (10,000 ft)

Supplied Accessories	
RM7-WKS-4MN-XX	USB Keyboard, USB Mouse, Power cord, 4 mDP to DP adapters, 4 mDP to HDMI adapters†
RM7-WKS-2MN-XX	USB Keyboard, USB Mouse, Power cord, 2 DP to HDMI adapters†

† Monitor sold separately

Certifications	
Certifications/Approvals	UL, cUL, CE, UKCA, ROHS, RCM, KC, NOM, BSMI, CCC, NRCS, VCCI, CMIM, PSB
Safety Standards	UL/CSA/IEC/EN 62368-1
Electromagnetic Emissions Standards	FCC Part 15 Subpart B (Class B), ICES-003 (Class B), EN 55032 (Class B), EN 61000-3-2, EN 61000-3-3
Electromagnetic Immunity Standards	EN 55035

Ordering Information

ORDERING INFORMATION	
RM7-WKS-4MN-XX	Avigilon remote monitoring workstation for up to 4 monitors†
RM7-WKS-2MN-XX	Avigilon remote monitoring workstation for up to 2 monitors†
RM7-WKS-WARR-EXTEND-2YR	2-Year Extended Warranty for RM7-WKS
WKS-RACK	Rack compatible with NVR5-WKS, RM7-WKS, NVR4X-WKS, RM6-WKS, NVR4-WKS, RM5-WKS

† Monitor sold separately

RM7-WKS-xMN-NA ▣   RM7-WKS-xMN-UK ▣   RM7-WKS-xMN-EU ▣   RM7-WKS-xMN-AU ▣

Support

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

H5A MULTISENSOR CAMERA

(9 MP) (12 MP) (15 MP) (20 MP) (24 MP) (32 MP)

The Avigilon H5A Multisensor camera helps ensure your site is covered from all angles by combining Next-Generation Video Analytics and three or four adjustable sensors into one powerful solution. Monitor virtually any area in all lighting conditions with up to 360-degree views from a single camera. This makes the H5A Multisensor perfect for securing wide areas, including outdoor building corners, parking lots, crossroads, as well as indoor areas with high ceilings, long corridors and hallway intersections.

FEATURES

NEXT-GENERATION VIDEO ANALYTICS
Detects more objects with expanded object classifications and greater accuracy for faster responses, even in crowded scenes.

IMPACT, WATER, DUST & CORROSION PROTECTION
Protects against impact, water, windblown dust and a degree of corrosion with IK10, IP66/67, NEMA Type 4X and TS2 ratings.

ONVIF® COMPLIANT
ONVIF Profile S and T compliance enables easy integration with existing ONVIF infrastructures. Profile G compliance supports search, playback and retrieval of recordings on the edge, while Profile M allows for cross-functionality with third-party analytic solutions.

VARIFOCAL LENSES
Enables you to customize the field of view to optimally protect your site, while lens distortion correction provides a seamless viewing experience.

FIPS 140-2 COMPLIANT WITH INTEGRATED TPM
Meets the high data security standards required by federal government agencies and heavily regulated enterprises with FIPS-compliant cryptography support, integrated TPM and Secure Boot.

HIGH-QUALITY IMAGES IN ALL LIGHTING
Sees clearly in the most challenging lighting conditions with faster frame rates, improved Wide Dynamic Range and optional IR illumination.

ONVIF is a trademark of Onvif, Inc.

MOTOROLA SOLUTIONS

Preliminary Specifications - Subject to Change

AVIGILON

SPECIFICATIONS

IMAGE PERFORMANCE		3.0 MP	5.0 MP	4K (8.0 MP)
Image Sensor		1/2.8" CMOS		1/2.8" CMOS
Active Pixels		1920 (H) x 1080 (V) (16:9) 2048 (H) x 1536 (V) (4:3)	2560 x 1440 (16:9) 2592 x 1944 (4:3)	3840 x 2160 (16:9) 2880 x 2160 (4:3)
3 x Image Sensor, Max Resolution (per image sensor)		5760 (H) x 1080 (V) (16:9) 6144 (H) x 1536 (V) (4:3)	7680 x 1440 (16:9) 7776 x 1944 (4:3)	11520 x 2160 (16:9) 8640 x 2160 (4:3)
4 x Image Sensor, Max Resolution (per image sensor)		7680 (H) x 1080 (V) (16:9) 8192 (H) x 1536 (V) (4:3)	10240 x 1440 (16:9) 10368 x 1944 (4:3)	15360 x 2160 (16:9) 11520 x 2160 (4:3)
Sensor Aspect Ratio		4:3	4:3	16:9
IR Illumination - Optional (high power 850 nm LEDs)[1]		30 m (98 ft) maximum distance at 0 lux when camera is mounted at 4 m (13 ft) off the ground, full tele TBD m, full wide TBD m		
Minimum Illumination		0.020 lux (F1.5) in color mode 0.018 lux (F1.5) in mono mode 0 lux with optional IR illuminator		0.020 lux (F1.5) in color mode 0.016 lux (F1.5) in mono mode 0 lux with optional IR illuminator
Dynamic Range	WDR On	120 dB, true WDR, dual exposure		
	WDR Off	80 dB		
3D Noise Reduction Filter		Yes		
Image Rate-Analytics Enabled on All Sensors[2]:				
3 x Image Sensor (60 Hz, 50 Hz)		30 / 25 fps	30 / 25 fps	24 / 20 fps
4 x Image Sensor (60 Hz, 50 Hz)		30 / 25 fps	24 / 25 fps	17 / 16 fps
Image Rate-High Framerate Mode[3]:				
3 x Image Sensor (60 Hz, 50 Hz)		60 / 50 fps	40 / 33 fps	30 / 25 fps
4 x Image Sensor (60 Hz, 50 Hz)		40 / 33 fps	24 / 25 fps	20 / 20 fps

[1] The IR intensity is based on supplied PoE power.

[2] Full Feature Mode: Analytics, WDR, and Lens Distortion Correction enabled with H.265. Image Rotation at Edge will result in lower frame rates.

[3] High Frame Rate Mode: Analytics and WDR disabled with H.265.

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
Motion Detection	Selectable sensitivity and threshold
Electronic Shutter Control	Automatic, Manual (1/7.5 to 1/8000 sec)
Iris Control	Fixed
Day/Night Control	Automatic, Manual
Flicker Control	60 Hz, 50 Hz
White Balance	Automatic, Manual
Backlight Compensation	Adjustable
Privacy Zones	Up to 64 zones
Removable Privacy Zones	Up to 64 zones
Lens Distortion Correction	Fixed
Camera Image Rotation	Each head independent

LENS (PER IMAGE SENSOR)	3.0 MP	5.0 MP	4K (8.0 MP)
Lens and Horizontal Field of View Based on Aspect Ratio	53° - 97° (16:9) 53° - 99° (4:3)		43° - 109° (16:9) 58° - 76° (4:3)

LENS (PER IMAGE SENSOR)	3.0 MP	5.0 MP	4K (8.0 MP)
Lens and Vertical Field of View Based on Aspect Ratio	29° - 50° (16:9) 39° - 69° (4:3)		32° - 55° (16:9) 32° - 55° (4:3)
Aperture Range	F1.5 - F1.9		
Control	Fixed Iris, Remote Focus and Zoom		

NETWORK	
Network	Gigabit Ethernet, 100BASE-TX, 1000BASE-TX
Cabling Type	CAT5E
Connector	RJ-45
API	ONVIF® compliance Profile S, T, M, and G (www.onvif.org)
Security	Signed and encrypted firmware, password protection, HTTPS encryption, digest authentication, WS authentication, user access log, 802.1x port based authentication, TLS1.3, FIPS140-2 Level 3 via onboard TPM
Secure Boot	Yes
Protocol	IPv4, IPv6, 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 Protocols	SNMP v2c, SNMP v3

PERIPHERALS	
USB Port	USB 2.0
Onboard Storage	Dual MicroSD/microSDHC/microSDXC slot - video speed class card required. Class V10 or better recommended. The dual SD cards will work as one contiguous region of storage.

AUXILIARY I/O	
Audio Compression Method	G.711 PCM 8 kHz, Opus
Audio Input/Output	Line level input and output
External I/O Terminal	Alarm In, Alarm Out

ELECTRICAL	IN-CEILING	SURFACE MOUNT	PENDANT MOUNT
Power Consumption	26 W with 24 VDC 37 VA with 24 VAC 25.5 W with IEE 802.3at Type 2 (PoE+)	With IR: 52 W with 24 VDC 74 VA with 24 VAC 51 W with high power PoE (PoE++) Without IR: 26 W with 24 VDC 37 VA with 24 VAC 25.5 W with IEEE 802.3at Type 2 (PoE+)	With IR: 52 W with 24 VDC 74 VA with 24 VAC 51 W with high power PoE (PoE++) Without IR: 26 W with 24 VDC 37 VA with 24 VAC 25.5 W with IEEE 802.3at Type 2 (PoE+)
External Power	24 VDC ± 10 %; 24 VAC rms ± 10 %, 50 or 60 Hz		
PoE*	30 W IEEE 802.3at Type 2 (PoE+)	With IR: 60 W (PoE++): IEEE 802.3bt Type 3, Cisco® UPoE or legacy high-power PoE* Up to 35% IR Power or without IR: 30 W IEEE 802.3at Type 2 (PoE+)	
Redundant Power	Seamless failover between PoE and Aux and back without interruption in camera operation		

* Supported high power PoE products are listed in the **Optional Injectors and Switches** Section and may require adjusting the PoE mode switch. Contact sales or technical support for more information.

MECHANICAL	IN-CEILING	SURFACE MOUNT	PENDANT MOUNT
Dimension	Overall: 298 mm x 161 mm (11.75" x 6.33") Below mounting surface: 298 mm x 64 mm (11.75" x 2.52")	304 mm x 114 mm (11.95" x 4.48")	With wall arm: 385 mm x 262 mm x 299 mm (15.15" x 10.30" x 11.77") With NPT adapter: 299 mm x 248 mm (11.77" x 9.76")
Weight	Mount: 1100 g (2.4 lbs)	Mount: 950 g (2.1 lbs)	Wall Mount: 1190 g (2.6 lbs)

MECHANICAL	IN-CEILING	SURFACE MOUNT	PENDANT MOUNT
	Bezel: 490 g (1.1 lbs) Camera Module (4 lenses): 1590 g (3.5 lbs)	Bezel: 1250 g (2.8 lbs) Camera Module (4 lenses): 1590 g (3.5 lbs) Optional IR Illuminator Ring: 670 g (1.5 lbs)	NPT Adapter Mount: 470 g (1.04 lbs) Pendant: 1680 g (3.7 lbs) Bezel: 1250 g (2.8 lbs) Camera Module (4 lenses): 1590 g (3.5 lbs) Optional IR Illuminator Ring: 670 g (1.5 lbs)
Body	Aluminum, Plastic dome trim	Aluminum	Aluminum
Finish	Plastic, Injection Molded, Pantone 427C	Cast, Anodized and Powder Coated, Pantone 427C	Cast, Anodized and Powder Coated, Pantone 427C
Optional IR Illuminator Ring	Not available	Optional accessory, 30 m (98 ft) IR range	

ENVIRONMENTAL	IN-CEILING	SURFACE MOUNT	PENDANT MOUNT
Operating Temperature	-10 °C to +50 °C (14 °F to 122 °F)	-40 °C to +60 °C (-40 °F to 140 °F)	
Storage Temperature	-30 °C to +70 °C (-22 °F to 158 °F)		
Humidity	0 - 95% non-condensing		
IR Illumination Behavior	Not available	The IR illuminator will operate at 100% power from -40 °C to 44 °C (-40 °F to 111 °F). The IR power will reduce to 60% from 44 °C to 53 °C (111 °F to 127 °F). The IR illuminator will turn off when the temperature is greater than 53 °C (127 °F). Hysteresis: 6 °C (10.8 °F). For 25.5 W PoE+, the IR illuminator will operate at only 35% power and will turn off if the temperature is below -26 °C (-15 °F).	

PER SENSOR	
Tilt	+7° to 96° from horizon
Pan	+/-120° (depending on position of image sensors)
Azimuth	+/-180°

CERTIFICATIONS	IN-CEILING	SURFACE MOUNT	PENDANT MOUNT
Certifications/Approvals	UL, cUL, CE, ROHS, RCM, UKCA		
Safety Standards	UL 62368-1, CSA 62368-1, IEC/EN 62368-1		
	UL 2043 (Plenum)	IEC/EN 62471	
Environmental Standards/Ratings	IEC 60529 IP5X rating (dust only)	IEC 60529 IP66, IP67 rating IEC/EN 62262 Impact (IK 10) IEC/EN 60068-2-6 Product Vibration IEC/EN 60068-2-27 Product Shock Type 4X	
Electromagnetic Emissions Standards	FCC Part 15 Subpart B (Class A) ICES-003 (Class A) EN 55032 (Class A) EN 61000-3-2 EN 61000-3-3		
Electromagnetic Immunity Standards	EN 55035 EN 61000-6-1 EN 50121-4 EN 50130-4		
NEMA TS2	Not applicable	NEMA TS2 paragraph 2.2.7 - 2.2.9	

SUPPORTED 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.

SUPPORTED ANALYTICS EVENTS	
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.
Object Too Close	The event is triggered when an object moves to within a certain threshold distance of another object.
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.

SUPPORTED CLASSIFIED OBJECT TYPES	
Object Types in Outdoor Mode	Person and Vehicle, sub-types: Car, Truck, Bicycle, Motorcycle, Bus
Object Types in Indoor Mode	Person

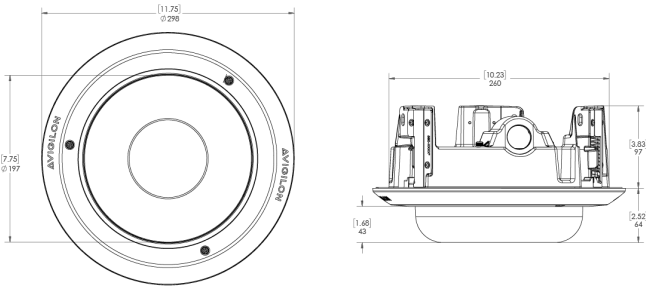| TEACH BY EXAMPLE	
Object Types Teach By Example in Outdoor Mode	Yes, when used with Avigilon Control Center™.

OUTLINE DIMENSIONS

[X.X]	INCHES
X	MM
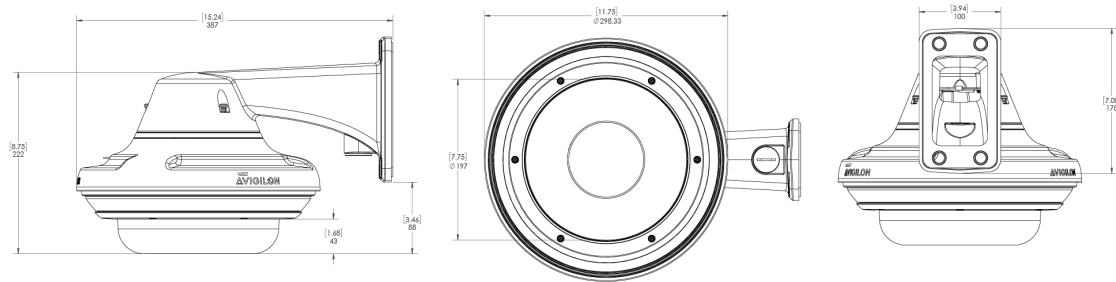
PENDANT WALL MOUNT

PENDANT NTP MOUNT

SURFACE MOUNT

IN-CEILING MOUNT

[11.75]
Ø 298

[7.75]
Ø 197

[10.23]
260

[3.83]
97

[1.68]
43

[2.52]
64

WALL MOUNT

[3.94]
100

[2.00]
51

Ø[0.46]
Ø12

[4.62]
117

[5.50]
140

[7.00]
178

[12.34]
314

Ø[5.95]
Ø 151

[9.37]
238

METAL CEILING PANEL

[.16]
4

[.35]
9

[23.79]
604

[23.02]
585

[23.79]
604

[23.02]
585

[10.55]
Ø 268
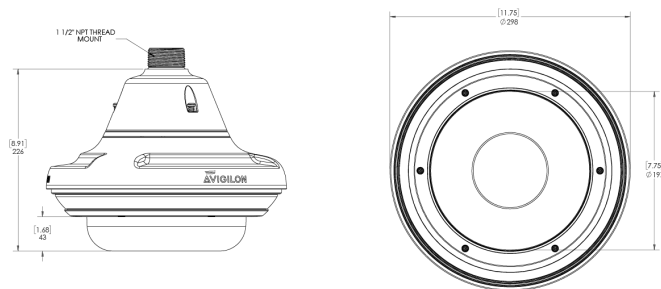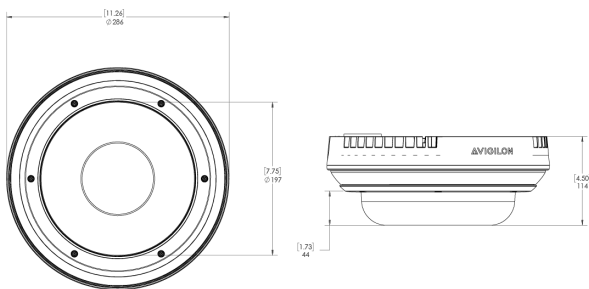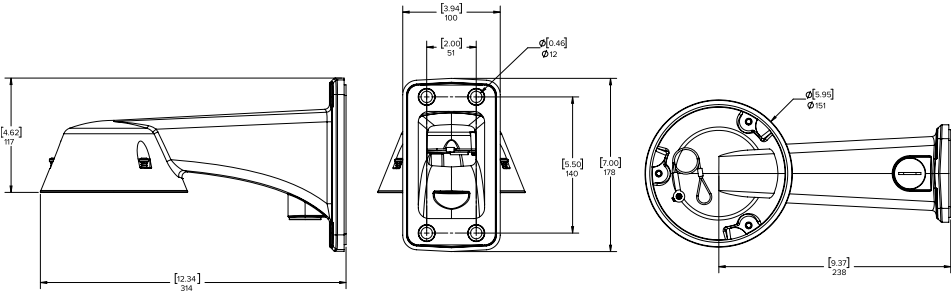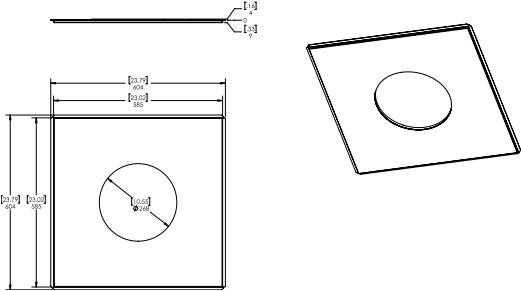
ORDERING INFORMATION

The variety of mounting options for the H5A Multisensor provides maximum flexibility. All the available camera modules can be used in any of the mounting options.

MOUNTING SCENARIO		ORDERING INFORMATION
PENDANT WALL MOUNT		Order one of: • Camera module • H5AMH-AD-PEND1 • H5AMH-DO-COVR1 or H5AMH-DO-COVR1-SMOKE • WLMT-1001 • Optional, H4AMH-AD-IRIL1
PENDANT NPT MOUNT		Order one of: • Camera module • H5AMH-AD-PEND1 • H5AMH-DO-COVR1 or H5AMH-DO-COVR1-SMOKE • NPTA-1001 • Optional, H4AMH-AD-IRIL1
SURFACE MOUNT		Order one of: • Camera module • H5AMH-AD-DOME1 • H5AMH-DO-COVR1 or H5AMH-DO-COVR1-SMOKE • Optional, H4AMH-AD-IRIL1
IN-CEILING MOUNT		Order one of: • Camera module • H4AMH-AD-CEIL1 • H5AMH-DC-COVR1 or H5AMH-DC-COVR1-SMOKE • Optional, CLPNL-1001 if ceiling panel is needed

CAMERA MODULES

With the modular design of the H5A Multisensor, any camera module can be paired with any mounting adapter for maximum versatility and optimal installation. Each camera module must be ordered with a matching mounting adapter and dome cover.

DISPLAY PART NUMBER	DESCRIPTION
9C-H5A-3MH	3X3MP, WDR, 270 degree max field of view, Lightcatcher, 3.3-5.7MM, Camera Only
12C-H5A-4MH	4X3MP, WDR, 360 degree max field of view, Lightcatcher, 3.3-5.7MM, Camera Only
15C-H5A-3MH	3X5MP, WDR, 270 degree max field of view, Lightcatcher, 3.3-5.7MM, Camera Only
20C-H5A-4MH	4X5MP, WDR, 360 degree max field of view, Lightcatcher, 3.3-5.7MM, Camera Only
24C-H5A-3MH	3X8MP, WDR, 270 degree max field of view, Lightcatcher, 3.3-5.7MM, Camera Only
32C-H5A-4MH	4X8MP, WDR, 360 degree max field of view, Lightcatcher, 3.3-5.7MM, Camera Only

MOUNTING ADAPTERS AND DOME COVERS

The H5A Multisensor modular design provides pendant, surface, or in-ceiling mounting adapters and a choice of two dome covers compatible with all the H5A Multisensor camera modules.

DISPLAY PART NUMBER	DESCRIPTION
H5AMH-AD-DOME1	Outdoor surface mount adapter, must order either a H5AMH-DO-COVR1 or H5AMH-DO-COVR1-SMOKE.
H5AMH-AD-PEND1	Outdoor pendant mount adapter, must order one of WLMT-1001 or NPTA-1001 and one of H5AMH-DO-COVR1 or H5AMH-DO-COVR1-SMOKE.
WLMT-1001	Pendant wall arm adapter, for use with H5AMH-AD-PEND1.
NPTA-1001	Pendant NPT adapter for use with H5AMH-AD-PEND1.
PLMT-1001	Aluminum pole mounting bracket, compatible with WLMT-1001.
CRNMT-1001	Aluminum corner mounting bracket, compatible with WLMT-1001.
H4AMH-AD-CEIL1	In-ceiling adapter, must order either a H5AMH-DC-COVR1 or H5AMH-DC-COVR1-SMOKE.
H5AMH-DO-COVR1	Dome bubble and cover, for outdoor surface mount or pendant mount, clear.
H5AMH-DO-COVR1-SMOKE	Dome bubble and cover, for outdoor surface mount or pendant mount, smoked. Not recommended for low light.
H5AMH-DC-COVR1	Dome bubble and cover, for in-ceiling mount, clear.
H5AMH-DC-COVR1-SMOKE	Dome bubble and cover, for in-ceiling mount, smoked. Not recommended for lowlight applications.
CPNL-1001	Metal ceiling panel.

OPTIONAL IR ILLUMINATOR

The optional IR Illuminator is available for the H5A Multisensor when mounted in a pendant or surface mount adapter.

DISPLAY PART NUMBER	DESCRIPTION
H4AMH-AD-IRIL1	Optional IR illuminator ring, for use with H5AMH-DO-COVR1.

OPTIONAL INJECTORS

DISPLAY PART NUMBER	DESCRIPTION
POE60U-1BTE	Gigabit 802.3bt 60 W PoE Injector, single port.
POE-INJ2-PLUS	Indoor single port POE+ injector. Injector operational temperature range -20 °C to +40 °C (-4 °F to 104 °F).

OPTIONAL ACCESSORIES

DISPLAY PART NUMBER	DESCRIPTION
USB-AC56-NA-MSI / USB-AC56-EU-MSI	USB Wi-Fi adapter.
CBLKT-1001	Cable kit replacement for Multi Head cameras.
CAM-FIPS	Camera license to enable FIPS cryptographic mode on the H5A Multisensor or any H5A camera.

SUPPORT

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

MOTOROLA SOLUTIONS

AVIGILON

Jan 2023 | Rev 1

sales@avigilon.com | avigilon.com

Preliminary Specifications - Subject to Change

9

H5A Fisheye Camera

8 MP   12 MP

The Avigilon H5A Fisheye Camera is a cost-effective and easy-to-install solution that provides 360° panoramic views of large areas from a single vantage point, bringing superior situational awareness without any blind spots. Facilities such as schools, retailers, offices, hospitals and manufacturing plants can leverage the camera's high-resolution video to monitor processes and optimize operational efficiencies, along with its analytics and AI capabilities to proactively detect critical events and enhance the productivity of security teams.

Features

360° Panoramic Views
Provides 360° coverage from a single vantage point to help lower overall video security deployment costs.

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.

Low-profile & Easy-to-install Design
Offers unobtrusive monitoring with a paintable front plate[1] that can be customized to fit in with interior aesthetics, backed by an easy installation.

FIPS 140-2 Compliant
Brings increased data security with FIPS-compliant cryptography enabled on cameras[2].

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

Next-Generation Video Analytics
Detects more people with greater accuracy, even in crowded scenes, to support faster responses.

Water & Impact Rated[3]
IP66/67 rating for water resistance and IK10 impact rating for vandal resistance.

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

Adaptive IR Technology[3]
Provides optimal brightness in scenes with low-light for high-resolution image detail.

Audio Recording Capabilities
Built-in microphone offers an optional audio recording capability for additional evidentiary detail.

ONVIF is a trademark of Onvif, Inc.
[1] Available on in-ceiling mount only.

[2] Optional purchase of FIPS Level 1 camera license.
[3] Available on surface mount only.

MOTOROLA SOLUTIONS

AVIGILON™

Specifications

Image Performance		8.0 MP	12.0 MP
Image Sensor		1/1.8" progressive scan CMOS	1/2.3" progressive scan CMOS
Active Pixels (H x V)		2048 x 2048	3008 x 3008
Imaging Area (H x V)		4.096 mm x 4.096 mm	4.662 mm x 4.662 mm
Warped 360° Video Streaming Resolutions	Primary Stream	2048 x 2048	3008 x 3008
	Secondary Stream	512 x 512; 384 x 384	512 x 512; 384 x 384
	Tertiary Stream	320 x 320	320 x 320
Dewarped Video Streaming Resolutions	Primary Stream	180° x 2 (2304 x 928); 120° x 3 (1536 x 928); 90° x 4 (1152 x 928)	180° x 2 (3072 x 1232); 120° x 3 (2048 x 1232); 90° x 4 (1536 x 1232)
	Secondary Stream	180° x 2 (576 x 232); 120° x 3 (384 x 232); 90° x 4 (288 x 232)	180° x 2 (768 x 304); 120° x 3 (512 x 304); 90° x 4 (384 x 304)
Horizontal Angle of View (HFOV)		180°	
Max Image Rate		(50 Hz/60 Hz): 25 fps/30 fps	(30 Hz/60 Hz): 15 fps/30 fps[1]
Dynamic Range	WDR Off:	Up to 83 dB	
	WDR On:	Up to 120 dB	
Camera Operating Mode		Full feature or Dewarped video mode (Analytics disabled in Dewarped video mode)	Full feature, High framerate, or Dewarped video mode (Analytics disabled in High framerate and Dewarped video modes)
Bandwidth Management		HDSM SmartCodec technology; Idle scene mode	
3D Noise Reduction Filter		Yes	

1 Max Frame Rate of 30 fps is only achievable with High Frame Rate mode enabled. High Frame Rate mode will disable analytics.

Lens and IR Illumination		8.0 MP	12.0 MP
Lens		1.4 mm	1.6 mm
IR Illumination Max Distance (high power 850 nm LEDs)		17 m (55 ft) max distance at 0 lux	12 m (39 ft) max distance at 0 lux
Minimum Illumination	With IR	0 lux	0 lux
	Without IR	0.10 lux in monochrome mode; 0.20 lux in color mode	0.19 lux in monochrome mode; 0.38 lux in color mode
Field of View		360°	
Max Aperture		F2.0	
Control		Fixed iris	

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
Motion Detection	Pixel motion and classified object detection
Tamper Detection	Yes
Electronic Shutter Control	Automatic, Manual (1/6 to 1/8000 sec)
Iris Control	Fixed
Day/Night Control	Automatic, Manual
Flicker Control	60 Hz, 50 Hz
White Balance	Automatic, Manual
Backlight Compensation	Adjustable
Privacy Zones	Up to 64 zones

Network

Network	100BASE-TX, RJ45 Connector, CAT5e Cabling
ONVIF	ONVIF compliance Profile S, Profile T, Profile G, and Profile M (www.onvif.org)
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)
Protocols	IPv6, IPv4, HTTP, HTTPS, SOAP, DNS, NTP, RTSP, RTCP, RTP, TCP, UDP, IGMPv3, ICMP, DHCP, Zeroconf, ARP, HSTS, QoS, DSCP
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	2 x microSD/microSDHC/microSDXC slots - video speed class card required. Class V10 or better recommended. Currently one of the two SD card slots is available for onboard storage.

Auxiliary I/O

Audio Compression Method	Opus, G.711 PCM 8 kHz
Audio Input/Output	Line level I/O and built-in microphone (can be enabled)
External I/O Terminals	Alarm In, Alarm Out

Mechanical

Mechanical		Surface Mount	In-Ceiling Mount
Dimensions (LxWxH)	Camera	145.5 mm x 145.5 mm x 62 mm; 5.72" x 5.72" x 2.44"	200.6 mm x 200.6 mm x 14.2 mm; 7.9" x 7.9" x 0.56"
	With Mounting Plate	145.5 mm x 145.5 mm x 62 mm; 5.72" x 5.72" x 2.44"	N/A
	With NPT Adapter	158 mm x 158 mm x 103 mm; 6.2" x 6.2" x 4.1"	N/A
Weight	Camera	0.52 kg (1.15 lbs)	0.595 kg (1.31 lbs)
	With Mounting Plate	0.605 kg (1.33 lbs)	N/A
	With NPT Adapter	0.838 kg (1.83 lbs)	N/A
Max. Ceiling Thickness		N/A	31.75 mm; 1.25"
Dome Bubble		Polycarbonate, clear	N/A
Body		Aluminum	Polycarbonate
Housing		Aluminum	Polycarbonate
Finish		Cast, powder coated, close to RAL9002	Plastic, injection molded, close to RAL9002

Electrical

Electrical	Surface Mount	In-Ceiling Mount
Power Consumption	With IR: 26 W Without IR: 11 W	11 W
Power Source	VDC: 12 V +/-10%, 26 W min PoE: IEEE 802.3af Class 3 PoE+: IEEE 802.3at Class 4	VDC: 12 V +/-10%, 11 W min PoE: IEEE 802.3af Class 3
Power Connector	2-pin terminal block	
RTC Battery Backup	3V manganese lithium	
Memory	2 GB RAM, 512 MB Flash	

Environmental

Environmental	Surface Mount	In-Ceiling Mount
Operating Temperature	-40 °C to +60 °C (-40 °F to 140 °F)	-10 °C to +60 °C (14 °F to 140 °F)
IR Illuminator Behavior	IR illuminator will turn off if the temperature is 55 °C (131 °F) or higher. The illuminator will operate at 75% power if the temperature is between 27 °C (80 °F) and 39 °C (102 °F) and will operate at 40% power if the	N/A

Environmental	Surface Mount	In-Ceiling Mount
	temperature is between 39 °C (102 °F) and 55 °C (131 °F). Hysteresis: 2 °C (3.6 °F).	
Storage Temperature	-10 °C to +70 °C (14 °F to 158 °F)	
Humidity	0 - 95% non-condensing	

Certifications	Surface Mount	In-Ceiling Mount
Certifications/Approvals	UL, cUL, CE, ROHS, RCM, EAC, UKCA, KC, BIS, NOM	
Safety	UL 62368-1, CSA 62368-1, IEC/EN 62368-1, IEC 62471	
Environmental	IK10 Impact Rating, IP66 and IP67 Weather Rating	IP5X Ingress Rating
Electromagnetic Emissions	FCC Part 15 Subpart B Class B, IC ICES-003 Class B, EN 55032 Class B, EN 50121-4, EN 50130-4, EN 61000-6-3, EN 61000-3-2, EN 61000-3-3	
Electromagnetic Immunity	EN 50121-4, EN 50130-4, EN 55035, EN 61000-6-1	

Analytics Specifications

Supported Analytics Events[1]	
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.

Supported Classified Object Types[1]	
Object Types	Person

[1] Analytics are supported when the camera is installed in the ceiling-mounted orientation mode. There is an analytics blind spot in the middle 20% of the fisheye field of view. Objects will be detected moving in and out of the blind spot, but will not be detected when they are inside the blind spot.

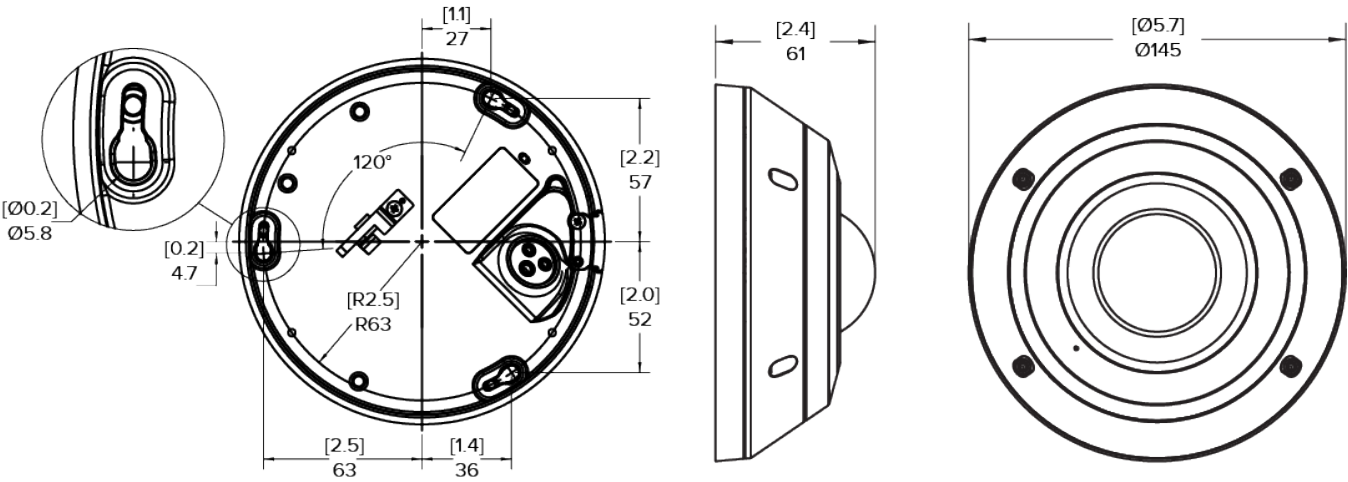| Avigilon Control Center (ACC) Versions Supported Features	
ACC Version 6.14.24 or higher	H.265 supported. Fisheye dewarping is not supported on ACC versions earlier than 6.14.24. Analytics are only supported on ACC 7 systems.
ACC Version 7.12.4 or higher	All supported analytic events with people as classified objects. H.265 supported. Fisheye dewarping is not supported on ACC versions earlier than 7.12.2.

Outline Dimensions

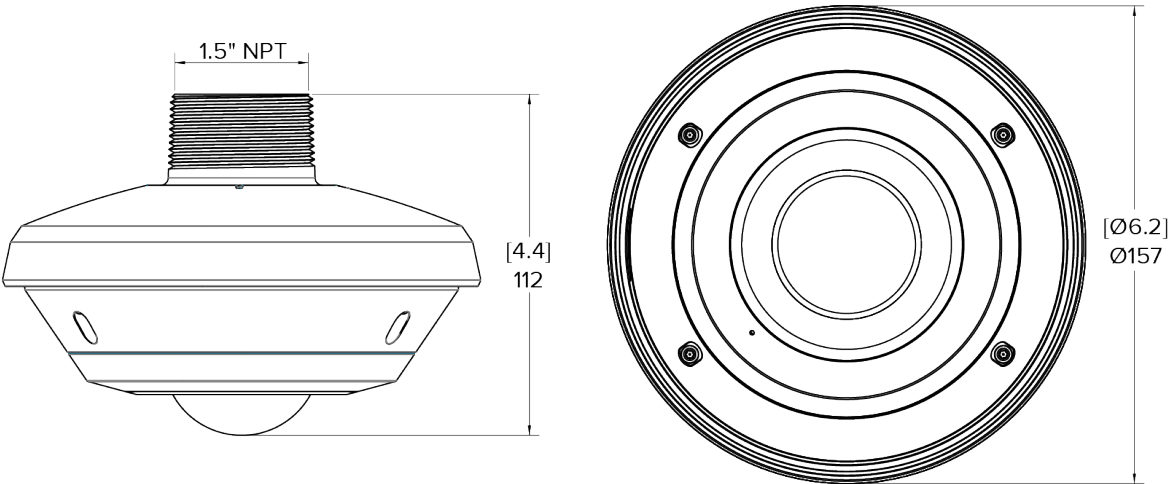## Surface Mount Camera

(H5A-FE-DO with mounting plate)

[3.4] 86
[1.8] 46
[3.3] 83 [2.4] 60
[2.5] 63 [3.4] 86
[2.5] 63
[2.4] 61
[Ø5.7] Ø145
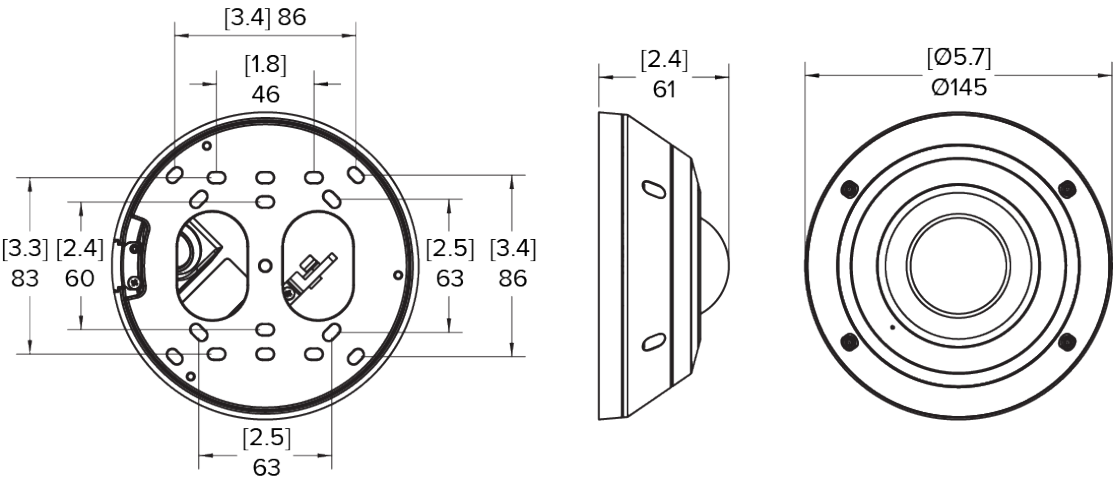
(H5A-FE-DO without mounting plate)

[1.1] 27
[Ø0.2] Ø5.8
[0.2] 4.7
120°
[2.2] 57
[R2.5] R63
[2.0] 52
[2.5] 63
[1.4] 36
[2.4] 61
[Ø5.7] Ø145

Pendant Mount Camera
(H5A-FE-DO with H5A-FE-MT-NPTA1 Pendant Adapter)

[X.X]	INCHES
X	MM

1.5" NPT

[4.4]
112

[Ø6.2]
Ø157

In-Ceiling Mount Camera
(H5A-FE-DC)

[X.X]	INCHES
X	MM

[9.1]
231

[Ø7.9]
Ø200

[3.9]
99

[Ø6.7] [Ø6.8]
Ø170   Ø173

[4.5]
113
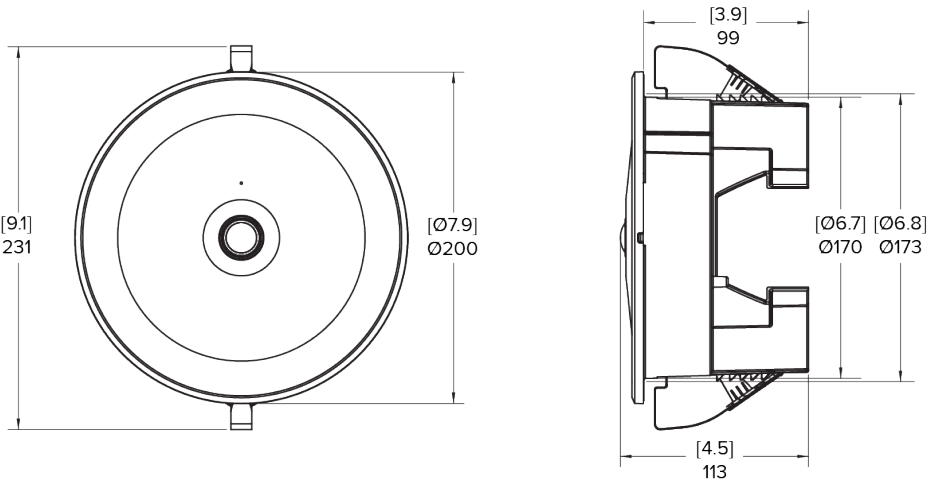
Metal Ceiling Panel (H5A-FE-DC-CPNL1)

[0.06]
1.5
0
[0.39]
10.0

[23.79]
604.3

[23.00]
584.2

[23.79]
604.3

[23.02]
584.7

[6.87]
Ø 174.6
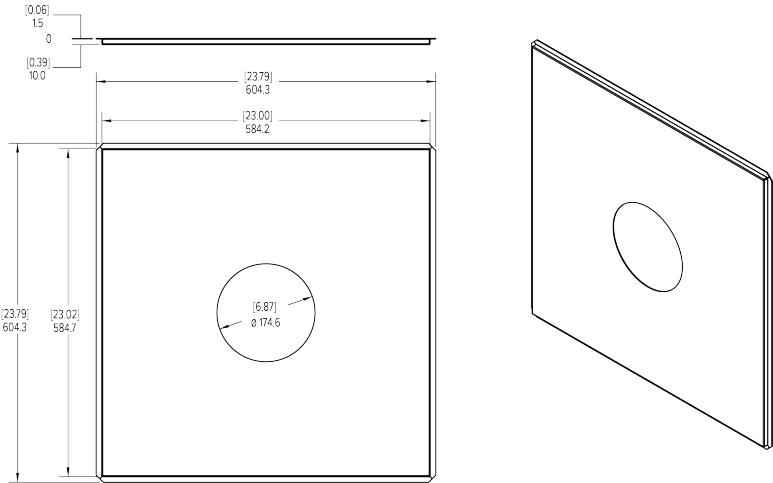
Ordering Information

Surface Mount Camera

	MP	WDR	Analytics[1]	Lens	IR	IP66/IP67	HDSM SmartCodec	Lightcatcher Technology
8.0C-H5A-FE-DO1	8.0	✓	✓	Fisheye 1.4 mm		✓	✓	✓
8.0C-H5A-FE-DO1-IR	8.0	✓	✓	Fisheye 1.4 mm	✓	✓	✓	✓
12.0W-H5A-FE-DO1	12.0	✓	✓	Fisheye 1.6 mm		✓	✓	
12.0W-H5A-FE-DO1-IR	12.0	✓	✓	Fisheye 1.6 mm	✓	✓	✓	

[1] Analytics are supported when the camera is installed in the ceiling-mounted orientation mode.

In-Ceiling Mount Camera

	MP	WDR	Analytics[2]	Lens	IR	IP66/IP67	HDSM SmartCodec	Lightcatcher Technology
8.0C-H5A-FE-DC1	8.0	✓	✓	Fisheye 1.4 mm			✓	✓
12.0W-H5A-FE-DC1	12.0	✓	✓	Fisheye 1.6 mm			✓	

[2] Analytics are supported when the camera is installed in the ceiling-mounted orientation mode.

Optional Camera Licenses and Accessories

H5A-FE-MT-NPTA1	NPT adapter for the H5A Fisheye surface mount camera
CM-MT-WALL1	Pendant wall mount, compatible with H5A-FE-MT-NPTA1
H4-MT-POLE1	Pole mount, compatible with CM-MT-WALL1
CRNMT-1001	Aluminum corner mounting bracket, compatible with CM-MT-WALL1
H5A-FE-DC-CPNL1	Metal ceiling panel to reinforce the existing ceiling tile in suspended ceiling installations
H5A-FE-DD-CLER1	Package of 3 dome replacement parts for H5A fisheye surface mount camera
CAM-FIPS	Camera license to enable FIPS Level 1 cryptographic mode on any H5A camera

[1] Excludes H5A Explosion-Protected camera line.

Support

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

MOTOROLA SOLUTIONS

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AVIGILON™

H6A and H6X Dome Cameras

Flexibility And Compliance At Your Fingertips

The Avigilon **H6A camera line** elevates your situational awareness to new heights by combining onboard video analytics with audio analytics. It comes with a built-in mic to alert you of auditory disturbances, allowing you to not only see, but also hear what's happening. If you need to meet certain privacy and/or cybersecurity requirements, the AI-powered **H6X camera line** has been designed with no built-in mic nor wireless technology for easy compliance. See farther distances and secure more ground with the **dome** form factor that's available on both camera lines.

AdaptAI VideoAnalytics

Be a step ahead of incidents with the camera's ability to flag unusual crowds or a person crawling under a fence. Classify more objects such as a commercial van, pick-up truck or box truck with analytics event support.

Audio Analytics & Recording

Expand your awareness with alerts for gunshots[1], breaking glass, screaming and more. Review video from the triggering camera to investigate the sound. Have the option to record audio when you need it.

Dynamic Privacy Masking

Easily meet privacy requirements with the ability to track and blur people and vehicles appearing in video, but have the flexibility for authorized personnel to lift it during investigations.

Outdoor Ready Design

Safeguard the outdoors with the bullet's exceptionally tough exterior that is rated IK10/11, IP66/67 and NEMA Type 4X[2] to withstand impact, water, corrosion and more.

Low-Light Clarity

Never miss a moment in low-light or completely dark conditions with IR illumination built into the bullet camera. Achieve 24/7 visibility of your site at all times.

Secure & Compliant

Trust that your data is well-protected with advanced cybersecurity features such as an onboard FIPS 140-2 level 3 compliant TPM and Secure Boot.

[1] Separate license required.

[2] Environmental ratings will vary by models.

For more information, visit https://www.avigilon.com/security-cameras/h6a-dome or https://www.avigilon.com/security-cameras/h6x-dome.

MOTOROLA SOLUTIONS

Specifications

Image Performance		2.0 MP	4.0 MP	6.0 MP	8.0 MP (4K Ultra HD)
Image Sensor		1/2.8" progressive scan CMOS	1/1.8" progressive scan CMOS		
Max Resolution (H x V) and Aspect Ratio	Primary	(16:9) 1920 x 1080	(16:9) 2688 x 1520, 2560 x 1440, 1920 x 1080 (4:3) 1984 x 1488	(16:9) 3328 x 1872, 3200 x 1800, 2688 x 1520, 2560 x 1440, 1920 x 1080 (4:3) 2880 x 2160, 2304 x 1728, 2048 x 1536	(16:9) 3840 x 2160, 3328 x 1872, 3200 x 1800, 3072 x 1728 (4:3) 2880 x 2160, 2560 x 1920
	Secondary	(16:9) 1920 x 1080*, 1280 x 720, 768 x 432, 640 x 360, 512 x 288	(16:9) 2688 x 1520*, 1920 x 1080, 1280 x 720, 768 x 432, 640 x 360, 512 x 288 (4:3) 1984 x 1488*, 1920 x 1440, 1600 x 1200, 1280 x 960, 768 x 576, 640 x 480, 512 x 384, 384 x 288;	(16:9) 3328 x 1872*, 1920 x 1080, 1280 x 720, 768 x 432, 640 x 360, 512 x 288 (4:3) 2880 x 2160*, 1920 x 1440, 1600 x 1200, 1280 x 960, 768 x 576, 640 x 480, 512 x 384, 384 x 288	(16:9) 3840 x 2160*, 2560 x 1440, 1920 x 1080, 1280 x 720, 768 x 432, 640 x 360, 512 x 288 (4:3) 2880 x 2160*, 2560 x 1920, 2304 x 1728, 1920 x 1440, 1600 x 1200, 1280 x 960, 768 x 576, 640 x 480, 512 x 384
	Tertiary	(16:9) 1280 x 720, 768 x 432, 640 x 360, 512 x 288, 384 x 216	(16:9) 1280 x 720, 768 x 432, 640 x 360, 512 x 288, 384 x 216 (4:3) 1280 x 960, 800 x 600, 640 x 480, 512 x 384, 368 x 264	(16:9) 1280 x 720, 768 x 432, 640 x 360, 512 x 288, 384 x 216 (4:3) 1280 x 960, 768 x 576, 640 x 480, 512 x 384, 384 x 288, 368 x 264	(16:9) 1920 x 1080 1280 x 720, 768 x 432, 640 x 360, 512 x 288, 384 x 216 (4:3) 1920 x 1440, 1600 x 1200, 1280 x 960, 800 x 600, 640 x 480, 512 x 384, 384 x 288, 368 x 264
Dynamic Range	WDR Off	Up to 83 dB			
	WDR On (IEC 62676)	Up to 126 dB (dual exposure, 30 fps) Up to 144 dB (triple exposure, 20 fps or less)	Up to 106dB (dual exposure, 30 fps) Up to 136dB (triple exposure, 20 fps or less)	Up to 130dB (dual exposure, 30 fps)	
	WDR On	Up to 130 dB (dual exposure, 30 fps) Up to 150 dB (triple exposure, 20 fps or less)	Up to 120dB (dual exposure, 30 fps) Up to 144dB (triple exposure, 20 fps or less)	Up to 144 dB (dual exposure, 20 fps or less)	
Max Image Rate		(50 Hz/60 Hz): 50 fps/60 fps in High Frame Rate Mode[1], otherwise 25 fps/30 fps		(50 Hz/60 Hz): 25 fps/30 fps	
Bandwidth Management		HDSM SmartCodec technology; Idle scene mode			
Signal-to-Noise Ratio(SNR)		> 50 dB			

*Only available at half frame rate of the primary stream.
[1] Max Frame Rate of 60 fps is only achievable with High Frame Rate mode enabled. High Frame Rate mode will disable analytics.

Lens and IR Illumination		2.8 - 12 mm	4.4 - 9.3 mm	10.9 - 29 mm
IR Illumination Max Distance[2] (high power 850 nm LEDs)		50 m (164 ft) full tele 25 m (82 ft) full wide	50 m (164 ft) full tele 25 m (82 ft) full wide	70 m (230 ft) full tele 40 m (131 ft) full wide
Minimum Illumination	2 MP	With IR: 0 lux in monochrome mode Without IR: 0.003 lux in monochrome mode; 0.01 lux in color mode	N/A	With IR: 0 lux in monochrome mode Without IR: 0.004 lux in monochrome mode; 0.01 lux in color mode
	4 MP	N/A	With IR: 0 lux in monochrome mode Without IR: 0.003 lux in monochrome mode; 0.008 lux in color mode	With IR: 0 lux in monochrome mode Without IR: 0.004 lux in monochrome mode; 0.01 lux in color mode
	6 MP & 8 MP	N/A	With IR: 0 lux in monochrome mode Without IR: 0.006 lux in monochrome mode; 0.02 lux in color mode	With IR: 0 lux in monochrome mode Without IR: 0.008 lux in monochrome mode; 0.03 lux in color mode
Horizontal Angle of View Based on Aspect Ratio	2 MP	(16:9) 27° - 119°	N/A	(16:9) 11° - 30°
	4 MP	N/A	(16:9) 47° - 111° (4:3) 35° - 78°	(16:9) 15° - 42° (4:3) 11° - 31°
	6 MP & 8MP	N/A	(16:9) 47° - 109° (4:3) 35° - 78°	(16:9) 15° - 42° (4:3) 11° - 31°
Vertical Angle of View Based on Aspect Ratio	2 MP	(16:9) 15° - 64°	N/A	(16:9) 6° - 16.5°
	4 MP & 6 MP & 8 MP	N/A	(16:9) 26° - 57° (4:3) 26° - 57°	(16:9) 9° - 23° (4:3) 9° - 23°
Max Aperture		F1.4	F1.3	F1.7
Control		Remote Zoom and Focus, Autofocus, IR Cut Filter		

[2] IR illumination power may be reduced at higher operating temperatures.

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
Motion Detection	Pixel motion: Selectable sensitivity and threshold. Classified object detection
Camera Tamper Detection	Yes
Electronic Shutter Control	Automatic, Manual (1/7.5 to 1/15000 sec)
Iris Control	Automatic, Open, Closed, P-iris
Day/Night Control	Automatic, Manual, External
Flicker Control	60 Hz, 50 Hz
White Balance	Automatic, Manual
Backlight Compensation	Adjustable
Image Rotation	0°, 90°, 180°, 270° including Corridor Mode
Privacy Zones	Up to 64 zones
Electronic Image Stabilization	Yes

Network

Network	100BASE-TX for H6A, 1000BASE-T for H6X
Cabling	CAT5e
Connector	RJ-45
ONVIF	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 (with optional camera license), onboard FIPS 140-2 L3 certified TPM, Secure Boot, Signed and encrypted firmware, CC EAL6+

Network	
Protocols	IPv6, IPv4, HTTP, HTTPS, SOAP, DNS, NTP, RTSP, RTCP, RTP, TCP, UDP, IGMPv3, ICMP, DHCP, Zeroconf, HSTS, QoS, DSCP
Streaming Protocols	RTP/UDP, RTP/UDP multicast, RTP/RTSP/TCP, RTP/RTSP/HTTP/TCP, RTP/RTSP/HTTPS/TCP, HTTP, SRTP
Device Management Protocols	SNMP v2c, SNMP v3

Peripherals	
USB Port	USB 2.0
Onboard Storage[3]	Two microSD/microSDHC/microSDXC slots - video speed class card required. Class V10 or better recommended.

[3] Tested maximum capacity is 1.5TB.

Auxiliary I/O	
Audio Compression Method	G.711 PCM 8 kHz, Opus
Audio Input/Output	Line level input and output
External I/O Terminals	1 x Relay In, 1 x Relay Out, 1 x 12 VDC out at 50 mA
Microphone	Built-in microphone for audio analytics, for certain variants, with physical disable switch

Mechanical		Surface Mount	In-Ceiling Mount	Pendant Mount
Dimensions (DxH)		182 mm x 132 mm; 7.16" x 5.19"	219 mm x 198 mm; 8.62" x 7.79"	182 mm x 190 mm; 7.16" x 7.48"
Accessory Only Dimensions (DxH)		N/A	219 mm x 115 mm; 8.62" x 4.52"	155 mm x 65 mm; 6.1" x 2.55"
Weight	Indoor Dome	1.21 kg; 2.66 lbs	1.83 kg; 4.03 lbs	1.63 kg; 3.59 lbs
	Outdoor Dome	1.59 kg; 3.5 lbs	1.99 kg; 4.38 lbs	2.01 kg; 4.43 lbs
Dome Bubble		Polycarbonate	Polycarbonate	Polycarbonate
Body		Polycarbonate and aluminum	Polycarbonate and aluminum	Polycarbonate and aluminum
Housing		Surface mount	Recessed mount	Pendant mount
Finish	Indoor Dome	Plastic injection mold grey (Pantone 427C)	Plastic injection mold grey (Pantone 427C) & Powdercoat black	Powdercoat grey & plastic injection mold grey (Pantone 427C)
	Outdoor Dome	Powdercoat grey (Pantone 427C)	Plastic injection mold grey (Pantone 427C) & Powdercoat black	Powdercoat grey (Pantone 427C)
Adjustment Range		Pan 360°, Azimuth 349°, Tilt 92°		

Electrical

Electrical		
Power Consumption		25W (18W with no IR or IR disabled)
Power Source	PoE	IEEE 802.3af Class 3
	PoE+	IEEE 802.3at Class 4
IR Illumination Behavior	PoE	IR illuminator will turn off if the temperature is 65°C (149°F) or higher. The illuminator will operate at 50% power and 25% power if below -25°C (-13°F)
	PoE+	IR illuminator will turn off if the temperature is 65°C (149°F) or higher. The illuminator will operate at 50% power if the temperature is between 55°C (131°F) and 65°C (149°F) and 50% power if below -25°C (-13°F)
External Power		12-24 VDC +/-10%
RTC Backup Battery		3V manganese lithium
Memory		4GB RAM, 4GB Flash
Redundant Power		Seamless failover between PoE and Aux and back without interrupt in camera operation (for H6X only)

Environmental

Environmental		Indoor Dome	Outdoor Dome
Operating Temperature	PoE	-10°C to +55°C (-14°F to 131°F)	-30°C to +65°C (-22°F to 149°F) with IEEE 802.3af Class 3 (13W PoE)
	With External Power or PoE+	-10°C to +55°C (-14°F to 131°F)	-50°C to +65°C (-58°F to 149°F) with external power or IEEE 802.3at Class 4 (25.5W PoE+)
Startup Temperature	PoE	-10°C to +55°C (-14°F to 131°F)	-30°C to +65°C (-22°F to 149°F) with IEEE 802.3af Class 3 (13W PoE)
	With External Power or PoE+	-10°C to +55°C (-14°F to 131°F)	-40°C to +65°C (-40°F to 149°F) with external power or IEEE 802.3at Class 4 (25.5W PoE+)
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		
Certifications/Approvals		UL, cUL, CE, ROHS, RCM, UKCA, NOM, KC, BIS
Safety Standards		UL 62368-1, CSA 62368-1, IEC/EN 62368-1, IEC 62471, UL 2043 Plenum (in-ceiling only)
Environmental Standards/Ratings	Indoor Dome	IEC 60529 IP54, IEC/EN 62262 IK11 (IK10 Surface Mount w/IR)
	Outdoor Dome	IEC 60529 IP66, IP67, IP68 (2m depth for 2 hours), IPX9K, NEMA 4X, IEC 60068-2 Shock & Vibration, NEMA TS2 Sec 2.2.7-2.2.9, IK11
Electromagnetic Emissions Standards		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, EN 50121-4, EN 50130-4
Electromagnetic Immunity Standards		EN 55035, EN 61000-6-1, EN 50121-4, EN 50130-4
Warranty		Limited 5 Year Warranty (avigilon.com/warranty)

Analytics Specifications

Supported Analytics Events	
Objects in Area	The event is triggered when the selected object type moves into the region of interest. This event can be used to count objects.
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.
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.
Smart Motion Rule	Events are sent for person (including crawling) and vehicle present, against default unchangeable 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. Please consult the Avigilon Self-Learning Video Analytics Design Guide for details

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

Teach by Example	
Teach By Example	Yes, when used with Avigilon Control Center™ or Avigilon Unity Video

Supported Audio Analytics Events	
Gunshot[1]	Up to 100 meters
Scream	Up to 15 meters
Glass Break	Up to 15 meters
Car Alarm	Up to 30 meters
Smoke Alarm	Up to 15 meters
Dog Bark	Up to 15 meters
Tire Screech[2]	Up to 15 meters
Loud Noise	Up to 40 meters
Ultrasonic Panic Alarm[3]	Up to 40 meters

[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 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. Classified object privacy masking.
ACC Version 7.2 or higher	All supported analytic events with people and vehicles as classified objects. Appearance search when paired with appropriate server hardware. Unusual Activity Detection. H.265 supported.

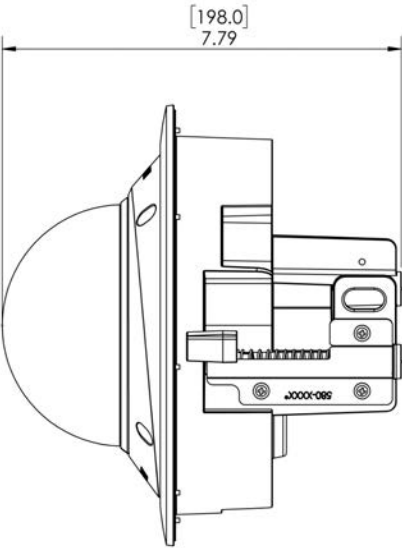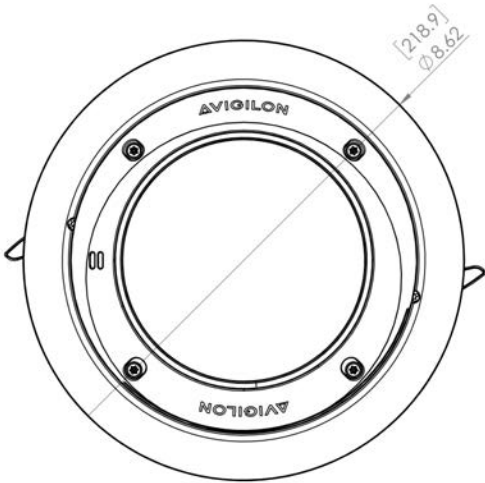# Outline Dimensions

Dome Camera with Surface Mount
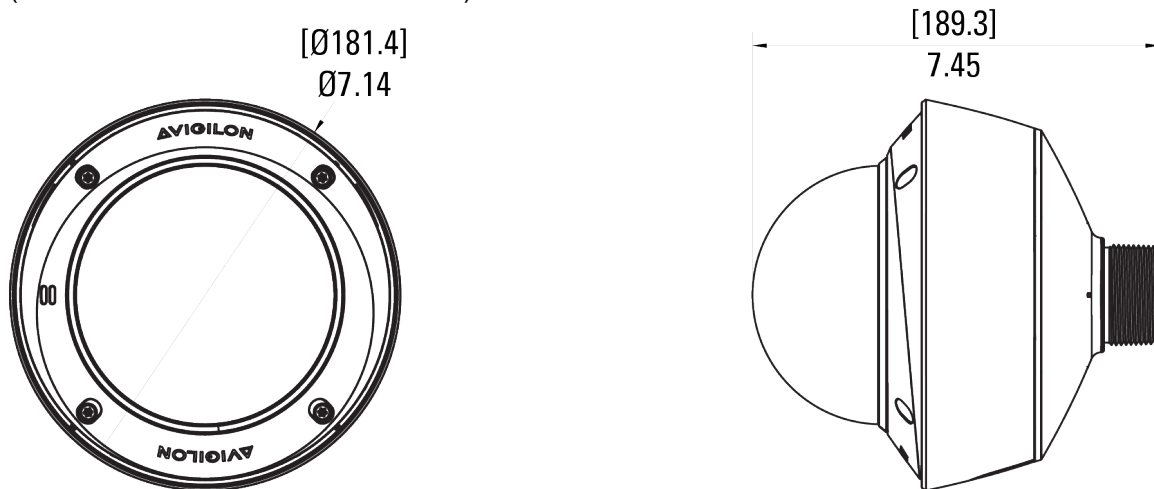
(H6A Dome camera + provided surface mount)

[Ø181.8]
Ø7.16

[131.3]
5.17
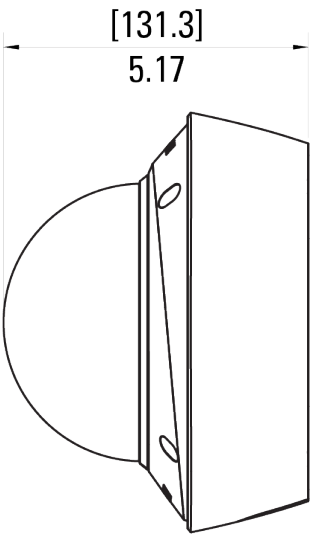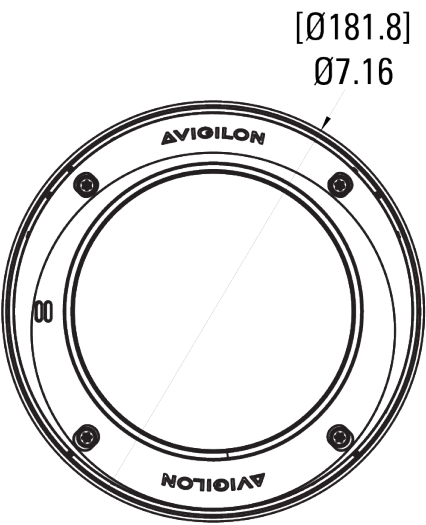
[X.X]	INCHES
X	MM

Dome Camera with In-Ceiling Mount

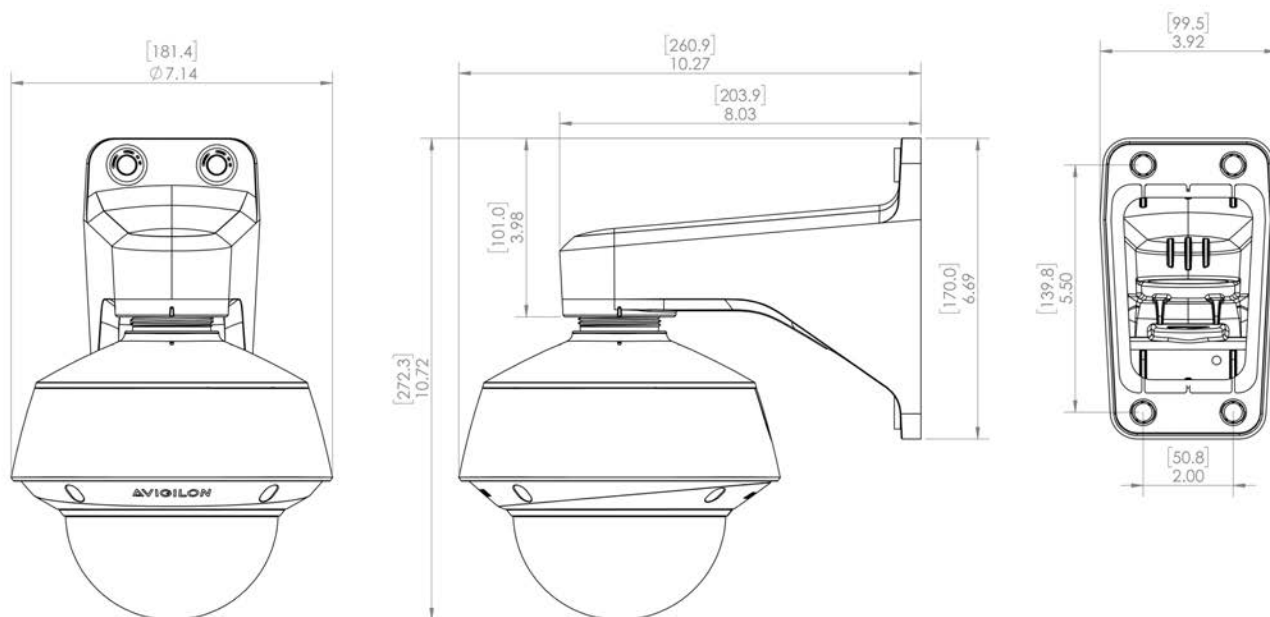(H6A Dome camera + CLADP-1001)

[218.9]
Ø8.62

[198.0]
7.79

Dome Camera WITH NPT Adapter

(H6A Dome camera + H6A-MT-NPTA1)

[Ø181.4]
Ø7.14

[189.3]
7.45

Dome Camera WITH NPT Adapter and Pendant wall mount

(H6A Dome camera + H6A-MT-NPTA1 + WLMT-1021)

[181.4]
Ø7.14

[260.9]
10.27

[203.9]
8.03

[101.0]
3.98

[99.5]
3.92

[170.0]
6.69

[139.8]
5.50

[272.3]
10.72

[50.8]
2.00

Ordering Information

Mounting Scenario		Ordering information
Pendant Wall Mount		Order one of: • Indoor or outdoor surface mount camera • H6A-MT-NPTA1 • WLMT-1021 Optional: • PLMT-1001 (Pole mount adapter) • CRNMT-1001 (Corner mount adapter)
Pendant NPT Mount		Order one of: • Indoor or outdoor surface mount camera • H6A-MT-NPTA1
Surface Mount		Order one of: • Indoor or outdoor surface mount camera Optional: • DMSLD-1001 (weathershield)
In-Ceiling Mount		Order one of: • Indoor or outdoor in-ceiling mount camera • CLADP-1001 Optional: • CLPNL-1011 (metal ceiling panel)

Outdoor Dome Camera

(H6A-DO)

Model	MP	WDR	Lightcatcher Technology	Lens	IR	Analytics	HDSM SmartCodec	Microphone	Seamless Failover
2.0C-H6A-DO1	2.0	✓	✓	2.8 - 12 mm		✓	✓	✓	
2.0C-H6A-DO2	2.0	✓	✓	10.9 - 29 mm		✓	✓	✓	
2.0C-H6A-DO1-IR	2.0	✓	✓	2.8 - 12 mm	✓	✓	✓	✓	
2.0C-H6A-DO2-IR	2.0	✓	✓	10.9 - 29 mm	✓	✓	✓	✓	
4.0C-H6A-DO1	4.0	✓	✓	4.4 - 9.3 mm		✓	✓	✓	
4.0C-H6A-DO2	4.0	✓	✓	10.9 - 29 mm		✓	✓	✓	
4.0C-H6A-DO1-IR	4.0	✓	✓	4.4 - 9.3 mm	✓	✓	✓	✓	
4.0C-H6A-DO2-IR	4.0	✓	✓	10.9 - 29 mm	✓	✓	✓	✓	
6.0C-H6A-DO1	6.0	✓	✓	4.4 - 9.3 mm		✓	✓	✓	
6.0C-H6A-DO2	6.0	✓	✓	10.9 - 29 mm		✓	✓	✓	
6.0C-H6A-DO1-IR	6.0	✓	✓	4.4 - 9.3 mm	✓	✓	✓	✓	
6.0C-H6A-DO2-IR	6.0	✓	✓	10.9 - 29 mm	✓	✓	✓	✓	
8.0C-H6A-DO1	8.0	✓	✓	4.4 - 9.3 mm		✓	✓	✓	
8.0C-H6A-DO2	8.0	✓	✓	10.9 - 29 mm		✓	✓	✓	
8.0C-H6A-DO1-IR	8.0	✓	✓	4.4 - 9.3 mm	✓	✓	✓	✓	
8.0C-H6A-DO2-IR	8.0	✓	✓	10.9 - 29 mm	✓	✓	✓	✓	

(H6X-DO)

Model	MP	WDR	Lightcatcher Technology	Lens	IR	Analytics	HDSM SmartCodec	Microphone	Seamless Failover
4.0C-H6X-DO1-IR	4.0	✓	✓	4.4 - 9.3 mm	✓	✓	✓		✓
4.0C-H6X-DO2-IR	4.0	✓	✓	10.9 - 29 mm	✓	✓	✓		✓
8.0C-H6X-DO1-IR	8.0	✓	✓	4.4 - 9.3 mm	✓	✓	✓		✓
8.0C-H6X-DO2-IR	8.0	✓	✓	10.9 - 29 mm	✓	✓	✓		✓

Indoor Dome Camera
(H6A-D)

	MP	WDR	Lightcatcher Technology	Lens	IR	Analytics	HDSM SmartCodec	Microphone	Seamless Failover
2.0C-H6A-D1	2.0	✓	✓	2.8 - 12 mm		✓	✓	✓	
2.0C-H6A-D2	2.0	✓	✓	10.9 - 29 mm		✓	✓	✓	
2.0C-H6A-D1-IR	2.0	✓	✓	2.8 - 12 mm	✓	✓	✓	✓	
2.0C-H6A-D2-IR	2.0	✓	✓	10.9 - 29 mm	✓	✓	✓	✓	
4.0C-H6A-D1	4.0	✓	✓	4.4 - 9.3 mm		✓	✓	✓	
4.0C-H6A-D2	4.0	✓	✓	10.9 - 29 mm		✓	✓	✓	
4.0C-H6A-D1-IR	4.0	✓	✓	4.4 - 9.3 mm	✓	✓	✓	✓	
4.0C-H6A-D2-IR	4.0	✓	✓	10.9 - 29 mm	✓	✓	✓	✓	
6.0C-H6A-D1	6.0	✓	✓	4.4 - 9.3 mm		✓	✓	✓	
6.0C-H6A-D2	6.0	✓	✓	10.9 - 29 mm		✓	✓	✓	
6.0C-H6A-D1-IR	6.0	✓	✓	4.4 - 9.3 mm	✓	✓	✓	✓	
6.0C-H6A-D2-IR	6.0	✓	✓	10.9 - 29 mm	✓	✓	✓	✓	
8.0C-H6A-D1	8.0	✓	✓	4.4 - 9.3 mm		✓	✓	✓	
8.0C-H6A-D2	8.0	✓	✓	10.9 - 29 mm		✓	✓	✓	
8.0C-H6A-D1-IR	8.0	✓	✓	4.4 - 9.3 mm	✓	✓	✓	✓	
8.0C-H6A-D2-IR	8.0	✓	✓	10.9 - 29 mm	✓	✓	✓	✓	

Dome Camera Accessories

H6A-MT-NPTA1	Pendant NPT adapter
WLMT-1021	Pendant wall arm, 1.5" NPT female, 20 cm (7.8") long
CLADP-1001	In-Ceiling adapter
CLPNL-1011	Metal ceiling panel for suspended ceiling installations
DMSLD-1001	Weathershield for dome cameras
DMBBL-1001	Replacement clear dome bubble
DMBBL-1011	Replacement IR dome bubble
DMSBL-1001	Optional smoked dome bubble, not compatible with the IR cameras
CBLKIT-1011	USB adapter cable, for use with USB-AC56 Wifi install kit
USB-AC56-NA-MSI	USB Wifi adapter install kit (North America)
USB-AC56-EU-MSI	USB Wifi adapter install kit (Europe)
GROM-1001	Camera sealing grommet, pack of 10
GROM-1011	Pipe sealing grommet, pack of 10
PLMT-1001	Pole mount adapter
CRNMT-1001	Corner mount adapter
CAM-AA-GUNSHOT	Avigilon Camera Gunshot Audio Analytics Channel, one per camera
CAM-AA-GUNSHOT-180D	Avigilon Camera Gunshot Audio Analytics Channel, 180 day demo license. Please contact Avigilon Technical Support.
CAM-FIPS	Camera license to enable FIPS cryptographic module.

Support

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

sales@avigilon.com | avigilon.com

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H5A CORNER CAMERA 2.3 MM FIXED LENS

3 MP   **5 MP**

The Avigilon H5A Corner camera is an anti-ligature, no-grip and IK10+ impact-rated solution that is purpose-built to withstand the harshest attempts to destroy, detach, attach to or disable it. As an Avigilon H5 platform camera, the H5A Corner 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
Detects more objects with expanded object classification and greater accuracy for faster responses, even in crowded scenes.

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.

FIPS 140-2 COMPLIANT
Brings increased data security with FIPS-compliant cryptography enabled on cameras[1].

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

AUDIO RECORDING CAPABILITIES
Records audio evidence via a built-in microphone that can be disabled if desired.

EASY TO CLEAN & REPAIR
Stainless steel variant and water-resistant design makes it easy to clean. Part replacements are simple using conventional tools without having to remove the entire camera, minimizing downtime.

WATER, IMPACT & ENCLOSURE RATED
IP67 rating for water resistance, IK10+ impact rating for vandal resistance and NEMA 4X enclosure rating[2] for windblown dust, water (e.g. rain, hose-directed water) and corrosion resistance.

EXTENDED TEMPERATURE RANGE
Continuously records between -40 °C to 55 °C (-40 °F to 131 °F).

INVISIBLE IR LED LIGHT
Ensures there is no visible glow to disturb the subject being monitored or notify them that the camera is on.

LIGHTCATCHER™ TECHNOLOGY
Offers excellent image detail in low-light settings.

ONVIF is a trademark of Onvif, Inc.

[1] Optional purchase of FIPS Level 1 camera license.
[2] NEMA 4X rating only applies to the stainless steel variant.

MOTOROLA SOLUTIONS

AVIGILON

SPECIFICATIONS

IMAGE PERFORMANCE		3.0 MP	5.0 MP
Image Sensor		1/2.8" progressive scan CMOS	
Max Resolution (H x V) and Aspect Ratio		(4:3) 2048 x 1536 (16:9) 1920 x 1080	(4:3) 2592 x 1944 (16:9) 2560 x 1440
Dynamic Range	WDR Off:	83 dB	
	WDR On:	126 dB	
Max Frame Rate	WDR Off:	(50 Hz/60 Hz) 25 fps/30 fps	
	WDR On:	(50 Hz/60 Hz) 20 fps/20 fps	
Max Image Rate		WDR off (50 Hz/60 Hz): 25 fps/30 fps WDR on (50 Hz/60 Hz): 20 fps/20 fps	
Bandwidth Management		HDSM SmartCodec technology; Idle scene mode	
3D Noise Reduction Filter		Yes	

LENS AND IR ILLUMINATION	
Lens	2.3 mm
IR Illumination Max Distance[1] (high power 940 nm LED)	15 m (49 ft)
Minimum Illumination	0.027 lux in color mode, 0.014 lux in monochrome mode, 0 lux with IR
Horizontal Angle of View Based on Aspect Ratio	(4:3) 135° (16:9) 133°
Vertical Angle of View Based on Aspect Ratio	(4:3) 95° (16:9) 74°
Max Aperture	Fixed F2.2

[1] IR illumination power may be reduced at higher operating temperatures.

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, HDSM™ 2.0
Motion Detection	Pixel motion: Selectable sensitivity and threshold. Classified object detection
Camera Tamper Detection	Yes
Electronic Shutter Control	Automatic, Manual (1/7 to 1/8196 sec)
Day/Night Control	Automatic, Manual
Flicker Control	60 Hz, 50 Hz
White Balance	Automatic, Manual
Backlight Compensation	Adjustable
Privacy Zones	Up to 64 zones

NETWORK	
Network	100BASE-TX, RJ45 Connector, CAT5e Cabling
ONVIF	ONVIF compliance version 1.02, 2.00, Profile S, Profile T, Profile G, Profile M (www.onvif.org)
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)
Protocols	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 Protocols	SNMP v2c, SNMP v3

PERIPHERALS

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

AUXILIARY I/O

Audio Compression Method	G.711 PCM 8 kHz, Opus
Audio Input/Output	Line level I/O or built-in microphone
External I/O Terminals	Alarm In, Alarm Out

MECHANICAL

Dimensions (LxWxH)	163 mm x 163 mm x 121 mm; 6.4" x 6.4" x 4.8"
Weight	3.21 kg (7.2 lbs)
Minimum Mounting Height	2.75 m (9')
Dome Bubble	Polycarbonate
Body	Stainless steel / Cold rolled steel
Housing	Corner mount, vandal resistant
Finish	Bead blasted and electro-polished / Cast, powder coated, Pantone 427C
Recording LED	Yes
Built-in Microphone	Yes
Adjustment Range	±5° tilt

ELECTRICAL

Power Consumption	13 W max (11 W with no IR or IR disabled)		
Power Source	VDC: 12 V ± 10%, 12 W min	VAC: 24 V ± 10%, 13 VA min	PoE: IEEE802.3af Class 3 compliant
RTC Backup Battery	3V manganese lithium		

ENVIRONMENTAL

Operating Temperature	-40 °C to +55 °C (-40 °F to 131 °F)
IR Illuminator Behavior	IR illuminator will turn off if the temperature is 50 °C (122 °F) or higher. The illuminator will operate at 50% power if the temperature is between 40 °C (104 °F) and 49 °C (120 °F). Hysteresis: 2 °C (3.6 °F).
Storage Temperature	-10 °C to +70 °C (14 °F to 158 °F)
Humidity	0 - 95% non-condensing

CERTIFICATIONS

Certifications/Directives	UL, cUL, CE, ROHS, Reach (SVHC), RCM, EAC, KC, BIS, UKCA
Safety	UL 62368-1, CSA 62368-1, IEC/EN 62368-1, IEC 62471 (with -IR option)
Environmental	UL/CSA/IEC 60950-22, IEC 60529 IP66 and IP67 Weather Rating, NEMA 4X for stainless steel enclosure only, IK10+ Impact Rating
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
Electromagnetic Immunity	EN 55035, EN 61000-6-1

ANALYTICS SPECIFICATIONS

SUPPORTED 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 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.

SUPPORTED ANALYTICS EVENTS

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.

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™

## 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. 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.

OUTLINE DIMENSIONS

[X.X]	INCHES
X	MM

H5A CORNER CAMERA

(3.0C-H5A-CR2-IR/3.0C-H5A-CR2-IR-SS/5.0C-H5A-CR2-IR/5.0C-H5A-CR2-IR-SS)

[9.4]
238.6

[7.3]
185.8

[8.3]
210.0

[5.8]
147.8
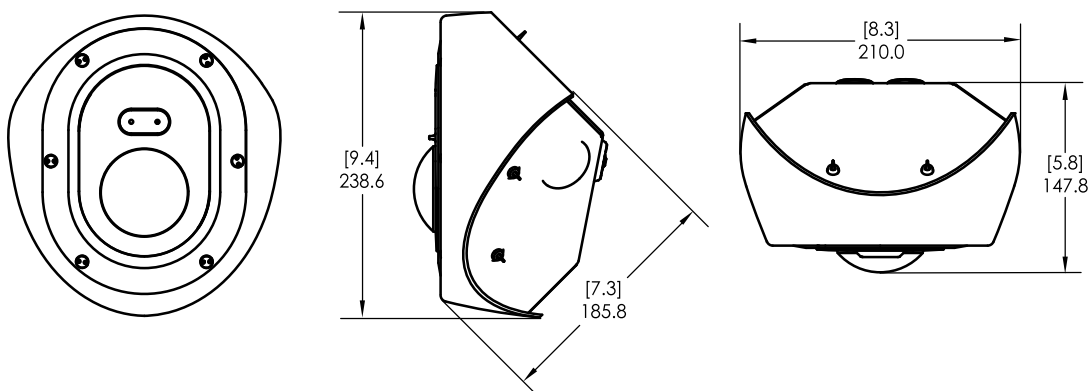
H5A CORNER CAMERA WITH CONDUIT BOX
(3.0C-H5A-CR2-IR/3.0C-H5A-CR2-IR-SS/5.0C-H5A-CR2-IR/5.0C-H5A-CR2-IR-SS WITH CNBX-1001)
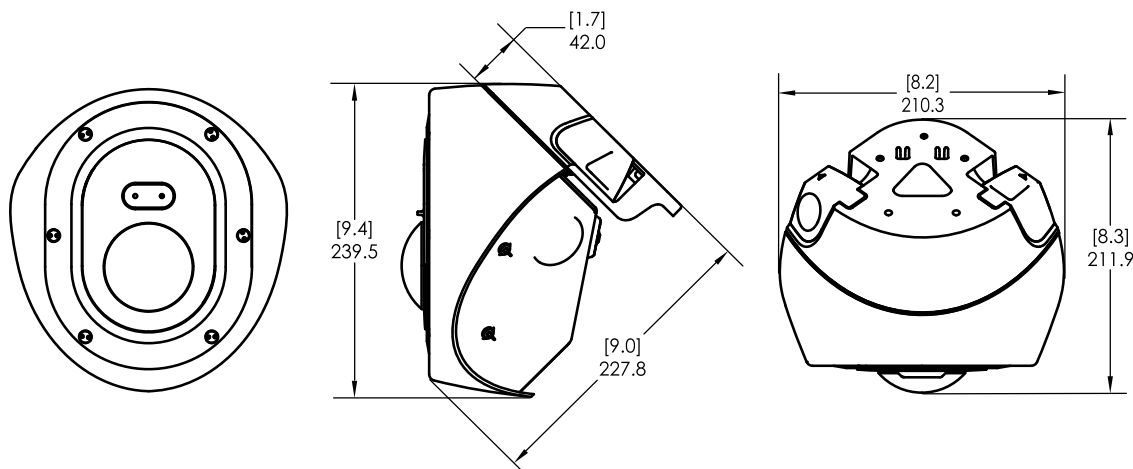
ORDERING INFORMATION

	MP	WDR	ANALYTICS	LENS	IR	BODY	FINISH
3.0C-H5A-CR2-IR	3.0	✓	✓	2.3 mm	✓	Cold Rolled Steel	Powder Coat
3.0C-H5A-CR2-IR-SS	3.0	✓	✓	2.3 mm	✓	Stainless Steel	Bead Blasted & Polished
5.0C-H5A-CR2-IR	5.0	✓	✓	2.3 mm	✓	Cold Rolled Steel	Powder Coat
5.0C-H5A-CR2-IR-SS	5.0	✓	✓	2.3 mm	✓	Stainless Steel	Bead Blasted & Polished

OPTIONAL CAMERA LICENSES AND ACCESSORIES

CNBX-1001	Conduit gang box, powder coated aluminum die-cast, white (accepts 12.7 mm/0.5 " or 19.05 mm/0.75 " conduit pipe)
USB-AC56-NA-MSI / USB-AC56-EU-MSI	USB Wi-Fi Adapter
CM-AC-AVIO1	3.5 mm jack with 1.8 m fly wire
CAM-FIPS	Camera license to enable FIPS Level 1 cryptographic mode on any H5A camera
CR-FFKIT-SS	Replacement faceplate for stainless steel corner camera models
CR-FFKIT-WHT	Replacement faceplate for white steel corner camera models

1 Excludes H5A Explosion-Protected camera line.

SUPPORT

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