AVIGILON™

AI Appliance

Enhance your security with Server-side Analytics and Generative AI

Upgrade your existing security system with the **Avigilon AI Appliance** to enhance site security and accelerate incident response. This server-side solution adds powerful video analytics to detect people, vehicles, and faces across your site. The **AI Appliance 2X CG3** model further unlocks Generative AI capabilities, allowing you to monitor for environmental hazards and create highly specific alerts—like "car on fire in the parkade"—using simple natural language. It's a cost-effective way to address critical security gaps without replacing your current hardware.

On-premise Generative AI ready

The AIA2X-CG3 features Visual Alerts - Beyond people and vehicle detection: Identify specific events, from spills to complex object relationships, to enhance operational awareness.
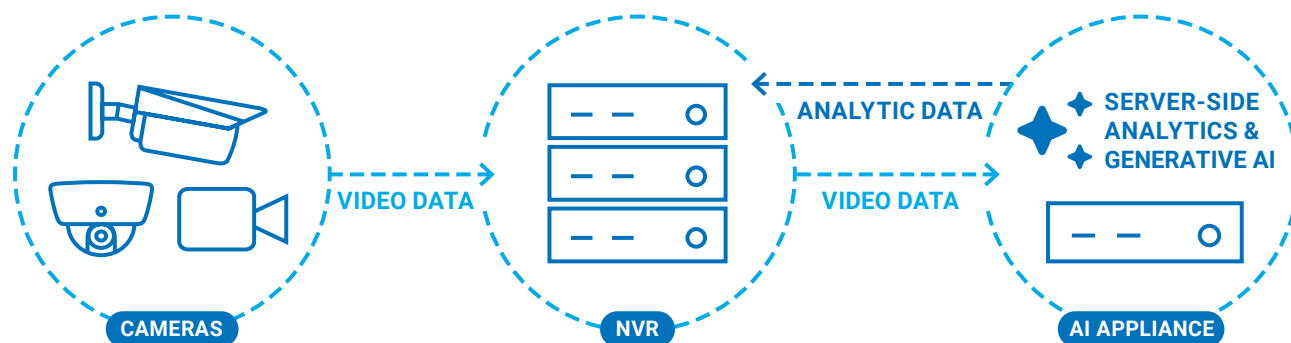
Turnkey and secure deployment

A managed solution purpose-built for security and IT teams with easy setup and secure operation.

Server-side Analytics and Generative AI

Enable Classified Object Detection, Appearance Search, Facial Recognition, Visual Alerts, and Occupancy Counting to existing cameras.

VIDEO DATA

ANALYTIC DATA

VIDEO DATA

SERVER-SIDE ANALYTICS & GENERATIVE AI

CAMERAS

NVR

AI APPLIANCE

MOTOROLA SOLUTIONS

Server-side Analytics and Generative AI

Classified Object Detection™ (COD)

Detects and classifies people and vehicles to help operators respond faster. Unusual Activity Detection (UAD) automatically detects atypical behavior of learned objects.

UNITY8-ENT required

Avigilon Appearance Search™ (AS)

Quickly locates a specific person or vehicle of interest across an entire site using a sophisticated deep learning AI search engine.

UNITY8-ENT required

Facial Recognition (FR)

Detects matches from managed face watchlists to alert operators of people of interest. Requires Appearance Search and an additional license.

UNITY8-ENT and UNITY8-FACE required

Visual Alerts

Use natural language to setup alerts for custom objects and scenarios, beyond just people and vehicles.

AIA2X-CG3 model required

Occupancy Counting

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

Unity Video Cloud Services required

Non-Analytic Camera Channel Capacity

Model[1]	Visual Alerts Enabled (CG3 Only)			Visual Alerts Disabled		
	COD	COD+AS[2]	COD+AS+FR[2]	COD	COD+AS[2]	COD+AS+FR[2]
CG2	-	-	-	80	80	57
CG3	80	80	58	160	160	116

[1] Must be connected to an NVR, AI NVR, or another recorder running Unity Video 8.7.0 Enterprise software or later. These performance figures are based on validation testing by Avigilon, using Unity Video 8.7.0 Enterprise software, and cameras at 2MP and 30 images per second (ips).
[2] AS and FR are only available for cameras with server-side COD enabled.

Visual Alerts Analysis Rate in Seconds

While multiple AIA2X appliances can be part of a Unity Site, only one AIA2X-CG3 can be supported per site when using Visual Alerts.

Number of Visual Alerts	Number of Channels												
	8	16	24	32	40	48	56	64	72	80	88	96	100
5	5s	10s	15s	20s	25s	30s	35s	40s	45s	50s	55s	57s	60s
10	10s	20s	30s	40s	50s	60s	X̄	X̄	X̄	X̄	X̄	X̄	X̄
15	15s	30s	45s	60s	X̄	X̄	X̄	X̄	X̄	X̄	X̄	X̄	X̄
20	20s	40s	60s	X̄	X̄	X̄	X̄	X̄	X̄	X̄	X̄	X̄	X̄
25	25s	50s	X̄	X̄	X̄	X̄	X̄	X̄	X̄	X̄	X̄	X̄	X̄
30	30s	60s	X̄	X̄	X̄	X̄	X̄	X̄	X̄	X̄	X̄	X̄	X̄
35	35s	X̄	X̄	X̄	X̄	X̄	X̄	X̄	X̄	X̄	X̄	X̄	X̄

X̄ The GPU load factor will prevent addition of additional cameras or prompts. Analysis rate is based on load factors using 2MP H264 camera resolution at 1 key frame per second.

Device Types Supported for Analytics
H6A/H6X, H6M, H6SL, and H5DH cameras with analytics disabled
Avigilon H5Pro, H5 and H4 Multisensor cameras in high frame-rate mode
Avigilon H4A cameras in Unusual Motion Detection mode
Avigilon H5M, H5SL, and H4SL cameras
Avigilon HD H.264, H3, H3 Multisensor, H4 Mini dome, H4 Box, H4 Bullet, H4 Dome, and H4 Pro cameras
Avigilon H.264 Analog Encoders
ONVIF® Profile S and T cameras, and ONVIF® Encoder (onvif.org)
Third-party devices (MJPEG, MPEG4, H.264, H.265/HEVC) supported by Unity Video. For more information, see avigilon.com/vms/on-premise/supported-devices.

Specifications

System	AIA2X CG2	AIA2X CG3
Avigilon Unity Video™ Edition	Pre-installed with Unity Video 8 Enterprise, incompatible with ACC7 Enterprise	
Operating System	Avigilon Hardened OS	
Processor	1 × Intel® Xeon®	2 × Intel® Xeon®
Memory	4 × 16GB DDR5	8 × 16 GB DDR5
Drive Configuration	Mirrored OS - 2 × 480GB M2 drives, RAID 1	
Recording Storage Capacity	None	
Graphics Processor	1 × NVIDIA Data Center Class GPU	2 × NVIDIA Data Center Class GenAI-ready GPU
Network Interface	6 × 1 GbE RJ-45 ports	2 × 10 GbE SFP+ ports, 6 × 1 GbE RJ-45 ports
Network Connection (10 GbE or 1 GbE Teamed - Multiple Connections)	Up to 1500 Mbps[1]	Up to 1500 Mbps
Network Connection (1 GbE - Non-Teamed - Multiple Connections)	Up to 800 Mbps	Up to 800 Mbps
Video Outputs	None	
Local Viewing	No - Web-based administration only	
Out-of-band Management	iDRAC9 Express (factory installed), Enterprise upgrade available	
TPM	TPM 2.0 V3	
Warranty	3-Year Next Business Day	

[1]10 GbE optional, with 10 GbE Kit (NVR6-AINVR2-FORM-D-10GBE) sold separately.

Mechanical	AIA2X CG2	AIA2X CG3
Form Factor	2U Rack Mount Form D Analytics Class Chassis	
Dimensions	772.1 mm × 482.0 mm × 86.8 mm 30.39" × 18.98" × 3.42"	
Weight	22.5 kg (50 lbs)	22.8 kg (50 lbs)

Electrical	AIA2X CG2	AIA2X CG3
Power Input	100 to 240 VAC, 50/60 Hz, auto-switching	
Power Supply	Dual redundant (1+1) 2400 W, reduces to 1400W @ 100 to 120 VAC	
Power Consumption	Maximum 701 W (2392 BTU/h)	Maximum 1013 W (3456 BTU/h)
Power Efficiency	Platinum	

Environmental	AIA2X CG2	AIA2X CG3
Operating Temperature	10°C to 35°C (50°F to 95°F)	
Storage Temperature	-40° C to 65° C (-40° F to 149° F)	
Operating Humidity	8% to 80% relative humidity with 21°C (69.8°F) max dew point	
Storage Humidity	5% to 95% RH with 27°C (80.6°F) max dew point. Atmosphere must be non-condensing at all times.	
Operating Vibration	0.21 Grms at 5 Hz to 500 Hz	
Storage Vibration	1.88 Grms at 10 Hz to 500 Hz	
Operating Shock	6 G	
Storage Shock	71 G	
Operating Altitude	3,050 m (10,000 ft)	
Storage Altitude	12,000 m (39,370 ft)	

Certifications	AIA2X CG2	AIA2X CG3
Certifications/Approvals	UL, cUL, UKCA, CE, NRCS, NOM, RCM, VCCI, BSMI, CCC, KC, RoHS, CMIM, EAC, BIS	
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	

Supplied Accessories	AIA2X CG2	AIA2X CG3
Rack Rail System	ReadyRails Sliding Rails with Cable Management Arm	
Bezel	1, front	
Power Cord[1]	2 × C19 / C20 region-agnostic power cords	

[1]C19 regional power cords are sold separately (AIA-FORM-D-DUAL-POWERCORD-C19-XX where XX=NA/UK/EU/AU).
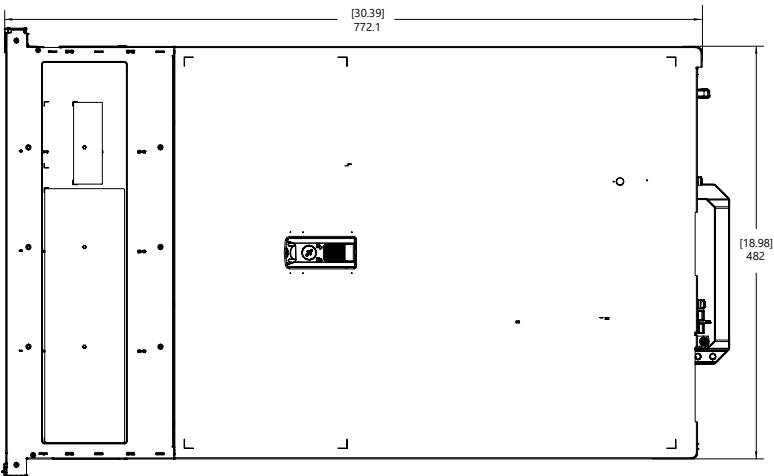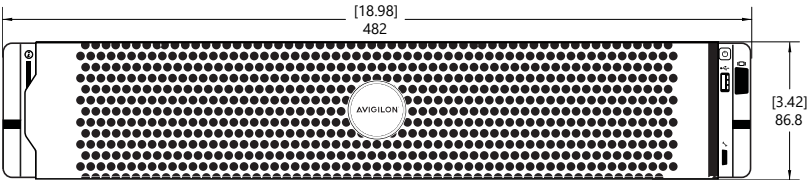
(NA) NEMA 5-15P

(UK) BS1363

(EU) SCHUKO

(AU) AS3112

[X.XX]	INCHES
X.X	MM

Outline Dimensions

AI Appliance 2X, CG2 and CG3 models

Form Factor
2U Rack Mount Form D Analytics Class Chassis

Dimensions (L × W × H)
772.1 mm × 482.0 mm × 86.8 mm
[30.4" × 18.98" × 3.42"]

Weight
22.54 kg [50 lbs]

Ordering Information

AI Appliance 2X

AIA2X-FORM-D-CG2-HW-C19-C20	AI Appliance 2X, CG2 model with Avigilon Hardened OS and Unity Video 8. Includes 3-Year Next Business Day Warranty.
AIA2X-FORM-D-CG3-HW-C19-C20	AI Appliance 2X, CG3 model with Avigilon Hardened OS and Unity Video 8. Includes 3-Year Next Business Day Warranty.
Includes 2 x C19 / C20 power cords. Regional power cords sold separately (AIA-FORM-D-DUAL-POWERCORD-C19-XX where XX=NA/EU/UK/AU).	

Software Licenses

UNITY8-ENT	Avigilon Unity Video 8 Enterprise Edition camera channel license, includes Server-side Analytics for Classified Object Detection & Appearance Search (formerly requiring UNITY8-VAC)
UNITY8-FACE	Avigilon Unity Video 8 Facial Recognition feature channel license
UNITY8-FACE-10	Avigilon Unity Video 8 Facial Recognition feature 10 channel license

Warranty Options

AIA2X-FORM-D-CG2-WARR-EXTEND-2YR	2-Year Next Business Day Warranty Extension for AI Appliance 2X CG2 model
AIA2X-FORM-D-CG2-WARR-5Y4HMC	5-Year 4-Hour-Mission-Critical Warranty Upgrade for AI Appliance 2X CG2 model. Must be purchased together with AIA2X-FORM-D-CG2-WARR-EXTEND-2YR.
AIA2X-FORM-D-CG3-WARR-EXTEND-2YR	2-Year Next Business Day Warranty Extension for AI Appliance 2X CG3 model
AIA2X-FORM-D-CG3-WARR-5Y4HMC	5-Year 4-Hour-Mission-Critical Warranty Upgrade for AI Appliance 2X CG3 model. Must be purchased together with AIA2X-FORM-D-CG3-WARR-EXTEND-2YR.

Accessories

NVR6-AINVR2-FORM-D-SFPPLUS-SR	SFP+ Transceivers for Short Range (Multi-mode) on server side
AIA-FORM-D-DUAL-POWERCORD-C19-XX	2 × C19 Regional power cords (XX=NA/UK/EU/AU) for each AI Appliance 2X CG2 model
IDRAC9-ENT-UPG-V2	iDRAC Enterprise upgrade version 2
NVR6-AINVR2-FORM-D-10GBE	Network Card, Dual Port 10 GbE SFP+. AI Appliance 2X CG2 model only.
NVR6-AINVR2-STDPRM-FORM-D-STATIC-RAIL	Static Rail Kit
AIA-FORM-D-DUAL-POWERCORD-C19-XX	Power cord, regional variant from options below (XX=NA/EU/UK/AU)

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

Support

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