Avigilon Artificial Intelligence (AI) Appliance

The Avigilon AI Appliance adds patented self-learning video analytics and Avigilon Appearance Search™ technology to nearly any IP camera. When connected to Avigilon Control Center (ACC) software, customers can evolve legacy camera systems into powerful AI solutions — with automatic alerts of potentially critical events and the ability to search for and locate a person or vehicle of interest across an entire site.

Engineered for high performance, capacity and resiliency, the AI Appliance features leading CPU and GPU hardware that simultaneously support Avigilon video analytics and Avigilon Appearance Search technology.

Available in two variants that can support up to thirty or sixty 2MP streams in the same 2U form factor, the AI appliance can integrate into existing installations and scale to meet enterprise system requirements.

Key Features

Preloaded and configured with Avigilon's self-learning video analytics technology
High capacity video analytic processing supports up to 8MP resolution
Supports Avigilon and third party non-analytic enabled cameras
On-board Analytics Kit allows Avigilon Appearance Search to be enabled out of the box
Pre-configured for quick and easy setup in Avigilon Control Center (ACC) software
Dual hot-swappable power supplies for high availability in the event of component failure
An easy to access and maintain 2U rack mount chassis — includes a sliding rail kit and cable management system
A three-year warranty with on-site parts delivery service.

Specifications

System

Video Management Software	Avigilon Control Center™ – compatible with Enterprise edition	
Operating System	Hardened Linux, supports secure remote upgrades	
Network Video Streaming Performance* — Network Connection	1 GbE Up to 600 Mbps over a single connection	
Network Video Streaming Performance* — Video Ingestion Rate	Model A10 – 30 × 2MP (15 fps)	Model A20 – 60 × 2MP (15 fps)
Recording Storage Capacity	None	
Drive Configuration	Mirrored OS – 2 × M2 drives, RAID 1	
Network Interface	4 × 1 GbE RJ-45 ports (1000Base-T)	
Graphics Processing Unit	NVIDIA Quadro®	
Video Outputs	None	
Local Viewing	No – Web-based administration only	
Out-of-band management	iDRAC9 Express	

* These performance figures are based on validation testing by Avigilon, using Avigilon Control Center software. For more information, contact Avigilon Sales.

Mechanical

Form Factor	2U rack mount chassis
Dimensions (LxWxH)	714.6 mm × 482 mm × 86.8 mm; 28.13" × 18.97" × 3.41"
Weight	34.3 kg (75.68 lbs)

Electrical

Power Input	100 to 240 V AC, 50/60 Hz, auto-switching
Power Supply	750 W redundant, hot-swappable (1+1)
Power Consumption	Average: 429 W (1463.8 BTU/h), Maximum: 750 W (2559.1 BTU/h)

Environmental

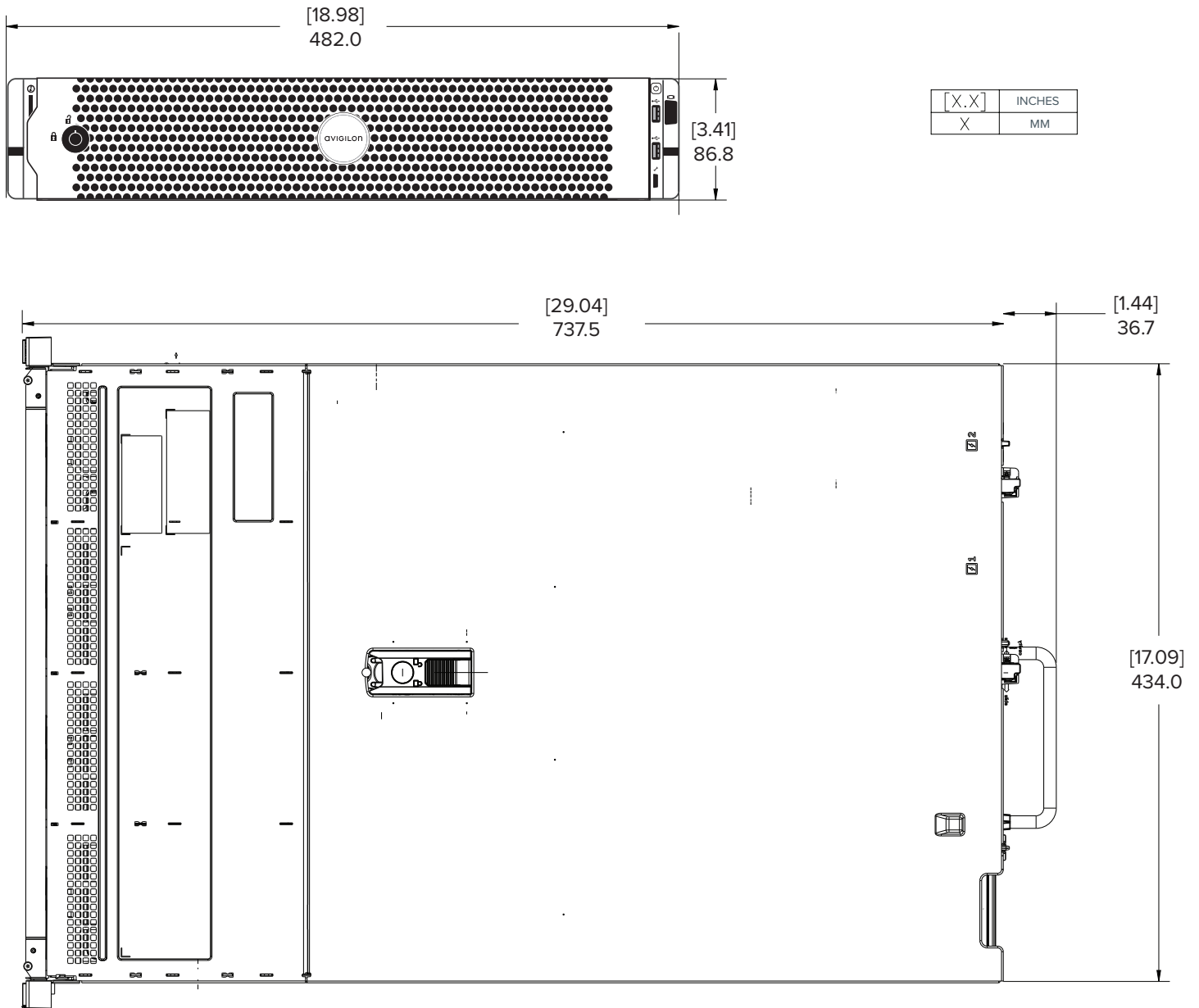|	
Operating Temperature	10°C to 35°C (50°F to 95°F)
Storage Temperature	-40°C to 65°C (-40°F to 149°F)
Humidity	10% to 80% relative humidity with 29°C (84.2°F) maximum dew point
Operating Vibration	0.26 G_{rms} at 5 Hz to 350 Hz
Storage Vibration	1.88 G_{rms} at 10 Hz to 500 Hz for 15 min
Operating Shock	Six consecutively executed shock pulses in the positive and negative x, y, and z axes of 6 G for up to 11 ms
Storage Shock	Six consecutively executed shock pulses in the positive and negative x, y, and z axes (one pulse on each side of the system) of 71 G for up to 2 ms
Operating Altitude	3,048 m (10,000 ft)
Storage Altitude	12,000 m (39,370 ft)

Supplied Accessories

Rack Rail System	Sliding rail system with cable management arm. Supports: • Tool-less mounting in 19"-wide EIA-310-E compliant square hole and unthreaded round-hole 4-post racks • Tooled mounting in threaded hole 4-post racks
Bezel	1, front
Power Cords	2

Certifications

Certifications	UL, cUL, CE, BIS, BSMI, CCC, EAC, KC, NOM, NRCS, VCCI, RCM
Safety	EN 60950-1:2006 / A11:2009 / A1:2010 / A12:2011 / A2:2013; UL/CSA/IEC 60950-1, 2 Ed + Am 1: 2009 + Am 2: 2013
Electromagnetic Emissions	US CFR Title 47, FCC Part 2, 15; Canadian ICES-003(A) Issue 6; EN 55032:2012/ EN 55032:2015/ CISPR 32:2012/ CISPR 32:2015 (Class A); EN 61000-3-2:2014/ IEC 61000-3-2:2014 (Class D); EN 61000-3-3:2013/ IEC 61000-3-3:2013
Electromagnetic Immunity	EN 55024:2010+A1:2015/CISPR 24:2010 + A1:2015
Energy	Commission Regulation (EU) No. 617/2013
ROHS	EN 50581:2012

Analytics/ Appearance Search Channel Estimates

Stream resolution	Channels available	Analytic load per camera	Channels available	Analytic load per camera
	Model A10		Model A20	
720x480 (encoder NTSC 15fps)	40	2.5%	80	1.25%
1MP (15 fps)	40	2.5%	80	1.25%
2MP (15 fps) / 1MP (30 fps)	30	3.3%	60	1.65%
2MP (30 fps)	23	4.5%	46	2.2%
3MP (20 fps)	20	5%	40	2.5%
5MP (15 fps)	15	6.5%	35	2.85%
8MP (15fps)	10	10%	20	5%

Device types supported for analytics

Avigilon H.264 Analog Encoders
Avigilon HD H.264, HD Multisensor, H4 SL, H4 Mini dome cameras
Avigilon H4 cameras operating for Unusual Motion Detection
ONVIF® Profile S cameras
ONVIF encoders

Outline Dimensions

[18.98]
482.0

[3.41]
86.8

[X.X]	INCHES
X	MM

[29.04]
737.5

[1.44]
36.7

[17.09]
434.0

Ordering Information

VMA-AIA1-CG1-XX	Artificial Intelligence Appliance – Model A10, 2U Rack Mnt, 1 x capacity, Incl power cords
VMA-AIA1-CG2-XX	Artificial Intelligence Appliance – Model A20, 2U Rack Mnt, 2 x capacity, Incl power cords
VMA-AIA-2NDPS-AU	Replacement hot-swappable power supply, for AU
VMA-AIA-2NDPS-EU	Replacement hot-swappable power supply, for EU
VMA-AIA-2NDPS-NA	Replacement hot-swappable power supply, for NA
VMA-AIA-2NDPS-UK	Replacement hot-swappable power supply, for UK

VMA-AIA1-CGx-**NA** =   VMA-AIA1-CGx-**UK** =   VMA-AIA1-CGx-**EU** =   VMA-AIA1-CGx-**AU** =