AVIGILON™

AI NVR 2X Value
Cloud-ready enterprise hardened recorder with AI at its core

Modernize your video security infrastructure with the cloud-ready **Artificial Intelligence Network Video Recorder 2X (AI NVR 2X)**. A workhorse for small-to-midsize enterprise sites, AI NVR 2X Value bridges the IT resource and analytics gaps, now available from 6TB to 24TB, supporting up to 80 cameras. Alleviates costly downtime and time-consuming upgrades with its remote management capabilities from a single pane of glass on Avigilon Hardened OS. Protect your critical assets using Avigilon's AdaptAI 5 server-side analytics, which is deployable with any existing non-analytic camera. Locate people or vehicles of interest with Avigilon Appearance Search, Facial Recognition and License Plate Recognition as well as detect brandished firearms using Visible Firearm Detection[1].

AdaptAI 5 server-side analytics[2] and LPR for non-analytic cameras

The first of its kind to bring AdaptAI 5 analytics and License Plate Recognition to your existing non-analytic cameras.

Firearm-in-hand detection

Help detect brandished firearms, including handguns and long guns, with Visible Firearm Detection.

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

Our AI NVR 2X Value models are backed by a 3-year warranty[3] and 24/7 lifetime technical support dedicated to Avigilon's End-to-End solution. 2-year warranty extension, mission-critical, and keep-your-drive upgrade options are available.

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

The AI NVR 2X Value comes pre-configured with Avigilon Unity Video software for secure network video recording and management of Avigilon cameras up to 61 MP resolution.

Easy upgrades

Remotely upgrade the AI NVR 2X Value, cameras, and clients with a single signed and encrypted firmware package.

Superior redundancy & reliable data storage

Reliable storage with RAID-configured redundancy offers a highly available and resilient system that protects your data and OS. Our AI NVR 2X Value models include reliable SATA data drives with RAID5 redundancy as well as read-only encrypted SSD OS drives with RAID1 redundancy. Redundant power supply option is also available.

[1] Available only in the U.S.

[2] Formerly known as Next-Generation Video Analytics. AdaptAI 5 (e.g. Classified Object Detection, Appearance Search, Facial Recognition) is supported as server-side analytics. AdaptAI 6 (e.g. Crowd Analytics, Privacy Blurring, and vehicle subclasses) is not supported as server-side analytics at this time. Requires the analytics kit to be installed (NVR6-AINVR2X-VAL-FORM-D-ANK).

[3] 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 our datasheet for more information.

MOTOROLA SOLUTIONS

Analytics

Classified Object Detection™ (COD)

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

UNITY8-ENT/ACC7-VAC 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/ACC7-ENT required

Facial Recognition (FR)

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

UNITY8/ACC7-FACE required

Visible Firearm Detection (VFD)

Detects visible handguns and long guns handled by humans. Requires an AI NVR 2X with an additional license.

UNITY8/ACC7-VFD-1YR required

Occupancy Counting

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

ACS Required

License Plate Recognition (LPR)

Works with Avigilon Unity Video software for accurate license plate capture at a range of distances and speeds.

UNITY8/ACC7-LPR required

| AI NVR 2X Model | Unity Video Edition | Analytics Cameras[1] | | Non-Analytic Cameras[1] | | | | | Number of LPR Lanes[2] | | | | | | | |
| | | | | | | | | | Default Mode | | | | Performance Mode[6] | | | |
		AS Only[3]	FR+ AS[4]	COD Only[3]	COD +AS[4]	COD +AS +FR[4]	COD +AS[4] +VFD[5]	COD +AS[4] +VFD[5] +FR	5 FPS (<16 KM/H)	10 FPS (<48 KM/H)	20 FPS (<100 KM/H)	30 FPS (<150 KM/H)	5 FPS (<16 KM/H)	10 FPS (<48 KM/H)	20 FPS (<100 KM/H)	30 FPS (<150 KM/H)
Value	Any	−	−	−	−	−	−	−	17	7	4	2	−	−	−	−
Value with NVR6-AINVR2X-VAL-FORM-D-ANK	Unity Video 8	80	48	20	18	15	7	7	16	10	5	3	16	14	11	7
	ACC 7	80	48	4	4	3	2	2	16	10	5	3	16	14	7	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 as well as appliance-wide average per camera rates of classified objects leaving the field of view: H6A/H5A cameras − one every second; H4A cameras − one every two seconds; non-analytics cameras running COD − one every second. Each multisensor camera with 3-4 sensors is considered equivalent to 3-4 cameras.

[2] Assumes a 3MP camera with 1MP 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] For cameras at 2MP and 30 frames per second (fps). Requires Unity Video 8.7.0.

[4] Requires H6A, H5A, H4A cameras, or Classified Object Detection running on non-analytic cameras.

[5] When enabling VFD, Avigilon cameras must disable analytics on the camera, enable COD, and count the camera as a non-analytic camera.

[6] Requires LPR Performance mode to be enabled. LPR Performance mode will limit other analytics on your AI NVR 2X Value. See the AI NVR 2X Value User Guide for more information.

Device Types Supported for Analytics[1]

Avigilon H5M, H4SL, H4 Mini dome, H4 Box, H4 Bullet, H4 Dome, H4 Pro, H3, and H3 Multisensor, HD H.264 cameras	ONVIF® Profile S and Profile T cameras (onvif.org)
Avigilon H5SL, H4A, and H4SL cameras operating in Unusual Motion Detection mode	ONVIF encoders
Avigilon H5Pro, H5 and H4 Multisensor cameras in high frame-rate mode. H6A/H6X, H6M, and H6SL, and H5DH cameras with analytics disabled.	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.
Avigilon H.264 Analog Encoders	

[1] JPEG 2000 cameras without ONVIF compliance are not supported on AI NVR 2X.

Video Streaming

AI NVR 2X Model	Recording		Livestream		Playback	
	Rate	Channels	Rate	Channels	Rate	Channels
1 GbE Non-Teamed (Multiple Connections)						
Value (6 TB)	Up to 312 Mbps	Up to 48	Up to 312 Mbps	Up to 48	Up to 130 Mbps	Up to 20
Value (12/24 TB)	Up to 520 Mbps	Up to 80	Up to 520 Mbps	Up to 80	Up to 260 Mbps	Up to 40
Value (16 TB)	Up to 416 Mbps	Up to 64	Up to 416 Mbps	Up to 64	Up to 234 Mbps	Up to 36
10 GbE, or 1 GbE Teamed (Multiple Connections)						
Value	N/A	N/A	N/A	N/A	N/A	N/A

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.

Specifications

System	
Capacity	6/12/16/24 TB
Avigilon Unity Video/Avigilon Control Center™ Edition	Pre-installed with Unity Video 8, compatible with ACC7
Operating System	Avigilon Hardened OS
Network Interface	2 × 1 GbE RJ-45 ports (1000Base-T)
Hard Disk Drive Configuration — Video Data	RAID 5 Up to 4 × 3.5" SATA Drives, hot-swappable (6/12/24 TB) RAID 5 Up to 3 × 3.5" SATA Drives, hot-swappable (16 TB)
Hard Disk Drive Configuration — Operating System	2 × 480 GB M.2 SSD Drives, RAID 1
Recording Storage Capacity	Up to 32 TB raw; 24 TB effective (RAID 5)
Memory	1 × 16 GB DDR5
Processor	1 × Intel® 6-core Xeon®
Video Outputs	No video outputs — Web-based administration only
Appearance Search and Facial Recognition on Avigilon Analytic Cameras	Requires optional analytics kit, sold separately. Refer to the list of features under "Analytics" on the previous page for more information.
Classified Object Detection and AdaptAI Analytics on Non-Analytic Cameras	
License Plate Recognition	
Local Viewing	No
Out-of-band Management	iDRAC 9 Express
Warranty	3-year NBD (Next Business Day) warranty with onsite parts delivery service. 2-year extension, 4-hour mission critical, and 5-year keep your drive warranty upgrades available.

Mechanical	
Form Factor	1U Rack Mount Chassis
Dimensions (H × W × D)	42.8 mm × 482.0 mm × 598.9 mm; 1.7" × 19.0" × 23.6"
Weight	Max: 13.2 kg (29.2 lbs)

Electrical	
Power Input	100 to 240 VAC, 50/60 Hz, auto-switching
Power Supply	600 W Platinum 100-240 VAC or 240 VDC[1]
Power Consumption	600 W, 7.1-3.6 A
Power Efficiency	Platinum
[1]Hot-swappable functionality requires the optional second Power Supply Kit (NVR6-AINVR2X-VAL-FORM-D-PSU-600W-C13-C14).	

Environmental	
Operating Temperature	10−35°C (50−95°F) with no direct sunlight on the equipment
Storage Temperature	-40 to 65°C (-40 to 149°F)
Operating Humidity	8% RH with -12°C minimum dew point to 80% RH with 21°C (69.8°F) maximum dew point
Storage Humidity	5% to 95% RH with 27°C (80.6°F) maximum dew point
Operating Vibration	0.21 Grms at 5 Hz to 500 Hz for 10 minutes (all x, y, and z axis)
Storage Vibration	1.88 Grms at 10 Hz to 500 Hz for 15 minutes (all six sides tested)
Operating Shock	Six consecutively executed shock pulses in the positive and negative x, y, and z axis of 6 G for up to 11 ms.
Storage Shock	Six consecutively executed shock pulses in the positive and negative x, y, and z axis (one pulse on each side of the system) of 71 G for up to 2 ms.
Operating Altitude	3,048 meters (10,000 feet)
Storage Altitude	12,000 meters (39,370 feet)

Certifications	
Certifications/Approvals	UL, cUL, CE, NRCS, NOM, RCM, VCCI, BSMI, CCC, KC, UKCA, RoHS, CMIM, 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
Energy Standards	Commission Regulation (EU) No. 617

Supplied Accessories	
Rack Rail System	ReadyRails 1U/2U Static Rails for 2- or 4-post racks
Bezel	1, front
Power Cord	1 total

Outline Dimensions

AI NVR 2X Value Form D (6 12 16 24 TB)

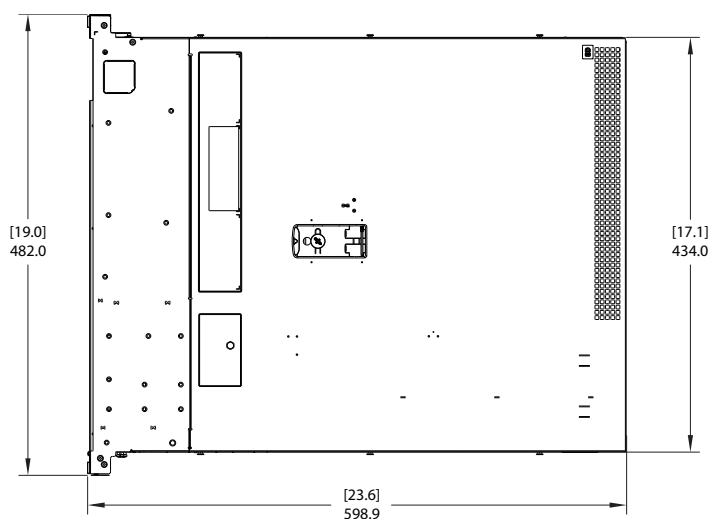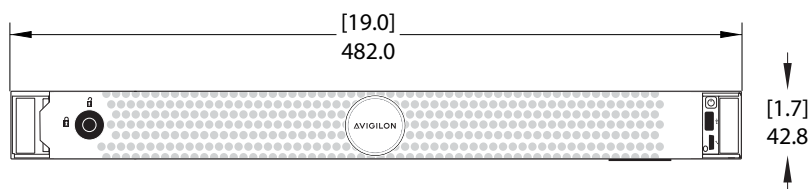**Form Factor**
1U Rack Mount Chassis

Dimensions (H × W × D)
42.8 mm × 482.0 mm × 598.9 mm
1.7" × 19.0" × 23.6"

Weight (when fully populated with hard drives)
13.2 kg [29.2 lbs]

Ordering Information

Part Number	
AINVR2X-VAL-24TB-C13-C14	AI NVR 2X Value Form D 24 TB (32 TB Raw) with Avigilon Hardened OS and Unity Video 8
AINVR2X-VAL-16TB-C13-C14	AI NVR 2X Value Form D 16 TB (24 TB Raw) with Avigilon Hardened OS and Unity Video 8
AINVR2X-VAL-12TB-C13-C14	AI NVR 2X Value Form D 12 TB (16 TB Raw) with Avigilon Hardened OS and Unity Video 8
AINVR2X-VAL-6TB-C13-C14	AI NVR 2X Value Form D 6 TB (8 TB Raw) with Avigilon Hardened OS and Unity Video 8
Includes 1 × generic power cord (C13 / C14) only. Regional power cord kits (NVR-FORM-D-SINGLE-POWERCORD-C13-XX where XX=NA/EU/UK/AU) sold separately and must be purchased on the same order as AINVR2X-VAL-FORM-D-xTB-C13-C14.	

Unity Video 8 - Software Licenses	
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-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
UNITY8-VFD-1YR	Avigilon Unity Video 8 Visible Firearm Detection channel subscription license. VFD is currently only available in the United States. The license is not available on eCommerce and must be ordered manually through Customer Order Management.
UNITY8-POS-STR	Unity Point of Sale stream (AI NVR 2X only supports POS in Avigilon Unity Video 8)

Avigilon Control Center 7 - 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

Warranty Extensions	
NVR6-AINVR2X-VAL-FORM-D-WARR-EXTEND-2YR	2-year Extended Warranty Upgrade
NVR6-AINVR2X-VAL-FORM-D-WARR-5Y4HMC	5-year 4-Hour-Mission-Critical Warranty Upgrade
NVR6-AINVR2X-VAL-FORM-D-KYD-WARR-5YR	5-year Keep-Your-Drive Warranty Upgrade

Accessories	
NVR6-AINVR2-FORM-D-HDDS-HOT-8TB	Spare hard drive, 8 TB SATA, front bay, compatible with AI NVR 2X Value Form D 16/24 TB
NVR6-AINVR2-FORM-D-HDDS-HOT-4TB	Spare hard drive, 4 TB SATA, front bay, compatible with AI NVR 2X Value Form D 12 TB
NVR6-AINVR2-FORM-D-HDDS-HOT-2TB	Spare hard drive, 2 TB SATA, front bay, compatible with AI NVR 2X Value Form D 6 TB
NVR6-AINVR2X-VAL-FORM-D-PSU-600W-C13-C14	600 W Hot Plug/Swappable Power Supply Kit, includes 1 × C13/C14 power cord
NVR6-AINVR2X-VAL-FORM-D-ANK	Analytics Kit for AI NVR 2X Value Form D
IDRAC9-ENT-UPG-V2	iDRAC Enterprise upgrade
NVR-FORM-D-SINGLE-POWERCORD-C13-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

For product support, visit: avigilon.com or sales@avigilon.com

To learn more, visit: avigilon.com/nvr-systems/ai-nvr-2x

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