

AVIGILON™

AI NVR 2X

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)**. AI NVR 2X bridges the IT resource and analytics gaps, now available in the Value model (12TB to 24TB) or Premium model (96TB to 200TB), supporting up to 200 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 Detection¹.



AdaptAI 5 server-side analytics² 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.



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

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



Firearm-in-hand detection

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



Easy upgrades

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



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

AI NVR 2X is backed by up to a 5-year warranty³ and 24/7 lifetime technical support dedicated to Avigilon's End-to-End solution.



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 models include reliable SATA data drives with RAID 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. Value model 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

		Analytics Cameras ¹							Number of LPR Lanes ²							
		Non-Analytic Cameras ¹							Default Mode				Performance Mode ⁶			
AI NVR 2X Model	Unity Video Edition	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)
Premium	Any	200	70	35	35	30	15	13	33	23	11	7	33	28	14	9
+ Analytics Kit	Any	200	120	57	57	50	29	27	46	23	11	7	68	53	26	17
Value	Any	–	–	–	–	–	–	–	17	7	4	2	–	–	–	–
+ Analytics Kit	Unity Video 8	48 to 80 ⁷	48	20	18	15	7	7	16	10	5	3	16	14	11	7
	ACC 7	48 to 80 ⁷	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 ACC 7.14.32 / Unity Video 8.7.2.

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. See the AI NVR 2X User Guide for more information.

⁷ Maximum channel count depends on storage variant. Refer to "[Video Streaming](#)" on the next page for specific maximum channel counts.

See [Device Types Supported for Server Side Analytics](#) in the [Analytics Sizing Guide](#) for device requirements and restrictions.

Video Streaming

AI NVR 2X Model	Recording		Livestream		Playback	
	Rate	Channels	Rate	Channels	Rate	Channels
10 GbE, or 1 GbE Teamed (Multiple Connections)						
Premium	Up to 1500 Mbps	Up to 200	Up to 1500 Mbps	Up to 200	Up to 600 Mbps	Up to 80
Value	N/A	N/A	N/A	N/A	N/A	N/A
1 GbE Non-Teamed (Multiple Connections)						
Premium	Up to 800 Mbps	Up to 120	Up to 800 Mbps	Up to 120	Up to 600 Mbps	Up to 80
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
Value (6 TB) (Discontinued)	Up to 312 Mbps	Up to 48	Up to 312 Mbps	Up to 48	Up to 130 Mbps	Up to 20

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	AI NVR 2X Premium Form D	AI NVR 2X Value Form D
Capacity	96/120/160/200 TB	6/12/16/24 TB ¹
Avigilon Unity Video/Avigilon Control Center™ Edition	Pre-installed with Unity Video 8, compatible with ACC7	
Operating System	Avigilon Hardened OS	
Network Interface	4 × 10 GbE SFP+ ports 6 × 1 GbE RJ-45 ports (1000Base-T)	2 × 1 GbE RJ-45 ports (1000Base-T)
Drive Configuration	Video Data	RAID 6 Up to 12 × 3.5" SATA Drives, hot-swappable
	Operating System	RAID 5 4 × 3.5" SATA Drives, hot-swappable (6/12/24 TB) RAID 5 3 × 3.5" SATA Drives, hot-swappable (16 TB)
	2 × 480 GB M.2 SSD Drives, RAID 1	
Recording Storage Capacity ¹	Up to 240 TB raw; 200 TB effective (RAID 6)	Up to 32 TB raw; 24 TB effective (RAID 5)
Memory	4 × 16 GB DDR5	1 × 16 GB DDR5
Processor	2 × Intel® 8-core Xeon®	1 × Intel® 6-core Xeon®
Video Outputs	No video outputs – Web-based administration only	
Appearance Search and Facial Recognition on Avigilon Analytic Cameras	Supported ²	Requires optional analytics kit, sold separately ²
Classified Object Detection and AdaptAI Analytics on Non-Analytic Cameras	Supported ²	
License Plate Recognition	Supported ²	
Local Viewing	No	
Out-of-band Management	iDRAC 9 Enterprise	iDRAC 9 Express
Warranty	5-year 4-hour mission critical warranty with onsite parts delivery service. 5-year keep your drive warranty upgrade available.	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.

¹AI NVR 2X Value 6 TB model has been discontinued.

²RAID redundancy provides data recoverability only. System architecture does not support storage expansion or scaling.

³Purchase of license required, refer to the list of features under "[Analytics](#)" on the previous page for more information.

Mechanical	AI NVR 2X Premium Form D	AI NVR 2X Value Form D
Form Factor	2U Rack Mount Chassis	1U Rack Mount Chassis
Dimensions (H × W × D)	86.8 mm × 482.0 mm × 721.6 mm; 3.4" × 19.0" × 28.4"	42.8 mm × 482.0 mm × 598.9 mm; 1.7" × 19.0" × 23.6"
Weight	Max: 28.8 kg (63.5 lbs)	Max: 13.2 kg (29.2 lbs)

Electrical	AI NVR 2X Premium Form D	AI NVR 2X Value Form D
Power Input	100 to 240 VAC, 50/60 Hz, auto-switching	
Power Supply	Dual (1+1) 1400 W redundant	Single 600 W, non-hot-swappable and non-redundant ¹
Power Consumption	Maximum 930 W (3,173 BTU/h)	Maximum 312 W (1,065 BTU/h)
Power Efficiency	Platinum	
¹ Hot-swappable functionality requires the optional second Power Supply Kit (NVR6-AINVR2X-VAL-FORM-D-PSU-600W-C13-C14).		

Environmental	AI NVR 2X Premium Form D	AI NVR 2X Value Form D
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	5% RH with -12°C minimum dew point to 95% RH with 33°C (91°F) maximum dew point	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 33°C (91°F) maximum dew point	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	AI NVR 2X Premium Form D	AI NVR 2X Value Form D
Certifications/Approvals	UL, cUL, CE, NRCS, NOM, RCM, VCCI, BSMI, KC, UKCA, RoHS, CMIM, BIS	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. 2019	Commission Regulation (EU) No. 617

Supplied Accessories	AI NVR 2X Premium Form D	AI NVR 2X Value Form D
Rack Rail System	ReadyRails Sliding Rails with Cable Management Arm	ReadyRails 1U/2U Static Rails for 2- or 4-post racks
Bezel	1, front	
Power Cord	4 total: 2 × C13 / C14, 2 × regional variant (from options below)	1 total: 1 × C13 / C14, regional variants sold separately

(NA) NEMA 5-15P / C13



(UK) BS1363 / C13



(EU) SCHUKO / C13



(AU) AS3112 / C13



[X.X]	INCHES
X.X	MM

Outline Dimensions

AI NVR 2X Premium Form D (96 120 160 200 TB)

Form Factor

2U Rack Mount Form D Chassis

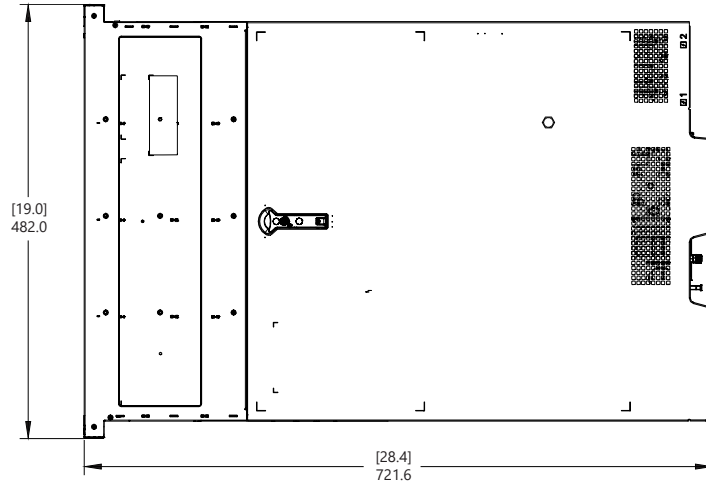
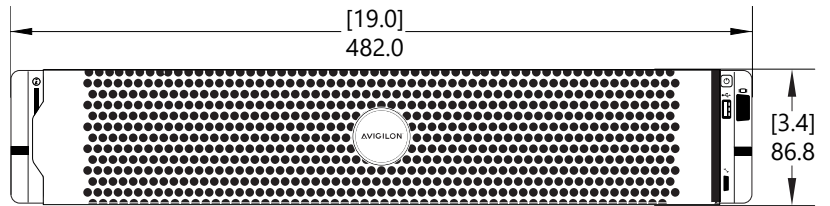
Dimensions (H x W x D)

[3.4" x 19.0" x 28.4"]

86.8 mm x 482.0 mm x 721.6 mm

Weight (when fully populated with hard drives)

28.8 kg (63.5 lbs)



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

Form Factor

1U Rack Mount Chassis

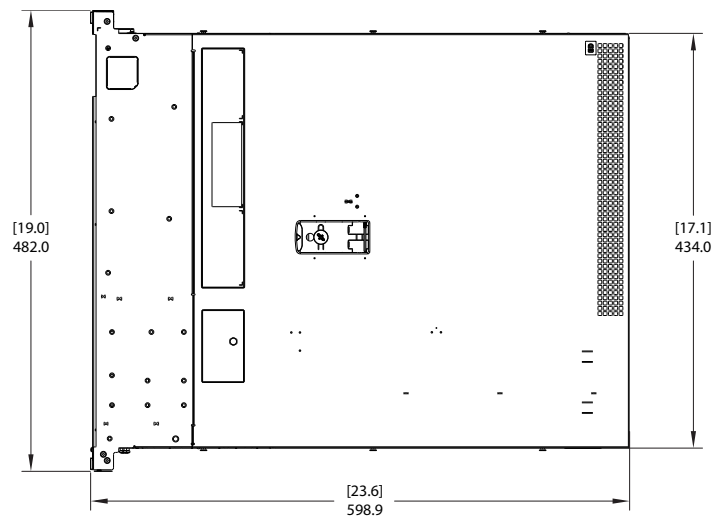
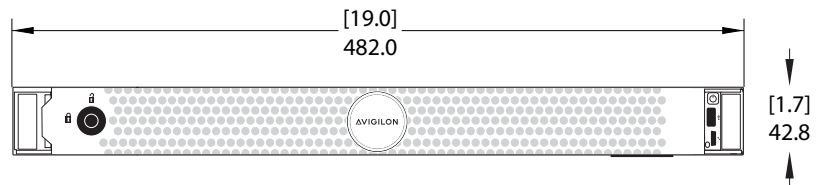
Dimensions (H x W x D)

[1.7" x 19.0" x 23.6"]

42.8 mm x 482.0 mm x 598.9 mm

Weight (when fully populated with hard drives)

13.2 kg (29.2 lbs)



Ordering Information

Part Number	
AI NVR 2X Premium Form D	
AINVR2X-PRM-FORM-D-200TB	AI NVR 2X Premium Form D 200 TB (240 TB Raw) with Avigilon Hardened OS and Unity Video 8
AINVR2X-PRM-FORM-D-160TB	AI NVR 2X Premium Form D 160 TB (200 TB Raw) with Avigilon Hardened OS and Unity Video 8
AINVR2X-PRM-FORM-D-120TB	AI NVR 2X Premium Form D 120 TB (144 TB Raw) with Avigilon Hardened OS and Unity Video 8
AINVR2X-PRM-FORM-D-96TB	AI NVR 2X Premium Form D 96 TB (120 TB Raw) with Avigilon Hardened OS and Unity Video 8
AI NVR 2X Value Form D¹	
AINVR2X-VAL-FORM-D-24TB-C13-C14	AI NVR 2X Value Form D 24 TB (32 TB Raw) with Avigilon Hardened OS and Unity Video 8
AINVR2X-VAL-FORM-D-16TB-C13-C14	AI NVR 2X Value Form D 16 TB (24 TB Raw) with Avigilon Hardened OS and Unity Video 8
AINVR2X-VAL-FORM-D-12TB-C13-C14	AI NVR 2X Value Form D 12 TB (16 TB Raw) with Avigilon Hardened OS and Unity Video 8
AINVR2X-VAL-FORM-D-6TB-C13-C14	(Discontinued) AI NVR 2X Value Form D 6 TB (8 TB Raw) with Avigilon Hardened OS and Unity Video 8
¹ 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.	

Software Licenses	
Unity Video 8	
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	
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	
AI NVR 2X Premium Form D	
NVR-FORM-D-KYD-WARR-5YR	5-year Keep-Your-Drive Warranty Upgrade
AI NVR 2X Value Form D	
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

AI NVR 2X 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 SAN switches
NVR6-AINVR2-PRM-FORM-D-HDDS-HOT-20TB	Spare hard drive, 20 TB SATA, front bay, compatible with AI NVR 2X Premium Form D 160/200 TB
NVR6-AINVR2-FORM-D-HDDS-HOT-12TB	Spare hard drive, 12 TB SATA, front bay, compatible with AI NVR 2X Premium Form D 96/120 TB
AINVR2X-PRM-FORM-D-ANK	Analytics Kit for AI NVR 2X Premium Form D
NVR6-AINVR2-FORM-D-10GBE	Network Card, Dual Port 10 GbE SFP+
NVR6-AINVR2-FORM-D-10GBASET	Network Card, Quad Port 10 G-Base-T
NVR6-AINVR2-FORM-D-PSU-1400W	1400 W Hot Plug/Swappable Power Supply Kit, includes regional variant of power cord
NVR6-AINVR2-STDPRM-FORM-D-STATIC-RAIL	Static Rail Kit

AI NVR 2X Value Form D

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](https://www.avigilon.com) or sales@avigilon.com



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