

AVIGILON™

6th Generation Network Video Recorder FIPS Series

Pre-hardened FIPS-compliant Network Video Recorders



The sixth-generation Avigilon Network Video Recorder (NVR6) FIPS series delivers secure, high-performance recording, throughput and data availability with a wide range of storage capacities for your Avigilon video security system. NVR6 FIPS models are pre-hardened to meet FIPS 140-2 Level 2 security requirements and encrypt data at rest. Preloaded with Avigilon Unity Video¹ software, NVR6 FIPS models connect with Avigilon cameras using FIPS-compliant cryptography for secure network video recording and data encryption in transit. Avigilon cameras connected to NVR6 FIPS servers encrypt data in transit using FIPS-compliant cryptography. Leverage Motorola Solutions' end-to-end FIPS-compliant video security ecosystem with Department of Defense's Information Network Approved List (DoDIN APL)² and Joint Interoperability Test Command (JITC)³ with the NVR6 FIPS series.



Pre-hardened For FIPS Compliance

Pre-hardened for FIPS 140-2 L2 encryption at rest for Data (BitLocker) and OS drives (TPM 2.0), Secure Boot (TPM 2.0), Windows Server 2019 STIG-compliant OS with attack vectors minimized & USB disable tool included. Secure deployments and meet NIST cybersecurity risk management framework using the Avigilon hardening guide.



Certified Infrastructure On Government Networks

Import, verify and manage trusted CA-signed certificates via Trusted Root Certificate Authorities certificate store on NVR6 FIPS to authorize devices, cameras and workstations on government networks. Avigilon's end-to-end video security solution is JITC-certified through rigorous interoperability testing from a DoD-approved lab².



FIPS-compliant, AI-powered VMS

Pre-configured with Avigilon Unity Video¹ software, optimized and provisioned to use FIPS-compliant cryptography for secure network video recording. Respond faster to critical events with AI-powered analytics such as Avigilon Appearance Search, Facial Recognition and LPR technologies.



Superior Redundancy and Reliable Data Storage

Protect your data with reliable storage with RAID-configured redundancy. Available from 16TB to 200TB in usable capacity, NVR6 FIPS models offer hard drives with RAID 6 redundancy and solid-state OS drives with RAID 1 redundancy.



Federal Government Compliant Facility

Assured authenticity and strict adherence to procurement Federal Acquisition Regulations (FAR), trade agreements (TAA) and NDAA regulations as NVR6 models are manufactured in a federal government-compliant facility within the Continental United States (CONUS).



Single Point Of Contact for End-to-End Support

Gain a lifetime 24/7 Avigilon telephone technical end-to-end solution support, a five-year parts warranty and an onsite repair service⁴. Keep your drive warranty included to ensure all replaced drives remain in federal government custody.

¹ FIPS 140-2 Encryption currently available only for Avigilon Unity Video (Formerly Avigilon Control Center™) Version 7.

² Motorola Solutions' FIPS-Compliant Avigilon Video Security Solutions has been added to the Department of Defense's Information Network Approved Products List (DoDIN APL). Please refer to [DoDIN APL Press Release](#).

³ Motorola Solutions' FIPS-Compliant Avigilon Video Security Solutions Certified by Joint Interoperability Test Command for the Department of Defense. Please refer to [JITC Press Release](#).

⁴ 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.

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.

ACC7-ENT required



Facial Recognition

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

ACC7-FACE required



License Plate Recognition (LPR)

Significant improvements² 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.

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 FIPS 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	125	50	16	8	4	2
Standard	90	50	16	8	4	2

¹Assumes 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 7.14.34.

Available in USA only.

System		NVR6 Premium FIPS Form D	NVR6 Standard FIPS Form D
Capacity		72/96/120/160/200 TB	16/24/32/48/64 TB
Avigilon Unity Video/Avigilon Control Center™ Edition		Version 7, FIPS-Compliant	
Video Streaming Performance (10 GbE or 1 GbE Teamed - Multiple Connections) ¹	Recording Rate:	Up to 1275 Mbps	Up to 765 Mbps ²
	Recording Channels:	Up to 170	Up to 110 ²
	Livestream Rate:	Up to 1275 Mbps	Up to 765 Mbps ²
	Livestream Channels:	Up to 170	Up to 110 ²
	Playback Rate:	Up to 510 Mbps	Up to 510 Mbps ²
	Playback Channels:	Up to 75	Up to 75 ²
Video Streaming Performance (1 GbE - Non-Teamed - Multiple Connections) ¹	Recording Rate:	Up to 680 Mbps	Up to 680 Mbps
	Recording Channels:	Up to 100	Up to 100
	Livestream Rate:	Up to 680 Mbps	Up to 680 Mbps
	Livestream Channels:	Up to 100	Up to 100
	Playback Rate:	Up to 510 Mbps	Up to 510 Mbps
	Playback Channels:	Up to 75	Up to 75
Operating System		Windows Server 2019 LTSC (STIG-Compliant)	
Hard Disk Drive Configuration	Video Data:	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 M.2 SSD Drives, RAID 1	
Recording Storage Capacity		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 6 × 1 GbE RJ-45 ports	2 × 10 GbE SFP+ ports ² (optional) 6 × 1 GbE RJ-45 ports
Memory		4 × 16 GB DDR5	2 × 16 GB DDR5
Processor		2 × Intel® 8-core Xeon®	1 × Intel® 8-core Xeon®
Video Outputs		1 × VGA	
Local Viewing		No	
Out-of-band Management		iDRAC 9 Enterprise (network disabled for FIPS compliance)	
License Plate Recognition		Supported ⁴	
Appearance Search and Facial Recognition on Avigilon Analytic Cameras		Supported ⁴	
Warranty		5-year 4-hour mission critical "Form D" warranty with onsite parts delivery service. 5-year keep your drive warranty upgrade included. 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 included. 4-hour mission critical warranty upgrade available. Refer to Warranty Supplement #1.

¹Assumes 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.

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

³Direct Attach Cables (NVR6-AINVR2-FORM-D-SFPPLUS-DA) or system-specific SFP+ transceivers (NVR6-AINVR2-FORM-D-SFPPLUS-SR) sold separately.

Available in USA only.

System	NVR6 Premium FIPS Form D	NVR6 Standard FIPS Form D
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⁴Purchase of license required, refer to the list of features under "Analytics and Specifications" on page 1 for more information.

Mechanical	NVR6 Premium FIPS Form D	NVR6 Standard FIPS Form D
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Form Factor	2U Rack Mount Form D Chassis	
Dimensions (L x W x H)	721.6 mm × 482.0 mm × 86.8 mm 28.4" × 18.98" × 3.42"	
Weight	Max: 28.6 kg (63 lbs)	

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

Environmental	NVR6 Premium FIPS Form D	NVR6 Standard FIPS Form D
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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	NVR6 Premium FIPS Form D	NVR6 Standard FIPS Form D
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Certifications/Approvals	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	

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

Supplied Accessories	NVR6 Premium FIPS Form D	NVR6 Standard FIPS Form D
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Rack Rail System	ReadyRails Sliding Rails with Cable Management Arm	
Bezel	1, front	
Power Cords	4 total: 2 × C13 / C14 2 x (NA) NEMA 5-15P / C13	2 total: 1 × C13 / C14 1 x (NA) NEMA 5-15P / C13

(NA) NEMA 5-15P / C13



Available in USA only.

Outline Dimensions

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

[X.X]	INCHES
X	MM

Form Factor

2U rack mount Form D chassis

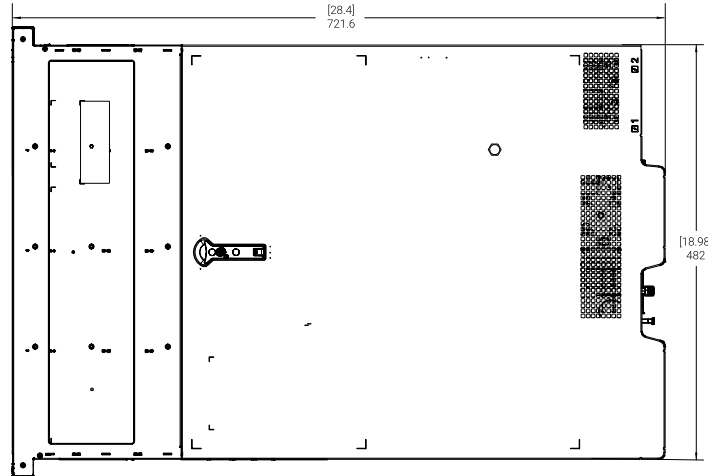
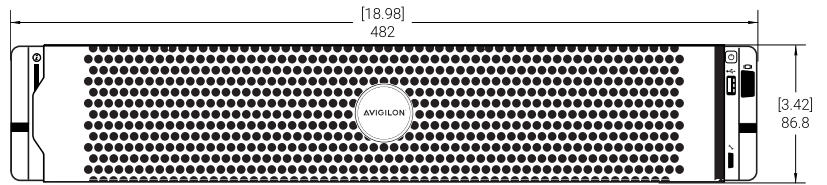
Dimensions (L × W × H)

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]



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Ordering Information

NVR6 Premium FIPS

NVR6-PRM-FIPS-FORM-D-200TB	NVR6 Premium Form D 200 TB (240 TB Raw) with Microsoft Windows Server 2019 LTSC ¹ and ACC 7 ²
NVR6-PRM-FIPS-FORM-D-160TB	NVR6 Premium Form D 160 TB (200 TB Raw) with Microsoft Windows Server 2019 LTSC ¹ and ACC 7 ²
NVR6-PRM-FIPS-FORM-D-120TB	NVR6 Premium Form D 120 TB (144 TB Raw) with Microsoft Windows Server 2019 LTSC ¹ and ACC 7 ²
NVR6-PRM-FIPS-FORM-D-96TB	NVR6 Premium Form D 96 TB (120 TB Raw) with Microsoft Windows Server 2019 LTSC ¹ and ACC 7 ²
NVR6-PRM-FIPS-FORM-D-72TB	NVR6 Premium Form D 72 TB (88 TB Raw) with Microsoft Windows Server 2019 LTSC ¹ and ACC 7 ²
¹ STIG-Compliant ² FIPS-Compliant	

NVR6 Standard FIPS

NVR6-STD-FIPS-FORM-D-64TB	NVR6 Standard Form D 64 TB (80 TB Raw) with Microsoft Windows Server 2019 LTSC ¹ and ACC 7 ²
NVR6-STD-FIPS-FORM-D-48TB	NVR6 Standard Form D 48 TB (64 TB Raw) with Microsoft Windows Server 2019 LTSC ¹ and ACC 7 ²
NVR6-STD-FIPS-FORM-D-32TB	NVR6 Standard Form D 32 TB (48 TB Raw) with Microsoft Windows Server 2019 LTSC ¹ and ACC 7 ²
NVR6-STD-FIPS-FORM-D-24TB	NVR6 Standard Form D 24 TB (32 TB Raw) with Microsoft Windows Server 2019 LTSC ¹ and ACC 7 ²
NVR6-STD-FIPS-FORM-D-16TB	NVR6 Standard Form D 16 TB (24TB Raw) with Microsoft Windows Server 2019 LTSC ¹ and ACC 7 ²
¹ STIG-Compliant ² FIPS-Compliant	

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

Available in USA only.

Options and Accessories

NVR6 Premium FIPS 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
NVR6-AINVR2-STDPRM-FORM-D-STATIC-RAIL	Static Rail Kit

NVR6 Standard FIPS 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)
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](https://www.avigilon.com) or email sales@avigilon.com for specific product support.



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