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 Video[1] 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.

FIPS-compliant, AI-powered VMS

Pre-configured with Avigilon Unity Video[1] 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.

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).

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 lab[2].

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.

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 service[4]. Keep your drive warranty included to ensure all replaced drives remain in federal government custody.

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[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.

Available in USA only.

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

License Plate Recognition (LPR)
Significant improvements[2] 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

Facial Recognition
Detects matches from managed watchlists to alert operators of people of interest. Requires Appearance Search and an additional license.
ACC7-FACE 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

[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 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]		NVR6 Premium FIPS Form D	NVR6 Standard FIPS Form D
	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.

[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.

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

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

[4]Purchase of license required, refer to the list of features under"Analytics and Specifications" on the previous page for more information.

Available in USA only.

Mechanical	NVR6 Premium FIPS Form D	NVR6 Standard FIPS Form D
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
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
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
Certifications/Approvals	UL, cUL, CE, NRCS, NOM, RCM, VCCI, 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	

[1]Sales orders for all models shipping to India must include a special note that "BIS certification is required".

Supplied Accessories	NVR6 Premium FIPS Form D	NVR6 Standard FIPS Form D
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.XX]	INCHES
X.X	MM

Form Factor

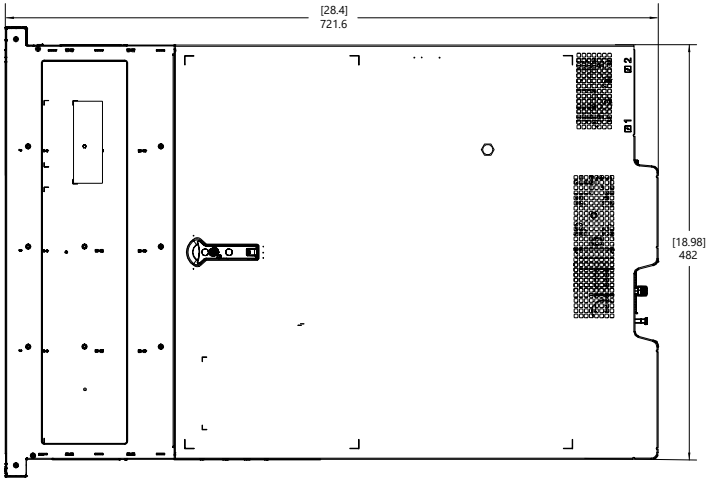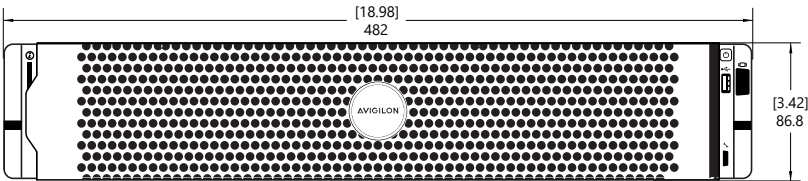2U rack mount Form D chassis

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 or email sales@avigilon.com for specific product support.

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