avigilon™
a Motorola Solutions Company

NVR4X Premium FIPS Series

64 TB **96 TB** **128 TB** **157 TB**

FIPS Series Avigilon Network Video Recorders provide secure, reliable and scalable platforms for high performance end-to-end security solutions. Our network security recorders are pre-hardened to meet FIPS 140-2 Level 2 Security Requirements and protect data-at-rest. All NVRs are preloaded with Avigilon Control Center (ACC) video management software that uses FIPS-compliant cryptography for secure network video recording and video encryption. Avigilon cameras connected to NVR4X Servers encrypt data-in-flight using FIPS-compliant cryptography.

Features

ENHANCED SECURITY DEPLOYMENT
Video data encrypted at rest to FIPS 140-2 L2, secured with onboard TPM, via Windows BitLocker, OS drive encrypted to FIPS 140-2 L2, secured with TPM. Server 2016 STIG-compliant Windows OS.

AVIGILON FACIAL RECOGNITION AND AVIGILON APPEARANCE SEARCH™ NATIVE SUPPORT
Native support for Avigilon facial recognition and Appearance Search technology which helps enable security operators to locate a specific person or vehicle of interest across an entire site or multiple sites.
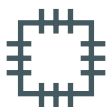
FEDERAL GOVERNMENT COMPLIANT FACILITY
Built in a Federal Government compliant facility for ensuring authenticity and to help maintain strict adherence to procurement Federal Acquisition Regulations (FAR), trade agreements (TAA), and NDAA regulations.

SOLID-STATE DRIVE
Encrypted operating systems on a redundant array of Solid-State Drives designed for greater reliability and speed.

EMBEDDED WITH SECURE VIDEO MANAGEMENT SOFTWARE
Pre-configured with ACC™ software, optimized and provisioned to use FIPS-compliant cryptography for secure network video recording and video encryption.

RISK MANAGEMENT FRAMEWORK
Hardening guide to help customers secure their deployment and ensure all solution components meet stringent Risk Management Framework cyber requirements.

SUPERIOR REDUNDANCY AND RELIABLE DATA STORAGE
Reliable storage with RAID-configured redundancy offers a highly available and resilient system that protects your data. Our FIPS NVRs include reliable hard drives with RAID 6 redundancy.

CERTIFICATE MANAGEMENT
Import, check, and manage server certificates via Windows Server 2016 Trusted Root Certificate Authorities store to use a trusted CA-signed certificate or other intermediary certificate for server/client communication.

USB PORT DISABLING TOOL
Disable the NVR's USB ports with an easy-to-use tool to help guard against security threats where attackers have physical access to the NVR's ports.

SINGLE POINT OF CONTACT FOR END TO END TECHNICAL SUPPORT
All NVRs are backed by a 5-year hardware warranty with on-site part replacement service and lifetime 24/7 Avigilon telephone technical support. Keep your drive warranty ensures the replaced drive remains in customer custody.

Specifications

SYSTEM

Avigilon Control Center™ Edition		Core, Standard and Enterprise compatible	
Network Video Streaming Performance[2]	Network Connection	10 GbE - multiple connections[1]	1 GbE - multiple connections
	Recording Rate	Up to 1000 Mbps	Up to 600 Mbps
	Playback Rate	Up to 450 Mbps (while simultaneously recording video)	
Operating System		STIG-Compliant Microsoft Windows Server 2016	
Hard Disk Drive Configuration	Video Data	RAID 6 — Up to 12 × 3.5", hot-swappable	
	Operating System	2 x M.2 SSD drives, RAID 1	
Recording Storage Capacity		Up to 180 TB raw, 157 TB effective (RAID 6)	
Network Interface		2 x 10 GbE SFP+ ports (transceivers not included) 6 x 1 GbE RJ-45 ports (1000Base-T)	
Memory		2 x 16 GB DDR4	
Processor		Intel® Xeon®	
Video Outputs		1 x VGA	
Local Viewing		No	
Out-of-band Management		iDRAC9 Express (network disabled for FIPS compliance)	
Appearance Search Only Capacity[3]		Up to 200 cameras	
Appearance Search Only + Appearance Search with Facial Recognition Capacity[4]		Up to 100 cameras, + up to 50 cameras	
Warranty		• 5-year NBD (Next Business Day) warranty with onsite parts delivery service • 5-year Keep Your Drive warranty • 4-hour mission critical warranty upgrade available	

[1] The 10 GbE network connection requires the HD-NVR4X-SFPPLUS-SR transceiver accessory.
[2] These performance figures are based on validation testing by Avigilon, using Avigilon Control Center software. For more information, contact Avigilon Sales.
[3] Requires ACC Enterprise license and Avigilon H3A, H4A, or H5A analytic enabled cameras. The Avigilon Appearance Search camera support limit does not affect any NVR throughputs for simultaneous recording, playback and live streaming.
[4] Cameras enabled for facial recognition must also be enabled for Appearance Search and will reduce the number of cameras available for Appearance Search. For more information, see the ACC 7 Hardware Sizing Guidelines for Avigilon Appearance Search Technology and Facial Recognition.

MECHANICAL

Form Factor	2U rack mount chassis
Dimensions (LxWxH)	717.6 mm x 482.0 mm x 86.8 mm; 27.71" x 18.97" x 3.41"
Weight	34.5 kg (76 lbs)

ELECTRICAL

Power Input	100 to 240 VAC, 50/60 Hz, auto-switching
Power Supply	Dual redundant, hot-swappable
Power Consumption	Average: 333 W (1+1) (1136.2 BTU/h), Maximum: 750 W (2559.1 BTU/h)
Power Efficiency	80 PLUS Platinum, ENERGY STAR 2.0

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)
Operating Humidity	10% to 80% relative humidity with 29°C (84.2°F) maximum dew point
Storage Humidity	5% to 95% RH with 33°C (91°F) maximum dew point. Atmosphere must be non-condensing at all times
Operating Vibration	0.26 Grms at 5 Hz to 350 Hz
Storage Vibration	1.88 Grms at 10 Hz to 500 Hz for 15 min
Operating Shock	One pulse on each side of the system of 71 G for up to 2 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)

CERTIFICATIONS

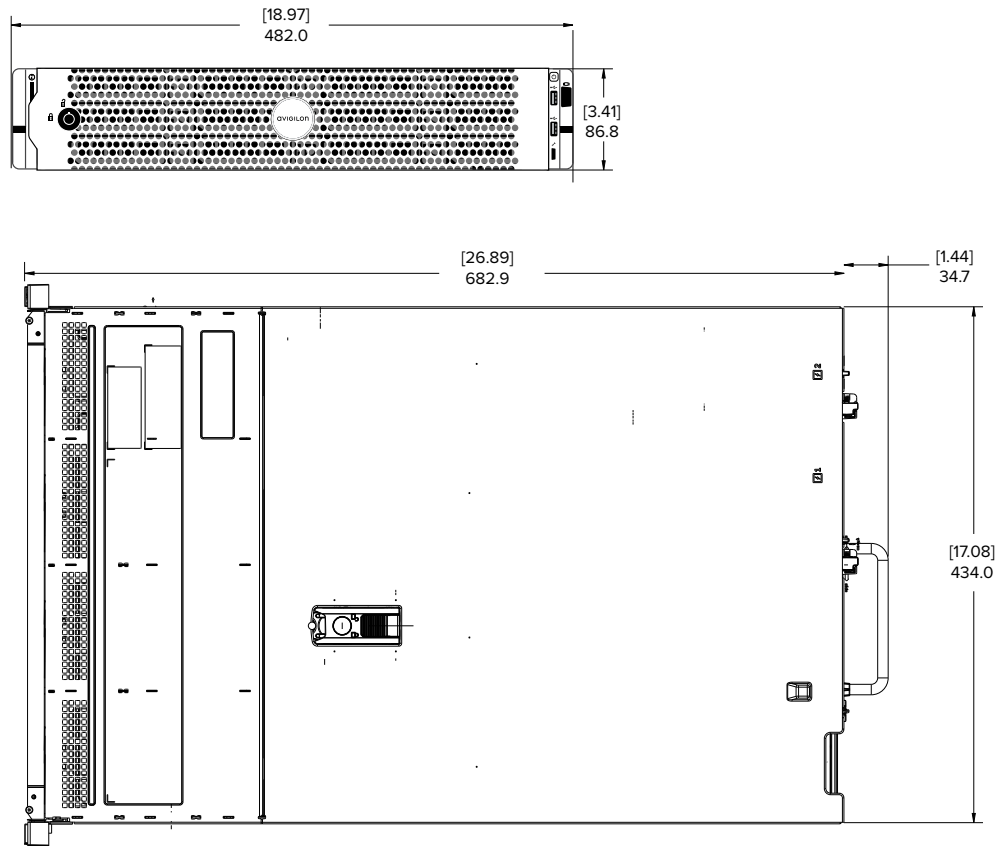| Procurement Compliances	TAA, NDAA
Federal Acquisition Regulations	52.203-13, 52.203-15, 52.203-19, 52.204-21, 52.204-23, 52.204-25, 52.219-8, 52.222-17, 52.222-21, 52.222-26, 52.222-35, 52.222-36, 52.222-37, 52.222-40, 52.222-41, 52.222-50, 52.222-51, 52.222-53, 52.222-54, 52.222-55, 52.222-62, 52.224-3, 52.225-5, 52.225-26, 52.226-6, 52.232-40, 52.247-64
Certifications/Directives	UL, cUL, CE, RCM, BSMI, CCC, EAC, KC, NOM, NRCS, VCCI, RoHS, Reach (SVHC), WEEE, BIS
Safety	UL/CSA/EN/IEC 62368-1
Electromagnetic Emissions	CFR Title 47, FCC Part 2, 15 Class A, ICES-003(A), EN 55032 Class A, EN 61000-3-2, EN 61000-3-3
Electromagnetic Immunity	EN 55024

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

Outline Dimensions

NVR4X-PRM-FIPS

	INCHES
[X.X]	INCHES
X	MM

[18.97]
482.0

[3.41]
86.8

[26.89]
682.9

[1.44]
34.7

[17.08]
434.0

Ordering Information

NVR4X-PRM-FIPS-64TB-NA	64 TB (72 TB Raw) NVR4X Premium FIPS Series with Microsoft Windows Server 2016 and Avigilon Control Center
NVR4X-PRM-FIPS-96TB-NA	96 TB (112 TB Raw) NVR4X Premium FIPS Series with Microsoft Windows Server 2016 and Avigilon Control Center
NVR4X-PRM-FIPS-128TB-NA	128 TB (144 TB Raw) NVR4X Premium FIPS Series with Microsoft Windows Server 2016 and Avigilon Control Center
NVR4X-PRM-FIPS-157TB-NA	157 TB (180 TB Raw) NVR4X Premium FIPS Series with Microsoft Windows Server 2016 and Avigilon Control Center
Avigilon Control Center licenses must be purchased separately. Avigilon Appearance Search and facial recognition requires Enterprise version of the ACC software.	

Accessories

NVR4X-PRM-2NDCPU	2nd CPU Kit for Secure NVR4X PRM
NVR4X-750W-2NDDPS	Redundant, hot-swappable power supply
NVR4-HDDS-HOT-16TB	Spare hard drive, 16TB, front or rear bay, for NVR4X PRM 128/157TB
NVR4-HDDS-HOT-12TB	Spare hard drive, 12TB, front or rear bay, for NVR4X PRM 96TB
NVR4-HDDS-HOT-8TB	Spare hard drive, 8TB, front or rear bay, for NVR4X PRM 64TB
IDRAC9-ENT-UPG	iDRAC Enterprise upgrade
HD-NVR4-SFPPLUS-DA	SFP+ 10GbE Twinax Direct Attach cable 3m
NVR4X-SFPPLUS-SR	SFP+ 10GBASE-short range transceiver
NVR4X-PRM1-WARR-5Y4HMC	4-hour MC (mission critical response) service-level agreement upgrade