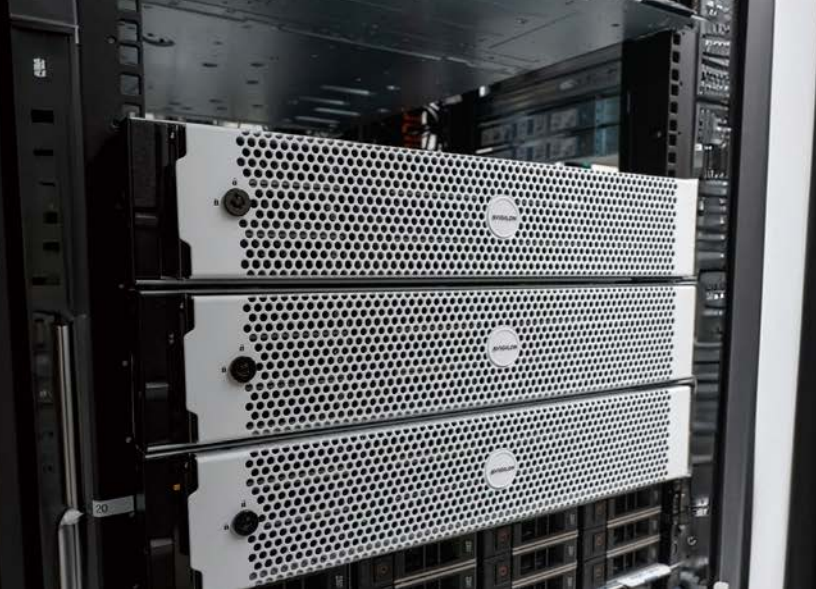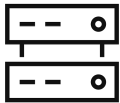# AVIGILON™

Network Video Recorders

Uncompromising performance and reliability you can trust

Built to handle heavy-duty video workloads and flexible retention requirements without sacrificing performance, the sixth-generation **Avigilon Network Video Recorder (NVR6)** delivers where it matters: performance, reliability, and security. Quickly scale up from terabytes to petabytes of storage at a single location, as the NVR6 offers 16TB to 440TB storage options in a single NVR. Experience the might of a storage density that matches the compute density, supporting up to 400 recording and live streaming channels. Streamline your server deployment to save time and resources with NVR6, fully optimized and pre-configured with Avigilon Unity Video[1] software and Windows OS.

Flexible and scalable tier-1 storage

Offers flexible configurations for security teams to quickly scale up to 440 TB in Tier-1 storage capacity and tailor it to their unique retention requirements.

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

The NVR6 comes pre-configured with Avigilon Unity Video[1] software for secure network video recording and management of Avigilon cameras up to 61 MP resolution. Comes with Unity Video 8 installer available for upgrade.

Respond faster with AI-powered analytics support

Security teams can respond faster to critical events with the NVR6's seamless support for Avigilon Appearance Search, Facial Recognition, and LPR technologies.

Strengthen cybersecurity

Designed with cybersecurity in mind, the NVR6 comes with a TPM 2.0 module built-in to support hardware Root of Trust authentication and data encryption.

Superior redundancy & reliable data storage

Reliable storage with RAID-configured redundancy offers a highly available and resilient system that protects your data. Our models include reliable hard drives with RAID6 (STD and PRM) or RAID60 (PRM PLUS) redundancy.

Increase system uptime & productivity

Sites connected to the cloud and subscriber health can use system health monitoring to increase system availability, streamline maintenance time, and minimize on-site service calls.

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

Our NVR6s are backed by up to a 5-year warranty[2] and 24/7 lifetime technical support dedicated to Avigilon's End-to-End solution.

[1] Pre-installed with Avigilon Control Center 7. Unity Video 8 Installer for upgrade is available.
[2] NVR Value comes with a 3-year warranty only. 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 Supplement #2 for Form H 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.
UNITY8/ACC7-ENT required

Facial Recognition
Detects matches from managed watchlists to alert operators of people of interest. Requires Appearance Search and an additional license.
UNITY8/ACC7-FACE 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.
UNITY8/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 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 Plus	220	60	60	30	15	10
Premium	200	50	40	20	10	6
Standard	90	50	22	11	5	3

[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 7.14.32 / Unity Video 8.3.0.

Specifications

System	NVR6 Premium Plus Form H	NVR6 Premium Form D	NVR6 Standard Form D
Capacity	200/240/280/360/440 TB	72/96/120/160/200 TB	16/24/32/48/64 TB
Avigilon Unity Video/Avigilon Control Center™ Edition	Version 7 (factory installed), Version 8 upgrade available on machine		
Video Streaming Performance (10 GbE or 1 GbE Teamed - Multiple Connections)[1] — Recording Rate:	Up to 1500/1675/1870/2300/2700Mbps, increasing with storage capacity	Up to 1500 Mbps	Up to 900 Mbps[2]
— Recording Channels:	Up to 220/245/275/335/400, increasing with storage capacity	Up to 200	Up to 130[2]
— Livestream Rate:	Up to 1500/1675/1870/2300/2700 Mbps, increasing with storage capacity	Up to 1500 Mbps	Up to 900 Mbps[2]
— Livestream Channels:	Up to 220/245/275/335/400, increasing with storage capacity	Up to 200	Up to 130[2]
— Playback Rate:	Up to 340/370/400/500/680 Mbps, increasing with storage capacity	Up to 600 Mbps	Up to 600 Mbps[2]
— Playback Channels:	Up to 50/55/60/75/100, increasing with storage capacity	Up to 80	Up to 80[2]
Video Streaming Performance (1 GbE - Non-Teamed - Multiple Connections)[1] — Recording Rate:	Up to 800 Mbps	Up to 800 Mbps	Up to 800 Mbps
— Recording Channels:	Up to 120	Up to 120	Up to 120
— Livestream Rate:	Up to 800 Mbps	Up to 800 Mbps	Up to 800 Mbps
— Livestream Channels:	Up to 120	Up to 120	Up to 120
— Playback Rate:	Up to 340/370/400/500/680 Mbps, increasing with storage capacity	Up to 600 Mbps	Up to 600 Mbps
— Playback Channels:	Up to 50/55/60/75/100, increasing with storage capacity	Up to 80	Up to 80
Operating System	Windows Server 2022 LTSC		Windows Server 2022 LTSC or Windows 10 IoT Enterprise LTSC 2021
Hard Disk Drive Configuration — Video Data:	RAID 60 Up to 26 × 3.5" NLSAS Drives, hot-swappable	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 NVMe SSD Drives, RAID 1	2 × 480 GB M.2 SSD Drives, RAID 1	
Recording Storage Capacity	Up to 520 TB raw; 440 TB effective (RAID 60)	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 4 × 1 GbE RJ-45 ports	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	8 × 16 GB DDR5	4 × 16 GB DDR5	2 × 16 GB DDR5
Processor	2 × Intel® 16-core Xeon®	2 × Intel® 8-core Xeon®	1 × Intel® 8-core Xeon®
License Plate Recognition	Supported[4]		
Appearance Search and Facial Recognition on Avigilon Analytic Cameras	Supported[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.

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

[3]Direct Attach Cables (NVR6-AINVR2-FORM-H-SFPPLUS-DA for NVR6 Premium Plus or NVR6-AINVR2-FORM-D-SFPPLUS-DA for all NVR6 Premium/Standard) or system-specific SFP+ transceivers (NVR6-AINVR2-FORM-H-SFPPLUS-SR for NVR6 Premium Plus, NVR6-AINVR2-FORM-D-SFPPLUS-SR for NVR6 Premium/Standard) sold separately.

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

System (continued)	NVR6 Premium Plus Form H	NVR6 Premium Form D	NVR6 Standard Form D
Video Outputs	1 × VGA		
Local Viewing	No		
Out-of-band Management	iLO Advanced	iDRAC 9 Enterprise	
Warranty	5-year 4-hour mission critical "Form H" warranty with onsite parts delivery service. 5-year keep your drive warranty upgrade available. Refer to Warranty Supplement #2.	5-year 4-hour mission critical "Form D" warranty with onsite parts delivery service. 5-year keep your drive warranty upgrade available. 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 and 4-hour mission critical warranty upgrades available. Refer to Warranty Supplement #1.

Mechanical	NVR6 Premium Plus Form H	NVR6 Premium Form D	NVR6 Standard Form D
Form Factor	2U Rack Mount Form H High Density Chassis	2U Rack Mount Form D Chassis	
Dimensions (L x W x H)	812.80 mm × 448.0 mm × 87.5 mm 32.00" × 17.63" × 3.44"	721.6 mm × 482.0 mm × 86.8 mm 28.4" × 18.98" × 3.42"	
Weight	Max: 42.8 kg (95 lbs)	Max: 28.6 kg (63 lbs)	

Electrical	NVR6 Premium Plus Form H	NVR6 Premium Form D	NVR6 Standard Form D
Power Input	100 to 240 VAC, 50/60 Hz, auto-switching		
Power Supply	Dual (1+1) 1000 W redundant	Dual (1+1) 1400 W redundant	Single 1400 W, optional redundant power supply available.
Power Consumption	Maximum 1000 W (3413 BTU/h)	Maximum 988 W (3371 BTU/h)	Maximum 725 W (2473 BTU/h)
Power Efficiency	Titanium	Platinum	

Environmental	NVR6 Premium Plus Form H	NVR6 Premium Form D	NVR6 Standard Form D
Operating Temperature	10°C to 30°C (50°F to 86°F)	10°C to 35°C (50°F to 95°F)	
Storage Temperature	-30°C to 60°C (-22°F to 140°F)	-40°C to 65°C (-40°F to 149°F)	
Operating Humidity	8% to 90% relative humidity with 28°C (82.4°F) max dew point	8% to 80% relative humidity with 21°C (69.8°F) max dew point	
Storage Humidity	5% to 95% RH with 38.7°C (101.7°F) max dew point. Atmosphere must be non-condensing at all times.	5% to 95% RH with 27°C (80.6°F) max dew point. Atmosphere must be non-condensing at all times.	
Operating Vibration	0.15 Grms at 10 Hz to 300 Hz	0.21 Grms at 5 Hz to 500 Hz	
Storage Vibration	0.5 Grms at 10 Hz to 500 Hz	1.88 Grms at 10 Hz to 500 Hz	
Operating Shock	2 G	6 G	
Storage Shock	15 G	71 G	
Operating Altitude	3,050 m (10,000 ft)		
Storage Altitude	9,144 m (30,000 ft)	12,000 m (39,370 ft)	

Certifications	NVR6 Premium Plus Form H	NVR6 Premium Form D	NVR6 Standard Form D
Certifications/Approvals	UL, cUL, CE, NRCS, NOM, RCM, VCCI, BSMI, CCC, KC, UKCA, RoHS, BIS, CMIM	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		
[1]Not available at launch, coming in second half of 2024.			

Supplied Accessories	NVR6 Premium Plus Form H	NVR6 Premium Form D	NVR6 Standard Form D
Rack Rail System	Shelf-Mount Adjustable Rail Kit	ReadyRails Sliding Rails with Cable Management Arm	
Bezel	1, front		
Power Cords	4 total: 2 × C13 / C14, 2 × regional variant (from options below)		2 total: 1 × C13 / C14, 1 × regional variant (from options below)

(NA) NEMA 5-15P / C13   (UK) BS1363 / C13   (EU) SCHUKO / C13   (AU) AS3112 / C13

Outline Dimensions

[X.X]	INCHES
X	MM

NVR6 Premium Plus Form H (200 240 280 360 440 TB)
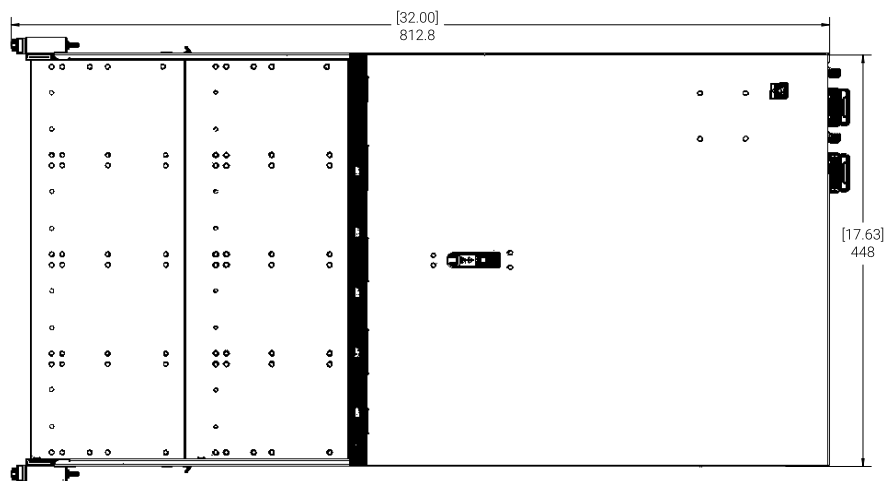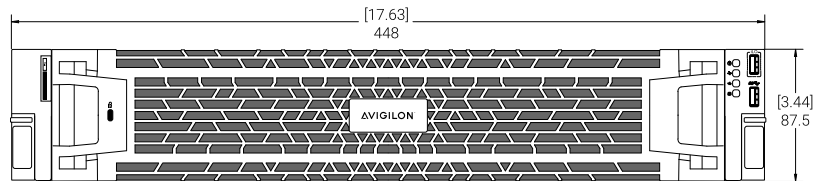
Form Factor
2U Rack Mount Form H High Density Chassis

Dimensions (L × W × H)
812.8 mm × 448.0 mm × 87.5 mm
32.00" × 17.63" × 3.44"

Weight (when fully populated with hard drives)
42.8 kg [95 lbs]

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

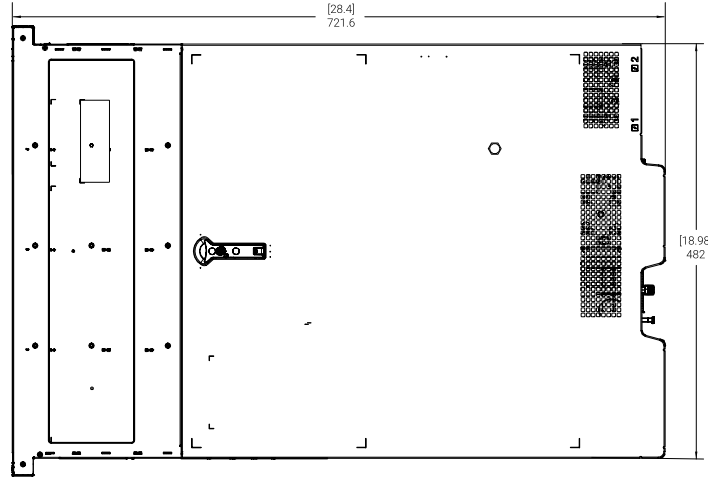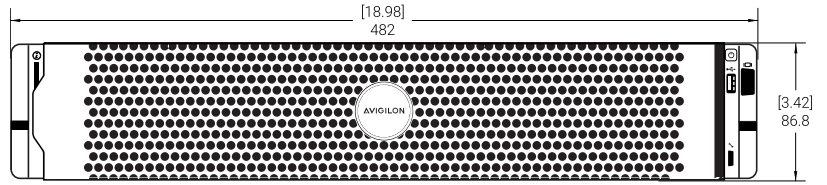**Form Factor**

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]

Ordering Information

NVR6 Premium Plus Form H

NVR6-PRM-PLUS-FORM-H-440TB-S22	NVR6 Premium Plus Form H 440 TB (520 TB Raw) with Windows Server 2022 LTSC and ACC 7
NVR6-PRM-PLUS-FORM-H-360TB-S22	NVR6 Premium Plus Form H 360 TB (440 TB Raw) with Windows Server 2022 LTSC and ACC 7
NVR6-PRM-PLUS-FORM-H-280TB-S22	NVR6 Premium Plus Form H 280 TB (360 TB Raw) with Windows Server 2022 LTSC and ACC 7
NVR6-PRM-PLUS-FORM-H-240TB-S22	NVR6 Premium Plus Form H 240 TB (320 TB Raw) with Windows Server 2022 LTSC and ACC 7
NVR6-PRM-PLUS-FORM-H-200TB-S22	NVR6 Premium Plus Form H 200 TB (280 TB Raw) with Windows Server 2022 LTSC and ACC 7

NVR6 Premium Form D

NVR6-PRM-FORM-D-200TB-S22	NVR6 Premium Form D 200 TB (240 TB Raw) with Windows Server 2022 LTSC and ACC 7
NVR6-PRM-FORM-D-160TB-S22	NVR6 Premium Form D 160 TB (200 TB Raw) with Windows Server 2022 LTSC and ACC 7
NVR6-PRM-FORM-D-120TB-S22	NVR6 Premium Form D 120 TB (144 TB Raw) with Windows Server 2022 LTSC and ACC 7
NVR6-PRM-FORM-D-96TB-S22	NVR6 Premium Form D 96 TB (120 TB Raw) with Windows Server 2022 LTSC and ACC 7
NVR6-PRM-FORM-D-72TB-S22	NVR6 Premium Form D 72 TB (88 TB Raw) with Windows Server 2022 LTSC and ACC 7

NVR6 Standard Form D

NVR6-STD-FORM-D-64TB-S22	NVR6 Standard Form D 64 TB (80 TB Raw) with Windows Server 2022 LTSC and ACC 7
NVR6-STD-FORM-D-64TB-W10	NVR6 Standard Form D 64 TB (80 TB Raw) with Windows 10 IoT Enterprise LTSC 2021 and ACC 7
NVR6-STD-FORM-D-48TB-S22	NVR6 Standard Form D 48 TB (64 TB Raw) with Windows Server 2022 LTSC and ACC 7
NVR6-STD-FORM-D-48TB-W10	NVR6 Standard Form D 48 TB (64 TB Raw) with Windows 10 IoT Enterprise LTSC 2021 and ACC 7
NVR6-STD-FORM-D-32TB-S22	NVR6 Standard Form D 32 TB (48 TB Raw) with Windows Server 2022 LTSC and ACC 7
NVR6-STD-FORM-D-32TB-W10	NVR6 Standard Form D 32 TB (48 TB Raw) with Windows 10 IoT Enterprise LTSC 2021 and ACC 7
NVR6-STD-FORM-D-24TB-S22	NVR6 Standard Form D 24 TB (32 TB Raw) with Windows Server 2022 LTSC and ACC 7
NVR6-STD-FORM-D-24TB-W10	NVR6 Standard Form D 24 TB (32 TB Raw) with Windows 10 IoT Enterprise LTSC 2021 and ACC 7

NVR6-STD-FORM-D-16TB-S22	NVR6 Standard Form D 16 TB (24TB Raw) with Windows Server 2022 LTSC and ACC 7
NVR6-STD-FORM-D-16TB-W10	NVR6 Standard Form D 16 TB (24TB Raw) with Windows 10 IoT Enterprise LTSC 2021 and ACC 7

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
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-VAC	Avigilon Unity Video 8 Video Analytics feature channel license – Required for Classified Object Detection
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

Options and Accessories

NVR6 Premium Plus Form H

NVR6-AINVR2-FORM-H-SFPPLUS-DA	3 m (10 ft) SFP+ 10 GbE Twinax Direct Attach cable
NVR6-AINVR2-FORM-H-SFPPLUS-SR	SFP+ Transceivers for Short Range (Multi-mode) on server side
NVR6-AINVR2-FORM-H-SFPPLUS-LR	SFP+ Transceivers for Long Range (Single-mode) between network switches
NVR6-AINVR2-FORM-H-HDDN-HOT-20TB	Spare hard drive, 20 TB NLSAS, front/rear bay, compatible with NVR6 / AI NVR 2 Premium Plus Form H
NVR6-AINVR2-FORM-H-10GBASET	Network Card, OCP Dual Port 10 G-Base-T
NVR6-AINVR2-FORM-H-RAM-32GB	32 GB RAM Upgrade Kit, 2 × 16 GB DDR5 DIMMs
NVR6-AINVR2-FORM-H-PSU-1000W	1000 W Flex Slot Titanium Hot Plug/Swappable Power Supply Kit, includes regional variant of power cord
NVR6-AINVR2-PRM-PLUS-FORM-H-KYD-WARR-5YR	5-year Keep-Your-Drive Warranty Upgrade
NVR6-FORM-H-AVA-SAN-CONNECT	Connectivity Kit for AVA SAN networking (requires AVA Transceiver and Fiber Optic Cables included in AVA-HED1-NVR6-FORM-H-CONNECT)
AVA-HED1-NVR6-FORM-H-CONNECT	AVA Connectivity Kit for Direct Attachment

NVR6 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 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
NVR-FORM-D-KYD-WARR-5YR	5-year Keep-Your-Drive Warranty Upgrade
NVR6-AINVR2-STDPRM-FORM-D-STATIC-RAIL	Static Rail Kit

NVR6 Standard 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)
NVR-FORM-D-KYD-WARR-5YR	5-year Keep-Your-Drive Warranty Upgrade
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.