

# Deep Learning NVR DVA3219



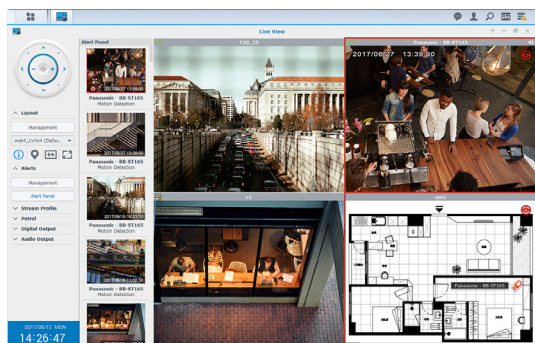
## NVR DESIGNED FOR ON- PREMISES DEEP VIDEO ANALYTICS

Synology Deep Learning NVR DVA3219 is optimized for intelligent video analysis and private surveillance solutions.

DVA3219 supports up to 32 channels of camera streams and is capable of running 4 real-time video analysis tasks, greatly strengthening detection accuracy. Synology DVA3219 is backed by Synology's 3-year limited warranty<sup>1</sup>.

### Highlight

- Quad-core, 2.1 GHz CPU with AES-NI support and 4GB DDR4 memory, expandable up to 32 GB<sup>2</sup>
- NVIDIA® GeForce® GTX 1050 Ti for intelligent deep video analysis optimization<sup>3</sup>
- Four built-in 1GbE (RJ-45) ports with failover and Link Aggregation support
- Scalable up to 14 drives with two Synology DX517 expansion units<sup>4</sup>
- Integrated with diverse and advanced algorithms that provide accurate detection results and minimize interference
- Server-side on-premises video analytics without privacy concerns
- Compatible with over 7,100 camera models from over 100 renowned brands
- API ready for 3rd-party integration to ensure seamless communication between various applications
- 8 device licenses included for setting up cameras, I/O modules, access controllers, and transaction devices



## Guardian of Your Private Assets

The reliable and intuitive Surveillance Station delivers intelligent monitoring and video management tools to safeguard your valuable assets.

## Powerful and Intelligent NVR Solution

Synology Deep Learning NVR DVA3219, optimized for intelligent video analytics, improves your response time in case of critical situations. The automated video surveillance helps to secure your properties and prevent security gaps by detecting people, objects in target areas.

DVA3219 is equipped with a **quad-core processor**, **4GB memory (upgradable to 32 GB<sup>2</sup>)**, and **four Gigabit LAN ports** with failover and Link Aggregation support. You can easily scale it up to 14 drives with two expansion unit **DX517<sup>4</sup>** for larger storage capacity.

## Server-Side On-Premises Video Analytics

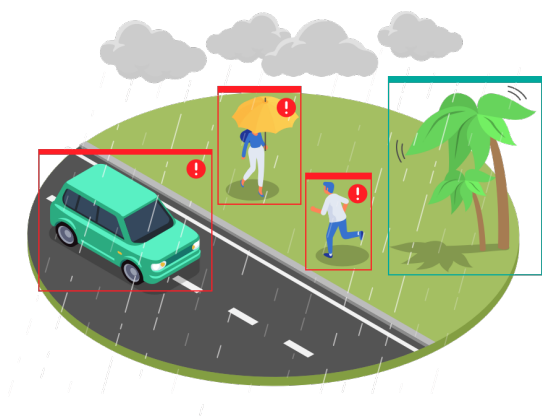
Powered by an **NVIDIA® GeForce®** graphics card<sup>3</sup>, DVA3219 provides server-side deep learning video analytics for running four real-time analysis tasks simultaneously, greatly strengthening detection accuracy.

- **Privacy:** Local video analysis with no trust and privacy concerns.
- **Fit in:** Easy integration to existing surveillance deployment, compatible with thousands of camera models.
- **Real-time:** Allows security operators to take immediate actions once receiving real-time notifications when suspicious events or objects are detected.
- **One-time cost:** Full-functioned video analytics tools included, no recurring fees required for future software updates.

## Accurate Detection Results

Integrated intelligent algorithms protect your precious properties. Pay attention only to what's important and let DVA3219 watch the rest.

- **Business management optimization:** People flow and crowd density information can be used for marketing intelligence purposes to optimize business decisions and management.
- **Perimeter protection:** Proactive monitoring of security that protects your properties from intrusions and minimizes interference.
- **Anomaly detection:** Real-time proactive detection and monitoring of the predefined areas.



## Deep Motion Detection

Stay away from distractions by filtering swaying trees, rain, snow, and light reflections.



### Control and Get Notified On-the-Go

*With DS cam, you can watch surveillance video feeds, take snapshots anytime, zoom in and adjust camera position with PTZ control, browse through recorded events, and receive instant notifications.*

## Unified Surveillance Platform

DVA3219 is the combination of video analytics, camera management, and a solid storage device. It delivers a reliable and robust IP surveillance solution that safeguards your valuable properties.

- **Abundant compatibility:** Compatible with over 7,100 camera models from over 100 renowned brands, flexibly fitting into your existing setup.
- **Intuitive operation:** Plug in, find your camera with ease, and start navigating various functions in Surveillance Station.
- **Get notified when needed:** Stay on top of everything through web browsers, PC clients, and mobile devices.
- **Ready for integration:** API document ready for third party integration to seamlessly communicate between various applications and devices.
- **Streamlined maintenance:** Integrated hardware and software surveillance solution that saves your time and effort with single point of support contact.

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## Running on Synology DiskStation Manager (DSM)

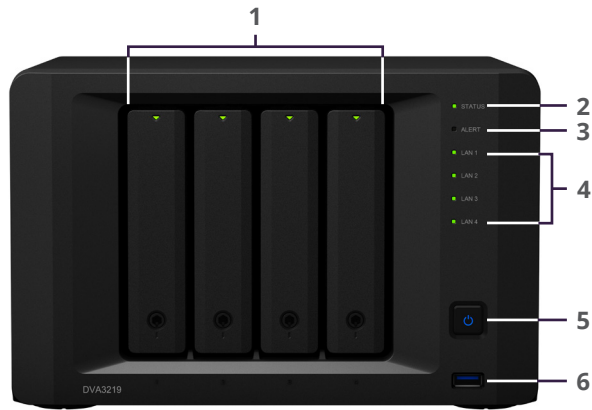
**Synology DiskStation Manager (DSM)** is a web-based operating system tailor-made for every Synology NVR. Featuring an intuitive multitasking user interface, DSM provides simple desktop-like experience to minimize the efforts in exploring and managing your Synology NVR.

The built-in **Package Center** allows you to download and install versatile packages designed specifically for your unique needs, including file backup, virtualization, productivity, safeguard security and utilities.

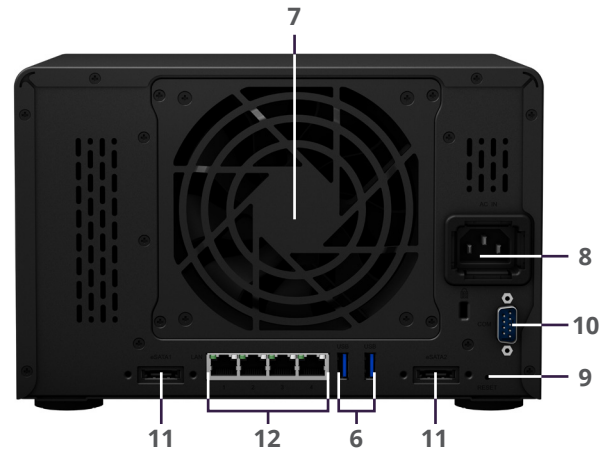
With all the built-in and add-on features, DSM provides you with complete and fine-grained control of your DVA3219, maximizing your productivity and make the best out of your digital assets. All can be done with just a few clicks.

# Hardware Overview

Front



Rear



1	Drive tray and status indicator	2	Status indicator	3	Alert indicator	4	LAN indicator
5	Power button and indicator	6	USB 3.0 port	7	Fan	8	Power port
9	Reset button	10	COM port	11	eSATA port	12	1GbE RJ-45 port

## Technical Specifications

### Hardware

CPU	Intel Atom C3538 quad-core 2.1GHz
Hardware encryption engine	Yes (AES-NI)
GPU	NVIDIA GeForce GTX 1050 Ti <sup>3</sup>
Memory	4 GB DDR4 Non-ECC SO-DIMM <sup>1</sup> (expandable up to 32 GB with 16GB ECC SO-DIMM x 2)
Compatible drive type	4 x 3.5" or 2.5" SATA HDD/SSD (drives not included)
Hot swappable drive	Yes
External port	<ul style="list-style-type: none"> <li>• 3 x USB 3.0 port</li> <li>• 2 x eSATA port</li> <li>• 1 x COM (for POS system connection)</li> </ul>
Size (HxWxD)	166 x 250 x 237 mm
Weight	4.92 kg
LAN	4 x Gigabit (RJ-45)
Wake on LAN/WAN	Yes
Scheduled power on/off	Yes
System fan	1 (120 x 120 x 25 mm)
AC input power voltage	100V to 240V AC
Power frequency	50Hz to 60Hz, single phase
Operating temperature	0°C to 40°C (32°F to 104°F)
Storage temperature	-20 °C to 60 °C (-5 °F to 140 °F)
Relative humidity	5% to 95% RH
Maximum operating altitude	5,000 m (16,400 ft)

## General DSM specification

Networking protocol	SMB, AFP, NFS, FTP, WebDAV, CalDAV, iSCSI, Telnet, SSH, SNMP, VPN (PPTP, OpenVPN™, L2TP)
File system	<ul style="list-style-type: none"> <li>Internal: Btrfs, ext4</li> <li>External: Btrfs, ext4, ext3, FAT, NTFS, HFS+, exFAT<sup>5</sup></li> </ul>
Supported RAID type	Synology Hybrid RAID (SHR), Basic, JBOD, RAID 0, RAID 1, RAID 5, RAID 6, RAID 10
Storage management	<ul style="list-style-type: none"> <li>Maximum single volume size: 108TB</li> <li>Maximum of system snapshots: 65,536<sup>6</sup></li> <li>Maximum internal volumes: 64</li> </ul>
SSD cache	Read-write cache support
File sharing capability	<ul style="list-style-type: none"> <li>Maximum local user accounts: 2,048</li> <li>Maximum local groups: 256</li> <li>Maximum shared folders: 512</li> <li>Maximum concurrent SMB/NFS/AFP/FTP connections: 1,000</li> </ul>
Privilege	Windows Access Control List (ACL), application privileges
Directory service	Windows® AD integration: Domain users login via SMB/NFS/AFP/FTP/File Station, LDAP integration
Security	Firewall, encryption shared folder, SMB encryption, FTP over SSL/TLS, SFTP, rsync over SSH, login autoblock, Let's Encrypt support, HTTPS (customizable cipher suite)
Supported client	Windows 7 and 10, Mac OS X® 10.11 onwards
Supported browser	Chrome®, Firefox®, Edge®, Internet Explorer® 10 onwards, Safari® 10 onwards; Safari (iOS 10 onwards), Chrome (Android™ 6.0 onwards)
Interface Language	English, Deutsch, Français, Italiano, Español, Dansk, Norsk, Svensk, Nederlands, Русский, Polski, Magyar, Português do Brasil, Português Europeu, Türkçe, Český, ภาษาไทย, 日本語, 한국어, 繁體中文, 简体中文

## Surveillance Station

Maximum IP camera	<ul style="list-style-type: none"> <li>32 channels (total of 960 FPS at 720p, H.264), including a maximum of 4 real-time Deep Video Analytics tasks</li> <li>8 free camera licenses included; additional cameras require the purchasing of additional licenses</li> </ul>
Deep video analytics feature	<ul style="list-style-type: none"> <li>Deep motion detection</li> <li>People counting</li> <li>No-idle zone</li> <li>Intrusion detection</li> </ul>
IP Camera support	<ul style="list-style-type: none"> <li>Video codec: MJPEG, MPEG-4, H.264, H.265, and MxPEG (not supported by Deep Video Analytics tasks)</li> <li>Audio codec: PCM, AAC, AMR, G.711, and G.726</li> <li>Camera bit-rate fine-tuning via constant and variable bit-rate control</li> <li>ONVIF™ 2.6, Profile S certified, Profile G for edge recording</li> </ul>
Live View	<ul style="list-style-type: none"> <li>Pan Tilt Zoom (PTZ) support with configurable PTZ speed</li> <li>On-screen camera controls: camera zoom, focus, iris adjustment, auto pan, and auto object tracking</li> <li>E-Map, Snapshot, and Snapshot Editor supported for instant editing after taking a snapshot</li> <li>Video quality settings: bit-rate control, image quality, resolution, and FPS</li> <li>Joystick support for easy navigation</li> <li>Alert panel for a quick display of the most recently triggered events</li> <li>Customizable layout and sequential camera view support</li> </ul>
Recording	<ul style="list-style-type: none"> <li>Supported recording modes: manual, continuous, motion detection, I/O alarm, action rule, and customized</li> <li>Recording formats: MP4</li> <li>The customized recording mode can be configured as a combination of conditional events, including motion detection, audio detection, tampering detection, and alarm input</li> <li>Edge recording on the SD card of certain supported cameras</li> <li>Configurable pre-recording and post-recording time</li> </ul>
Playback	<ul style="list-style-type: none"> <li>Customizable layouts for playback in Timeline</li> <li>Playback controls include pause, stop, previous recording, next recording, fast forward, slow motion, frame by frame, and digital zoom in/out</li> <li>Embedded watermark for evidence integrity</li> <li>Image enhancements including brightness, contrast, saturation, and sharpness (web client only)</li> </ul>
Management	<ul style="list-style-type: none"> <li>Create and manage different user privileges</li> <li>Rotate recorded videos by archived days or storage size</li> <li>Event notification supported via SMS, E-mail, and mobile devices via DS cam</li> <li>Recordings can be backed up to an external storage or remote server</li> <li>Built-in NTP server</li> <li>Supported tunnel: MPEG-4, H264 via RTSP over TCP, UDP, and HTTP</li> </ul>
iOS/Android™ applications	Synology LiveCam, DS cam, DS file, DS finder
Surveillance desktop client support	Windows 7 and 10, Mac OS X® 10.11 onwards

## Environment and Packaging

<b>Environment safety</b>	RoHS compliant
<b>Package content</b>	<ul style="list-style-type: none"><li>• DVA3219 main unit x 1</li><li>• Accessory pack x 1</li><li>• AC power cord x 1</li><li>• RJ-45 LAN cable x 2</li><li>• Quick Installation Guide x 1</li></ul>
<b>Optional accessories</b>	<ul style="list-style-type: none"><li>• 4GB DDR4-2666 Non-ECC SO-DIMM (D4NESO-2666-4G)</li><li>• 16GB DDR4-666 ECC SO-DIMM (D4ECSO-2666-16G)</li><li>• Synology Expansion Unit DX517<sup>4</sup></li><li>• VisualStation VS360HD, VS960HD</li><li>• Surveillance Device License Pack</li></ul>
<b>Warranty</b>	3 years <sup>1</sup>

\*Model specifications are subject to change without notice. Please refer to [www.synology.com](http://www.synology.com) for the latest information.

1. The warranty period starts from the purchase date as stated on your purchase receipt. Visit <https://www.synology.com/company/legal/warranty> for more information.
2. DVA3219 comes with 4GB DDR4 Non-ECC SO-DIMM and can support up to 32 GB with optional ECC SO-DIMM.
3. Display output is not supported.
4. DVA3219 supports two Synology DX517, sold separately.
5. exFAT Access is purchased separately in Package Center.
6. System snapshot includes snapshots taken by iSCSI Manager, Snapshot Replication, and Virtual Machine Manager. Availability of these packages varies by model.



## SYNOLOGY INC.

Synology creates network-attached storage, IP surveillance solutions, and network equipment that transform the way users manage data, conduct surveillance, and manage networks in the cloud era. By taking full advantage of the latest technologies, Synology aims to help users centralize data storage and backup, share files on-the-go, implement professional surveillance solutions, and manage networks in reliable and affordable ways. Synology is committed to delivering products with forward-thinking features and the best in class customer services.

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