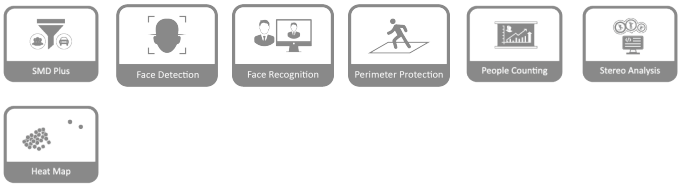
# DHI-NVR4232-2N-4KS3

32CH 1U 2HDDs Lite Network Video Recorder



- Supports Smart H.265+, H.265, Smart H.264+, H.264 and MJPEG decoding formats.
- Max. decoding capability: 8 × 1080p@30 fps or 2 × 8 MP@30 fps.
- Max. 160/128/60 Mbps incoming/recording/outgoing bandwidth.
- Supports IP cameras with a resolution up to 12 MP.
- AI by Recorder supports 2-channel SMD.
- AI by Camera supports face detection and recognition, perimeter protection, SMD, people counting, stereo analysis and heat map.
- Supports EPTZ, and one-click arming and disarming.




## Series Overview

The NVR4000-4KS3 model of the Lite Series NVR is favored for its outstanding performance. It supports 4K resolution for scenes that require highly detailed images, and can serve as the edge, central, or backup storage with an intuitive shortcut menu for remote management and control. This NVR also features Smart Motion Detection (SMD) by recorder, which can distinguish target vehicles and humans from ordinary ones in real-time. When an IPC is connected to the NVR, a variety of AI functions become available such as face detection, perimeter protection, and people counting. This NVR is both cost-effective and easy-to-install, making it ideal for a wide range of applications such as for cities, transportation, education and finance.

## Functions

### SMD Plus

With intelligent algorithm, Dahua Smart Motion Detection technology can categorize the targets that trigger motion detection and filter the motion detection alarm triggered by non-concerned targets to realize effective and accurate alarm.

### Face Detection by Camera

Face detection is to detect if there is any human face appearing in the video. This technology adopts a deep learning algorithm to support face detection, tracking, optimization and capturing, and then output the best face snapshot.

### Face Recognition by Camera

Dahua Face Recognition technology extracts the features of captured faces and compares them with that in face database.

### Perimeter Protection by Camera

Automatically filters out false alarms caused by animals, rustling leaves, bright lights, etc. Enables system to act secondary recognition for the targets. Improves alarm accuracy.

### Stereo Analysis by Camera

With deep learning algorithm and 3-dimensional scene information, Dahua Stereo Analysis technology can recognize people's behaviors, such as fall detection, violence detection, stay detection, and space exception, and then generates alarm signals and triggers linkage.

### Heat Map by Camera

Dahua heat map technology is used to display the crowd density and people appearance probability. Export and display the crowd status by different colors. Generally, the crowd status is the statistics of people quantity in space and time dimensions.

## Technical Specification

### System

| | |
|---|---|
| Main Processor | Industrial-grade processor |
| Operating System | Embedded Linux |
| Operating Interface | Web, Local GUI |

### AI

| | |
|---|---|
| AI by Recorder | SMD |
| AI by Camera | Face detection; face recognition; perimeter protection; SMD; people counting; stereo analysis; heat map |

### Perimeter Protection

| | |
|---|---|
| Perimeter Performance of AI by Camera (Number of Channels) | 6 channels |

### Face Detection

| | |
|---|---|
| Face Attributes | Gender; age group; glasses; expressions; face mask; beard |
| Face Detection Performance of AI by Camera (Number of Channels) | All channels (6 targets/s) |

### Face Recognition

| | |
|---|---|
| Face Recognition Performance of AI by Camera (Number of Channels) | All channels (6 targets/s) |

### SMD Plus

| | |
|---|---|
| SMD Plus by Recorder | 2 channels: Secondary filtering for human and motor vehicle, reducing false alarms caused by leaves, rain and lighting condition change |
| SMD Plus by Camera | All channels (12 targets/s) |

### Audio and Video

| | |
|---|---|
| Access Channel | 32 channels |
| Network Bandwidth | AI disabled: 160 Mbps incoming, 128 Mbps recording and 60 Mbps outgoing<br>AI enabled: 80 Mbps incoming, 80 Mbps recording and 60 Mbps outgoing |
| Resolution | 12 MP;8 MP;6 MP;5 MP;4 MP;3 MP;1080p;720p;960p;D1;CIF;QCIF |
| Decoding Capability | AI disabled: 1-channel 12 MP@30 fps; 2-channel 8 MP@30 fps; 2-channel 6 MP@30 fps; 3-channel 5 MP@30 fps; 4-channel 4 MP@30 fps; 8-channel 1080p@30 fps<br>AI enabled: 1-channel 12 MP@30 fps; 1-channel 8 MP@30 fps; 2-channel 6 MP@30 fps; 2-channel 5 MP@30 fps; 3-channel 4 MP@30 fps; 7-channel 1080p@30 fps |
| Video Output | 1 HDMI, 1 VGA<br>Simultaneous：<br>HDMI: 3840 × 2160, 1920 × 1080, 1280 × 1024, 1280 × 720<br>VGA: 1920 × 1080, 1280 × 1024, 1280 × 720<br>Heterogeneous：<br>HDMI: 1920 × 1080, 1280 × 1024, 1280 × 720<br>VGA: 1920 × 1080, 1280 × 1024, 1280 × 720 |
| Multi-screen Display | AI disabled:<br>Main Screen: 1/4/8/9/16/25/36, Sub Screen: 1/4/8/9/16<br>AI enabled:<br>Main Screen: 1/4/8/9/16, Sub Screen: 1/4/8/9/16 |
| Third-party Camera Access | ONVIF; Panasonic; Sony; Axis; Arecont; Pelco; Canon; Hanwha |

### Compression Standard

| | |
|---|---|
| Video Compression | Smart H.265+; H.265; Smart H.264+; H.264 |
| Audio Compression | G.711a; G.711u; PCM; G726 |

### Network

| | |
|---|---|
| Network Protocol | HTTP; HTTPS; TCP/IP; IPv4; IPv6; UDP; NTP; DHCP; DNS; SMTP; UPnP; IP Filter; FTP; DDNS; SNMP; Alarm Server; P2P; Auto Registration; IP Search (Supports IP camera, DVR, NVS, etc.) |
| Mobile Phone Access | iOS; Android |
| Interoperability | ONVIF 23.12 (Profile T; Profile S; Profile G); CGI; SDK |
| Browser | Chrome; IE; Safari; Edge; Firefox |
| Network Mode | Multi-address; load balance; fault tolerance |

### Recording Playback

| | |
|---|---|
| Multi-channel Playback | Up to 16 channels |
| Record Mode | General, motion detection; intelligent; alarm |
| Backup Method | USB device and network |
| Playback Mode | Instant playback, general playback, event playback, tag playback, smart playback |

### Storage

| | |
|---|---|
| Disk Group | Yes |

### Alarm

| | |
|---|---|
| General Alarm | Motion detection; privacy masking; video loss; scene changing; PIR alarm; IPC external alarm |
| Anomaly Alarm | Camera disconnection; storage error; disk full; IP conflict; MAC conflict; login locked; and cybersecurity exception |
| Intelligent Alarm | Face detection; face recognition; perimeter protection; SMD Plus; people counting; stereo analysis; heat map |
| Alarm Linkage | Record; snapshot; IPC external alarm output; audio; buzzer; log; preset; email |

### Port

| | |
|---|---|
| Audio Input | 1-channel RCA |
| Audio Output | 1-channel RCA |
| Alarm Input | 4 channels |
| Alarm Output | 2 channels (1-channel 12 V 1 A output ) |
| Disk Interface | 2 SATA ports. Each disk can contain up to 20 TB. this limit varies depending on the environment temperature. |
| USB | 2 (1 front USB 2.0 port, 1 rear USB 2.0 port) |
| HDMI | 1 |
| VGA | 1 |

| | |
|---|---|
| Network Port | 2 (10/100/1000 Mbps Ethernet port, RJ-45) |

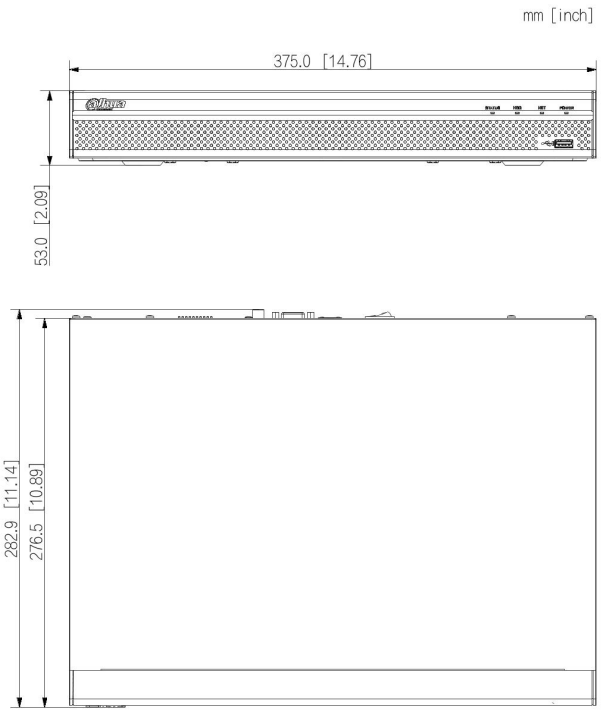
## General

| | |
|---|---|
| Power Supply | 12 VDC, 4 A |
| Power Consumption | <10 W (without HDD) |
| Net Weight | 1.49 kg (3.28 lb) |
| Gross Weight | 2.77 kg (6.11 lb) |
| Product Dimensions | 375.0 mm × 282.9 mm × 53.0 mm (14.76" ×11.14" × 2.09") (W × D × H) |
| Packaging Dimensions | 433.0 mm × 141.0 mm × 366.0 mm (17.05" × 5.55" × 14.41") (W × D × H) |
| Operating Temperature | –10 °C to +55 °C (14 °F to +131 °F) |
| Storage Temperature | –20 °C to +60 °C (–4 °F to +140 °F) |
| Operating Humidity | 10%–93% (RH), non-condensing |
| Certifications | CE-EMC: EN 55032:2015+A1:2020; EN IEC 61000-3-2:2019+A1:2021; EN 61000-3-3:2013+A1:2019+A2:2021; EN 55035:2017+A11:2020; EN 50130-4:2011+A1:2014 CE-LVD: EN 62368-1:2014 |

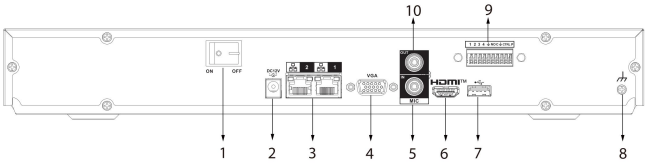
## Ordering Information

| Type | Model | Description |
|---|---|---|
| NETWORK VIDEO RECORDER | DHI-NVR4232-2N-4KS3 | 32CH 1U 2HDDs Lite Network Video Recorder |

## Dimensions (mm[inch])




## Panels




| | | | |
|---|---|---|---|
| 1 | Power Switch | 2 | Power Input |
| 3 | Network Port | 4 | VGA Port |
| 5 | MIC IN, RCA Connector | 6 | HDMI Port |
| 7 | USB Port | 8 | Ground |
| 9 | Alarm In/Out | 10 | MIC OUT, RCA Connector |

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