

# DHI-NVR4108HS-4KS3(960GB)

8CH Compact 1U 1SSD 960GB Lite NETWORK VIDEO RECORDER



## 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

### Pre-installed SSD

Unlike the traditional NVR, S-NVR comes with the SSD preinstalled in the device. It is more energy efficient, and has stronger vibration resistance and better heat dissipation. S-NVR also saves you time on selecting the type of hard disk and installing it, greatly increasing your efficiency.

### 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.

- Comes with an internal 960GB SSD.
- Supports Smart H.265+, H.265, Smart H.264+, H.264 and MJPEG decoding formats.
- Max. decoding capability: 8 × 1080p@30 fps.
- Max. 80/80/60 Mbps incoming/recording/outgoing bandwidth.
- Supports IP cameras with a resolution up to 12 MP.
- AI by Recorder supports 4-channel SMD Plus.
- AI by Camera supports face detection and recognition, perimeter protection, SMD Plus, people counting, stereo analysis and heat map.
- Supports EPTZ, and one-click arming and disarming.



### 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.

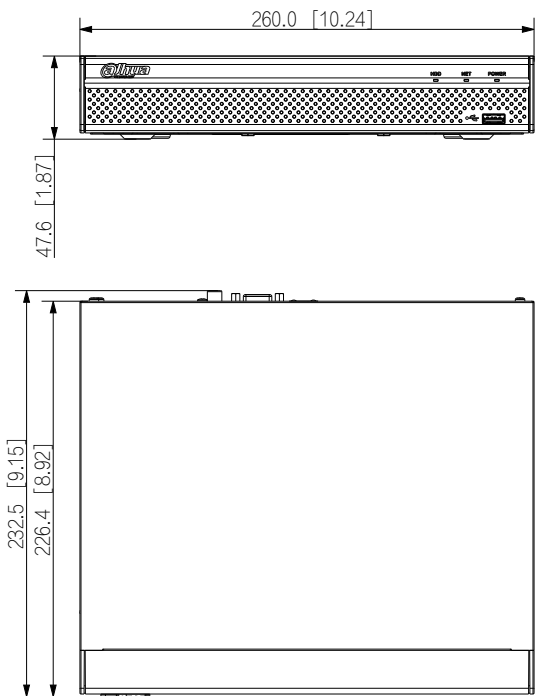
# NVR4000-4KS3 Series | DHI-NVR4108HS-4KS3(960GB)

| Technical Specification                                           |                                                                                                                                                                                                                                                                     | Audio Compression          |                                                                                                                                                                                    |
|-------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| System                                                            |                                                                                                                                                                                                                                                                     | G.711a; G.711u; PCM; G.726 |                                                                                                                                                                                    |
| Main Processor                                                    | Industrial-grade processor                                                                                                                                                                                                                                          | Network                    |                                                                                                                                                                                    |
| Operating System                                                  | Embedded Linux                                                                                                                                                                                                                                                      | 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.) |
| Operating Interface                                               | Web, Local GUI                                                                                                                                                                                                                                                      | Mobile Phone Access        | iOS; Android                                                                                                                                                                       |
| AI                                                                |                                                                                                                                                                                                                                                                     | Interoperability           | ONVIF 22.12(Profile T; Profile S; Profile G); CGI; SDK                                                                                                                             |
| AI by Recorder                                                    | SMD Plus                                                                                                                                                                                                                                                            | Browser                    | Chrome; IE; Safari; Edge; Firefox                                                                                                                                                  |
| AI by Camera                                                      | Face detection; face recognition; perimeter protection; SMD Plus; people counting; stereo analysis; heat map                                                                                                                                                        | Recording Playback         |                                                                                                                                                                                    |
| Perimeter Protection                                              |                                                                                                                                                                                                                                                                     | Multi-channel Playback     | Up to 8 channels                                                                                                                                                                   |
| Perimeter Performance of AI by Camera (Number of Channels)        | 6 channels                                                                                                                                                                                                                                                          | Record Mode                | General; motion detection; intelligent; alarm                                                                                                                                      |
| Face Detection                                                    |                                                                                                                                                                                                                                                                     | Backup Method              | USB device and network                                                                                                                                                             |
| Face Attributes                                                   | Gender; age group; glasses; expressions; face mask; beard                                                                                                                                                                                                           | Playback Mode              | Instant playback; general playback; event playback; tag playback; smart playback                                                                                                   |
| Face Detection Performance of AI by Camera (Number of Channels)   | 6 channels                                                                                                                                                                                                                                                          | Alarm                      |                                                                                                                                                                                    |
| Face Recognition                                                  |                                                                                                                                                                                                                                                                     | General Alarm              | Motion detection; privacy masking; video loss; scene changing; PIR alarm; IPC external alarm                                                                                       |
| Face Recognition Performance of AI by Camera (Number of Channels) | 6 channels                                                                                                                                                                                                                                                          | Anomaly Alarm              | Camera disconnection; storage error; disk full; IP conflict; MAC conflict; login locked; and cybersecurity exception                                                               |
| SMD Plus                                                          |                                                                                                                                                                                                                                                                     | Intelligent Alarm          | Face detection; face recognition; perimeter protection; SMD Plus; people counting; stereo analysis; heat map                                                                       |
| SMD Plus by Recorder                                              | 4 channels: Secondary filtering for human and motor vehicle, reducing false alarms caused by leaves, rain and lighting condition change                                                                                                                             | Alarm Linkage              | Record; snapshot; IPC external alarm output; audio; buzzer; log; preset; email                                                                                                     |
| SMD Plus by Camera                                                | 6 channels                                                                                                                                                                                                                                                          | Port                       |                                                                                                                                                                                    |
| Audio and Video                                                   |                                                                                                                                                                                                                                                                     | Audio Input                | 1-channel RCA                                                                                                                                                                      |
| Access Channel                                                    | 8 channels                                                                                                                                                                                                                                                          | Audio Output               | 1-channel RCA                                                                                                                                                                      |
| Network Bandwidth                                                 | 80 Mbps incoming, 80 Mbps recording and 60 Mbps outgoing                                                                                                                                                                                                            | Alarm Input                | NA (2 channels are optional)                                                                                                                                                       |
| Resolution                                                        | 12 MP; 8 MP; 6 MP; 5 MP; 4 MP; 3 MP; 1080p; 960p; 720p; D1; CIF; QCIF                                                                                                                                                                                               | Alarm Output               | NA (1-channel 12 V 1 A output is optional)                                                                                                                                         |
| Decoding Capability                                               | AI disabled: 1-channel 12 MP@30 fps; 2-channel 8 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 5 MP@30 fps; 3-channel 4 MP@30 fps; 7-channel 1080p@30 fps | Disk Interface             | 960GB SSD(pre-installed)                                                                                                                                                           |
| 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                 | USB                        | 2 (1 front USB 2.0 port, 1 rear USB 2.0 port)                                                                                                                                      |
| Multi-screen Display                                              | Main Screen: 1/4/8/9<br>Sub Screen: 1/4/8/9                                                                                                                                                                                                                         | HDMI                       | 1                                                                                                                                                                                  |
| Third-party Camera Access                                         | ONVIF; Panasonic; Sony; Axis; Arecont; Pelco; Canon; Hanwha                                                                                                                                                                                                         | VGA                        | 1                                                                                                                                                                                  |
| Compression Standard                                              |                                                                                                                                                                                                                                                                     | Network Port               | 1 (10/100 Mbps Ethernet port, RJ-45)                                                                                                                                               |
| Video Compression                                                 | Smart H.265+; H.265; Smart H.264+; H.264                                                                                                                                                                                                                            | General                    |                                                                                                                                                                                    |
|                                                                   |                                                                                                                                                                                                                                                                     | Power Supply               | 12 VDC, 2 A                                                                                                                                                                        |
|                                                                   |                                                                                                                                                                                                                                                                     | Power Consumption          | ≤ 11W (with SSD)                                                                                                                                                                   |
|                                                                   |                                                                                                                                                                                                                                                                     | Net Weight                 | 0.81 kg (1.79 lb)                                                                                                                                                                  |
|                                                                   |                                                                                                                                                                                                                                                                     | Gross Weight               | 1.38 kg (3.04 lb)                                                                                                                                                                  |
|                                                                   |                                                                                                                                                                                                                                                                     | Product Dimensions         | 260.0 mm × 232.5 mm × 47.6 mm(10.24" × 9.15" × 1.87") (W × D × H)                                                                                                                  |
|                                                                   |                                                                                                                                                                                                                                                                     | Packaging Dimensions       | 334 mm × 89 mm × 314 mm (13.15" × 3.50" × 12.36") (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                                                                                                                                                       |

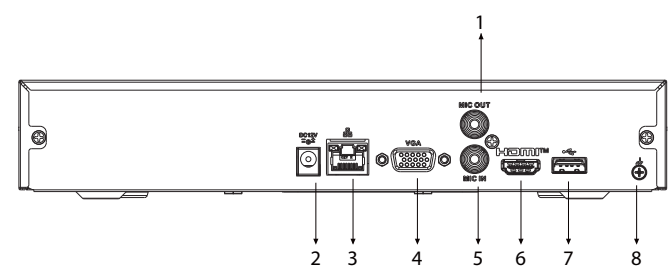
|                |                                                                                                                                                                             |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Installation   | Rack or desktop                                                                                                                                                             |
| 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<br>CE-LVD: EN 62368-1:2014 |

| Ordering Information   |                           |                                                       |
|------------------------|---------------------------|-------------------------------------------------------|
| Type                   | Model                     | Description                                           |
| NETWORK VIDEO RECORDER | DHI-NVR4108HS-4KS3(960GB) | 8CH Compact 1U 1SSD 960GB Lite NETWORK VIDEO RECORDER |

Dimensions (mm[inch])



Panels



- |   |                          |   |             |
|---|--------------------------|---|-------------|
| 1 | AUDIO OUT, RCA Connector | 2 | Power Input |
| 3 | Network Port             | 4 | VGA Port    |
| 5 | AUDIO IN, RCA Connector  | 6 | HDMI Port   |
| 7 | USB Port                 | 8 | Ground      |