

OS-NVR4M4P-4H1-4K-V3 | 4CH Smart 1U 4PoE 1HDD 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 4 × 4 MP@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.



System 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, Osiris 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

Osiris 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, Osiris 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

Osiris 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.

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Technical Specifications

System	
Main Processor	Industrial-grade processor
Operating System	Embedded Linux
Operating Interface	Web, Local GUI
AI	
AI by Recorder	SMD Plus
AI by Camera	Face detection; face recognition; perimeter protection; SMD Plus; people counting; stereo analysis; heat map
Perimeter Protection	
Perimeter Performance of AI by Camera (Number of Channels)	4 channels
Face Detection	
Face Attributes	Gender; age group; glasses; expressions; face mask; beard
Face Detection Performance of AI by Camera (Number of Channels)	4 channels
Face Recognition	
Face Recognition Performance of AI by Camera (Number of Channels)	4 channels
SMD Plus	
SMD Plus by Recorder	4 channels: Secondary filtering for human and motor vehicle, reducing false alarms caused by leaves, rain and lighting condition change
SMD Plus by Camera	4 channels
Audio and Video	
Access Channel	4 channels
Network Bandwidth	80 Mbps incoming, 80 Mbps recording and 60 Mbps outgoing
Resolution	12 MP; 8 MP; 6 MP; 5 MP; 4 MP; 3 MP; 1080p; 960p; 720p; D1; CIF; QCIF
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 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

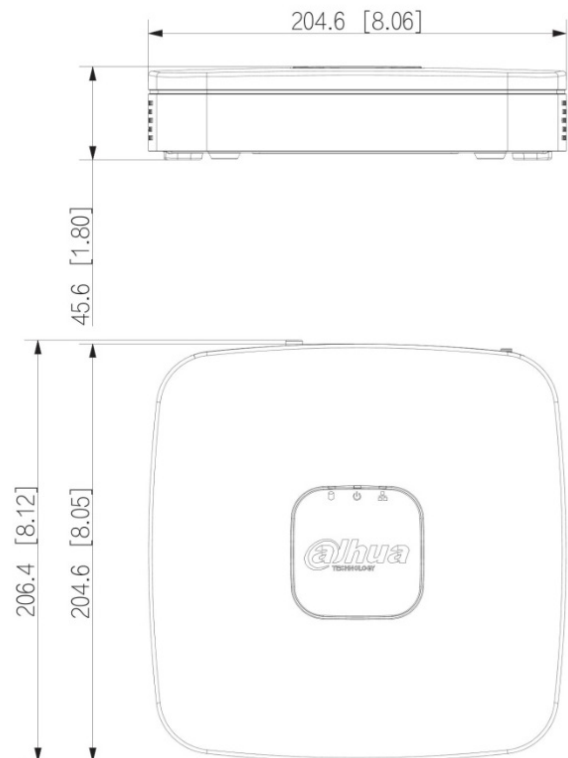
Video Output	1 HDMI, 1 VGA Simultaneous: HDMI: 3840 × 2160, 1920 × 1080, 1280 × 1024, 1280 × 720 VGA: 1920 × 1080, 1280 × 1024, 1280 × 720 Heterogeneous: HDMI: 1920 × 1080, 1280 × 1024, 1280 × 720 VGA: 1920 × 1080, 1280 × 1024, 1280 × 720
Multi-screen Display	Main Screen: 1/4 Sub Screen: 1/4
Third-party 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; UDP; NTP; DHCP; DNS; SMTP; UPnP; IP Filter; DDNS; Alarm Server; IP Search (Supports IP camera, DVR, NVS, etc.); P2P; Auto Registration
Mobile Phone Access	iOS; Android
Interoperability	ONVIF 22.12(Profile T; Profile S; Profile G); CGI; SDK
Browser	Chrome; IE; Safari; Edge; Firefox
Recording Playback	
Multi-channel Playback	Up to 4 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
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	NA (2 channels is optional)
Alarm Output	NA (1-channel 12 V 1 A output is optional)

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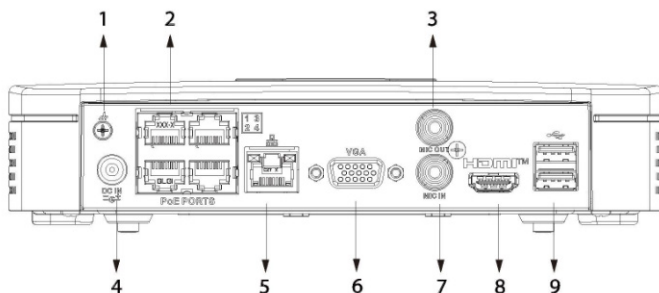
Technical Specifications (2)

Port (2)	
HDD Interface	1 SATA port. up to 20 TB. this limit varies depending on the environment temperature
USB	2 (2 rear USB 2.0 ports)
HDMI	1
VGA	1
Network Port	1 (10/100 Mbps Ethernet port, RJ-45)
PoE Port	4 ports, 10/100 Mbps, IEEE 802.3 af/at
General	
Power Supply	53 VDC, 1.22 A
Power Consumption	Total output of NVR is <10 W (without HDD) Total output power of PoE is 36 W, the maximum output power of a single port is 25.5W
Net Weight	0.50 kg (1.10 lb)
Gross Weight	1.38 kg (3.04 lb)
Product Dimensions	204.6 mm × 206.4 mm × 45.6 mm (8.06" × 8.12" × 1.80") (W × D × H)
Packaging Dimensions	364 mm × 96 mm × 261 mm (14.33" × 3.78" × 10.26") (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 CE-LVD: EN 62368-1:2014

Dimensions (mm[inch])



Panels



- | | |
|----------------------------|---------------|
| 1 Ground | 2 PoE Ports |
| 3 AUDIO OUT, RCA Connector | 4 Power Input |
| 5 Network Port | 6 VGA Port |
| 7 AUDIO IN, RCA Connector | 8 HDMI Port |
| 9 USB Ports | |