

QNVR4104HS-P-4KS3 By DAHUA

4 Channel Compact 1U 4PoE 1HDD Network Video Recorder



Main Features

- Support Smart H.265+, H.265, Smart H.264+, H.264, MJPEG decoding formats
- Max decoding capability: 4x1080p@30fps or 4x4MP@30fps
- Max. 80/80/60Mbps incoming/recording/outgoing bandwidth
- Supports IP cameras with a resolution of 12MP
- AI by recorder supports 4-channel SMD Plus
- AI by camera supports face detection and recognition, perimeter protection, SMD Plus,

Series Overview

The RNVR4000-4KS3 model of 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. Once an IPC is connected to an NVR, a variety of AI functions becomes 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, 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

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. It 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, 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

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 Specification

System

Main Processor	Industrial-grade embedded processor
Operating System	Embedded Linux
Operation 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
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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
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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 & Video

Access Channel	4 channels
Network Bandwidth	160Mbps incoming 160Mbps recording 80Mbps outgoing
Resolution	12MP; 8MP; 6MP; 5MP; 4MP; 3MP; 1080p; 960p; 720p; D1; CIF; QCIF
Decoding Capability	AI disabled: 1-channel 12MP@30fps; 2-channel 8MP@30fps; 3-channel 5MP@30fps; 4-channel 4MP@30fps; 8-channel 1080p@30fps AI enabled: 1-channel 12MP@30fps; 1-channel 8MP@30fps; 2-channel 5MP@30fps; 3-channel 4MP@30fps; 7-channel 1080p@30fps
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; G.726

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 8 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 12V 1A output is optional)
HDD Interface	1 SATA port up to 20TB. 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	1 (10/100Mbps Ethernet port, RJ-45)
PoE Port	4 ports, 10/100Mbps, IEEE 802.3 af/at

General

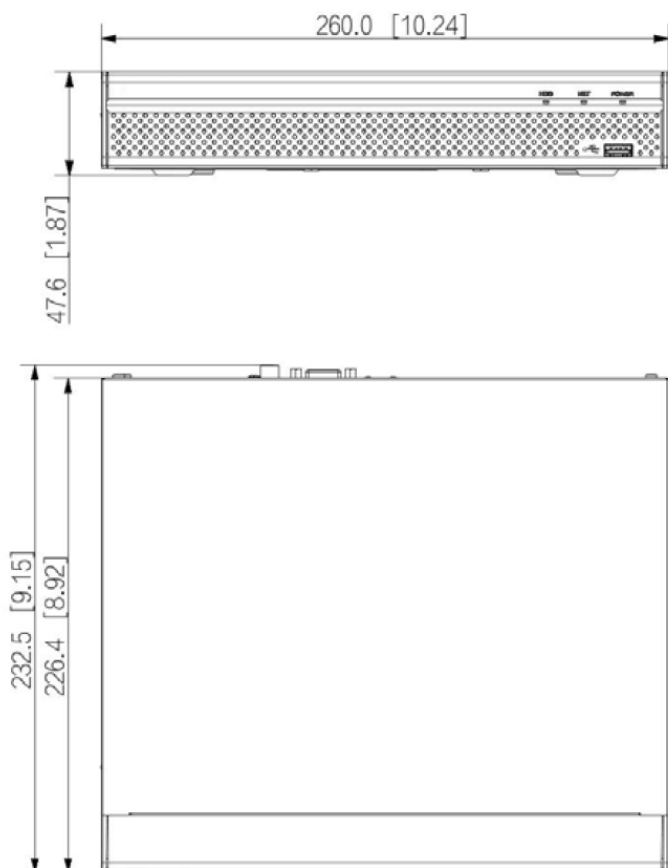
Power Supply	53VDC/1.221A
Power Consumption	Total output of NVR is <10W (without HDD) Total output power of PoE is 36W the maximum output power of a single port is 25.5W
Net Weight	0.92g (2.03lb)
Gross Weight	2.05Kg (4.52lb)
Product Dimensions	260mm × 232.5mm × 47.6mm (10.24" × 9.15" × 1.87") (W × D × H)
Packaging Dimensions	374mm × 119mm × 311mm (14.72" × 4.69" × 12.24") (W × L × H)
Operating Temperature	-10°C to +55°C (+10°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

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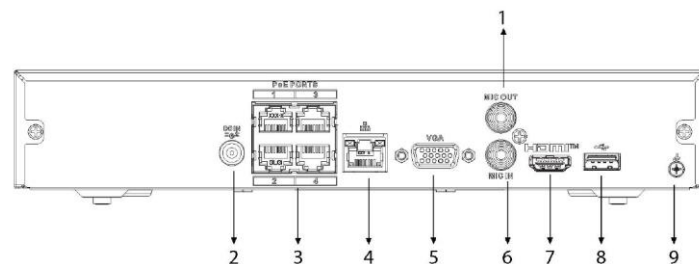
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Dimensions (mm[inch])

mm [inch]



Panels



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