DHI-NVR4108-8P-WT

8CH 8PoE 1HDD WizMind Industrial Network Video Recorder



Launched by Dahua Technology, Dahua WizMind is a full portfolio of solutions composed of project-oriented products including IPC, IVSS,NVR, PTZ, XVR, Thermal and software platform which adopts industry-leading deep learning algorithms. Focusing on customer's requirements, WizMind provides precise, reliable and comprehensive AI solutions for verticals.

Series Overview

Built with high-quality hardware, NVR4000-WT is a powerful network video recorder that leverages AI technology to deliver an array of backend functions such as high-precision human face recognition, perimeter protection and SMD plus. Its innovative fanless design incorporates advanced heat dissipation technology, allowing for seamless performance and quick adaptability even in challenging environments with extreme temperatures. Additionally, a built-in 4G module is optional, expanding your choices for efficient data transmission.

Functions

Wide Operating Temperature (–40 °C to +70 °C)

The operating temperature ranges from –40 °C to +70 °C. The semiconductor TEC module and all-aluminum fin structure enhances the reliability of hard disk operations, making the device highly suitable for use in harsh environments.

Perimeter Protection

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.

- Supports working at ambient temperatures of –40 °C to +70 °C.
- Supports Smart H.265+, H.265, Smart H.264+, H.264 and MJPEG decoding formats.
- Max. decoding capability: 16 × 1080p@30 fps or 8 × 4 MP@30 fps.
- Max. 256/256/256 Mbps incoming/recording/outgoing bandwidth.
- Supports IP cameras with a resolution up to 16 MP.
- AI by Recorder supports 2-channel face detection and recognition, up to 10 face databases and 20,000 face images; 4-channel perimeter protection; 8-channel SMD Plus.
- AI by Camera supports face detection and recognition, perimeter protection, SMD, stereo analysis, and people counting.
- Supports EPTZ, and one-click arming and disarming.



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.

AI Search

With AI search, operators can search for videos by the attributes of targets and event types, which helps them to quickly and efficiently investigate where and when targets appeared and events took place.

Technical Specification

System

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

AI

AI by Recorder	Face detection, face recognition, perimeter protection, and SMD
AI by Camera	Face detection; face recognition; perimeter protection; SMD; ANPR; people counting; stereo analysis; heat map

Perimeter Protection

Perimeter Performance AI by Recorder (Number of Channels)	4 channels, 10 IVS rules for each channel
Perimeter Performance of AI by Camera (Number of Channels)	All channels (8 targets/s)

Face Detection

Face Attributes	Gender; age group; glasses; expressions; face mask; beard
Face Detection Performance of AI by Recorder (Number of Channels)	2 channels (up to 12 face images/s each channel)
Face Detection Performance of AI by Camera (Number of Channels)	All channels (12 targets/s)

Face Recognition

Face Database Capacity	Up to 10 face databases with 20,000 images, with a total capacity of 2.5 G. Name, gender, birthday, address, credential type, credential No., countries & regions and state can be added to each face image.
Face Recognition Performance of AI by Recorder (Number of Channels)	8-channel FD (by camera) + FR (by recorder), image stream: 12 face images/s 2-channel FD (by recorder) + FR (by recorder), video stream: 12 face images/s
Face Recognition Performance of AI by Camera (Number of Channels)	All channels (12 targets/s)

SMD

SMD Plus by Recorder	8 channels: Secondary filtering for human and motor vehicle, reducing false alarms caused by leaves, rain and lighting condition change
SMD by Camera	All channels (16 targets/s)

Audio and Video

Access Channel	8 channels
Network Bandwidth	AI disabled: 256 Mbps incoming, 256 Mbps recording and 256 Mbps outgoing AI enabled: 180 Mbps incoming, 180 Mbps recording and 180 Mbps outgoing
Resolution	16 MP;12 MP;8 MP;6 MP;5 MP;4 MP; 3 MP;1080p;720p;960p;D1;CIF
Decoding Capability	AI disabled: 2-channel 16 MP@30 fps; 2-channel 12 MP@30 fps; 4-channel 8 MP@30 fps; 4-channel 6 MP@30 fps; 6-channel 5 MP@30 fps; 8-channel 4 MP@30 fps AI enabled: 1-channel 16 MP@30 fps; 2-channel 12 MP@30 fps; 3-channel 8 MP@30 fps; 3-channel 6 MP@30 fps; 4-channel 5 MP@30 fps; 6-channel 4 MP@30 fps; 8-channel 2 MP@30 fps
Video Output	1 HDMI, 1 VGA HDMI: 3840 × 2160, 1920 × 1080, 1280 × 1024, 1280 × 720 VGA: 1920 × 1080, 1280 × 1024, 1280 × 720 *Simultaneous/heterogeneous video sources output for VGA and HDMI is configurable.
Multi-screen Display	1st Screen: 1/4/8/9 2nd Screen: 1/4/8/9
Third-party Camera Access	ONVIF, Panasonic, Sony, Hanwha, Axis, Pelco, Arecont, Canon

Compression Standard

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

Network

Network Protocol	HTTP; HTTPS; TCP/IP; IPv4/IPv6; UPnP; SNMP; UDP; SMTP; NTP; DHCP; DNS; IP Filter; PPPoE; DDNS; FTP; Alarm Server; IP Search (Support Dahua IP camera; DVR; NVS; etc.); P2P; auto register
Mobile Phone Access	iOS; Android
Interoperability	ONVIF 23.12(Profile T; Profile S; Profile G); CGI; SDK
Browser	Chrome; IE9 and later; Firefox
Network Mode	Multi-address; load balance; fault tolerance

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	4 channels

Alarm Output	2 channels (1-channel relay output, 1-channel 12 V 1 A output)
Disk Interface	1 SATA port, up to 20 TB. This limit varies depending on the environment temperature.
RS-485	2
USB	2 (2 rear USB 2.0 ports)
HDMI	1
VGA	1
Network Port	2 (10/100/1000 Mbps Ethernet port, RJ-45)
PoE Port	8 ports, 10/100 Mbps, IEEE 802.3 af/at
Power Output	1 channel (12 VDC, 1 A)

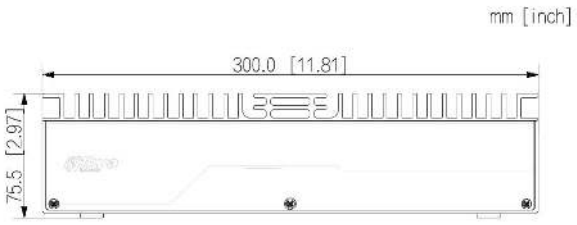
General

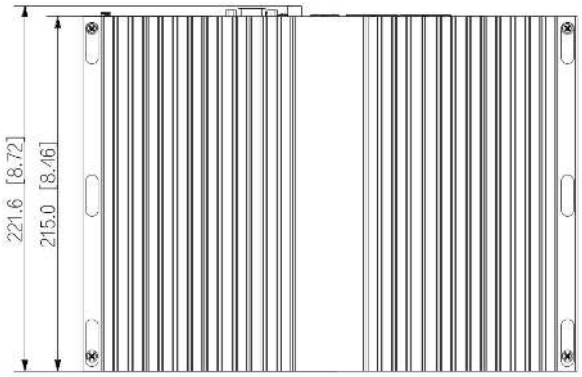
Power Supply	53 VDC (supports 48-60 VDC), 2.22 A
Power Consumption	Total output of NVR is <10 W (without HDD) Total output power of PoE is 72 W, the maximum output power of a single port is 25.5 W
Net Weight	3.35 kg (7.39 lb)
Gross Weight	5.35 kg (11.79 lb)
Product Dimensions	300.0 mm × 221.6 mm × 75.5 mm (11.81" × 8.72" × 2.97") (W × L × H)
Packaging Dimensions	371.0 mm × 190.0 mm × 315.0 mm (14.61" × 7.48" × 12.40") (W × L × H)
Operating Temperature	–40 °C to +70 °C (–40 °F to +158 °F)
Storage Temperature	–20 °C to +60 °C (–4 °F to +140 °F)
Operating Humidity	10%–93% (RH), non-condensing
Certifications	FCC: 47 CFR FCC Part15, SubpartB, Class A 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

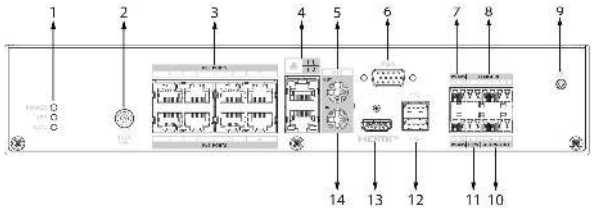
Type	Model	Description
NETWORK VIDEO RECORDER	DHI-NVR4108-8P-WT	8CH 8PoE 1HDD WizMind Industrial Network Video Recorder

Dimensions (mm[inch])





Panels



1 Indicator Lights
2 Power Input
3 PoE Port
4 Network Port
5 AUDIO OUT, RCA Connector
6 VGA Port
7 RS-485 Port
8 Alarm In
9 Ground
10 Alarm Out
11 Power Output
12 USB Port
13 HDMI Port
14 AUDIO IN, RCA Connector

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