



DHI-NVR5208-EI

8 Channels 1U 2HDD WizSense Network Video Recorder





Launched by Dahua Technology, WizSense is a series of AI products and solutions that adopt independent AI chip and deep learning algorithm. It focuses on human and vehicle with high accuracy, enabling users to fast act on defined targets. Based on Dahua's advanced technologies, WizSense provides intelligent, simple and inclusive products and solutions.

Series Overview

The NVR5000-EI series offers outstanding performance and high-grade recording technology that make it ideal for IP video surveillance applications. It has a powerful processor, that offers high access and forwarding bandwidth and strong decoding capabilities that together produce unimpeded streams. Thanks to its built-in AI chip and Dahua's advanced deep learning algorithms, the NVR supports a variety of AI functions, such as high-precision face recognition and perimeter protection. They shorten the response time to events and make videos more interactive. This NVR is compatible with numerous third-party devices, making it a great solution for surveillance systems that work with Video Management Software (VMS).

Functions

Perimeter Protection

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

Face Detection

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

Dahua Face Recognition technology extracts the features of captured faces and compares them with those in face database to recognize the person identity.

- · Smart H.265+/H.265/Smart H.264+/H.264/MJPEG decoding format.
- · 32-channel 1080p self-adaptive decoding capability.
- · Max. 384 Mbps incoming/recording/outgoing bandwidth.
- · Al by recorder: 2-channel face detection and recognition, 4-channel perimeter protection, and 8-channel SMD Plus.
- · AI by camera: Face detection and recognition, perimeter protection, SMD Plus, metadata, ANPR, stereo analysis, heat map, and people counting.
- · Security baseline 2.3.



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.

ANPR by Camera

With deep learning algorithm, Dahua ANPR technology can recognize the number plate information of vehicles in the image with ANPR cameras. Support blocklist/allowlist mode, searching target vehicles from recorded video.

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.





| Technical Specification | | Vehicle License Plate Comparison | |
|--|---|-------------------------------------|--|
| System | | ANPR by Camera (Number of Channels) | 8 channels |
| Main Processor | Industrial-grade processor | License Plate Database | 1. County was 20,000 allow works |
| Operating System | Embedded Linux | Capacity | Create up to 20,000 plate numbers. Blocklist and allowlist |
| Operating Interface | Web, Local GUI | Audio and Video | |
| Al | | Access Channel | 8 |
| Al by Recorder | Face detection; face recognition; perimeter protection; SMD Plus Face detection; face recognition; video metadata | Network Bandwidth | Al disabled: 384 Mbps incoming, 384 Mbps recording and 384 Mbps outgoing Al enabled: 200 Mbps incoming, 200 Mbps recording and |
| Al by Camera | (human, motor vehicles, and non-motor vehicles); perimeter protection; SMD Plus; stereo analysis; crowd distribution; people counting; ANPR; vehicle density; heat map | Resolution | 200 Mbps outgoing 32 MP; 24 MP; 16 MP; 12 MP; 8 MP; 5 MP; 4 MP; 1080p; 720p; D1; CIF; QCIF |
| Perimeter Protection | 1 | | Al disabled: 2-channel 32 MP@20 fps; 2-channel 24 MP@20 fps; 4-channel 16 MP@30 fps; 5-channel 12 MP@30 fps; 8-channel 8 MP@30 fps Al enabled: 1-channel 32 MP@20 fps; 1-channel 24 MP@20 fps; 2-channel 16 MP@30 fps; 4-channel 12 MP@30 fps;4-channel 8 MP@30 fps; 8-channel 5 MP@30 fps |
| Perimeter Performance AI by Recorder (Number of Channels) | 4 channels, 10 IVS rules for each channel | Decoding Capability | |
| Perimeter Performance of AI by Camera (Number of Channels) | 8 channels | | |
| Face Detection Face Attributes | Gender; age group; glasses; expressions; face mask; | Video Output | 1-channel VGA, 1-channel HDMI video output. Heterogeneous video source output for HDMI and VGA Supports 4K display |
| Face Detection | beard | Multi-screen Display | Main screen: 1/4/8/9 Sub screen: 1/4/8/9 |
| Performance of AI by Recorder (Number of Channels) | 2 channels (up to 12 face images/s each channel) | Third-party Camera Access | ONVIF; Panasonic; Sony; Axis; Arecont; Pelco; Canon; Samsung |
| Face Detection | 8 channels | Compression Standard | |
| Performance of AI by Camera (Number of Channels) | | Video Compression | Smart H.265+; H.265; Smart H.264+; H.264; MJPEG |
| Face Recognition | | Audio Compression | G.711a; G.711u; PCM; G726 |
| | Up to 20 face databases with 20,000 images, with a | Network | |
| Face Database Capacity | 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. | Network Protocol | HTTP; HTTPS; TCP/IP; IPv4/IPv6; RTSP; UDP; SNMP; NTP; DHCP; DNS; SMTP; UPnP; IP Filter; PPPoE; FTP; DDNS; Alarm Server; IP Search (Supports Dahua IP camera, DVR, NVS, etc.); Multicast; P2P; Auto Registration |
| Face Recognition Performance of AI by Recorder (Number of | 8-channel FD (by camera) + FR (by recorder), image stream: 16 face images/s 2. 2-channe FD (by recorder) + FR (by recorder), video stream: 12 face images/s | Mobile Phone Access | iOS; Android |
| Channels) | | Interoperability | ONVIF 21.12(Profile T; Profile S; Profile G); CGI; SDK |
| Face Recognition Performance of AI by Camera (Number of | 8 channels | Browser | Chrome IE 9 or later Firefox |
| Channels) | | Recording Playback | |
| SMD Plus | | Multi-channel Playback | Up to 8 channels |
| SMD Plus by Recorder | 8 channels: Secondary filtering for human and motor vehicle, reducing false alarms caused by leaves, rain and lighting condition change | Record Mode | General, motion detection; intelligent; alarm; POS |
| SMD Plus by Camera | 8 channels | Backup Method | USB device and network |
| Video Metadata | | Playback Mode | Instant playback, general playback, event playback, tag playback, smart playback (face and motion detection) |
| Metadata Performance of | 8 channels | Storage | |
| AI by Camera (Number of Channels) | | Disk Group | Yes |
| Human Attributes | Top color, top type, bottom color, bottom type, hat, bag, age, gender and umbrella | Alarm | |
| Motor Vehicle Attributes | License plate, plate color, vehicle body, vehicle model, vehicle logo, calling, seatbelt, vehicle interior, vehicle | General Alarm | Motion detection; privacy masking; local alarm |
| Non-motor Vehicle Attributes | registration location. Vehicle model, vehicle color, number of persons, helmet. | Anomaly Alarm | Camera offline; storage error; disk full; IP conflict; MAC conflict; login lock; abnormal behavior of fan; cybersecurity exception |





| Intelligent Alarm | Face detection; perimeter protection; face recognition; video metadata (human, motor vehicles, and non-motor vehicles); SMD Plus; stereo analysis; crowd distribution; people counting; ANPR; vehicle density; heat map | | |
|-----------------------|---|--|--|
| Alarm Linkage | Record; snapshot (panoramic); local alarm output; IPC external alarm output; access controller; audio; buzzer; log, preset; email | | |
| Port | | | |
| Audio Input | 1-channel RCA | | |
| Audio Output | 1-channel RCA | | |
| Alarm Input | 4 channels | | |
| Alarm Output | 2 channels | | |
| HDD Interface | $2\mbox{SATA}$ ports, up to $16\mbox{TB}$. The maximum HDD capacity varies with environment temperature. | | |
| RS-232 | 1 | | |
| RS-485 | 1 | | |
| USB | 2 (1 front USB 2.0 port, 1 rear USB 3.0 port) | | |
| HDMI | 1 | | |
| VGA | 1 | | |
| Network Port | 1(10/100/1000 Mbps Ethernet port, RJ-45) | | |
| General | | | |
| Power Supply | 12 VDC, 4 A | | |
| Power Consumption | Total output of NVR is ≤ 10 W (without HDD) | | |
| Net Weight | 1.57 kg (3.46 lb) | | |
| Gross Weight | 2.73 kg (6.02 lb) | | |
| Product Dimensions | 375.0 mm \times 284.4 mm x 56.0mm (14.76" \times 11.20" \times 2.20") (W \times D \times H) | | |
| Packaging Dimensions | 433.0 mm \times 141.0 mm \times 366.0 mm (17.04" \times 5.55" \times 14.41") (W \times D \times 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) | | |
| | | | |

| Ordering Information | | | | |
|----------------------------|----------------|---|--|--|
| Туре | Model | Description | | |
| 8 Channels WizSense NVR | DHI-NVR5208-EI | 8 Channels 1U 2HDD WizSense Network Video Recorder | | |

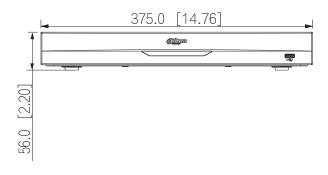
CE-LVD: EN 62368-1: 2014

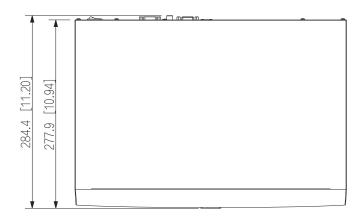
Rack or desktop

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;

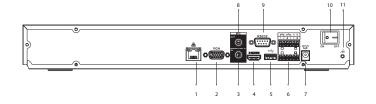
EN 55035: 2017+A11: 2020; EN 50130-4: 2011+A1: 2014

Dimensions (mm[inch])





Panels



- 1 Network Port
- 3 MIC IN, RCA Connecto 5 USB Port
- 7 Power Input
- 9 RS-232 Port
- 11 Ground
- 2 VGA Port
- 4 HDMI Port
- Alarm In/Out
- 8 MIC OUT, RCA Connector 10 Power Switch



Rev 002.000

Installation

Certifications