# DHI-NVR2108HS-I2

## 8 Channel Compact 1U 1HDD WizSense Network Video Recorder

- Smart H.265+/H.265/Smart H.264+/H.264/MJPEG decoding format
- Max. decoding capability: 6 × 1080p@30 fps. Supports adaptive decoding
- 1-channel face detection and recognition (AI by NVR); 1-channel perimeter protection (AI by NVR); up to 10 face databases and 5,000 face images; 4-channel SMD Plus (AI by NVR)
- AI by camera: Face detection and recognition, perimeter protection, and SMD Plus
- Connected to the third-party network cameras
- Security baseline 2.1

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

This AI network video recorder is a highly cost-effective product, providing functions such as local live view, multi-screen display, real-time storage on local HDD, fast operation by mouse, and remote management and control. This product is suitable for face detection and recognition at entrances and exits, and perimeter protection of people and vehicles.

## Functions

### 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.

### 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.

### 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

Support AI seach by metadata of different targets or uploading face pictures to device and comparing them with recorded faces by similarity. Enable operators to quickly and easily search through multi channels and long duration, efficiently find out when and where a person of interest appeard.

### Smart Fan

The NVR is equipped with a smart fan to achieve high cooling efficiency. It automatically turns on or turns off according to CPU and ambient temperature. The fan is long-lasting and low noise, reducing maintenance costs and improving the user experience.

## Technical Specification

### System

| | |
|---|---|
| Main Processor | Industrial-grade embedded processor |
| Operating System | Embedded Linux |
| Operation Interface | Web; local GUI |

### AI

| | |
|---|---|
| AI by Camera | Face detection; face recognition; perimeter protection; SMD Plus |
| AI by Device | Face detection; face recognition; perimeter protection; SMD Plus |

### Perimeter Protection

| | |
|---|---|
| Perimeter Performance AI by Device(Number of Channels) | 1 |
| Perimeter Performance of AI by Camera (Number of Channels) | 4 |

### Face Detection

| | |
|---|---|
| Face Attributes | 6 attibutes: Gender; age group (6); glasses; expressions (8); mouth mask; beard |
| Face Detection Performance of AI by Device (1080P) (Number of Channels) | 1 (up to 12 face images/second) |
| Face Detection Performance of AI by Camera (Number of Channels) | 5 |

### Face Recognition

| | |
|---|---|
| Face Database Capacity | Up to 10 face databases with 5,000 images |
| Face Recognition Performance of AI by Device (1080P) (Number of Channels) | 1 (up to 4 face images/second) |
| Face Recognition Performance of AI by Camera (Number of Channels) | 5 |

### SMD Plus

| | |
|---|---|
| SMD Plus by Device | 4 |
| SMD Plus by Camera | 6-channel SMD Plus (AI by camera): Detects tripwire and intrustion of human or vehicle; filters false alarms caused by leaves, raindrops and change of brightness away |

### Video

| | |
|---|---|
| Access Channel | 8 channels |
| Network Bandwidth | 80 Mbps for access, 80 Mbps for storage and 60 Mbps for forwarding. |
| Resolution | 12MP; 8MP; 5MP; 4MP; 3MP; 2MP; 720p; D1 |
| Decoding Capability | AI disabled: 1-channel 12MP@30 fps; 1-channel 8MP@30 fps; 2-channel 5MP@30 fps; 3-channel 4MP@30 fps; 6-channel 1080p@30 fps<br>AI enabled: 1-channel 8MP@30 fps; 1-channel 5MP@30 fps; 2-channel 4MP@30 fps; 4-channel 1080p@30 fps |
| Video Output | 1 × VGA, 1 × HDMI (simultaneous) |
| Multi-screen Display | 1, 4, 8, 9 views |
| Third Party Camera Access | Onvif; RTSP |

### Compression

| | |
|---|---|
| Video | Smart H.265+; H.265; Smart H.264+; H.264; MJPEG |
| Audio | PCM; G711A; G711U; G726 |

### Network

| | |
|---|---|
| Network Protocol | HTTP; HTTPS; TCP/IP; IPv4; RTSP; UDP; NTP; DHCP; DNS; SMTP; UPnP; IP Filter; DDNS; Alarm Server; IP Search (Supports Dahua IP camera, DVR, NVS, etc.); P2P;Auto Registration |
| Mobile Phone Access | Android; iOS |
| Interoperability | ONVIF (profile T; profile S; profile G); CGI; SDK |
| Browser | Chrome; IE9 or later; Firefox |

### Record Playback

| | |
|---|---|
| Multi-channel Playback | Up to 8 channels |
| Record Mode | Manual record; alarm recordings; motion detection recordings; scheduled recordings |
| Storage | Local HDD and network |
| Backup | USB device |
| Playback Function | 1. Play; pause; stop; fast forward; fast backward; rewind; play by frame<br>2. Full screen; backup (vide clip/file); partially zom in; audio on/off |

### Alarm

| | |
|---|---|
| General Alarm | Motion detection; privacy masking; video loss; PIR alarm; IPC alarm |
| Anomaly Alarm | Camera offline; storage error; disk full; IP conflict; MAC conflict; login lock; cyber security exception |
| Intelligent Alarm | Face detection; face recognition; perimeter protection (intrusion and tripwire); IVS; SMD Plus |
| Alarm Linkage | Recording; snapshot; buzzer; log; preset; email; tour |

### External Port

| | |
|---|---|
| HDD | 1 SATA port, up to 10 TB. The maximum HDD capacity varies with environment temperature |
| USB | 1 × front USB2.0; 1 × back USB2.0 |
| HDMI | 1 (max. resolution: 4K) |
| VGA | 1 |
| Network | 1 × RJ-45 (10 or 100 Mbps) |
| RCA Input | 1 |
| RCA Output | 1 |
| RCA Output | 1 |

### General Parameter

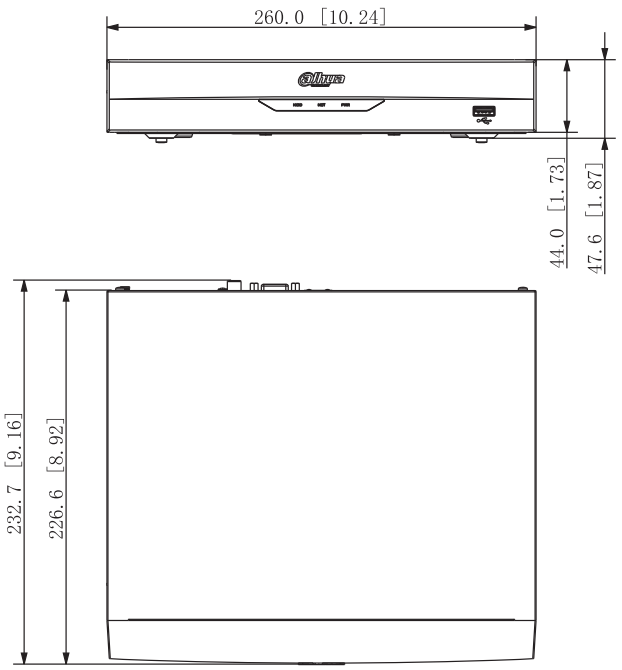
| | |
|---|---|
| Power Supply | 12 VDC, 1.5 A |
| Power Consumption | Total output of NVR is ≤ 10 W (without HDD) |
| Net Weight | 0.81 kg (1.79 lb) |
| Gross weight | 1.38 kg (3.04 lb) |

| | |
|---|---|
| Product Dimensions | 260 mm × 232.7 mm × 47.6 mm (10.24" × 9.16" × 1.87") (W × L × H) |
| Package Dimensions | 89 mm × 333 mm × 315 mm (3.50" × 13.11" × 12.40") (W × L × H) |
| Operating Temperature | –10 °C to +55 °C (+14 °F to +131 °F) |
| Storage Temperature | 0 °C to 40 °C (32 °F to 104 °F) |
| Operating Humidity | 10%–93% |
| Storage Humidity | 30%–85% |
| Operating Altitude | 3,000 m (9,842.52 ft) |
| Installation | Desktop |
| Certifications | FCC: 47 CFR FCC Part15, SubpartB, Class A<br>CE-EMC: EN 55032: 2015, Class A; EN IEC 61000-3-2: 2019; EN 61000-3-3: 2013+A1: 2019; EN 55024: 2010+A1: 2015; EN 55035: 2017; EN 50130-4: 2011+A1: 2014<br>CE-LVD: EN 62368-1: 2014+A11: 2017 |

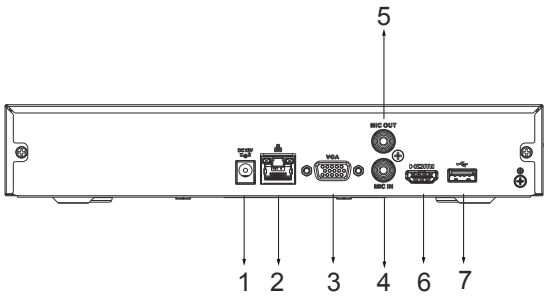
## Ordering Information

| Type | Model | Description |
|---|---|---|
| 8 Channel WizSense NVR | DHI-NVR2108HS-I2 | 8 Channel Compact 1U WizSense Network Video Recorder |

## Dimensions (mm[inch])




## Panels




| | | | |
|---|---|---|---|
| 1 | DC 12V Power Input | 2 | Network Port |
| 3 | VGA Port | 4 | AUDIO IN, RCA Connector |
| 5 | AUDIO OUT, RCA Connector | 6 | HDMI Port |
| 7 | USB Port | | |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