

# DHI-NVR4432-EI

32CH 1.5U 4HDDs WizSense Network Video Recorder



**Wiz Sense**

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

NVR4000-EI series is a new generation of network recorders that offers powerful decoding capabilities, and strong bandwidth. It features high-precision face recognition, perimeter protection, and SMD (Smart Motion Detection), which can distinguish target vehicles and humans from other types in real time. When connected with select IPC cameras, Quick Pick technology becomes available, allowing human and vehicle targets to be easily searched for and picked out. This network recorder is not only cost-effective, but also compatible with a wide variety of third-party devices, making it a great choice for small and medium-sized businesses.

## 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 that in face database.

- Supports Smart H.265+, H.265, Smart H.264+, H.264 and MJPEG decoding formats.
- Max. 256 Mbps incoming/recording/outgoing bandwidth.
- Max. decoding capability: 16 × 1080p@30 fps or 4 × 8 MP@30 fps.
- Supports IP cameras with a resolution up to 16 MP.
- AI by Recorder supports 1-channel face detection and recognition, 2-channel perimeter protection, up to 10 face databases and 20,000 face images, 4-channel SMD.
- AI by Camera supports face detection and recognition, perimeter protection, SMD, ANPR, people counting, stereo analysis, heat map.
- Supports EPTZ, and one-click arming and disarming.



### 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.

### 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.

### 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.

Technical Specification		Audio and Video	
System		Access Channel	32 channels
Main Processor	Industrial-grade processor	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
Operating System	Embedded Linux	Resolution	16 MP;12 MP;8 MP;6 MP;5 MP;4 MP;3 MP;1080p;720p;960p;D1;CIF
Operating Interface	Web, Local GUI	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; 16-channel 1080p@30 fps; 32-channel 720p@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; 12-channel 1080p@30 fps; 16-channel 720p@30 fps; 32-channel D1@30 fps
AI		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.
AI by Recorder	Face detection; face recognition; perimeter protection; and SMD	Multi-screen Display	1st Screen: 1/4/8/9/16/25/36 2nd Screen: 1/4/8/9/16
AI by Camera	Face detection; face recognition; perimeter protection; SMD; ANPR; people counting; stereo analysis; heat map	Third-party Camera Access	Panasonic, Sony, Hanwha, Axis, Pelco, Arecont, ONVIF, Canon
Perimeter Protection		Compression Standard	
Perimeter Performance AI by Recorder (Number of Channels)	2 channels, 10 IVS rules for each channel	Video Compression	Smart H.265+; H.265; Smart H.264+; H.264; MJPEG
Perimeter Performance of AI by Camera (Number of Channels)	All channels (8 targets/s)	Audio Compression	G.711a; G.711u; PCM; G726
Face Detection		Network	
Face Attributes	Gender; age group; glasses; expressions; face mask; beard	Network Protocol	HTTP; HTTPS; TCP/IP; IPv4; IPv6; RTSP; 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 Registration
Face Detection Performance of AI by Recorder (Number of Channels)	1 channel (up to 12 face images/s each channel)	Mobile Phone Access	iOS; Android
Face Detection Performance of AI by Camera (Number of Channels)	All channels (8 targets/s)	Interoperability	ONVIF 23.12(Profile T; Profile S; Profile G); CGI; SDK
Face Recognition		Browser	Chrome; IE9 and later; Firefox
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.	Recording Playback	
Face Recognition Performance of AI by Recorder (Number of Channels)	8-channel FD (by camera) + FR (by recorder),image stream: 12 face images/s 1-channel FD (by recorder) + FR (by recorder), video stream: 12 face images/s	Multi-channel Playback	Up to 16 channels
Face Recognition Performance of AI by Camera (Number of Channels)	All channels (8 targets/s)	Record Mode	General, motion detection; intelligent; alarm
SMD Plus		Backup Method	USB device and network
SMD Plus by Recorder	4 channels: Secondary filtering for human and motor vehicle, reducing false alarms caused by leaves, rain and lighting condition change	Playback Mode	Instant playback, general playback, event playback, tag playback, smart playback
SMD by Camera	All channels (16 targets/s)	Storage	
Vehicle License Plate Comparison		Disk Group	Yes
ANPR by Camera (Number of Channels)	All channels (4 targets/s)	Alarm	
License Plate Database Capacity	1. Create up to 20,000 plate numbers. 2. Blocklist and allowlist	General Alarm	Motion detection; privacy masking; video loss; scene changing; PIR alarm; IPC external alarm
		Anomaly Alarm	Error (no disk; disk error; low space; low quota space; abnormal disk health; network disconnection; IP conflict; MAC conflict); video loss; video tampering; camera offline; audio detection

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
<b>Port</b>	
Audio Input	1-channel RCA
Audio Output	1-channel RCA
Alarm Input	16 channels
Alarm Output	4 channels
Disk Interface	4 SATA ports, up to 20 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	2 (10/100/1000 Mbps Ethernet port, RJ-45)
<b>General</b>	
Power Supply	100–240 VAC, 50–60Hz
Power Consumption	<10 W (without HDD)
Net Weight	4.25 kg (9.37 lb)
Gross Weight	6.35 kg (14.00 lb)
Product Dimensions	440.0 mm × 415.6 mm × 76.0 mm (17.32" × 16.36" × 2.99") (W × D × H)
Packaging Dimensions	529.0 mm × 499.0 mm × 211.0 mm (20.83" × 19.65" × 8.31") (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
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

## Accessories

Optional:

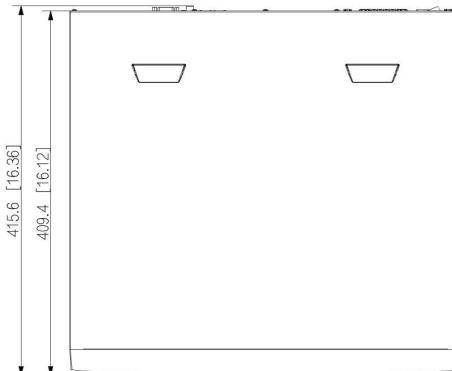
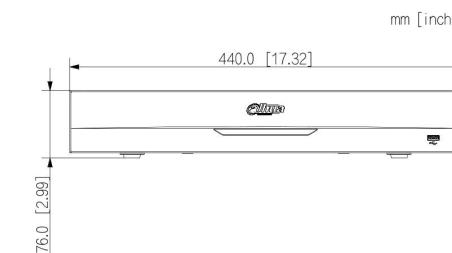


DHI-ARB1606  
Alarm Box



DHI-RailBracket60/L-Shaped  
Dahua Server Cabinet Rail Bracket

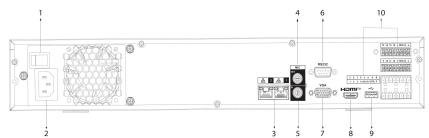
## Dimensions (mm[inch])



## Ordering Information

Type	Model	Description
NETWORK VIDEO RECORDER	DHI-NVR4432-EI	32CH 1.5U 4HDDs WizSense Network Video Recorder
	DHI-ARB1606	Alarm Box
Accessories (Optional)	DHI-RailBracket60/L-Shaped	Dahua Server Cabinet Rail Bracket

## Panels



1 Power Switch	2 Power Input
3 Network Ports	4 MIC/OUT RCA Connector
5 MIC IN/RCA Connector	6 RS-232 Port
7 VGA Port	8 HDMI Port
9 USB Port	10 Alarm In/Out