



DHI-NVR4432-EI

32CH 1.5U 4HDDs 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

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 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.

- · Smart H.265+/H.265/Smart H.264+/H.264/MJPEG decoding format.
- · Access, storage or forwarding at 256 Mbps (180 Mbps when Al function enabled).
- \cdot Max. decoding capability: 16 × 1080p@30 fps. Supports adaptive decoding.
- · Al by NVR: 1-channel face detection and recognition; 2-channel perimeter protection; up to 10 face databases and 20,000 face images; 4-channel SMD Plus.
- · Al by Camera: Face detection and recognition, perimeter protection; SMD Plus; ANPR; people counting; stereo analysis; heat map.
- · Connected to the third-party network cameras.
- · Security baseline 2.3.



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.

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.

Quick Pick

Dahua Quick Pick technology can enable users to quickly pick up the human/vehicle targets that they are interested in, which facilitates retrieval from SMD events.

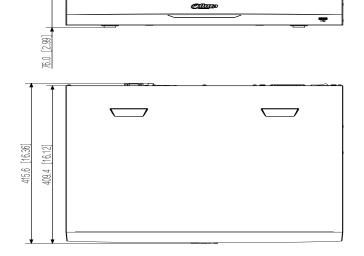
Main Processor Industrial-grade processor Operating System Embedded Linux Operating Interface Web; Local GUI All Web; Local GUI All by Recorder Face detection; face recognition; perimeter protection; SMD Plus; ANPR; people counting; stereo analysis; heat map Perimeter Protection Perimeter Performance Al by Recorder (Number of Channels) Face All System Embedded Linux Decoding Capability Al disabled: 2-channel 16 MP@30 fps; 2-channel 12 MP@30 fps; 8-channel 4 MP@30 fps; 16-channel 180P@30 fps; 8-channel 4 MP@30 fps; 16-channel 180P@30 fps; 3-channel 8 MP@30 fps; 2-channel 12 MP@30 fps; 8-channel 4 MP@30 fps; 2-channel 12 MP@30 fps; 8-channel 4 MP@30 fps; 16-channel 1 MP@30 fps; 3-channel 8 MP@30 fps; 2-channel 12 MP@30 fps; 6-channel 4 MP@30 fps; 2-channel 12 MP@30 fps; 6-channel 4 MP@30 fps; 16-channel 1 MP@30 fps; 6-ch					
New Processor	Technical Specification			Naturali Danduidth	and 256 Mbps outgoing Al enabled: 180 Mbps incoming, 180 Mbps recording and
Operating System Unbedded Linux Operating Interface Web; Local Guil Al Al by Recorder Al by Recorder Stand effection, face recognition, permater protection, and by Recorder Al by Recorder Al by Recorder Stand decetion, face recognition, permater protection, and by Recorder Al by Camera All by Recorder Chamnels All by Recorder All by Re	System		iverwork Bandwidth		
Operating interface Web) I coal citii Al Web I coal citii Al by Recorder More Some Pills Al by Camera Al by	Main Processor	Industrial-grade processor		Resolution	
A	Operating System	Embedded Linux			
All by Recorder Shade describer, face recognition, permeter protection, Soft Pius. Shade P	Operating Interface	Web; Local GUI			2-channel 16 MP@30 fps; 2-channel 12 MP@30 fps;
Aby Recorder SaD Piles SaD Piles SaD Piles SaD Piles Sad Detection, face recognition perimeter protection; Sad Piles ANR, prespir causiling; steme analysis, heat map Perimeter Protection Peri	Al			Decoding Capability	8-channel 4 MP@30 fps; 16-channel 1080p@30 fps
SMD Pilss, ANNR; people counting, stereo analysis; heat imperimeter Protection Perimeter Proteomance of Channels) A channels Achannels Achannels Achannels Achannels Achannels Achannels Gender; age group; glasses; expressions; face mask; perimeter protection Face Detection Face Detection Face Attributes Gender; age group; glasses; expressions; face mask; perimeter protection Face Detection Face Recognition Face Recognition Face Recognition Face Recognition Face Detection Face Detection Face Detection Face Detection Face Recognition	Al by Recorder			Decouning capability	1-channel 16 MP@30 fps; 2-channel 12 MP@30 fps;
Perimeter Protection Perimeter Protection Perimeter Performance of A by Necorder (Number of Channels) Face Detection Face Attributes Bead Performance of A by Recorder (Number of Channels) Face Detection Face Recognition Face Recognition Face Detection Face Recognition Face Detection Face Detection Face Recognition Face Detection Face Recognition Face Detection Face Detection Face Detection Face Detection Face Detection Face Recognition	Al by Camera	SMD Plus; ANPR; people counting; stereo analysis; heat			1 HDMI, 1 VGA
Perimeter Performance AI by Recorder (Number of Channels) 2 channels, 10 NS rules for each channel 2 channels, 20 NS rules for each channel 3 channels 4 channels 4 channels 5 channels 5 channels 6 channels 7 channels 6 channels 6 channels 7 channels 8 channels 9 channels 10 to 10 face database with 200,000 images, with a total capacity of 2.3 Cs. Name, gender, burthday, address, credental lyop, credential lyop,	Perimeter Protection			Video Output	720 VGA: 1920 × 1080, 1280 × 1024, 1280 × 720 *Simultaneous/heterogeneous video sources output for
Perimetre Performance of Al by Camera (Number of Channels) Face Detection Face Attributes Sender, age group; glasses; expressions; face mask; beard Face Detection Face Attributes Sender, age group; glasses; expressions; face mask; beard Face Detection Face Attributes Sender, age group; glasses; expressions; face mask; beard Face Detection Face Attributes Sender, age group; glasses; expressions; face mask; beard Face Detection Face Recognition Face Recognition Face Detection Face Recognition Face Detection Face Recognition Face Detection Face Recognition Face Recognit	by Recorder (Number of	2 channels, 10 IVS rules for each channel		·	
Face Detection Face Attributes Gender; age group; glasses, expressions, face mask; beard Face Detection Face Recognition Face Rec	Perimeter Performance of	9 abancals		Multi-screen Display	
Gender; age group; glasses; expressions; face mask; beard Video Compression Smart H.265+; H.265; Smart H.264+; H.264; MIPEG Video Compression Smart H.265+; H.265; Smart H.264+; H.264; MIPEG Audio Compression Smart H.265+; H.265; Smart H.264+; H.264; MIPEG Audio Compression Smart H.265+; H.265; Smart H.264+; H.264; MIPEG Audio Compression Smart H.265+; H.265; Smart H.264+; H.264; MIPEG Audio Compression Smart H.265+; H.265; Smart H.264+; H.264; MIPEG Audio Compression Smart H.265+; H.265; Smart H.264+; H.264; MIPEG Audio Compression Smart H.265+; H.265; Smart H.264+; H.264; MIPEG Audio Compression Smart H.265+; H.265; Smart H.264+; H.264; MIPEG Audio Compression Smart H.265+; H.265; Smart H.264+; H.264; MIPEG Audio Compression Smart H.265+; H.265; Smart H.264+; H.264; MIPEG Audio Compression Smart H.265+; H.265; Smart H.264+; H.264; MIPEG Audio Compression Smart H.265+; H.265; Smart H.264+; H.264; MIPEG Audio Compression Smart H.265+; H.265; Smart H.264+; H.264; MIPEG Audio Compression Smart H.265+; H.265; Smart H.264+; H.264; MIPEG Audio Compression Audio Compression Audio Compression Smart H.264+; H.264; MIPEG Audio Compression Audio Compression Audio Compression Audio Compression Audio Co	Channels)	8 CHAITHEIS			
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Recorder (Number of Channels) Face Detection Performance of Al by Camera (Number of Channels) Face Recognition Face Recogniti				Audio Compression	G.711a; G.711u; PCM; G726
Face Database Capacity Face Recognition Face Recognition Face Recognition Face Recognition Up to 10 face databases with 200,00 images, with a total capacity of 2,5 G. Name, gender, birthday, address, credential type, credential Noc, countries & regions and state can be added to each face images. Face Recognition Face Recognition Face Recognition Face Recognition Face Recognition Face Recognition Performance of Al by Recorder (Number of Channels) Face Recognition Face Recognition Performance of Al by Camera (Number of Channels) SMD Plus SMD Plus by Camera A channels SMD Plus by Camera B channels A chann	Recorder (Number of	1 channel (up to 12 face images/s each channel)		Network	
Face Database Capacity Face Database Capacity Face Database Capacity Face Recognition Face Recognitio	Performance of AI by Camera (Number of	8 channels		Network Protocol	SMTP; NTP; DHCP; DNS; IP Filter; PPPoE; DDNS; FTP; Alarm Server; IP Search (Support Dahua IP camera; DVR;
Face Database Capacity Face Patabase Capacity Interoperability Up to 10 face databases with 200,00 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) Face Recognition Performance of AI by Camera (Number of Channels) SMD Plus SMD Plus by Recorder A channels Secondary filtering for human and motor vehicle, reducing false alarms caused by leaves, rain and lighting condition change SMD Plus by Camera B channels Anomaly Alarm Camera disconnection; storage error, disk full; IP conflict; MAC conflict; Iogin locked; and cybersecurity exception ANPR by Camera (Number of Channels) License Plate Database Capacity Up to 16 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, smart playback Storage Disk Group Yes Alarm General Alarm Motion detection; privacy masking; video loss; scene changing; PIR alarm; IPC external alarm Camera disconnection; storage error, disk full; IP conflict; MAC conflict; login locked; and cybersecurity exception Face detection; face recognition; perimeter protection; SMD Plus; people counting; stereo analysis, heat map License Plate Database Capacity Alarm Linkage Record, make a channel alarm output; audio; buzzer; log; preset; email	•			Mobile Phone Access	iOS; Android
Face Database Capacity credential type, credential No, countries & regions and state can be added to each face image. Recording Playback Multi-channel Playback Multi-channel Playback Multi-channel Playback Multi-channel Playback Up to 16 channels Record Mode General, motion detection; intelligent; alarm Record Mode Backup Method USB device and network Backup Method USB device and network Playback, smart playback, event playback, tag playback, smart playback, smart playback, event playback, tag playback, smart playback, sm	race necognition			Interoperability	ONVIF 22.06(Profile T; Profile S; Profile G); CGI; SDK
Recording Playback Recording Playback Multi-channel Playback Multi-channel Playback Multi-channel Playback Multi-channel Playback Multi-channel Playback Multi-channels Record Mode General, motion detection; intelligent; alarm Record Mode Backup Method USB device and network Playback, general playback, event playback, tag playback, smart playback,	Face Database Capacity	total capacity of 2.5 G. Name, gender, birthday, address, credential type, credential No., countries & regions and		Browser	Chrome; IE9 and later; Firefox
Face Recognition Performance of Al by Recorder (Number of Channels) Face Recognition Performance of Al by Recorder (Number of Channels) Face Recognition Performance of Al by Recorder (Number of Channels) SMD Plus SMD Plus by Recorder SMD Plus by Camera SMD Plus by Camera Recond Mode Seneral, motion detection; intelligent; alarm Record Mode Backup Method USB device and network Playback, general playback, general playback, tag playback, smart playback, smart playback, smart playback, smart playback, smart playback, tag playback, smart playback, smart playback, smart playback, smart playback, smart playback, tag playback, smart playback,				Recording Playback	
Performance of Al by Recorder (Number of Channels) Face Recognition Performance of Al by Camera (Number of Channels) SMD Plus SMD Plus by Camera 8 channels Alarm Vehicle License Plate Comparison ANPR by Camera (Number of Channels) License Plate Database Capacity 1. Create up to 20,000 plate numbers. 2. Blocklist and allowlist Record Mode General, Mode USB device and network Instant playback, general playback, event playback, tag playback, event playback, tag playback, event playback, tag playback, event playback, event playback, tag playback, event playback event playback, event playback event playback, event playback event playback	Face Peccapition	Calcarda IFD (humanaan) + FD (humanaan) inna		Multi-channel Playback	Up to 16 channels
Face Recognition Performance of Al by Camera (Number of Channels) 8 channels 8 channels 8 channels 8 channels 9 layback Mode Instant playback, general playback, tag playback, smart playback, smart playback, smart playback, smart playback, smart playback Storage Stor	Performance of AI by	stream: 12 face images/s		Record Mode	General, motion detection; intelligent; alarm
Performance of AI by Camera (Number of Channels) SMD Plus SMD Plus by Recorder SMD Plus by Camera A channels: Secondary filtering for human and motor vehicle, reducing false alarms caused by leaves, rain and lighting condition change SMD Plus by Camera SMD Plus by Camera 8 channels Camera disconnection; storage error; disk full; IP conflict; MAC conflict; login locked; and cybersecurity exception ANPR by Camera (Number of Channels) ANPR by Camera (Number of Channels) License Plate Database Capacity Alarm Linkage Playback Mode playback, smart playback Playback Mode	,			Backup Method	USB device and network
Storage 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 8 channels Vehicle License Plate Comparison ANPR by Camera (Number of Channels) License Plate Database Capacity 2 Storage Disk Group Yes Alarm Motion detection; privacy masking; video loss; scene changing; PIR alarm; IPC external alarm Motion detection; privacy masking; video loss; scene changing; PIR alarm; IPC external alarm Motion detection; privacy masking; video loss; scene changing; PIR alarm; IPC external alarm Motion detection; privacy masking; video loss; scene changing; PIR alarm; IPC external alarm Camera disconnection; storage error; disk full; IP conflict; MAC 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	Performance of AI by	8 channels		Playback Mode	
SMD Plus by Recorder 4 channels: Secondary filtering for human and motor vehicle, reducing false alarms caused by leaves, rain and lighting condition change 5MD Plus by Camera 8 channels Vehicle License Plate Comparison ANPR by Camera (Number of Channels) License Plate Database Capacity A channels A channels A channels Alarm Alarm 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				Storage	
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 8 channels Anomaly Alarm Camera disconnection; storage error; disk full; IP conflict; MAC conflict; login locked; and cybersecurity exception ANPR by Camera (Number of Channels) ANPR by Camera (Number of Channels) License Plate Database Capacity Alarm Linkage Motion detection; privacy masking; video loss; scene changing; PIR alarm; IPC external alarm Motion detection; privacy masking; video loss; scene changing; PIR alarm; IPC external alarm Motion detection; privacy masking; video loss; scene changing; PIR alarm; IPC external 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	SMD Plus			Disk Group	Yes
SMD Plus by Recorder vehicle, reducing false alarms caused by leaves, rain and lighting condition change SMD Plus by Camera 8 channels Vehicle License Plate Comparison ANPR by Camera (Number of Channels) License Plate Database Capacity Alarm Linkage General Alarm Motion detection; privacy masking; video loss; scene changing; PIR alarm; IPC external alarm Motion detection; privacy masking; video loss; scene changing; PIR alarm; IPC external alarm Camera disconnection; storage error; disk full; IP conflict; MAC conflict; MAC conflict; MAC conflict; MAC conflict; pogin 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	SMD Plus by Recorder	vehicle, reducing false alarms caused by leaves, rain and		Alarm	
Vehicle License Plate Comparison ANPR by Camera (Number of Channels) 4 channels License Plate Database Capacity Anomaly Alarm Anomaly Alarm Conflict; MAC conflict; login locked; and cybersecurity exception 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				General Alarm	
Vehicle License Plate Comparison exception ANPR by Camera (Number of Channels) 4 channels Intelligent Alarm Face detection; face recognition; perimeter protection; SMD Plus; people counting; stereo analysis; heat map License Plate Database Capacity 1. Create up to 20,000 plate numbers. 2. Blocklist and allowlist Alarm Linkage Record; snapshot; IPC external alarm output; audio; buzzer; log; preset; email	SMD Plus by Camera	8 channels		An amalu Ala	
of Channels License Plate Database Capacity Alarm Linkage SMD Plus; people counting; stereo analysis; heat map Alarm Linkage Record; snapshot; IPC external alarm output; audio; buzzer; log; preset; email	Vehicle License Plate	Comparison		Anomaly Alairii	
Capacity 2. Blocklist and allowlist buzzer; log; preset; email		4 channels		Intelligent Alarm	
Audio and Video Port				Alarm Linkage	
	Audio and Video			Port	
Access Channel 32 channels Audio Input 1-channel RCA	Access Channel	32 channels		Audio Input	1-channel RCA

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Audio Output	1-channel RCA			
Alarm Input	16 channels			
Alarm Output	4 channels			
HDD Interface	$4\mbox{SATA}$ 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	2 (10/100/1000 Mbps Ethernet port, RJ-45)			
General				
Power Supply	100–240 VAC, 50-60Hz			
Power Consumption	<10 W(without HDD)			
Net Weight	4.25 kg (10.63 lb)			
Gross Weight	6.35 kg (14.00 lb)			
Product Dimensions	440.0 mm × 415.6 mm x 76.0 mm (17.32" × 16.36" × 2.99") (W × D × H)			
Packaging Dimensions	529.0 mm × 499.0 mm x 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)			
Installation	Rack or desktop			
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			

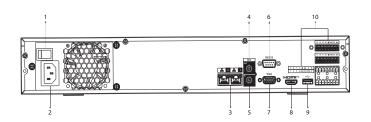
Ordering Information				
Туре	Model	Description		
32 Channels WizSense NVR	DHI-NVR4432-EI	32CH 1.5U 4HDDs WizSense Network Video Recorder		

Dimensions (mm[inch])



440.0 [17.32]

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