



DHI-NVR5432-16P-EI

32 Channels 1.5U 16PoE 4HDD 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	8 channels	
Main Processor	Industrial-grade processor		of Channels)		
Operating System	Embedded Linux		License Plate Database Capacity	 Create up to 20,000 plate numbers. Blocklist and allowlist 	
Operating Interface	Web, Local GUI		Audio and Video		
Al			Access Channel	32	
Al by Recorder	Face detection; face recognition; video metadata (human, motor vehicles, and non-motor vehicles);		Network Bandwidth	Al disabled: 384 Mbps incoming, 384 Mbps recording and 384 Mbps outgoing	
AI by Camera				Al enabled: 200 Mbps incoming, 200 Mbps recording and 200 Mbps outgoing 32 MP; 24 MP; 16 MP; 12 MP; 8 MP; 5 MP; 4 MP; 1080p;	
			Resolution	720p; D1; CIF; QCIF Al disabled:	
Perimeter Protection			Decoding Capability	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; 12-channel 5 MP@30 fps; 16-channel 4 MP@30 fps; 32-channel 1080p@30 fps Al enabled:	
Perimeter Performance AI by Recorder (Number of Channels)	4 channels, 10 IVS rules for each channel				
Perimeter Performance of Al by Camera (Number of Channels)	16 channels			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; 12-channel 4 MP@30 fps; 24-channel 1080p@30 fps	
Face Detection				2-channel VGA, 2-channel HDMI video output.	
Face Attributes Face Detection	Gender; age group; glasses; expressions; face mask; beard		Video Output	Heterogeneous video source output for HDMI1 and HDMI2 Simultaneous video source output for VGA1 and HDMI1 Simultaneous video source output for VGA2 and HDMI2	
Performance of AI by Recorder (Number of Channels)	2 channels (up to 12 face images/s each channel)		Multi-screen Display	Supports 4K display Main screen: 1/4/8/9/16/25/36 Sub screen: 1/4/8/9/16	
Face Detection Performance of AI by	16 channels		Third-party Camera Access	ONVIF; Panasonic; Sony; Axis; Arecont; Pelco; Canon; Samsung	
Camera (Number of Channels)	to channels		Compression Standard		
Face Recognition			Video Compression	Smart H.265+; H.265; Smart H.264+; H.264; MJPEG	
	Up to 20 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.		Audio Compression	G.711a; G.711u; PCM; G726	
Face Database Capacity			Network	HITTO HITTOS TODANO NO ANTO HOD CAMAD ANTO	
Face Recognition Performance of AI by Recorder (Number of	1. 16-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		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	
Channels)			Mobile Phone Access	iOS; Android	
Face Recognition Performance of AI by	16 channels		Interoperability	ONVIF 21.12(Profile T; Profile S; Profile G); CGI; SDK	
Camera (Number of Channels)			Browser	Chrome IE 9 or later Firefox	
SMD Plus			Recording Playback		
SMD Plus by Recorder	8 channels: Secondary filtering for human and motor vehicle, reducing false alarms caused by leaves, rain and lighting condition change		Multi-channel Playback	Up to 16 channels	
SMD Plus by Camera	16 channels		Record Mode	General, motion detection; intelligent; alarm; POS	
Video Metadata			Backup Method	USB device and network	
Metadata Performance of Al by Camera (Number of	8 channels		Playback Mode	Instant playback, general playback, event playback, tag playback, smart playback (face and motion detection)	
Channels)	Ton color ton type bottom color bottom type bot box		Storage		
Human Attributes	Top color, top type, bottom color, bottom type, hat, bag, age, gender and umbrella		Disk Group	YES	
Motor Vehicle Attributes	License plate, plate color, vehicle body, vehicle model, vehicle logo, calling, seatbelt, vehicle interior, vehicle registration location.		Alarm		
Non-motor Vehicle Attributes	Vehicle model, vehicle color, number of persons, helmet.		General Alarm	Motion detection; privacy masking; local alarm	

Attributes

Wiz Sense | DHI-NVR5432-16P-EI

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

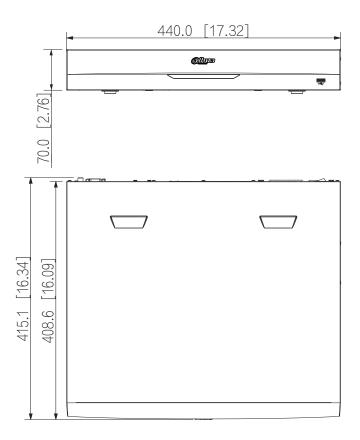
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Audio Input	1-channel RCA
Audio Output	2-channel RCA
Alarm Input	16 channels
Alarm Output	6 channels (1-channel 12 V 1 A output)
HDD Interface	$4\mbox{SATA}$ ports, up to $16\mbox{TB.The}$ maximum HDD capacity varies with environment temperature.
eSATA	1
RS-232	1
RS-485	1 (half-duplex serial communication)
USB	3(1 front USB 2.0 port, 2 rear USB 3.0 ports)
HDMI	2
VGA	2
Network Port	1 (10/100/1000 Mbps Ethernet port, RJ-45)
PoE Port	16 ports, 10/100 Mbps, IEEE 802.3 af/at, 1-8 ports support ePoE

General	
Power Supply	100–240 VAC, 50-60 Hz
Power Consumption	Total output of NVR is \leq 13 W (without HDD) Total output power of PoE is 150 W, the maximum output power of a single port is 25.5 W
Net Weight	4.82 kg (10.63 lb)
Gross Weight	7.09 kg (15.63 lb)
Product Dimensions	440.0 mm × 415.1 mm x 70.0 mm (17.32" × 16.34" × 2.76") (W ×D × H)
Packaging Dimensions	530.0 mm × 500.0 mm × 210.0 mm (20.87" × 19.69" × 8.27")(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 Type Model Description 32 Channels DHI-NVR5432- 32 Channels 1.5U 16PoE 4HDD WizSense NVR 16P-EI WizSense Network Video Recorder

Dimensions (mm[inch])



Panels

