

DHI-NVR4216-16P-EI

16CH 1U 16PoE 2HDDs 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 \times 1080p@30 fps. Supports adaptive decoding.
- AI 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; people counting; stereo analysis; heat map.
- \cdot 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

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.

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.

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.

Wiz Sense | DHI-NVR4216-16P-EI

Technical Specification			AI disabled: 2-channel 16 MP@30 fps; 2-channel 12 MP@30 fps; 4-channel 8 MP@30 fps; 6-channel 5 MP@30 fps; 8-channel 4 MP@30 fps; 16-channel 1080p@30 fps	
System				
Main Processor	Industrial-grade processor	Decoding Capability	Al enabled: 1-channel 16 MP@30 fps; 2-channel 12 MP@30 fps; 3-channel 8 MP@30 fps; 4-channel 5 MP@30 fps; 6-channel 4 MP@30 fps; 12-channel	
Operating System	Embedded Linux			
Operating Interface	Web; Local GUI		1080p@30 fps	
Al			1 HDMI, 1 VGA HDMI: 3840 × 2160, 1920 × 1080, 1280 × 1024, 1280 ×	
AI by Recorder	Face detection, face recognition, perimeter protection, and SMD Plus	Video Output	720 VGA: 1920 × 1080, 1280 × 1024, 1280 × 720 *Simultaneous/heterogeneous video sources output for VGA and HDMI is configurable.	
AI by Camera	Face detection; face recognition; perimeter protection; SMD Plus; people counting; stereo analysis; heat map	Multi-screen Display	1st Screen: 1/4/8/9/16 2nd Screen: 1/4/8/9/16	
Perimeter Protection		Third-party Camera	Panasonic, Sony, Samsung, Axis, Pelco, Arecont, ONVIF,	
Perimeter Performance AI by Recorder (Number of Channels)	2 channels, 10 IVS rules for each channel	Access Compression Standa	Canon	
Perimeter Performance of		Video Compression	Smart H.265+; H.265; Smart H.264+; H.264; MJPEG	
AI by Camera (Number of Channels)	8 channels			
Face Detection		Audio Compression	G.711a; G.711u; PCM; G726	
	Gender; age group; glasses; expressions; face mask;	Network		
Face Attributes Face Detection Performance of AI by	beard	Network Protocol	HTTP; HTTPS; TCP/IP; IPv4/IPv6; 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 register	
Recorder (Number of Channels)		Mobile Phone Access	iOS; Android	
Face Detection Performance of AI by	8 channels	Interoperability	ONVIF 22.06(Profile T; Profile S; Profile G); CGI; SDK	
Camera (Number of Channels)		Browser	Chrome; IE9 and later; Firefox	
Face Recognition		Recording Playback	Recording Playback	
	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.	Multi-channel Playback	Up to 16 channels	
Face Database Capacity		Record Mode	General, motion detection; intelligent; alarm	
Face Recognition	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	Backup Method	USB device and network	
Performance of AI by Recorder (Number of		Playback Mode	Instant playback, general playback, event playback, tag playback, smart playback	
Channels)		Storage		
Face Recognition Performance of AI by	8 channels	Disk Group	Yes	
Camera (Number of Channels)		Alarm		
SMD Plus		General Alarm	Motion detection; privacy masking; video loss; scene changing; PIR alarm; IPC external alarm	
SMD Plus by Recorder	4 channels: Secondary filtering for human and motor vehicle, reducing false alarms caused by leaves, rain and lighting condition change	Anomaly Alarm	Camera disconnection; storage error; disk full; IP conflict; MAC conflict; login locked; and cybersecurity exception	
SMD Plus by Camera	8 channels	Intelligent Alarm	Face detection; face recognition; perimeter protection; SMD Plus; people counting; stereo analysis; heat map	
Audio and Video		Alarm Linkage	Record; snapshot; IPC external alarm output; audio; buzzer; log; preset; email	
Access Channel	16 channels	Port	-,,,,,,,,,	
Network Bandwidth	Al disabled: 256 Mbps incoming, 256 Mbps recording and 256 Mbps outgoing Al enabled: 180 Mbps incoming, 180 Mbps recording and	Audio Input	1-channel RCA	
	180 Mbps outgoing	Audio Output	1-channel RCA	
Resolution	16 MP; 12 MP; 8 MP; 6 MP; 5 MP; 4 MP; 3 MP; 1080p; 960p; 720p; D1; CIF	Alarm Input	4 channels	
		Alarm Output	2 channels	

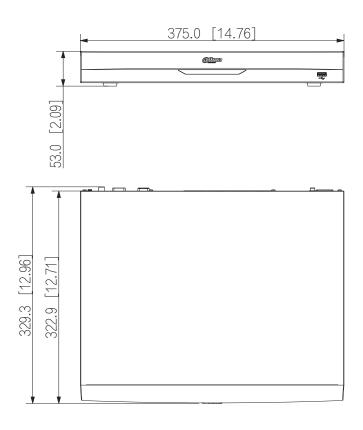
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HDD Interface	2 SATA ports, up to 16 TB.The maximum HDD capacity varies with environment temperature.			
RS-232	1			
USB	2 (1 front USB 2.0 port, 1 rear USB 2.0 port)			
HDMI	1			
VGA	1			
Network Port	1 (10/100/1000 Mbps Ethernet port, RJ-45)			
PoE Port	16 ports, 10/100 Mbps, IEEE 802.3 af/at			
General				
Power Supply	100–240 VAC, 47-63 Hz			
Power Consumption	Total output of NVR is <10 W(without HDD) Total output power of PoE is 130W,the maximum output power of asingle port is 25.5W			
Net Weight	2.60 kg (5.73 lb)			
Gross Weight	3.80 kg (8.38 lb)			
Product Dimensions	375.0 mm × 329.3 mm x 53.0 mm (14.76" × 12.96" × 2.09") (W × L × H)			
Packaging Dimensions	451.0 mm × 425.0 mm × 147.0 mm (17.75" × 16.73" × 5.79") (W × L × 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			

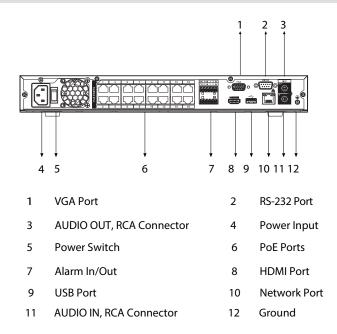
Ordering Information

Туре	Model	Description
16 Channels	DHI-NVR4216-	16CH 1U 16PoE 2HDDs WizSense
WizSense NVR	16P-EI	Network Video Recorder

Dimensions (mm[inch])



Panels



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