

# DHI-NVR4216-EI

16CH 1U 2HDDs 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 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. · 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).
- 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; people counting; stereo analysis; heat map.
- $\cdot$  Connected to the third-party network cameras.

· Security baseline 2.3.



#### 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.

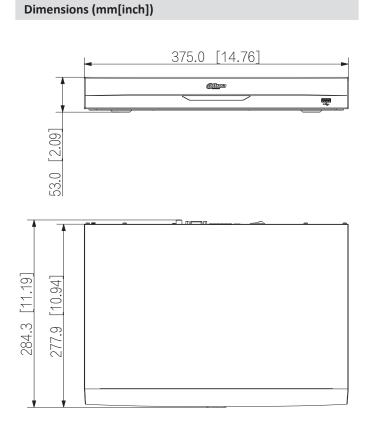
## Wiz Sense | DHI-NVR4216-EI

Technical Specification	on			
System			Deservices	
Main Processor	Industrial-grade processor		Decoding	
Operating System	Embedded Linux			
Operating Interface	Web; Local GUI			
AI			Video Ou	
AI by Recorder	Face detection, face recognition, perimeter protection, and SMD Plus;			
AI by Camera	Face detection; face recognition; perimeter protection; SMD Plus; ANPR; people counting; stereo analysis; heat map		Multi-scr	
Perimeter Protection			Third-par Access	
Perimeter Performance Al by Recorder (Number of	2 channels, 10 IVS rules for each channel		Compre	
Channels) Perimeter Performance of			Video Co	
AI by Camera (Number of Channels)	8 channels		Audio Co	
Face Detection			Netwo	
Face Attributes	Gender; age group; glasses; expressions; face mask; beard		Network	
Face Detection Performance of AI by Recorder (Number of	1 channel (up to 12 face images/s each channel)		Mobile P	
Channels)			Interope	
Face Detection Performance of AI by Camera (Number of	8 channels		Browser	
Channels)			Record	
Face Recognition			Multi-cha	
	Up to 10 face databases with 200,00 images, with a		Record N	
Face Database Capacity	total capacity of 2.5 G. Name, gender, birthday, address, credential type, credential No., countries & regions and		Backup N	
	state can be added to each face image.		Playback	
Face Recognition Performance of AI by	8-channel FD (by camera) + FR (by recorder),image stream: 12 face images/s		Storage	
Recorder (Number of Channels)	1-channel FD (by recorder) + FR (by recorder), video stream: 12 face images/s		Disk Grou	
Face Recognition			Alarm	
Performance of AI by Camera (Number of Channels)	8 channels		General A	
SMD Plus			Anomaly	
SMD Plus by Recorder	4 channels: Secondary filtering for human and motor vehicle, reducing false alarms caused by leaves, rain and lighting condition change		Intelligen	
SMD Plus by Camera	8 channels		Alarm Lin	
Audio and Video			Port	
Access Channel	16 channels		Audio Inp	
Network Bandwidth	Al disabled: 256 Mbps incoming, 256 Mbps recording and 256 Mbps outgoing Al enabled: 180 Mbps incoming, 180 Mbps recording and 180 Mbps outgoing		Audio Ou	
			Alarm Inp	
Resolution	16 MP; 12 MP; 8 MP; 6 MP; 5 MP; 4 MP; 3 MP; 1080p; 960p; 720p; D1; CIF		Alarm Ou	

Decoding Capability	Al 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 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 1080p@30 fps			
/ideo 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.			
Multi-screen Display	1st Screen: 1/4/8/9/16 2nd Screen: 1/4/8/9/16			
Third-party Camera Access	Panasonic, Sony, Samsung, Axis, Pelco, Arecont, ONVIF, Canon			
Compression Standard				
Video Compression	Smart H.265+; H.265; Smart H.264+; H.264; MJPEG			
Audio Compression	G.711a; G.711u; PCM; G726			
Network				
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			
Mobile Phone Access	iOS; Android			
nteroperability	ONVIF 22.06(Profile T; Profile S; Profile G); CGI; SDK			
Browser	Chrome; IE9 and later; Firefox			
Recording Playback				
Multi-channel Playback	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			
Storage				
Disk Group	Yes			
Alarm				
General 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			
ntelligent 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			
Port				
Audio Input	1-channel RCA			
Audio Output	1-channel RCA			
Alarm Input	4 channels			
Alarm Output	2 channels			

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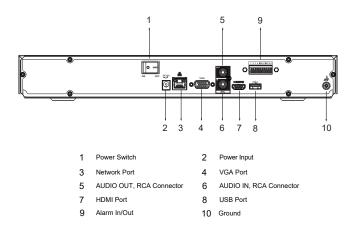
HDD Interface	2 SATA ports, up to 16 TB.The maximum HDD capacity varies with environment temperature.		
USB	2 (1 front USB 2.0 port, 1 rear USB 2.0 port)		
HDMI	1		
VGA	1		
Network Port	1 (10/100/1000 Mbps Ethernet port, RJ-45)		
General			
Power Supply	12 VDC, 4 A		
Power Consumption	<10 W(without HDD)		
Net Weight	1.51 kg (3.33 lb)		
Gross Weight	2.76 kg (6.08 lb)		
Product Dimensions	375 mm × 284.3 mm × 53 mm (14.76" × 11.19" × 2.09") (W × L × H)		
Packaging Dimensions	433 mm × 141 mm × 366 mm (17.05" × 5.55" × 14.41") (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		



Panels

#### **Ordering Information**

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



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