



# DHI-NVR4108HS-EI

## 8CH Compact 1U 1HDD 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 80 Mbps.
- $\cdot$  Max. decoding capability: 16 × 1080p@30 fps. Supports adaptive decoding.
- $\cdot$  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.
- · 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.

Technical Specification  Al disabled: 2-channel 16 MP@30 fps; 2-channel				
System			MP@30 fps; 4-channel 8 MP@30 fps; 6-channel 5 MP@30 fps; 8-channel 4 MP@30 fps	
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	
Operating System	Embedded Linux		5 MP@30 fps; 6-channel 4 MP@30 fps; 8-channel 1080p@30 fps	
Operating Interface	Web; Local GUI		1 HDMI, 1 VGA	
Al			HDMI: 3840 × 2160, 1920 × 1080, 1280 × 1024, 1280 ×	
Al 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.	
Al by Camera	Face detection; face recognition; perimeter protection; SMD Plus; ANPR; people counting; stereo analysis; heat map	Multi-screen Display	1st Screen: 1/4/8/9 2nd Screen: 1/4/8/9	
Perimeter Protection		Third-party Camera	Panasonic, Sony, Samsung, Axis, Pelco, Arecont, ONVIF,	
Perimeter Performance AI by Recorder (Number of	2 channels, 10 IVS rules for each channel	Access  Compression Standa	rd	
Channels)		Video Compression	Smart H.265+; H.265; Smart H.264+; H.264; MJPEG	
Perimeter Performance of Al by Camera (Number of Channels)	8 channels	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; UPnP; SNMP; UDP; SMTP; NTP; DHCP; DNS; IP Filter; PPPoE; DDNS; FTP; Alarm Server; IP Search (Support Dahua IP camera; DVR;	
Face Detection Performance of AI by Recorder (Number of	1 channel (up to 12 face images/s each channel)	Mobile Phone Access	NVS; etc.); P2P; auto register iOS; Android	
Channels)		Interoperability	ONVIF 22.06(Profile T; Profile S; Profile G); CGI; SDK	
Face Detection Performance of AI by	8 channels	Browser	Chrome; IE9 and later; Firefox	
Camera (Number of Channels)		Recording Playback	Cilionie, it a and later, Firefox	
Face Recognition		Multi-channel Playback	Up to 8 channels	
	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 Database Capacity		Record Mode	General, motion detection; intelligent; alarm  USB device and network	
		Backup Method	Instant playback, general playback, event playback, tag	
Face Recognition Performance of AI by	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	Playback Mode	playback, smart playback	
Recorder (Number of Channels)		Alarm		
Face Recognition	stream. 12 face images/3	General Alarm	Motion detection; privacy masking; video loss; scene changing; PIR alarm; IPC external alarm	
Performance of AI by Camera (Number of Channels)	8 channels	Anomaly Alarm	Camera disconnection; storage error; disk full; IP conflict; MAC conflict; login locked; and cybersecurity exception	
SMD Plus		Intelligent Alarm	Face detection; face recognition; perimeter protection; SMD Plus; people counting; stereo analysis; heat map	
SMD Plus by Recorder	4 channels: Secondary filtering for human and motor vehicle, reducing false alarms caused by leaves, rain and lighting condition change	Alarm Linkage	Record; snapshot; IPC external alarm output; audio; buzzer; log; preset; email	
SMD Plus by Camera	8 channels	Port		
Audio and Video		Audio Input	1-channel RCA	
	8 channels	Audio Output	1-channel RCA	
Access Channel	80 Mbps incoming, 80 Mbps recording and 80 Mbps	HDD Interface	1 SATA port, up to 16 TB.The maximum HDD capacity varies with environment temperature.	
Network Bandwidth	outgoing	USB	2 (1 front USB 2.0 port, 1 rear USB 2.0 port)	
Resolution	16 MP; 12 MP; 8 MP; 6 MP; 5 MP; 4 MP; 3 MP; 1080p; 960p; 720p; D1; CIF	HDMI	1	
		VGA		

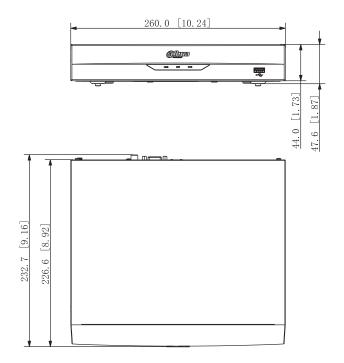
VGA

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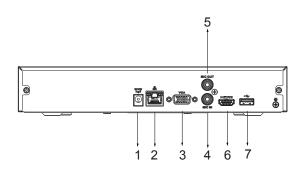
Network Port	1 (10/100 Mbps Ethernet port, RJ-45)			
General				
Power Supply	12 VDC, 2A			
Power Consumption	<7.8 W (without HDD)			
Net Weight	0.84 kg (1.85 lb)			
Gross Weight	1.43 kg (3.15 lb)			
Product Dimensions	260 mm × 232.7 mm × 47.6 mm (10.24" × 9.16" × 1.87") (W × L × H)			
Packaging Dimensions	333 mm $\times$ 89 mm $\times$ 315 mm (13.11" $\times$ 3.50" $\times$ 12.40") (W $\times$ L $\times$ 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		
8 Channels WizSense NVR	DHI-NVR4108HS-EI	8CH Compact 1U 1HDD WizSense Network Video Recorder		

### Dimensions (mm[inch])



#### **Panels**



- 1 DC 12V Power Input
- 2 Network Port
- 3 VGA Port
- 4 AUDIO IN, RCA Connector
- 5 AUDIO OUT, RCA Connector
- HDMI Port

7 USB Port