



DHI-NVR4204-EI

4CH 1U 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.

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 AI function enabled).
- \cdot Max. decoding capability: 16×1080 p@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.
- · 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.

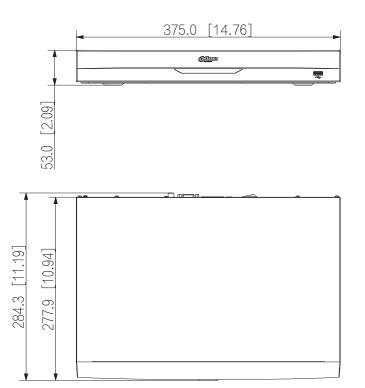
Technical Specification				AI disabled: 2-channel 16 MP@30 fps; 2-channel 12	
System			Decoding Capability	MP@30 fps; 4-channel 8 MP@30 fps Al enabled: 1-channel 16 MP@30 fps; 2-channel 12 MP@30 fps; 3-channel 8 MP@30 fps; 4-channel 5	
Main Processor	Industrial-grade processor			MP@30 fps	
Operating System	Embedded Linux		Video Output	1 HDMI, 1 VGA HDMI: 3840 × 2160, 1920 × 1080, 1280 × 1024, 1280 ×	
Operating Interface	Web; Local GUI			720 VGA: 1920 × 1080, 1280 × 1024, 1280 × 720	
Al	Al			*Simultaneous/heterogeneous video sources output for VGA and HDMI is configurable.	
Al by Recorder	Face detection, face recognition, perimeter protection, and SMD Plus;		Multi-screen Display	1st Screen: 1/4 2nd Screen: 1/4	
AI by Camera	Face detection; face recognition; perimeter protection; SMD Plus; ANPR; people counting; stereo analysis; heat map		Third-party Camera Access	Panasonic, Sony, Samsung, Axis, Pelco, Arecont, ONVIF, Canon	
Perimeter Protection			Compression Standard		
Perimeter Performance Al by Recorder (Number of Channels)	2 channels, 10 IVS rules for each channel		Video Compression	Smart H.265+; H.265; Smart H.264+; H.264; MJPEG	
			Audio Compression	G.711a; G.711u; PCM; G726	
Perimeter Performance of AI by Camera (Number of	4 channels		Network		
Channels) Face Detection	Conday, aga grayin, glassas, ayayassians, faca mask		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	
Face Attributes	Gender; age group; glasses; expressions; face mask; beard		Mobile Phone Access	iOS; Android	
Face Detection Performance of Al by	1 channel (up to 12 face images/s each channel)		Interoperability	ONVIF 22.06(Profile T; Profile S; Profile G); CGI; SDK	
Recorder (Number of Channels)	, , , ,		Browser	Chrome; IE9 and later; Firefox	
Face Detection Performance of AI by	4 channels		Recording Playback		
Camera (Number of Channels)			Multi-channel Playback	Up to 4 channels	
Face Recognition			Record Mode	General, motion detection; intelligent; alarm	
Face Database Capacity	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.		Backup Method	USB device and network	
			Playback Mode	Instant playback, general playback, event playback, tag playback, smart playback	
			Storage		
Face Recognition Performance of AI by	4-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		Disk Group	Yes	
Recorder (Number of Channels)			Alarm		
Face Recognition Performance of AI by	4 channels		General Alarm	Motion detection; privacy masking; video loss; scene changing; PIR alarm; IPC external alarm	
Camera (Number of Channels)			Anomaly Alarm	Camera disconnection; storage error; disk full; IP conflict; MAC conflict; login locked; and cybersecurity exception	
SMD Plus	A channels: Secondary filtering for human and mater		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	4 channels		Port		
Audio and Video			Audio Input	1-channel RCA	
Access Channel	4 channels		Audio Output	1-channel RCA	
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		Alarm Input	4 channels	
			Alarm Output	2 channels	
Resolution	16 MP; 12 MP; 8 MP; 6 MP; 5 MP; 4 MP; 3 MP; 1080p; 960p; 720p; D1; CIF		HDD Interface	2 SATA ports, up to 16 TB.The maximum HDD capacity varies with environment temperature.	
	3000, 7200, 01, 011		USB	2 (1 front USB 2.0 port, 1 rear USB 2.0 port)	

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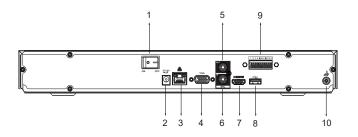
HDMI	1		
VGA	1		
Network Port	1 (10/100/1000 Mbps Ethernet port, RJ-45)		
General			
Power Supply	12 VDC, 4 A		
Power Consumption	<10 W(without HDD)		
Net Weight	1.51 kg (3.33 lb)		
Gross Weight	2.76 kg (6.08 lb)		
Product Dimensions	375 mm × 284.3 mm × 53 mm (14.76" × 11.19" × 2.09") (W × L × H)		
Packaging 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		

Ordering Information					
Туре	Model	Description			
4 Channels WizSense NVR	DHI-NVR4204-EI	4CH 1U 2HDDs WizSense Network Video Recorder			

Dimensions (mm[inch])



Panels



- 1 Power Switch
- 2 Power Input
- 3 Network Port
- 4 VGA Port
- 5 AUDIO OUT, RCA Connector
- 6 AUDIO IN, RCA Connector
- 7 HDMI Port
- 8 USB Port
- 9 Alarm In/Out
- 10 Ground