

DHI-NVR4216-I

16Channel 1U 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.

System Overview

Dahua new NVR4000-I network video recorder delivers excellent performance and high recording quality that is ideally suitable for IP video surveillance applications. This NVR adopts powerful processor, providing the capability of 4K resolution processing for applications where image details are highly required. Besides, the NVR supports input, recording and transmission functions. Additionally, the NVR can be served as edge storage, central storage or backup storage with an intuitive shortcut operation menu for remote management and control.

With build-in deep learning module, NVR4000-I series products adopt video image structuring technology based on deep learning algorithms, achieving high-precision human face recognition and perimeter protection. By applying deep learning artificial intelligence, NVR4000-I allows users to focus on what matters most, improves event response time and helps make video actionable.

The NVR is compatible with numerous third-party devices, which make it the perfect solution for surveillance systems that work independently of video management system (VMS).

Functions

Perimeter Protection

Automatically filtering out false alarms caused by animals, rustling leaves, bright lights, etc. Enables system to act secondary recognition for the targets. Improving alarm accuracy.

Real Time Face Recognition

Video stream & picture stream real time face recognition. Facial attributes analysis features including gender, age, expression, glasses, moustache, mouth mask. Identify people and also capture, record faces with metadata. Facial feature filtering while real time display, only show faces with target features.

- 16 Channel IP video access
- Smart H.265+/H.265/Smart H.264+/H.264/MJPEG
- Up to 4 Channel perimeter protection
- Up to 2 Channel video stream face recognition/8 channel picture stream face recognition (with FD camera)
- Up to 12 face pictures /sec processing
- Up to 10 face databases with 20,000 face images in total



Face Database Management

Configurable multiple face databases. Powerful face database management. Face database can be applied to video channels independently. Name, gender, birthday, address, certificate type, certificate No., countries®ions and state can be added to each face picture.

Common/Stranger Mode

NVR4000-I supports common and stranger mode. In stranger mode, when NVR detects a strange face(not in device's face database), it can trigger alarm, buzzer, snapshot, record, etc. Similarity threshold can be set manually. This function is developed for important infrastructure sites for which access control is critical.

AI Search

Support seach by metadata of human and vehicles. Support uploading face pictures to NVR and compare them with recorded faces in NVR 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.

ANPR

Automatic Number Plate Recognition available for convenient entrance/ exit management. Support license plate recognition(working with Dahua ITC camera), black/white list import/export, add/delete B/W list number, search result from recorded video.



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Technical Specification

System		
Main Processor	Multi-core embedded processor	
Operating System	Embedded LINUX	
Perimeter Protection		
Performance	4 channel, 10 IVS rules for each channel	
Object classification	Human/Vehicle secondary recognition for tripwire and intrusion	
Al Search	Search by target classification (Human, Vehicle)	
Face Recognition		
Performance	Max 12 face pictures /sec processing	
	2 channel video stream face recognition / 8 channel picture stream face recognition (with FD camera)	
Stranger Mode	Detect strangers' faces(not in device's face database). Similarity threshold can be set manually.	
Al Search	Up to 8 target face images search at same time, similarity threshold can be set for each target face image.	
Database Management	Up to 10 face databases with 20,000 face images in total. Name, gender, birthday, address, certificate type, certificate No., countries®ions and state can be added to each face picture.	
Database Application	Each database can be applied to video channels independently.	
Trigger Events	Buzzer, Voice Prompts, Email, Snapshot, Recording, Alarm Out, PTZ Activation, etc.	
Audio and Video		
IP Camera Input	16 Channel	
Two-way Talk	1 Channel Input, 1 Channel Output, RCA	
Display		
Interface	1 HDMI, 1 VGA	
Resolution	HDMI/VGA: 3840 x 2160, 1920 x 1080 , 1280 x 1024, 1280 x 720 , 1024 x 768	
Decoding Capability	2-ch@8MP(30fps), 8-ch@1080P(30fps)	
Multi-screen Display	1/4/8/9/16	
Recording		
Bandwidth	200Mbps (80Mbps when Al function enabled, based on Dahua private protocol)	
Compression	Smart H.265+/H.265/Smart H.264+/H.264/MJPEG	
Resolution	12MP, 8MP, 6MP, 5MP, 4MP, 3MP, 1080P, 1.3MP, 720P, D1 etc.	
Record Mode	Manual, Schedule (Continuous, MD (Motion Detection) , Alarm, IVS)	
Record Interval	$1^{\sim}120$ min (default: 60 min), Pre-record: 1^{\sim} 30 sec, Post-record: 10^{\sim} 300 sec	
Video Detection and Alarm		
Trigger Events	Alarm Out, Video Push, Email, Recording, PTZ, Tour, Snapshot, Voice Prompt, Buzzer and Screen Tips	
Video Detection	Motion Detection, MD Zones: 396 (22 × 18), Video Loss, Tampering and Scene Change	
Alarm Input	4 Channel	
Alarm Output	2 Channel	

Playback and Backup Sync Playback 1/4/9/16 Time /Date, Alarm, MD and Exact Search (accurate to Search Mode second) Backup Mode USB Device/Network Third-party Support Arecont Vision, Airlive, AXIS, Canon, Dynacolor, JVC, Third-party Support LG, Panasonic, Pelco, Xunmei, Samsung, Sanyo, Sony, Watchnet and more Network Interface 1 RJ-45 Port (10/100/1000Mbps) PoE NA HTTP, HTTPS, TCP/IP, IPv4/IPv6, UPnP, SNMP, RTSP, UDP, SMTP, NTP, DHCP, DNS, IP Filter, PPPoE, DDNS, FTP, Alarm **Network Function** Center, IP Search (Support Dahua IP camera, DVR, NVS, etc.), P2P Max. User Access 128 users Mobile App iPhone, iPad, Android Interoperability ONVIF (Profile S), SDK, CGI Storage Internal HDD 2 SATA III Ports, Up to 8 TB capacity for each HDD eSATA NA Auxiliary Interface USB 2 USB Ports (1 Rear USB 2.0 , 1 Front USB 2.0) RS232 NA RS485 NA Electrical Single, DC 12V, 4A **Power Supply Power Consumption** NVR: <2.9W (Without HDD) Environmental **Operating Conditions** -10°C to +55°C (+14°F to +131°F), 86-106kpa Storage Conditions 0°C to +40°C (+32°F to +104°F), 30-85% RH Construction 1U, 375.0mm x 282.4mm x 56.0mm (14.76" x 11.12" x Dimensions 2.20") Net Weight 1.55kg (3.4lb) (without HDD) Gross Weight 2.81kg (6.2lb) (without HDD) Certifications CE EN55035, EN55032, EN55024, EN50130-4, EN60950-1 FCC Part 15 Subpart B, ANSI C63.4-2014 UL UL 60950-1

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Ordering Information

Туре	Model	Description
16 Channel WizSense NVR	DHI-NVR4216-I	16 Channel 1U WizSense Network Video Recorder

Dimensions (mm[inch])



