

# DHI-NVR5216-16HP-XI/Pro

16CH 1U 16PoE 2HDDs WizMind Network Video Recorder



Launched by Dahua Technology, Dahua WizMind is a full portfolio of solutions composed of project-oriented products including IPC, IVSS, NVR, PTZ, XVR, Thermal and software platform which adopts industry-leading deep learning algorithms. Focusing on customer's requirements, WizMind provides precise, reliable and comprehensive AI solutions for verticals.

## Series Overview

With the innovation and advancement of Xinghan Large-Scale Model technology, Dahua makes a landmark launch of the WizSeek NVR. It achieves efficient alignment and collaborative understanding between images and natural language, empowering diverse applications such as text-to-image search with WizSeek and the Text-Defined Alarms feature. These capabilities make it ideally suited for a wide range of scenarios, including public safety and security, retail businesses, smart home, residential communities and more.

## Functions

### WizSeek

Powered by Xinghan large-scale AI model, WizSeek enables natural-language video search for human, vehicle, object, and event with high accuracy, while reducing investigation time by transforming manual reviews into instant results.

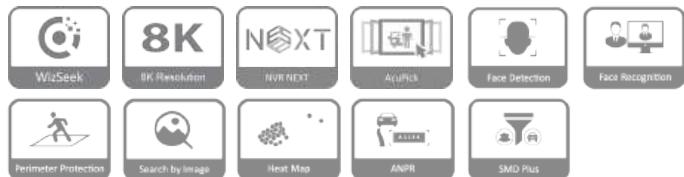
### NVR NEXT

With its enhanced system, the NVR introduces NVR NEXT, a user-friendly GUI featuring a modular design to improve operation efficiency and streamline work flows, catering to the needs of small and medium-sized businesses.

### AcuPick

This industry-leading search technology effectively utilizes back-end intelligence to help with searching through massive video data to quickly and conveniently locate targets with greater precision.

- Supports Smart H.265+, H.265, Smart H.264+, H.264 and MJPEG decoding formats.
- Max. decoding capability: 40 × 1080p@30 fps or 16 × 5 MP@30 fps.
- Max. 512/512/384 Mbps incoming/recording/outgoing bandwidth.
- Supports IP cameras with a resolution up to 32 MP.
- Supports 8K HDMI output.
- Intelligent analytics based on Xinghan Large-Scale AI Models
- AI by Recorder supports 8-channel face detection and recognition, up to 20 face databases and 200,000 face images; 8-channel metadata; 8-channel AcuPick; 16-channel perimeter protection;
- AI by Camera supports face detection and recognition, perimeter protection, SMD Plus, metadata, ANPR, stereo analysis, heat map, people counting and AcuPick
- Supports N+M cluster, iSCSI.
- Supports EPTZ, and one-click arming and disarming.



### Face Recognition

Dahua Face Recognition technology extracts the features of captured faces and compares them with that in face database.

### Perimeter Protection

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

**Technical Specification****System**

Main Processor	Industrial-grade processor
Operating System	Embedded Linux
Operating Interface	Web, Local GUI

**AI**

AI by Recorder	Face detection; face recognition; video metadata (human, motor vehicles, and non-motor vehicles); perimeter protection; SMD; AcuPick; WizSeek; Texted-Defined Alarming
AI by Camera	Face detection; face recognition; video metadata (human, motor vehicles, and non-motor vehicles); perimeter protection; SMD; stereo analysis; crowd distribution; people counting; ANPR; heat map; PPE detection; AcuPick
AcuPick Performance of AI by Recorder (1080P) (Number of Channels)	Xinghan Large-Scale AI Models enabled : 8 channels Xinghan Large-Scale AI Models disabled : 16 channels
AcuPick Performance of AI by Camera (1080P) (Number of Channels)	All channels (36 targets/s)

**WizSeek**

Performance	1. Compatible with cameras that support AcuPick, it can meet full-channel WizSeek. 2. Compatible with normal cameras, after enabling AcuPick by NVR, it can offer up to 8-channel WizSeek. 3. Modeling capability: up to 432,000 targets per day
Search Language	English; TradChinese; Korean

**Perimeter Protection**

Perimeter Performance AI by Recorder (Number of Channels)	16 channels, 10 IVS rules for each channel
Perimeter Performance of AI by Camera (Number of Channels)	All channels (32 targets/s)

**Face Detection**

Face Attributes	6 attributes
Face Detection Performance of AI by Recorder (Number of Channels)	Xinghan Large-Scale AI Models enabled : 8 channels (up to 12 face images/s each channel) Xinghan Large-Scale AI Models disabled : 16 channels (up to 12 face images/s each channel)
Face Detection Performance of AI by Camera (Number of Channels)	All channels (32 targets/s)

**Face Recognition**

Face Database Capacity	Up to 20 face databases with 200,000 images, with a total capacity of 44 G.
Face Recognition Performance of AI by Recorder (Number of Channels)	16-channel FD (by camera) + FR (by recorder), image stream: 32 face images/s Xinghan Large-Scale AI Models enabled : 8-channel FD (by recorder) + FR (by recorder), video stream: 16 face images/s

**Face Recognition**  
Performance of AI by Recorder (Number of Channels)

Xinghan Large-Scale AI Models disabled : 16-channel FD (by recorder) + FR (by recorder), video stream: 16 face images/s

**Face Recognition**  
Performance of AI by Camera (Number of Channels)

All channels (32 targets/s)

**SMD****SMD Plus by Recorder**Xinghan Large-Scale AI Models enabled : Not support  
Xinghan Large-Scale AI Models disabled : 16 channels: Secondary filtering for human and motor vehicle, reducing false alarms caused by leaves, rain and lighting condition change**SMD by Camera**

All channels (64 targets/s)

**Video Metadata****Metadata Performance of AI by Recorder (Number of Channels)**Xinghan Large-Scale AI Models enabled : 8 channels, 23 attributes extraction.  
Xinghan Large-Scale AI Models disabled : 16 channels, 23 attributes extraction.**Metadata Performance of AI by Camera (Number of Channels)**

All channels (32 targets/s)

**People Attributes**

9 human body attributes

**Motor Vehicle Attributes**

9 attributes

**Non-motor Vehicle Attributes**

4 attributes

**Vehicle License Plate Comparison****ANPR by Camera (Number of Channels)**

All channels (32 targets/s)

**License Plate Database Capacity**1. Create up to 20,000 plate numbers.  
2. Blocklist and allowlist**Audio and Video****Access Channel**

16 channels

**Network Bandwidth**AI disabled: 512 Mbps incoming, 512 Mbps recording and 384 Mbps outgoing  
AI enabled: 200 Mbps incoming, 200 Mbps recording and 200 Mbps outgoing**Resolution**

32 MP;24 MP;16 MP;12 MP;8 MP;6 MP;5 MP;4 MP;3 MP;1080p;720p;960p;D1;CIF;QCIF

**Decoding Capability**AI disabled: 2-channel 32 MP@30 fps; 3-channel 24 MP@30 fps; 5-channel 16 MP@30 fps; 6-channel 12 MP@30 fps; 10-channel 8 MP@30 fps; 13-channel 6 MP@30 fps; 16-channel 5 MP@30 fps  
AI enabled: 1-channel 32 MP@30 fps; 1-channel 24 MP@30 fps; 2-channel 16 MP@30 fps; 4-channel 12 MP@30 fps; 6-channel 8 MP@30 fps; 8-channel 6 MP@30 fps; 8-channel 5 MP@30 fps; 12-channel 4 MP@30 fps; 16-channel 1080p@30 fps**Video Output**1 VGA, 1 HDMI  
VGA:1920 × 1080, 1280 × 1024, 1280 × 720  
HDMI: 7680×4320, 3840 × 2160, 1920 × 1080, 1280 × 1024, 1280 × 720  
Heterogeneous video source output for HDMI and VGA**Multi-screen Display**Main screen: 1/4/8/9/16  
Sub screen: 1/4/8/9/16

Third-party Camera Access	ONVIF; Panasonic; Sony; Axis; Arecont; Pelco; Canon; Hanwha
<b>Compression Standard</b>	
Video Compression	Smart H.265+; H.265; Smart H.264+; H.264; MJPEG
Audio Compression	G.711a; G.711u; PCM; G726
<b>Network</b>	
Network Protocol	HTTP; HTTPS; TCP/IP; IPv4; IPv6; UDP; NTP; DHCP; DNS; SMTP; UPnP; IP Filter; FTP; DDNS; SNMP; Alarm Server; P2P; Auto Registration; IP Search (Supports IP camera, DVR, NVS, etc.); iSCSI
Mobile Phone Access	iOS; Android
Interoperability	ONVIF 24.12(Profile T; Profile S; Profile G); CGI; SDK
Browser	Chrome; Firefox; IE
<b>Recording Playback</b>	
Multi-channel Playback	Up to 16 channels
Record Mode	General; motion detection; intelligent; alarm; POS
Backup Method	USB device and network
Playback Mode	Instant playback; general playback; event playback; tag playback; smart playback
<b>Storage</b>	
Disk Group	Yes
<b>Alarm</b>	
General Alarm	Motion detection; local alarm; alarm box; camera external alarm; network alarm; scene changing; PIR alarm; thermal alarm
Anomaly Alarm	Error (no disk, disk error, low space, low quota space; abnormal disk health; network disconnection; IP conflict; MAC conflict; abnormal fan speed); video loss; video tampering; camera offline; audio detection
Intelligent Alarm	Face detection; face recognition; video metadata (human, motor vehicle, and non-motor vehicle); perimeter protection; license plate comparison
Alarm Linkage	Record; snapshot (panoramic); local alarm output; IPC external alarm output; audio; buzzer; log, preset; email
<b>Port</b>	
Audio Input	1-channel RCA
Audio Output	1-channel RCA
Alarm Input	4 channels
Alarm Output	2 channels
Disk Interface	2 SATA ports. Each disk can contain up to 20 TB. This limit varies depending on the environment temperature.
RS-232	1
RS-485	1
USB	2 (1 front USB 2.0 port, 1 rear USB 3.0 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, 1-8 ports support ePoE
<b>General</b>	
Power Supply	100–240 VAC, 50/60Hz
Power Consumption	<15 W (without HDD) Total output power of PoE is 200 W, the maximum output power of a single port is 25.5 W
Net Weight	2.72 kg (6.00 lb)
Gross Weight	4.06 kg (8.95 lb)
Product Dimensions	375.0 mm × 327.4 mm × 53.0 mm (14.76" × 12.89" × 2.09") (W × D × H)
Packaging Dimensions	449.0 mm × 421.0 mm × 170.0 mm (17.68" × 16.57" × 6.69") (W × D × 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), non-condensing
Certifications	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

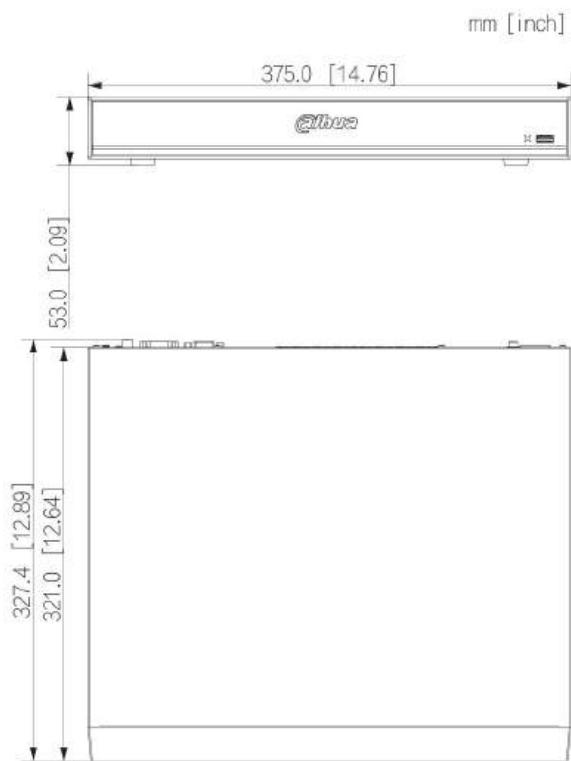
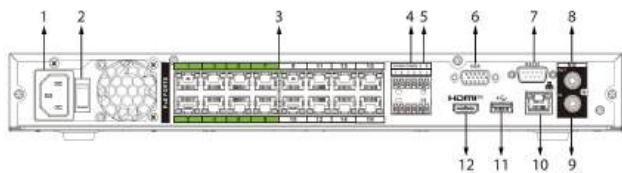
Type	Model	Description
NETWORK VIDEO RECORDER	DHI-NVR5216-16HP-XI/Pro	16CH 1U 16PoE 2HDDs WizMind Network Video Recorder
Accessories (Optional)	DHI-ARB1606	Alarm Box

## Accessories

Optional:



DHI-ARB1606  
Alarm Box

**Dimensions (mm[inch])****Panels**

1 Power Input	2 Power Switch
3 PoE Ports	4 Alarm In/Out
5 RS-485 Port	6 VGA Port
7 RS-232 Port	8 AUDIO OUT, RCA Connector
9 AUDIO IN, RCA Connector	10 Network Port
11 USB Port	12 HDMI Port