DHI-NVR4216-16FP-XI

16CH 1U 16PoE 2-Bay WizMind Network Video Recorder



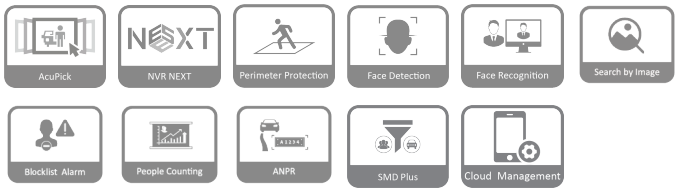
Launched by Dahua Technology, Dahua WizMind is a full portfolio of solutions composed of project-oriented products including IPC, IVSS,NVR, PTZ, XVR, Thermal and software platform which adopts industry-leading deep learning algorithms. Focusing on customer's requirements, WizMind provides precise, reliable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

Series Overview

An enhancement to its line of network video recorders, the NVR4-XI series delivers exceptional functionality and efficiency. It incorporates advanced features that optimize bandwidth utilization and decoding capabilities, resulting in significant improvements in data processing. Building on the advanced features of its predecessors, this model includes high-precision face recognition, perimeter protection, and SMD technology. Additionally, it introduces the new AI function: AcuPick, and supports 1-ch AcuPick by NVR, and can be extended across all channels when paired with cameras that support AcuPick. The NVR also features an embedded indicator light for PoE, providing clear status updates on network connectivity. With the introduction of high-power models and units with front PoE ports, this series is better suited for a wider variety of environments than previous generations. Offering excellent value, the NVR4-XI series is compatible with a broad range of third-party devices, making it an ideal choice for small and medium-sized businesses looking to elevate their monitoring and recording capabilities.

Functions

- Supports Smart H.265+, H.265, Smart H.264+, H.264 and MJPEG
- decoding formats.
- Max. decoding capability: 24 × 1080p@30 fps or 6 × 8 MP@30 fps.
- Max. 320 Mbps incoming/recording/outgoing bandwidth.
- Supports IP cameras with a resolution up to 32 MP.
- AI by Recorder supports 2-channel face detection and recognition, up to 10 face databases and 30,000 face images; 4-channel perimeter protection; 8-channel SMD Plus; 1-channel AcuPick.
- AI by Camera supports face detection and recognition, perimeter protection, SMD, metadata, AcuPick, ANPR, stereo analysis, heat map, and people counting.
- Supports EPTZ, and one-click arming and disarming.



AcuPick

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

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 workflows, catering to the needs of small and medium-sized businesses.

AI Features

Embedded with deep-learning algorithms, the NVR offers advanced AI capabilities, delivering precise detection, efficient analytics, and reduced false alarms.

ANPR by Camera

With deep learning algorithm, Dahua ANPR technology can recognize the number plate information of vehicles in the image with ANPR cameras. Support blocklist/allowlist mode, searching target vehicles from recorded video.

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; perimeter protection; SMD; AcuPick
AI by Camera	Face detection; face recognition; perimeter protection; SMD; ANPR; people counting; stereo analysis; heat map
AcuPick Performance of AI by Recorder (1080P) (Number of Channels)	1 channel
AcuPick Performance of AI by Camera (1080P) (Number of Channels)	All channels (32 targets/s)

Perimeter Protection

Perimeter Performance AI by Recorder (Number of Channels)	4 channels, 10 IVS rules for each channel
Perimeter Performance of AI by Camera (Number of Channels)	All channels (24 targets/s)

Face Detection

Face Attributes	Gender; age group; glasses; expressions; face mask; beard
Face Detection Performance of AI by Recorder (Number of Channels)	2 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 10 face databases with 30,000 images, with a total capacity of 3.75 GB. Name, gender, birthday, address, credential type, credential No., countries & regions and state can be added to each face image.
Face Recognition Performance of AI by Recorder (Number of Channels)	16-channel FD (by camera) + FR (by recorder), image stream: 32 face images/s 2-channel FD (by recorder) + FR (by recorder), video stream: 12 face images/s
Face Recognition Performance of AI by Camera (Number of Channels)	All channels (32 targets/s)

SMD

SMD Plus by Recorder	8 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 Camera (Number of Channels)	All channels (16 targets/s)

Vehicle License Plate Comparison

ANPR by Camera (Number of Channels)	All channels (8 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: 320 Mbps incoming, 320 Mbps recording and 320 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: 1-channel 32 MP@25 fps; 3-channel 16 MP@30 fps; 4-channel 12 MP@30 fps; 6-channel 8 MP@30 fps; 8-channel 6 MP@30 fps; 9-channel 5 MP@30 fps; 12-channel 4 MP@30 fps; 16-channel 1080p@30 fps AI enabled: 1-channel 32 MP@25 fps; 2-channel 16 MP@30 fps; 2-channel 12 MP@30 fps; 4-channel 8 MP@30 fps; 5-channel 6 MP@30 fps; 6-channel 5 MP@30 fps; 8-channel 4 MP@30 fps; 16-channel 1080p@30 fps
Video Output 6	1 VGA, 1 HDMI VGA: 1920 × 1080, 1280 × 1024, 1280 × 720 HDMI: 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 3

Compression Standard

Video Compression	Smart H.265+; H.265; Smart H.264+; H.264; MJPEG 2
Audio Compression	G.711a; G.711u; PCM; G726

Network

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Network Protocol 7	HTTP; HTTPS; TCP/IP; IPv4; IPv6; UDP; NTP; FTP; RTSP; SFTP; DHCP; DNS; SMTP; UPnP; DDNS; SNMP; Alarm Server; IP Search (Supports IP camera, DVR, NVS, etc.); Multicast; P2P; Auto Registration; iSCSI
Mobile Phone Access	iOS; Android
Interoperability	ONVIF 25.06 (Profile T; Profile S; Profile G; Profile M); CGI; SDK 11
Browser	Chrome; IE; Safari; Edge; Firefox

Recording Playback

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, target video, video clip, tag playback, smart playback (face and motion detection)

Storage

Disk Group	Yes

Alarm

General Alarm	Motion detection; local alarm; alarm box; camera external alarm; network alarm; scene changing; PIR alarm; thermal alarm
Anomaly Alarm	Camera offline; storage error; disk full; IP conflict; MAC conflict; login lock; abnormal behavior of fan; cybersecurity exception
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

Port

Audio Input	1-channel RCA
Audio Output	1-channel RCA
Alarm Input	4 channels
Alarm Output	2 channels (1-channel relay output, 1-channel 12 V 1 A output)
Disk Interface 8	2 SATA ports. Each disk can contain up to 20 TB. This limit varies depending on the environment temperature.
RS-232	1
USB 9	2 (2 front USB 2.0 ports)
HDMI	1
VGA	1
Network Port 4	1 (10/100/1000 Mbps Ethernet port, RJ-45)
PoE Port 5	16 ports, 10/100 Mbps, IEEE 802.3 af/at

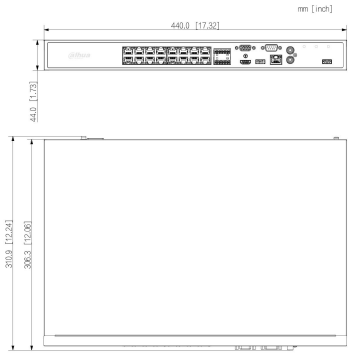
General

Power Supply	100–240 VAC, 50/60 Hz
Power Consumption	< 10 W (without HDD) Total maximum output power of PoE is 140 W, the maximum output power of a single port is 25.5 W
Net Weight	3.34 kg (7.36 lb)
Gross Weight	4.93 kg (10.87 lb)
Product Dimensions	440.0 mm × 310.9 mm × 44.0 mm (17.32" × 12.24" × 1.73") (W × D × H)
Packaging Dimensions	527.0 mm × 392.0 mm × 157.0 mm (20.75" × 15.43" × 6.18") (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), non-condensing
Certifications 12	CE-LVD: EN 62368-1: 2014 + A11: 2017 CE-EMC: EN IEC 61000-3-2:2019, EN 61000-3-3:2013+A1:2019, EN 55032:2015+A11:2020,
Certifications	EN 55035:2017+A11:2020, EN 55024:2010+A1:2015, EN 50130-4:2011+A1:2014

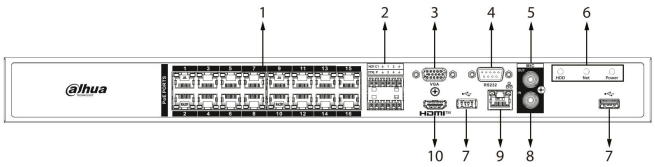
Ordering Information

Type	Model	Description
NETWORK VIDEO RECORDER	DHI-NVR4216-16FP-XI	16CH 1U 16PoE 2-Bay WizMind Network Video Recorder

Dimensions (mm[inch])



Panels



1 PoE Ports	2 Alarm In/Out
3 VGA Port	4 RS-232 Port
5 AUDIO OUT, RCA Connector	6 Indicator Lights
7 USB Port	8 AUDIO IN, RCA Connector
9 Network Port	10 HDMI Port

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