

DHI-NVR5216-16P-I

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



WizMind

Launched by Dahua Technology, Dahua WizMind is a full portfolio of solutions composed of project-oriented products including IPC, 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

Dahua new NVR5000-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. 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, NVR5000-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, NVR5000-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.

Face Recognition

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

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.

- 16 Channel IP video access
- Smart H.265+/H.265/Smart H.264+/H.264/MJPEG
- Up to 16 Channel perimeter protection
- Up to 4 Channel video stream face recognition
- Up to 22 face pictures/sec processing
- Up to 20 face databases with 100,000 face images in total
- 1-8 PoE Ports support ePoE & EoC



Video Metadata

With deep learning algorithm, Dahua Video Metadata technology can detect, track, capture vehicle, non-motor vehicle and people, and select the best images, and extract attributes.

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 block/allowlist mode, searching target vehicles from recorded video.

Fisheye Dewarping

Fisheye dewarping solves the problem of distortion in the circular panoramic view. The device offers various dewarping modes for different installations and configurations that enhance the video, in both live or playback modes. Each dewarping mode offers options to adjust each scene.

People Counting by Camera

With deep learning algorithm, Dahua People Counting technology can track and process moving human body targets to realize the accurate statistics of enter No., leave No., and In Area No. Working with management platform, it outputs yearly/monthly/weekly/daily reports to meet your requirements.

Stereo Analysis by Camera

With deep learning algorithm, Dahua People Counting technology can track and process moving human body targets to realize the accurate statistics of enter No., leave No., and In Area No. Working with management platform, it outputs yearly/monthly/weekly/daily reports to meet your requirements.

Technical Specification

System

| | |
|------------------|-------------------------------|
| Main Processor | Multi-core embedded processor |
| Operating System | Embedded LINUX |

Perimeter Protection

| | |
|-----------------------|--|
| Performance | 16 channel, 10 IVS rules for each channel |
| Object classification | Human/Vehicle secondary recognition for tripwire and intrusion |
| AI Search | Search by target classification (Human, Vehicle) |

Face Recognition

| | |
|----------------------|---|
| Performance | Max 22 face pictures/sec processing (modeling and comparing) 4 channel video stream face recognition/16 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. |
| AI 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 20 face databases with 100,000 face images in total. Name, gender, birthday, nationality, address, ID information 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. |

Metadata

| | |
|-------------------|---|
| Face | Gender, age, glasses, beard, mouth mask, expression. |
| Vehicle | Plate No., type, color, vehicle type, logo, plate color, ornament, calling, seatbelt, region. |
| Human Body | Top, top color, bottom, bottom color, hat, bag, gender, age, umbrella. |
| Non-motor Vehicle | Type, color, number of passengers, helmet. |
| AI Search | Support search target video by metadata. |

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: 3840 × 2160, 1920 × 1080, 1280 × 1024, 1280 × 720 VGA: 1920 × 1080, 1280 × 1024, 1280 × 720 |
| Decoding Capability | 4-ch@8MP (30fps), 16-ch@1080P (30fps) |
| Multi-screen Display | 1/4/8/9/16 |

Recording

| | |
|-------------|--|
| Bandwidth | 320 Mbps (160 Mbps when AI function enabled) |
| Compression | Smart H.265+/H.265/Smart H.264+/H.264/MJPEG |
| Resolution | 16MP, 12MP, 8MP, 6MP, 5MP, 4MP, 3MP, 1080P, 1.3MP, 720P, D1 etc. |
| Record Mode | Manual, Schedule (Continuous, MD (Motion Detection), Alarm, IVS) |

| | |
|-----------------|--|
| Record Interval | 1–120 min (default: 60 min), Pre-record: 1–30 sec, Post-record: 10–300 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 |
| Relay Output | 2 Channel |

Playback and Backup

| | |
|---------------|--|
| Sync Playback | 1/4/9/16 |
| Search Mode | Time/Date, Alarm, MD and Exact Search (accurate to second) |
| Backup Mode | USB Device/Network |

Third-party Support

| | |
|---------------------|---|
| Third-party Support | Panasonic, Sony, Samsung, Axis, Pelco, Arecont, Onvif, Canon and more |
|---------------------|---|

Network

| | |
|------------------|--|
| Interface | 1 RJ-45 Ports (10/100/1000 Mbps) |
| PoE | 16 ports (IEEE802.3af/at) 1-8 ports support ePoE & EoC |
| Network Function | HTTP, HTTPS, TCP/IP, IPv4/IPv6, UPnP, SNMP, RTSP, UDP, SMTP, NTP, DHCP, DNS, IP Filter, PPPoE, DDNS, FTP, Alarm Server, IP Search (Support Dahua IP camera, DVR, NVS, etc.), P2P |
| Max. User Access | 128 users |
| Mobile App | iPhone, iPad, Android |
| Interoperability | ONVIF 2.4, SDK, CGI |

Storage

| | |
|--------------|--|
| Internal HDD | 2 SATA III ports, up to 10 TB for a single HDD. The maximum HDD capacity varies with environment temperature |
| eSATA | N/A |

Auxiliary Interface

| | |
|-------|---|
| USB | 2 USB Ports (1 Rear USB 3.0, 1 Front USB 2.0) |
| RS232 | 1 Port, for PC Communication and Keyboard |
| RS485 | 1 Port, for PTZ Control |

Electrical

| | |
|-------------------|---|
| Power Supply | Single, AC100V–240V, 50–60 Hz |
| Power Consumption | NVR: <15.6W (Without HDD) PoE: Max 25.5W for single port 130W total rated power, 80% control for protection |
| Fan | Smart fan, automatically adjust running speed |

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 |

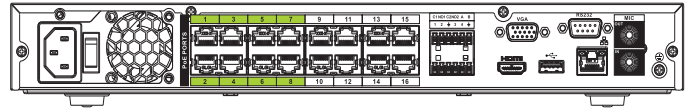
Construction

| | |
|--------------|---|
| Dimensions | 1U, 375.0 mm × 327.4 mm × 53.0 mm (14.76" × 12.89" × 2.09") |
| Net Weight | 2.70 kg (6.0 lb) (without HDD) |
| Gross Weight | 4.00 kg (8.8 lb) (without HDD) |

Certifications

| | |
|-----|--|
| CE | EN55032, EN55024, EN50130-4, EN60950-1 |
| FCC | Part 15 Subpart B, ANSI C63.4-2014 |
| UL | UL 60950-1 |

Panels



Ordering Information

| Type | Model | Description |
|------------------------|-------------------|--|
| 16 Channel WizMind NVR | DHI-NVR5216-16P-I | 16 Channel 1U 16PoE WizMind Network Video Recorder |

Dimensions (mm[inch])

