

# DHI-NVR5816/32/64-R-16P-4KS2E

16/32/64 Channel 2U 16PoE 4K&H.265 Pro Network Video Recorder



## System Overview

Dahua new NVR5000-4KS2 network video recorder delivers excellent performance and high recording quality that is ideally suitable for IP video surveillance applications. This professional 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.

Due to its easy-to-install design, the NVR is ideal for a wide range of applications such as public safety, water conservancy, transportation, city centers, education, and financial institutions.

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). It features an open architecture that supports for multi-user access and is compatible with ONVIF 2.4 protocol, enabling interoperability with 4K cameras.

## Functions

### RAID 0/1/5/10

Offering a balance between storage performance, storage capacity, and data integrity, the NVR features Fruitfull RAID 0/1/5/10 for faster and safer recording.

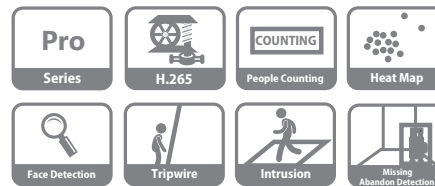
### Smart H.265+

Smart H.265+ is the optimized implementation of the H.265 codec that uses a scene-adaptive encoding strategy, dynamic GOP, dynamic ROI, flexible multi-frame reference structure and intelligent noise reduction to deliver high-quality video without straining the network. Smart H.265+ technology reduces bit rate and storage requirements by up to 70% when compared to standard H.265 video compression.

### ePoE & EoC

The NVR supports 800m ePoE and EoC technology for use in a broad range of application scenarios. ePoE technology simplifies the network structure of long-range surveillance projects, eliminating the requirement for extra network repeater devices, making the system more reliable and easy to deploy. EoC technology makes it possible to upgrade existing systems to high definition IP surveillance while using existing coax cables.

- Smart H.265+/H.265/Smart H.264+/H.264/MJPEG
- Max 320Mbps Incoming Bandwidth
- Supports RAID 0/1/5/10
- Up to 12MP Resolution for Preview and Playback
- 2HDMI/2VGA simultaneous video output
- 1-8 PoE Ports Support 800m ePoE & EoC



### Smart Fan

The NVR is equipped with a smart fan to achieve high cooling efficiency. It automatically adjusts fan speed according to CPU and ambient temperature. The fan is long-lasting and low noise, reducing maintenance costs and improving the user experience.

### DMSS

The DMSS app is available on the iOS App Store and Google Play. It makes surveillance easy and simple, allowing you to remotely access NVR devices, view live video, receive event push notifications, and search for recorded videos from an iPhone, iPad, or Android phone at anytime from virtually anywhere!

### Fisheye Dewarping

Fisheye dewarping solves the problem of distortion in the circular panoramic view. The NVR 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.

### 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.

### Point of Sale (POS)

Ideal for grocery and retail stores, the optional POS solution allows the NVR to receive a POS transaction via corresponding video. This feature allows merchants to analyze specific transactions via the Fuzzy search algorithm.

### Automatic Network Replenishment (ANR) Technology

Network Video Recorders with the ANR function automatically store video data on an IP camera SD card when the network is disconnected. After recovery of the network, the NVR automatically retrieves the video data stored on the camera.

## Technical Specification

### System

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

### Audio and Video

|                 |  |
|-----------------|--|
| IP Camera Input | 16/32/64 Channel                       |
| Two-way Talk    | 1 Channel Input, 2 Channel Output, RCA |

### Display

|                      |   |
|----------------------|---|
| Interface            | 2 HDMI, 2 VGA   |
| Resolution           | HDMI1: 3840 × 2160 , 1920 × 1080 , 1280 × 1024, 1280 × 720 , 1024 × 768                                       |
|                      | VGA1: 1920 × 1080 , 1280 × 1024, 1280 × 720 , 1024 × 768  |
|                      | HDMI2/VGA2: 1920 × 1080   |
| Decoding Capability  | 4-ch@8MP(30fps), 16-ch@1080P(30fps)   |
| Multi-screen Display | 1st Screen: 16CH: 1/4/8/9/16<br>32CH: 1/4/8/9/16/25/36<br>64CH: 1/4/8/9/16/25/36/64<br>2nd Screen: 1/4/8/9/16 |
| OSD                  | Camera title, Time, Camera lock, Motion detection, Recording  |

### Recording

|                 |  |
|-----------------|--|
| 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.                       |
| Bit Rate        | 16Kbps ~ 20Mbps Per Channel  |
| Record Mode     | Manual, Schedule (Regular, MD(Motion Detection), Alarm, IVS), Stop               |
| Record Interval | 1 ~ 120 min (default: 60 min), Pre-record: 1 ~ 30 sec, Post-record: 10 ~ 300 sec |

### Video Detection and Alarm

|                 |  |
|-----------------|--|
| Trigger Events  | Recording, PTZ, Tour, Alarm Out, Video Push, Email, Snapshot, Buzzer and Screen Tips |
| Video Detection | Motion Detection, MD Zones: 396 (22 × 18), Video Loss and Tampering                  |
| Alarm input     | 16 Channel   |
| Relay Output    | 6 Channel  |

### Playback and Backup

|                   |  |
|-------------------|--|
| Sync Playback     | 1/4/9/16   |
| Search Mode       | Time /Date, Alarm, MD and Exact Search (accurate to second)  |
| Playback Function | Play, Pause, Stop, Rewind, Fast play, Slow Play, Next File, Previous File, Next Camera, Previous Camera, Full Screen, Backup Selection, Digital Zoom |
| Backup Mode       | USB Device/Network/eSATA Device  |

### Third-party Support

|                     |   |
|---------------------|---|
| Third-party Support | Arecont Vision, Airlive, AXIS, Canon, Dynacolor, JVC, LG, Panasonic, Pelco, PSIA, Samsung, Sanyo, Sony, Watchnet and more |
|---------------------|---|

### Network

|                  |  |
|------------------|--|
| Interface        | 1 RJ-45 Port (10/100/1000Mbps)   |
| PoE              | 16 ports (IEEE802.3af/at)<br>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  |
| Smart Phone      | iPhone, iPad, Android  |
| Interoperability | ONVIF 2.4, SDK, CGI  |

### Storage

|              |   |
|--------------|---|
| Internal HDD | 8 SATA III Ports, Up to 10 TB capacity for each HDD |
| eSATA        | 1 eSATA   |

### Auxiliary Interface

|       |   |
|-------|---|
| USB   | 4 USB Ports (2 Rear USB 3.0 , 2 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: <1.75W (Without HDD)  |
|                   | PoE: Max 25.5W for single port<br>150W total rated power, 80% control for protection |
| Fan               | Smart fan, automatically adjust running speed  |

### Environmental

|                      |   |
|----------------------|---|
| Operating Conditions | -10°C ~ +55°C (+14°F ~ +131°F), 86 ~ 106kpa |
| Storage Conditions   | -20°C ~ +70°C (-4°F ~ +158°F), 0 ~ 90% RH   |

### Construction

|              |  |
|--------------|--|
| Dimensions   | 2U, 440mm x 451.5mm x 95mm ;<br>(17.3" x 17.8" x 3.7") |
| Net Weight   | 7kg (15.4 lb) (without HDD)                            |
| Gross Weight | 9.5kg (20.94 lb) (without HDD)                         |
| Installation | Rack-mounted   |

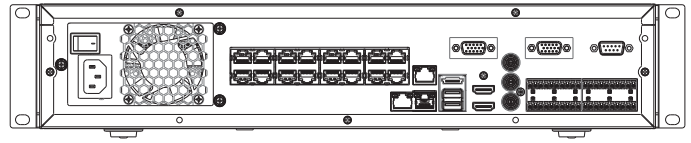
### Certifications

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

**Ordering Information**

| Type           | Part Number             | Description   |
|----------------|-------------------------|---|
| 16 Channel NVR | DHI-NVR5816-R-16P-4KS2E | 16 Channel 2U 16PoE 4K&H.265 Pro Network Video Recorder                                       |
| 32 Channel NVR | DHI-NVR5832-R-16P-4KS2E | 32 Channel 2U 16PoE 4K&H.265 Pro Network Video Recorder                                       |
| 64 Channel NVR | DHI-NVR5864-R-16P-4KS2E | 64 Channel 2U 16PoE 4K&H.265 Pro Network Video Recorder                                       |
| Accessories    | ESS1504C                | 4 HDDs eSATA Storage (Please confirm with Technical Support for HDD capacity & compatibility) |

**Rear Panel**



**Accessories**



ESS1504C

**Dimensions (mm)**

