DHI-NVR5216/5232-16P-4KS2E

16/32 Channel 1U 16PoE 4K & H.265 Pro Network Video Recorder

- 16/32-channel IP video access
- Smart H.265+/Smart H.264+/H.265/H.264/MJPEG; H.265 auto switch
- Max 320 Mbps incoming bandwidth
- Up to 12MP resolution for live view and playback
- 1-channel fisheye dewarping (AI by NVR)
- AI by Camera: Perimeter protection; face detection and recognition; SMD Plus; video metadata; ANPR; people counting; stereo analysis; crowd distribution; heat map
- Support IPC UPnP, 16 PoE ports

SMD Plus	Face Detection	Face Recognition	ANPR	Perimeter Protection	Stereo Analysis
Heat Map	People counting	Thermal	Video Metadata		

Dahua's 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.

System Overview

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 multi-user access and is compatible with ONVIF 2.4 protocol, enabling interoperability with 4K cameras.

Functions

Perimeter Protection by Camera

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

Face Recognition by Camera

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 by Camera

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.

Video Metadata by Camera

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 Camara

With deep learning algorithm and scene 3-dimensional information, Dahua stereo analysis technology can recognize people's behaviors, such as fall detection, violence detection, strand detection, and space exception, and then generates alarm signals and triggers linkage.

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 back-end 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.

Technical Specification

System

Main Processor	Industrial embedded micro-processor
Operating System	Embedded Linux
Operation Interface	Web; local GUI

Perimeter Protection by Camera

Performance	16/20 channels
AI Search	Search for pictures by channel, time and event type

Face Recognition by Camera

Performance	14 channels
Face Attributes	6 attributes: Gender; age; glasses; expression; mouth mask; beard
AI Search	Search for pictures by channel, time and face attributes

SMD Plus by Camera

Performance	16/32 channels
AI Search	Search by target classification (human, vehicle)

Video Metadata by Camera

Performance	16 channels
Human Body	Top; top color; bottom; bottom color; hat; bag; gender; age; umbrella
Vehicle	Plate No.; type; color; vehicle type; logo; plate color; ornament; calling; seatbelt; region
Non-motor Vehicle	Type; color; number of passengers; helmet
AI Search	Supports searching for target video by metadata

ANPR by Camera

Performance	4 channels

Stereo Analysis by Camera

Performance	16 channels
AI Search	Search by target classification (fall detection; people approach detection; people No. exception detection; people staying detection; violence detection)

Video

Access Channel	16/32
Network Bandwidth	320 Mbps for access, 320 Mbps for storage and 320 Mbps for forwarding
Resolution	12MP, 8MP, 6MP, 5MP, 4MP, 3MP, 1080p, 1.3MP, 720p, D1, and more
Decoding Capability	16-channel@1080P (30 fps)
Video Output	HDMI1: 3840 × 2160; 1920 × 1080; 1280 × 1024; 1280 × 720 VGA1: 1920 × 1080; 1280 × 1024; 1280 × 720
Multi-screen Display	16-channel: 1/4/8/9/16 32-channel: 1/4/8/9/16/25/36
Third Party Camera Access	Panasonic, Sony, Samsung, Axis, Pelco, Arecont, ONVIF, Canon and more

Compression

Video	Smart H.265+; Smart H.264+; H.265; H.264; MJPEG
Audio	PCM; G.711A; G.711U; G.726

Network

Network Protocol	HTTP; HTTPS; TCP/IP; IPv4/IPv6; UPnP; SNMP; RTSP; UDP; SMTP; NTP; DHCP; DNS; IP Filter; PPPoE; DDNS; FTP; Alarm Server; IP Search (Supports Dahua IP camera, DVR, NVS, and more.) ; P2P
Mobile Phone Access	Android; iOS
Interoperability	ONVIF (profile T/S/G); CGI; SDK
Browser	Chrome; IE9 or later; Firefox

Record Playback

Multi-channel Playback	1/4/9/16
Record Mode	Manual; schedule (general; MD; alarm; MD & alarm; intelligent; POS)
Storage Method	Local HDD and network
Backup	USB device
Playback Function	1. Play; pause; stop; fast forward; fast backward; rewind; play by frame 2. Full screen; backup (cut/file) ; partially enlarge; audio on/off

Storage

Disk Group	Yes

Alarm

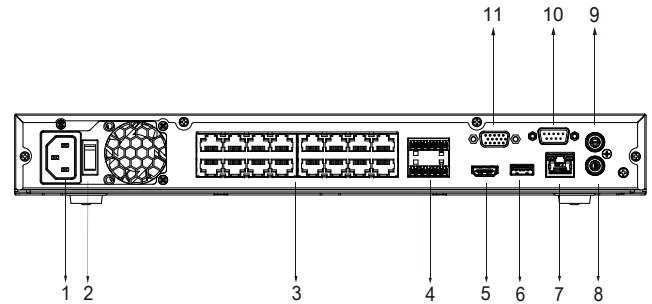|	
General Alarm	Motion detection; privacy masking; video loss; local alarm; PIR alarm; IPC alarm
Anomaly Alarm	Camera offline; storage error; full storage; IP conflict; MAC conflict; login lock; network security anomaly
Intelligent Alarm	Perimeter protection; face detection; face recognition; SMD; video metadata (human; motor-vehicle; non-motor vehicle) ; ANPR; people counting; stereo analysis; crowd distribution; heat map
Alarm Linkage	Record; snapshot; IPC external alarm output; buzzer; log; preset; email

External Port

Audio Input	1 channel, RCA connector
Audio Output	1 channel, RCA connector, which supports voice intercom output
HDD	2 SATA III ports, up to 10 TB for a single HDD. The maximum HDD capacity varies with environment temperature
Alarm Input	4 channels
Alarm Output	2 channels
RS-232	1 channel, used to debug and pass through serial data
RS-485	1 channel, used to control PTZ, and it supports multiple protocols
USB	1 front USB 2.0 port, 1 rear USB 3.0 port
HDMI	1
VGA	1

Network	1 RJ-45 10/100/1000 Mbps self-adaptive Ethernet port
PoE	16 ports (IEEE802.3af/at) 1-8 ports support ePoE & EoC

General Parameter

Power Supply	Single, 100V–240V AC, 50 Hz–60 Hz
Power Consumption	NVR: < 15.2W (without HDD) PoE: Max 25.5W for single port 130W total rated power, 80% control for protection
Net Weight	2.7 kg (6.0 lb) (without HDD)
Gross Weight	4 kg (8.8 lb) (without HDD)
Product Dimensions	375.0 mm × 327.4 mm × 53.0mm (14.8" × 12.9" × 2.1")
Package Dimensions	429 mm × 137 mm × 360 mm (16.9" × 14.2" × 5.4")
Operating Temperature	-10°C to +55°C (+14°F to +131°F)
Storage Temperature	0°C to +40°C (+32°F to +104°F)
Operating Humidity	10%–93% (RH)
Storage Humidity	30%–85% (RH)
Operating Altitude	3,000 m (9,843 ft)
Certifications	CE: EN55032; EN55024; EN50130-4; EN60950-1 FCC: Part 15 Subpart B; ANSI C63.4-2014 UL: UL 60950-1

Panels

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

Ordering Information

Type	Model	Description
16 Channel NVR	DHI-NVR5216-16P-4KS2E	16 Channel 1U 16PoE 4K & H.265 Pro Network Video Recorder
32 Channel NVR	DHI-NVR5232-16P-4KS2E	32 Channel 1U 16PoE 4K & H.265 Pro Network Video Recorder

Dimensions (mm[inch])