



NVRKIT8CH4T6MT4



DH-IPC-HDW3666EMP-S-AUS

6MP IR Fixed-focal Eyeball WizSense Network Camera



Wiz Sense

Launched by Dahua Technology, WizSense is a series of AI products and solutions that adopt independent AI chip and deep learning algorithm. It focuses on human and vehicle with high accuracy, enabling users to fast act on defined targets. Based on Dahua's advanced technologies, WizSense provides intelligent, simple and inclusive products and solutions.

Series Overview

Dahua WizSense 3 Series Network Camera greatly saves on bandwidth and storage space through its AI Coding technology. Driven by its advanced deep learning algorithms, the camera supports intelligent functions such as perimeter protection, smart motion detection (SMD), Quick Pick, and AI SSA (AI Scene Self-adaptation), making it easy and convenient to use. Starlight technology and its large aperture lens also allow the camera to produce clear, vivid images even in poor lighting conditions.

Functions

SMD 4.0

Dahua Smart Motion Detection technology works with intelligent algorithms to classify targets that trigger motion detection alarms. It filters out objects that are not targets, such as small and large animals, to avoid triggering false alarms. With an AI NVR, Quick Pick technology becomes available, allowing you to easily search for and pick out human and vehicle targets from SMD event videos, prioritizing the highest matches.

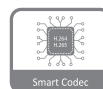
AI SSA

Dahua AI Scene Self-adaptation (AI SSA) adopts deep learning algorithms to detect environmental conditions, such as rain, fog, backlight, low light and flicker, to adjust the parameters of the image to suit the conditions, ensuring that clear images are always produced.

Smart H.265+ & Smart H.264+

With advanced scene-adaptive rate control algorithm, Dahua smart encoding technology realizes the higher encoding efficiency than H.265 and H.264, provides high-quality video, and reduces the cost of storage and transmission.

- 6-MP 1/2.7" CMOS image sensor, excellent low luminance performance and high definition of images.
- Outputs max. 6 MP (3072 × 2048) @25/30 fps.
- H.265 codec, high compression rate, ultra-low bit rate.
- Built-in IR LED, max. IR distance: 50 m.
- ROI, SMART H.264 +/H.265+, AI H.264/H.265, flexible coding, applicable to various bandwidth and storage environments.
- Rotation mode, WDR, 3D NR, HLC, BLC, digital watermarking, applicable to various monitoring scenes.
- Intelligent detection: Intrusion, tripwire (support the classification and accurate detection of vehicle and human).
- Abnormality detection: Motion detection, privacy masking, scene changing, audio detection, no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, and voltage detection.
- Max. 256 G Micro SD card. built-in Mic.
- 12 VDC/PoE power supply, easy for installation.
- IP67 protection.
- SMD 4.0, AI SSA.



Perimeter Protection

With deep learning algorithm, Dahua Perimeter Protection technology can recognize human and vehicle accurately. In restricted area (such as pedestrian area and vehicle area), the false alarms of intelligent detection based on target type (such as tripwire, intrusion) are largely reduced.

Protection (IP67, Wide Voltage)

IP67: The camera passes a series of strict test on dust and soak. It has dust-proof function, and the enclosure can work normal after soaking in 1 m deep water for 30 minutes.

Wide voltage: The camera allows $\pm 30\%$ (for some power supplies) input voltage tolerance (wide voltage range), and it is widely applied to outdoor environment with instable voltage.

Cyber Security

Dahua network cameras employ a series of security technologies, including security authentication and authorization, access control protocols, trusted protection, encrypted transmission and encrypted storage. These technologies improve the camera's defense against external cyber threats and prevent malicious programs from compromising the device.

DHI-NVR4104/4108HS-P-4KS2

4/8 Channel Compact 1U 4PoE 4K&H.265 Lite Network Video Recorder



- Smart H.265+/H.265/Smart H.264+/H.264
- Max 80Mbps Incoming Bandwidth
- Up to 8MP Resolution for Preview and Playback
- Up to 2ch@4K/8ch@1080P decoding
- HDMI/VGA simultaneous video output
- Support IPC UPnP, 4PoE ports



System Overview

Dahua NVR4000-4KS2 is introduced as the first Lite series NVR that supports for 4K and H.265 encoding technology with excellent performance at an affordable price. For applications where image details are highly required, it delivers the capability of 4K resolution processing. 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 cost-effective and easy-to-install design, this 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 making 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 IP cameras.

Functions

4K Resolution

4K resolution is a revolutionary breakthrough in image processing technology. 4K delivers four times the resolution of standard HDTV 1080p cameras and offers superior picture quality and image details. 4K resolution improves the clarity of a magnified scene to view or record crisp forensic video from large areas.

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.

Intelligent Video System

Working with IVS-enabled IP cameras, the NVR recognizes and records video that contains IVS data on all IP channels. The NVR records standard intelligence at-the-edge features, as well as premium IVS features that detect abandoned or missing objects, Tripwire violations, and intrusion violations. The NVR is also capable of recording business analysis data – Facial Detection, People Counting, and Heat Map – from IP cameras with built-in Intelligent Business Analytics.

ANR (Automatic Network Replenishment 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.

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!

Technical Specification

Camera

Image Sensor	1/2.7" CMOS
Max. Resolution	3072 (H) × 2048 (V)
ROM	128 MB
RAM	1 GB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100,000 s
Min. Illumination	0.005 lux@F1.4 (Color, 30 IRE) 0.0005 lux@F1.4 (B/W, 30 IRE) 0 lux (Illuminator on)
S/N Ratio	>56 dB
Illumination Distance	50 m (164.04 ft)
Illuminator On/Off Control	Auto/Manual
Illuminator Number	2 (IR LED)
Pan/Tilt/Rotation Range	Pan: 0°–360°; Tilt: 0°–78°; Rotation: 0°–360°

Lens

Lens Type	Fixed-focal				
Lens Mount	M12				
Focal Length	2.8 mm; 3.6 mm; 6 mm				
Max. Aperture	F1.4				
Field of View	2.8 mm: Horizontal: 97°; Vertical: 71°; Diagonal: 129° 3.6 mm: Horizontal: 80°; Vertical: 57°; Diagonal: 107° 6 mm: Horizontal: 50°; Vertical: 37°; Diagonal: 64°				
Iris Control	Fixed				
Close Focus Distance	2.8 mm: 1.1 m (3.61 ft) 3.6 mm: 1.7 m (18.37 ft) 6 mm: 3.3 m (10.83 ft)				
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	2.8 mm	63.6 m (208.66 ft)	25.4 m (83.33 ft)	12.7 m (41.67 ft)	6.4 m (21.00 ft)
	3.6 mm	85.4 m (280.18 ft)	34.2 m (112.20 ft)	17.1 m (56.10 ft)	8.5 m (27.89 ft)
	6 mm	124.0 m (406.82 ft)	49.6 m (162.73 ft)	24.8 m (81.36 ft)	12.4 m (40.68 ft)

Intelligence

IVS (Perimeter Protection)	Tripwire, intrusion (support the classification and accurate detection of vehicle and human)
AI-SSA	Yes
Quick Pick	With AI NVR, quickly pick up the human/vehicle targets that users are interested in from SMD events
Smart Search	Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos

Video

Video Compression	H.265; H.264; H.264H; H.264B; MJPEG (only supported by the sub stream)
Smart Codec	Smart H.265+ Smart H.264+

AI Coding	AI H.265 AI H.264
Video Frame Rate	Main stream: 3072 × 2048 @ (1–25/30) fps Sub stream 1: 704 × 576 @ (1–25 fps)/704 × 480 @ (1–30 fps) Sub stream 2: 1920 × 1080 @ (1–25/30) fps *The values above are the max. frame rates of each stream; for multiple streams, the values will be subjected to the total encoding capacity
Stream Capability	3 streams
Resolution	6M (3072 × 2048); 5M (2592 × 1944); 4M (2688 × 1520); 3.6M (2560 × 1440); 3M (2048 × 1536); 3M (2304 × 1296); 1080p (1920 × 1080); 1.3M (1280 × 960); 720p (1280 × 720); D1 (704 × 576/704 × 480); CIF (352 × 288/352 × 240); VGA (640 × 480)
Bit Rate Control	CBR/VBR
Video Bit Rate	H.264: 3 kbps–8192 kbps H.265: 3 kbps–8192 kbps
Day/Night	Auto (ICR)/Color/B/W
BLC	Yes
HLC	Yes
WDR	120 dB
Scene Self-adaptation (SSA)	Yes
White Balance	Auto; natural; street lamp; outdoor; manual; regional custom
Gain Control	Auto
Noise Reduction	3D NR
Motion Detection	OFF/ON (4 areas, rectangular)
Region of Interest (RoI)	Yes (4 areas)
Defog	Yes
AFSA	Yes
Image Rotation	0°/90°/180°/270° (support 90°/270° with 2688 × 1520 resolution and lower)
Mirror	Yes
Privacy Masking	4 areas
Audio	
Built-in MIC	Yes
Audio Compression	G.711a; G.711Mu; PCM; G.726; G.723

Alarm

Alarm Event	No SD card; SD card full; SD card error; service life warning (only supported by Dahua card); network disconnection; IP conflict; illegal access; motion detection; video tampering; intrusion; tripwire; scene changing; audio detection; voltage detection; SMD; safety exception
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Network

Network Port	RJ-45 (10/100 Base-T)
SDK and API	Yes
Network Protocol	IPv4; IPv6; HTTP; TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; IGMP; IGMP; NFS; SAMBA; PPPoE; SNMP

Cyber Security	Video encryption; Firmware encryption; Configuration encryption; Digest; WSSE; Account lockout; Security logs; IP/MAC filtering; Generation and importing of X.509 certification; syslog; HTTPS; 802.1x; Trusted boot; Trusted execution; Trusted upgrade
Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI; P2P; Milestone; Genetec
User/Host	20 (Total bandwidth: 64 M)
Storage	FTP; SFTP; Micro SD card (support max. 256 G); NAS
Browser	IE:IE11 Chrome Firefox
Management Software	Smart PSS; DSS; DMSS
Mobile Client	iOS; Android

Certification

Certifications	CE-LVD: EN62368-1; CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU; FCC: 47 CFR FCC Part 15, Subpart B; UL/CUL: UL62368-1 & CAN/CSA C22.2 No. 62368-1-14
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Power

Power Supply	12 VDC/PoE (802.3af)
Power Consumption	Basic: 4.3 W (12 VDC); 4.9 W (PoE) Max. (WDR + IR intensity + Intelligence): 7.6 W (12 VDC); 8.9 W (PoE)

Environment

Operating Temperature	-40 °C to +60 °C (-40 °F to 140 °F) /Less than 95% (RH)
Storage Temperature	-40 °C to +60 °C (-40 °F to 140 °F)
Protection	IP67

Structure

Casing	Metal
Product Dimensions	93.6 mm × Φ106.0 mm (3.69" × Φ4.17")
Net Weight	500 g (1.10 lb)
Gross Weight	770 g (1.70 lb)

Ordering Information

Type	Model	Description
6MP Camera	DH-IPC-HDW3666EMP-S-AUS	6MP IR Fixed-focal Eyeball WizSense Network Camera
Accessories (Optional)	PFA139	Junction Box
	PFB204W	Wall Mount
	PFA106	Ceiling Mount
	PFB220C	Ceiling Mount
	PFA152-E	Pole Mount
	PFM321D	12 VDC 1 A Power Adapter
	PFM900-E	Integrated Mount Tester
	TF-P100	TLC SD Card

Accessories

Optional:



PFA139
Junction
Box



PFB204W
Wall
Mount



PFA106
Ceiling
Mount



PFB220C
Ceiling
Mount



PFA152-E
Pole
Mount



PFM321D
12 VDC 1 A
Power Adapter



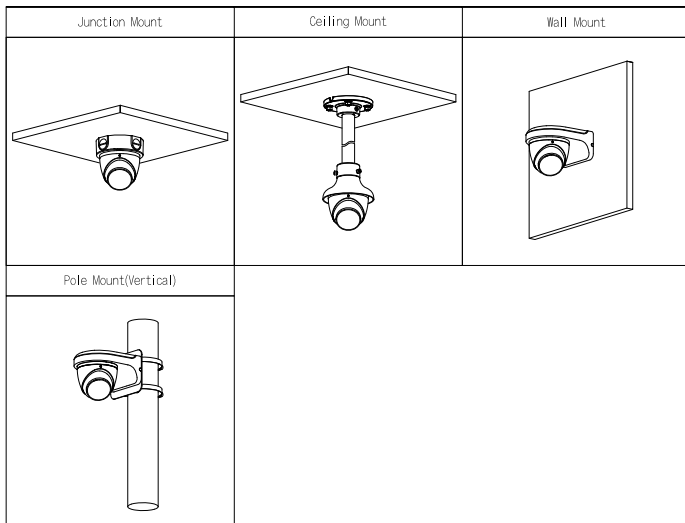
LR1002-1ET/1EC
Single-port Long Reach
Ethernet Over Coax
Extender



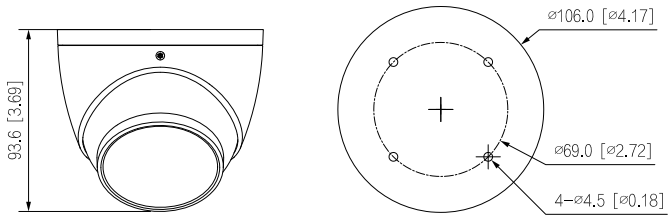
PFM900-E
Integrated
Mount Tester



TF-P100
TLC SD
Card



Dimensions (mm[inch])



Technical Specification

System

Main Processor	Quad-core embedded processor
Operating System	Embedded LINUX

Audio and Video

IP Camera Input	4/8 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 Capacity	2ch@4K(30fps)/8ch@1080P(30fps)
Multi-screen Display	4CH: 1/4
	8CH: 1/4/8/9
OSD	Camera title, Time, Camera lock, Motion detection, Recording

Recording

Compression	Smart H.265+/H.265/Smart H.264+/H.264
Resolution	8Mp/ 6Mp/ 5MP/ 4MP/ 3MP/ 1080P/ 1.3MP/ 720P etc.
Record Rate	80Mbps
Bit Rate	16Kbps ~ 20Mbps Per Channel
Record Mode	Manual, Schedule (Regular, Continuous), MD (Video detection: Motion Detection, Tampering, Video Loss), 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, Video Push, Email, Snapshot, Buzzer and Screen Tips
Video Detection	Motion Detection, MD Zones: 396 (22 × 18), Video Loss and Tampering
Alarm input	N/A
Alarm output	N/A

Playback and Backup

Playback	4CH: 1/4
	8CH: 1/4/9
Search Mode	Time /Date, MD and Exact Search (accurate to second), Smart search
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

Third-party Support

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

Interface	1 RJ-45 Port (10/100Mbps)
Ethernet Port	1 Independent 100Mbps Ethernet Port
PoE	4 Ports(IEEE802.3at/af)
Network Function	HTTP, HTTPS, TCP/IP, IPv4/IPv6, UPnP, RTSP, UDP, SMTP, NTP, DHCP, DNS, IP Filter, DDNS, FTP, SNMP, IP Search (Support Dahua IP camera, DVR, NVS, etc.)
Max. User Access	128 users
Smart Phone	iPhone, iPad, Android
Interoperability	ONVIF 2.4, SDK, CGI

Storage

Internal HDD	1 SATA III Port, Up to 6 TB capacity for each HDD
HDD Mode	Single

Auxiliary Interface

USB	2 ports (1 Rear USB2.0, 1 Front USB2.0)
RS232	N/A
RS485	N/A

Electrical

Power Supply	DC48V/1.5A
Power Consumption	NVR: <7.5W (Without HDD)
	PoE: Max 25.5W for single port, 50W in total

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	Compact 1U, 260mm×224.9mm×47.6mm (10.2" x 8.9" x 1.9")
Net Weight	0.8kg (1.76 lb) (without HDD)
Gross Weight	1.6kg(3.53 lb)(without HDD)

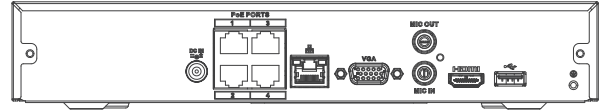
Certifications

CE	EN55032, EN55024, EN50130-4, EN60950-1
FCC	Part 15 Subpart B, ANSI C63.4-2014
UL	UL60950-1

Ordering Information

Type	Part Number	Description
4 Channel NVR	DHI-NVR4104HS-P-4KS2	4 Channel Compact 1U 4PoE 4K&H.265 Lite Network Video Recorder
8 Channel NVR	DHI-NVR4108HS-P-4KS2	8 Channel Compact 1U 4PoE 4K&H.265 Lite Network Video Recorder

Rear Panel



Dimensions (mm)

