WizSense

dahua TECHNOLOGY

VKD MH2434G4

2MP IR Fixed focal Bullet WizSense 4G Network Camera

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

With advanced deep learning algorithm, Dahua WizSense 3 Series network camera supports intelligent functions, such as perimeter protection and smart motion detection. With starlight technology, this series camera provides a better image effect in the condition of low illuminance.

Functions

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.

SMD

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.

4G

With a built-in high-performance 4G mobile network module, the camera can be directly registered to cloud platforms after a 4G SIM card has been inserted into it. It can be installed anywhere without the hassle of network cables. Users can perform real-time monitoring and remote control of the camera from a mobile client through 4G network.

- 2MP 1/2.8" CMOS image sensor, low luminance, and high definition image.
- Outputs max. 2MP (1920 × 1080)@25/30 fps.
- H.265 codec, high compression rate, ultra-low bit rate.
- Built-in IR LED, and the max. illumination distance is 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, no SD card, SD card full, SD card error, network disconnection, IP conflict, and illegal access.
- Support low power push alarm function; support the intergration of solar energy.
- Support the camera to get the power information through 485 link, and OSD overlay display.
- Alarm: 2 in,2 out; audio: 1 in, 1 out; 1 RS-485; supports max. 256 G Micro SD card.
- 12 VDC power supply.
- IP67 protection.
- SMD 3.0.

WDR

With advanced Wide Dynamic Range (WDR) technology, Dahua network camera provides clear details in the environment of strong brightness contrast. The bright and dark area can get clear video even in high brightness environment or with backlight shadow.

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 works normal after soaking in 1 m deep water for 30 minutes.
Wide voltage: The camera allows ±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 camera is equipped with a series of key security technologies, such as security authentication and authorization, access control, trusted protection, encrypted transmission, and encrypted storage, which improve its security defense and data protection, and prevent malicious programs from invading the device.

Wiz Sense

Technical Specification

Camera

Image Sensor	1/2.8" CMOS
Effective Pixels	1920 (H) × 1080 (V)
ROM	128 MB
RAM	512 MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100,000 s
Min. Illumination	0.002 Lux@F1.6(Color,30IRE) 0.0002 Lux@F1.6(B/W,30IRE) 0 lux (Illuminator on)
S/N Ratio	> 56 dB
Illumination Distance	50 m (273 ft) (IR)
Illuminator On/Off Control	Auto; Manual
Illuminator Number	2 (IR LED)
Pan/Tilt/Rotation Range	Pan: 0°–360° Tilt: –60°–0° Rotation: 0°–360°

Lens

Lens Type	Fixed-focal
Mount Type	M12
Focal Length	2.8mm; 3.6mm; 6mm
Max. Aperture	2.8mm:F1.6 3.6mm:F1.6 6mm:F1.6
Field of View	2.8 mm: Horizontal 107° × Vertical 56° × Diagonal 127° 3.6 mm: Horizontal 88° × Vertical 44° × Diagonal 105° 6 mm: Horizontal 54° × Vertical 29° × Diagonal 63°
Iris Type	Fixed
Close Focus Distance	2.8 mm: 0.7 m (2.5 ft) 3.6 mm: 1.3 m (4.25 ft) 6 mm: 2.8 m (9.15 ft)

DORI Distance	Lens	Detect	Observe	Recognize	Identify
	2.8 mm	43.9 m (144 ft)	17.5 m (57.4 ft)	8.8 m (28.8 ft)	4.4 m (14.4 ft)
	3.6 mm	58.9 m (193 ft)	23.6 m (77.4 ft)	11.8 m (38.4 ft)	5.9 m (19.4 ft)
	6 mm	88.3 m (289.6 ft)	35.3 m (115.8 ft)	17.7 m (58 ft)	8.8 m (28.8 ft)

Professional, Intelligent

Intelligent Search	Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos
SMD 3.0	Less false alarm, longer detection distance
IVS (Perimeter Protection)	Intrusion, tripwire (the two functions support the classification and accurate detection of vehicle and human)
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 Coding AI H.265; AI H.264
Video Frame Rate	Main stream: 1920 × 1080@(1 fps–30 fps) Sub stream: 704 × 576@(1 fps–25 fps)/704 × 480@(1 fps–30 fps) Third stream:1920 × 1080@(1 fps–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	1080p (1920 × 1080); 1.3M (1280 × 960); 720P (1280 × 720); D1 (704 × 576/704 × 480); VGA (640 × 480); CIF (352 × 288)
Bit Rate Control	CBR; VBR
Video Bit Rate	H.264:512kbps-8192kbps H.265:256kbps-7424kbps
Day/Night	Auto (ICR)/Color/B/W
BLC	Yes
HLC	Yes
WDR	120 dB
White Balance	Auto; natural; street lamp; outdoor; manual; regional custom
Gain Control	Auto; manual
Noise Reduction	3D NR
Motion Detection	OFF/ON (4 areas, rectangular)
Region of Interest (RoI)	Yes (4 areas)
Image Rotation	0°/90°/180°/270° (Support 90°/270° with 1920 × 1080 resolution and lower)
Mirror	Yes
Privacy Masking	8 areas

Audio

Audio Compression	PCM; G.711a; G.711Mu; G.726; G.723
Built-in MIC	Yes

Alarm

Alarm Event	No SD card; SD card full; SD card error; network disconnection; IP conflict; illegal access; motion detection; video tampering; tripwire; intrusion; scene changing; audio detection; voltage detection; external alarm; SMD; security exception

Network

Network	RJ-45 (10/100 Base-T)
SDK and API	Yes
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

Network Protocol	IPv4; IPv6; HTTP;TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; SAMBA; PPPoE; SNMP
Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI; P2P; Milestone
User/Host	20 (Total bandwidth: 64 M)
Storage	FTP;SFTP; Micro SD card (support max. 256 GB); NAS
Browser	IE: IE8/9/11 Chrome Firefox
Management Software	Smart PSS;DSS;DMSS
Mobile Client	iOS;Android
4G	4G_LTE: B1/B3/B5/B7/B8/B20/B28/B38/B40/B41 3G_WCDMA : B1/B5/B8 2G_GSM :B3/B5/B8

Certification

Certifications	CE-LVD: EN62368-1 CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC: 47 CFR FCC Part 15, Subpart B

Port

RS-485	1 (baud rate range:1200 bps–115200 bps)
Audio Input	1 channel (RCA port)
Audio Output	1 channel (RCA port)
Alarm Input	2 channels in: 5 mA 3 V–5 VDC
Alarm Output	2 channels out: 300 mA 12 VDC

Power

Power Supply	12 VDC
Power Consumption	Basic: 3.3 W (12 VDC); Max. (WDR+H.265+IR+4G): 5.9W (12 VDC)

Environment

Operating Temperature	−30 °C to +60 °C (−22 °F to +140 °F)
Operating Humidity	≤ 95%
Storage Temperature	−30 °C to +70 °C (−22 °F to +163 °F)
Protection	IP67

Structure

Casing	Metal + plastic
Dimensions	227.6 mm × 204.2mm × 87.2 mm (9.0" × 8.0" × 3.4")
Net Weight	945 g (2.1 lb)
Gross Weight	1440 g (3.1 lb)

Accessories

Standard:

Wall Mount Bracket

Optional：

Pole Mount Bracket   Celling Mount Bracket   12V DC 1 A Power Adapter
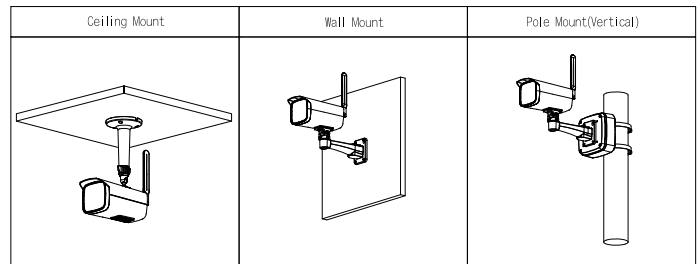

LR1002-1ET/1EC Single-port Long Reach Ethernet over Coax Extender

PFM900-E Integrated Mount Tester

TLC SD Card

Ceiling Mount	Wall Mount	Pole Mount(Vertical)

Dimensions (mm[inch])

186.0 [7.32]

154.3 [6.08]

85.1 [3.35]

87.2 [3.43]

204.2 [8.04]

227.6 [8.96]

49.8 [1.96]

33.6 [1.32]

31.0 [1.22]

2−1/4−20 × 6UNC

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