WizSense

Dahua TECHNOLOGY

VKD MH4935A
4MP IR Fixed focal Dome WizSense Network Camera

WizSense

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

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.

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.

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, fast moving, parking detection, loitering detection and gathering detection) are largely reduced.

- 4MP, 1/3" CMOS image sensor, low illuminance, high image definition
- Outputs max. 4MP (2688 × 1520) @30 fps
- H.265 codec, high compression rate, low bit rate
- Built-in IR LED, max. IR distance: 50 m
- ROI, SMART H.264+/H.265+, flexible coding, applicable to various bandwidth and storage environments
- Rotation mode, WDR, 3D DNR, 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, video tampering, scene changing, audio detection, no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, voltage detection
- Supports max. 256 G Micro SD card, built-in Mic
- 12V DC/POE power supply
- IP67, IK10 protection
- SMD Plus
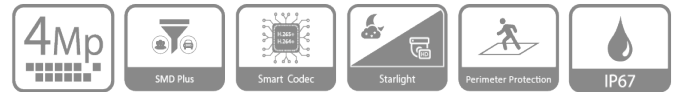
Starlight

Dahua Starlight technology mainly applies to the environment of low illumination, and it can provide clear colorful video. Even in the environment of min. illumination, the technology can guarantee the good image effect.

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, IK10, 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.

IK10: The enclosure can stand the punch more than 5 times from a 5 kg hammer falling from a height of 40 cm (Impact energy is 20J).

Wide voltage: The camera allows ±30% input voltage tolerance (wide voltage range), and it is widely applied to outdoor environment with instable voltage.

Onvif

WizSense

Technical Specification

Camera

Image Sensor	1/3"4Megapixel progressive CMOS
Max. Resolution	2688 (H) ×1520 (V)
ROM	128 MB
RAM	512 MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100000 s
Min. Illumination	0.005 Lux@F1.6
S/N Ratio	> 56 dB
Illumination Distance	50 m (164.0 ft)
Illuminator On/Off Control	Auto/Manual
Illuminator Number	8 (IR LED)
Pan/Tilt/Rotation Range	Pan: -30°–30°; Tilt: 0°–80°; Rotation: 0° to 360°

Lens

Lens Type	Fixed-focal
Mount Type	M12
Focal Length	2.8 mm; 3.6 mm; 6 mm
Max. Aperture	F1.6
Field of View	2.8 mm: Horizontal:103°; vertical: 55°; diagonal: 122° 3.6 mm: Horizontal:84°; vertical: 45° ; diagonal: 100° 6 mm: Horizontal:52°; vertical: 28°; diagonal: 61°
Iris Type	Fixed
Close Focus Distance	2.8 mm: 0.9 m (3.0 ft) 3.6 mm: 1.6 m (5.3 ft) 6 mm: 3.2 m (10.5 ft)

Lens	Detect	Observe	Recognize	Identify
DORI Distance 2.8mm	56.0 m (183.7 ft)	22.4 m (73.5 ft)	11.2 m (36.8 ft)	5.6 m (18.4 ft)
3.6mm	80.0 m (262.5 ft)	32.0 m (105.0 ft)	16.0 m (52.5 ft)	8.0 m (26.3 ft)
6mm	120.0 m (393.7 ft)	48.0 m (157.5 ft)	24.0 m (78.7 ft)	12.0 m (39.4 ft)

Professional, Intelligent

Perimeter Protection	Tripwire; intrusion (Recognition of human and vehicle)
Intelligent 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 sub stream)
Smart Codec	Smart H.265+/ Smart H.264+
Video Frame Rate	Main stream (2688 × 1520@1–25/30 fps) sub stream (704 × 576@1–25 fps/704 × 480@1–30 fps) third stream (1280 × 720@1–25/30 fps)
Stream Capability	3 streams

Resolution	4M (2688 × 1520); 3M (2304 × 1296); 1080p (1920 × 1080); 1.3M (1280 × 960); 720p (1280 × 720); D1 (704 × 576/704 × 480); VGA (640 × 480); CIF (352 × 288/352 × 240)
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
White Balance	Auto/natural/street lamp/outdoor/manual/regional custom
Gain Control	Auto/Manual
Noise Reduction	3D DNR
Motion Detection	OFF/ON (4 areas, rectangular)
Region of Interest(RoI)	Yes (4 areas)
Smart Illumination	Yes
Image Rotation	0°/90°/180°/270° (Support 90°/270° with 1920 × 1080 resolution and lower.)
Mirror	Yes
Privacy Masking	4 areas

Audio

Built-in MIC	Yes
Audio Compression	G.711a; G.711Mu; G726; AAC

Alarm

Alarm Event	No SD card; SD card full; SD card error; less service time of SD card (smart card supports); network disconnection; IP conflict; illegal access; voltage detection; security exception; motion detection; video tampering; scene changing; intensity change; tripwire; intrusion; SMD

Network

Network	RJ-45 (10/100 Base-T)
SDK and API	Yes
Protocol	IPv4;IPv6;HTTP;HTTPS;TCP;UDP;ARP;RTP;RTSP;RTCP; RTMP;SMTP;FTP;SFTP;DHCP;DNS;DDNS;QoS;UPnP;NTP; Multicast;ICMP;IGMP;NFS;PPPoE;802.1x;SNMP
Interoperability	ONVIF(Profile S/Profile G);CGI;P2P;Milestone;Genetec
Scene Self-adaptation	Yes
User/Host	20 (Total bandwidth: 64 M)
Storage	FTP; SFTP;Micro SD Card (support max. 256 G); Dahua Cloud; NAS
Browser	IE: IE8, IE9, IE11 Chrome Firefox
Management Software	Smart PSS, DSS, DMSS
Mobile Phone	IOS; Android

Certification

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

Power

| Power Supply | 12V DC/PoE (802.3af) |
| Power Consumption | <5.7W |

Environment

Operating Conditions	-40°C to +60°C (-40°F to +140°F)/ less than 95%
Storage Conditions	-40°C to +60°C (-40°F to +140°F)
Protection Grade	IP67; IK10

Structure

Casing	Metal
Dimensions	55 mm × Φ108.9 mm (2.2" × Φ4.3")
Net Weight	380 g (0.8 lb)
Gross Weight	520 g (1.1 lb)

Accessories

Optional:

SFD07AJ
Junction Box

SFD04W
Wall Mount

SFU00AP2
Pole Mount

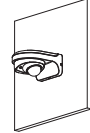SFS00C
Ceiling Mount

SFS06AF
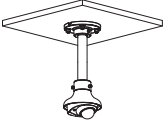Mount Adapter

DC12V1A
Power Adapter
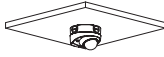
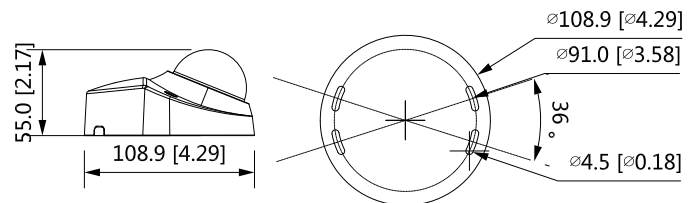LR1002-1ET/1EC
Single-port long reach ethernet over coax extender

PFM900-E
Integrated Mount tester

PFM114
TLC SD card

Junction Mount	Wall Mount	Pole Mount	Celling Mount
SFD07AJ	SFD04W	SFD04W +SFU 00AP2	SFS00C +SFS 06AF

Dimensions (mm[inch])

55.0 [2.17]
108.9 [4.29]
∅108.9 [∅4.29]
∅91.0 [∅3.58]
36°
∅4.5 [∅0.18]