DH-IPC-HDW2649T-S-PRO

6MPWizColorFixed -focalEyeballWizSenseNetworkCamera

Launched by Dahua Technology, WizSense is a series of AI products and soluons 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 soluons.

Series Overview

With advanced deep learning algorithm, Dahua WizSense 2 Series network camera supports intelligent funcons, such as perimeter protecon and smart moon detecon. With starlight technology, this series camera provides a beer image effect in the condion of low illuminance.

Functions

WizColor Technology

Dahua WizColor Technology seamlessly combines with the powerful AI-ISP, large pixel size sensor and large aperture in cameras. This unique integraon enables cameras to effortlessly capture high-quality images with vibrant colors during nightme scenarios, ensuring fine details are preserved and minimizing moon blur. Unlike tradional self-illuminang cameras, Dahua WizColor Technology maximizes the ulizaon of weak light sources, such as moonlight and city lights reflected in the sky, delivering capvang full-color images of the enre scene. It also ensures that monitoring distances are not compromised at night due to limited illuminaon ranges, facilitang full-color image capture even over long distances.

AI-ISP

With AI ISP technology, the camera is able to easily adapt to scenes, producing high quality images that reveal the fine details of targets.

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.

- 1/1.8" CMOS image sensor, low luminance, and high definition image.
- Outputs max. 6MP (3288 ×1850) @20 fps, and supports 4MP (2688 × 1520) @25/30 fps.
- H.265 codec, high compression rate, ultra-low bit rate.
- Built-in warm light, and the max. illumination distance is 30 m.
- ROI, SMART H.264+/H.265+, flexible coding, applicable to various bandwidth and storage environment
- Rotation mode, WDR, 3D NR, HLC, BLC, digital watermarking, applicable to various monitoring scenes.
- Intelligent monitoring: Intrusion, tripwire (the two functions support the classification and accurate detecon of vehicle and human)
- Abnormality detection: Motion detection, video tampering, audio detection, no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, and voltage detection.
- Supports max. 256 G Micro SD card; built in Mic
- 12 VDC/PoE power supply, easy for installation.
- IP67 protection.
- SMD Plus.

Perimeter Protecon

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

Smart H.265+ & Smart H.264+

With advanced scene-adapve 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.

Protecon (IP67, Wide Voltage)

IP67: The camera passes a series of strict test on dust and soak. It has dust-proof funcon, and the enclosure can work normally aer 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.

Image Sensor	1/1.8" CMOS
Max. Resoluon	(H) × 1850 (V)
ROM	MB
RAM	MB
Scanning System	Progressive
Electronic Shuer Speed	Auto/Manual 1/3 s–1/100,000 s
Min. Illuminaon	0.0007 Lux@F1.0
S/N Rao	>56 dB
Illuminaon Distance	Up to 30 m (98.43) (Warm light)
Illuminator On/Off Control	Auto;Manual
Illuminator Number	(Warm light)
Lens Type	Fixed-focal
Lens Mount	M16
Focal Length	2.8 mm; 3.6 mm
Max. Aperture	F1.0
Field of View	2.8 mm: H: 92°; V: 51°; D: 107° 3.6 mm: H: 78°; V: 42°; D: 91°
Iris Control	Fixed
Close Focus Distance	2.8 mm: 2.8 m (9.19) 3.6 mm: 4 m (13.12)

DORI Distance	Lens	Detect	Observe	Recognize	Idenfy
	2.8 mm	84.0 m (275.59)	33.6 m (110.24)	16.8 m (55.12)	8.4 m (27.56)
	3.6 mm	102.0 m (334.65)	40.8 m (133.86)	20.4 m (66.93)	10.2 m (33.46)

*DORI (Detec

*DORI (Detect, Observe, Recognize, Identify) is a standard system (EN-62676-4) for defining the ability of a person viewing the video to distinguish persons or objects within a covered area. The numbers in this table do not reflect intelligent function distances. For intelligent function distances, refer to installation and commissioning manual/ project design tool.

IVS (Perimeter Protecon)	Intrusion, tripwire (the two funcons support the classificaon and accurate detecon of vehicle and human)
SMD	SMD Plus
Smart Search	Work together with Smart NVR to perform refine intelligent search, event extracon and merging to event videos

Smart Codec	Smart H.265+; Smart H.264+
Video Frame Rate	Main stream: 3288 × 1850@(1–20 fps)/2688 × 1520@(1–25/30 fps) sub stream: 704 × 576@(1–25 fps)/704 × 480@(1–30 fps) *The values above are the max. frame rates of each stream; for mulple streams, the values will be subjected to the total encoding capacity.
Streaming Capability	streams
Resoluon	6M (3288 × 1850/3200 × 1800); 5M (2880 × 1620); 4M (2688 × 1520); 3M (2048 × 1536); 2304 × 1296 (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	VBR;CBR
Video Bit Rate	H.264: 32 kbps–8192 kbps; H.265: 12 kbps–8192 kbps
Day/Night	Color/B/W
BLC	Yes
HLC	Yes
WDR	dB
White Balance	Auto; natural; street lamp; outdoor; manual; regional custom
Gain Control	Auto/Manual
Noise Reducon	3D NR
Moon Detecon	OFF/ON (4 areas, rectangular)
Region of Interest (RoI)	Yes (4 areas)
Smart Illuminaon	Yes
Image Rotaon	0°/90°/180°/270° (Support 90°/270° with 2688 × 1520 resoluon and lower)
Mirror	Yes
Privacy Masking	areas
LDC	Yes

Audio

Built-in MIC Yes, built-in Mic Audio Compression G.711a; G.711Mu; PCM; G.726
Alarm
Alarm Event No SD card; SD card full; SD card error; network disconnection; IP conflict; illegal access; motion detection; video tampering; tripwire; intrusion; audio detection; voltage detection; SMD; security exception
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; ICMP; IGMP; NFS; PPPoE; P2P; Bonjour; Auto Registration
Interoperability ONVIF (Profile S & Profile G & Profile T); CGI

User/Host	20 (Total bandwidth: 48 M)
Storage	FTP; SFTP; Micro SD card (support max. 256 GB); NAS
Browser	IE; Chrome; Firefox
Management Software	Smart PSS Lite; DSS; DMSS
Mobile Client	iOS;Android
Security	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;Session security;Security warning

Certification

Certifications	CE-LVD: EN62368-1; CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU

Power

Power Supply	12 VDC (±30%); PoE (802.3af)
Power Consumption	Basic: 2.4 W (12 VDC); 3 W (PoE) Max. (H.265+ intelligence on + WDR + illuminator intensity): 5.6 W (12 VDC); 6.4 W (PoE)

Environment

Operating Temperature	–40 °C to +60 °C (–40 °F to +140 °F)
Operating Humidity	≤95% (RH), non-condensing
Storage Temperature	–40 °C to +60 °C (–40 °F to +140 °F)
Storage Humidity	≤95% (RH), non-condensing

Structure

Casing Material	Inner core: Metal; Cover: Plastic
Product Dimensions	109.5 mm × Φ109.9 mm (4.31" × Φ4.33")
Net Weight	0.42 kg (0.93 lb)
Gross Weight	0.59 kg (1.30 lb)

Ordering Information

Type	Model	Description
IP CAMERA	DH-IPC-HDW2649T-S-PRO	6MP WizColor Fixed-focal Eyeball WizSense Network Camera
Accessories (Optional)	DH-PFA109	Mount Adapter
	DH-PFB220C	Ceiling Mount Bracket
	DH-PFB305W	Wall Mount Bracket
	DH-PFA151	Corner Mount Bracket
	DH-PFA150	Pole Mount Bracket
	DH-PFA152-E	Pole Mount Bracket
	DH-PFB205W-E	Wall Mount Bracket
	DH-PFA13G	Junction Box
	DH-PFM321-EN	DC12V1A power adapter

Type	Model	Description
	DH-PFM320D-EN	DC12V2A power adapter
	PFM900-E	Integrated Mount Tester
	DHI-TF-W100-256GB	MicroSD Card
	DHI-TF-P100/256GB	MicroSD Card

Accessories

Optional:

DH-PFA109
Mount Adapter

DH-PFA13G
Junction Box

DH-PFA150
Pole Mount Bracket

DH-PFA151
Corner Mount Bracket

DH-PFA152-E
Pole Mount Bracket

DH-PFB205W-E
Wall Mount Bracket

DH-PFB220C
Ceiling Mount Bracket

DH-PFB305W
Wall Mount Bracket

DH-PFM320D-EN
DC12V2A power adapter

DH-PFM321-EN
DC12V1A power adapter

DHI-TF-P100/256GB
MicroSD Card

DHI-TF-W100-256GB
MicroSD Card

PFM900-E
Integrated Mount Tester

Junction Mount	Ceiling Mount	Wall Mount

Pole Mount(Vertical)

Dimensions (mm[inch])

mm [inch]

109.5 [4.31]

83.3 [3.28]　4-4.5×5.5 [0.18×0.22]

∅84.0 [∅3.31]

3-120°

∅109.9 [∅4.33]