DH-IPC-HDBW3841E-(A)S

8MP 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.
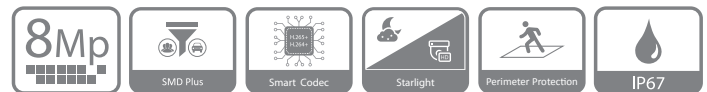
Smart H.265+ & Smart H.264+

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.

- 8MP, 1/2.8" CMOS image sensor, low illuminance, high image definition
- Outputs max. 8MP (3840 × 2160) @20 fps (AI function enabled by default)and supports 8MP (3840 × 2160) @25/30 fps (when AI function disabled)
- H.265 codec, high compression rate, low bit rate
- Built-in IR LED, max. IR distance: 30 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 (Only - AS supports), no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, and voltage detection
- Alarm: 1 in, 1 out (Only - AS supports); audio: 1 in, 1 out (Only - AS supports)
- Supports max. 256 G Micro SD card
- 12V DC/PoE power supply
- IP67, IK10 protection
- SMD Plus

8Mp | SMD Plus | Smart Codec | Starlight | Perimeter Protection | IP67

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.

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. With UL CAP Certification, TÜV Rheinland Protected Privacy IoT Product Certification, and ETSI EN 303645 Certification, Dahua network camera better meets the demands of cyber security and privacy protection.

ONVIF

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.

Technical Specification

Camera

Image Sensor	1/2.8"8Megapixel progressive CMOS
Max. Resolution	3840 (H) × 2160 (V)
ROM	128 MB
RAM	512 MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100,000 s
Min. Illumination	0.007 Lux @F1.4
S/N Ratio	> 56 dB
Illumination Distance	30 m (98.4 ft)
Illuminator On/Off Control	Auto/Manual
Illuminator Number	3 (IR LED)
Pan/Tilt/Rotation Range	Pan: 0°–360° Tilt: 0°–60° Rotation: 0°–355°

Lens

Lens Type	Fixed-focal
Mount Type	M12
Focal Length	2.8 mm;3.6 mm
Max. Aperture	F1.4
Field of View	2.8 mm: Horizontal 108° × Vertical 58° × Diagonal 127° 3.6 mm: Horizontal 85° × Vertical 45° × Diagonal 100°
Iris Type	Fixed
Close Focus Distance	2.8 mm: 1.4 m (4.6 ft) 3.6 mm: 2.4 m (7.9 ft)

	Lens	Detect	Observe	Recognize	Identify
DORI Distance	2.8 mm	85.5 m (280.5 ft)	34.2 m (112.2 ft)	17.1 m (56.1 ft)	8.6 m (28.2 ft)
	3.6 mm	110.3 m (361.9 ft)	44.1 m (144.7 ft)	22.1 m (72.5 ft)	11.0 m (36.1 ft)

Professional, Intelligent

Perimeter Protection	Tripwire; intrusion (support the classification and accurate detection of vehicle and human)
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 the sub stream)
Smart Codec	Smart H.265+/ Smart H.264+
Video Frame Rate	Main stream: 3840 × 2160 @(1–20 fps by default) 3840 × 2160 @(1–25/30 fps when AI function disabled) sub stream: 704 × 576 @(1–25 fps)/704 × 480 @ (1–30 fps) third stream: 1920 × 1080 @(1–25/30 fps)
Stream Capability	3 streams
Resolution	8M (3840 × 2160); 6M (3072 × 2048); 5M (3072 × 1728/2592 × 1944); 4M (2688 × 1520); 3M (2048 × 1536/2304 × 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
Scene Self-adaptation	Yes
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 1080p resolution and lower.)
Mirror	Yes
Privacy Masking	4 areas

Audio

Audio Compression	G.711a; G.711Mu; G726

Alarm

Alarm Event	- AS: 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; external alarm; SMD; safety exception -S: 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; voltage detection; SMD; safety exception

Network

Network	RJ-45 (10/100 Base-T)
SDK and API	Yes
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
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: 72 M)
Storage	FTP; SFTP; Micro SD card (support max. 256 G); 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 UL/CUL: UL60950-1 CAN/CSA C22.2 No.60950-1-07

Port

Audio Input	1 channel (RCA port) (Only - AS supports)
Audio Output	1 channel (RCA port) (Only - AS supports)
Alarm Input	1 channel in: 5mA 3V–5V DC (Only- AS supports)
Alarm Output	1 channel out: 300mA 12V DC (Only- AS supports)

Power

Power Supply	12V DC/PoE (802.3af)
Power Consumption	Basic power consumption: 2.7W (12V DC); 3.6W (PoE) Max. power consumption (WDR + H.265 +IR LED intensity): 6W (12V DC); 7W (PoE)

Environment

Operating Conditions	−40°C to +55°C (−40°F to +131°F)/Less than 95% RH
Storage Conditions	−40°C to +60°C (−40°F to +140°F)
Protection Grade	IP67; IK10

Structure

Casing	Metal
Dimensions	81 mm × Φ109.9 mm (3.2" × Φ4.3")
Net Weight	378 g (0.8 lb)
Gross Weight	523 g (1.2 lb)

Ordering Information

Type	Model	Description
8MP Camera	DH-IPC-HDBW3841EP-AS	8MP IR Fixed focal Dome WizSense Network Camera, PAL
	DH-IPC-HDBW3841EN-AS	8MP IR Fixed focal Dome WizSense Network Camera, NTSC
	DH-IPC-HDBW3841EP-S	8MP IR Fixed focal Dome WizSense Network Camera, PAL
	DH-IPC-HDBW3841EN-S	8MP IR Fixed focal Dome WizSense Network Camera, NTSC
8MP Camera	IPC-HDBW3841EP-AS	8MP IR Fixed focal Dome WizSense Network Camera, PAL
	IPC-HDBW3841EN-AS	8MP IR Fixed focal Dome WizSense Network Camera, NTSC
	IPC-HDBW3841EP-S	8MP IR Fixed focal Dome WizSense Network Camera, PAL
	IPC-HDBW3841EN-S	8MP IR Fixed focal Dome WizSense Network Camera, NTSC
Accessories (optional)	PFA136	Junction Box
	PFA200W	Rain Shade
	PFB203W	Wall Mount
	PFA152-E	Pole Mount
	PFA106	Mount Adapter
	PFB220C	Celling Mount
	PFM321D	DC12V1A Power Adapter
	LR1002-1ET/1EC	Single-port Long Reach Ethernet over Coax Extender
	PFM900-E	Integrated Mount Tester
	PFM114	TLC SD Card

Accessories

Optional:

PFA136 Junction Box	PFA200W Rain Shade	PFB203W Wall Mount
PFA152-E Pole Mount	PFA106 Mount Adapter	PFB220C Celling Mount
PFM321D 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	Wall Mount	Pole Mount
PFA136	PFA136+PFA200W	PFB203W	PFB203W+PFA152-E

Ceiling Mount
PFA106+PFB220C

Dimensions (mm[inch])

41.0 [1.61]

81.0 [3.19]

⌀109.9 [⌀4.33]

⌀98.2 [⌀3.87]

3-⌀4.7 [⌀0.19]