

# DH-SD8A840PA-HNF-5G

8MP 40x 5G Starlight WizMind Network PTZ Camera



Wiz Mind

Launched by Dahua Technology, Dahua WizMind is a full portfolio of solutions composed of project-oriented products including IPC, IVSS,NVR, PTZ, XVR, Thermal and software platform which adopts industry-leading deep learning algorithms. Focusing on customer's requirements, WizMind provides precise, reliable and comprehensive AI solutions for verticals.

#### System Overview

Embedded with an advanced AI chip, this series of cameras provides an all-in-one solution for video surveillance of large areas. Outranking conventional cameras with its extended monitoring range, it automatically tracks targets. It also produces vivid images whether day or night, using infrared technology. It is suitable for a wide variety of scenarios, such as advanced defense areas that require high levels of control. You can also have the camera custom-made with an anti-corrosion structure and IK10.

#### Functions

#### Protection (IP67, TVS 8000 V)

 $\mathsf{IP67},\mathsf{TVS}$  8000 V lightning proof, surge protection, and voltage transient protection.

#### Wide Dynamic Range

The camera produces vivid images, even in high-contrast lighting conditions, by using industry-leading wide dynamic range (WDR) technology. For scenes that quickly alternate between bright and low lighting, WDR adjusts to fully capture both the bright and dark areas of a scene, producing superior quality videos.

#### 5G

Equipped with built-in high-performance 5G mobile communication module, the network camera supports 5G network connection and two networking methods: Non-Standalone (NSA) and Standalone (SA). It is backward compatible with 4G connection (The module is different for band compatibility). It can be registered on the platform through wireless connection, and can transmit videos, pictures, intelligent feature information, and alarm events. Through the client, you can remotely monitor and operate in real time.

- 1/1.8" 8Megapixel STARVIS™ CMOS.
- 40× optical zoom.
- Starlight technology.
- Max. 25/30fps@4K.
- IR distance up to 500 m.
- Auto Tracking 3.0.
- Face recognition.
- IP67.
- 5G.



#### 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, a flexible multi-frame reference structure and intelligent noise reduction to deliver high-quality videos without straining the network. Smart H.265+ technology outranks standard H.265 video compression, reducing bit rate and storage requirements by up to 70%.

#### IVS

With advanced video algorithm, Dahua IVS technology supports intelligent functions, such as tripwire and intrusion.

#### **Face Recognition**

Face attributes are extracted from captured faces, and stored in a database where they can be conveniently searched for and compared against other images. Once a successful match is found, the system outputs the result. The Dahua Face Recognition camera supports a built-in database that stores up to 10,000 face images, allowing the camera to capture and compare face images in real time.

#### Video Metadata

Metadata is information on the attributes of targets that is extracted during monitoring. It can be used for data retrieval. There are four kinds of metadata supported by Dahua PTZ WizMind cameras: Human face, human body, motor vehicle and non-motor vehicle. Face information includes gender, age, glasses, masks, beards, and more. Human body information includes hat, top, top color, bottom, bottom color, bag, and more. Motor vehicle information includes plate color, type, vehicle color, sun visor, ornament, calling, seatbelt, smoking, annual inspection sticker, and more. Non-motor vehicle information includes type, color, top type, top color, people number, and more.

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RAM2GScanning SystemProgressiveMin. IlluminationColor: 0.005 lux@F1.4 SW: 0.0005 lux@F1.4 O lux (IR light on)Illuminator On/Off ControlSoo m (1,640.42 ft) (IR)Illuminator On/Off ControlSoo m Prio; ManualIlluminator NumberIo (IR)Illuminator NumberSupports face detection, point satching supports face detection, sand face enhancement; Supports attributes supports face enhancement; Supports face enhancement; S	Technical Specification	1	Power-off Memory	Yes	
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Piece <th< td=""><td>Image Sensor</td><td>1/1.8" CMOS</td><td>PTZ Protocol</td><td></td></th<>	Image Sensor	1/1.8" CMOS	PTZ Protocol		
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Bit Munination Youmber     D0 (M)     Capture (M) <thcapture (m)<="" th=""></thcapture>	Illumination Distance	500 m (1,640.42 ft) (IR)	IVS (Perimeter Protection)	parking detection; people gathering; vehicle/human	
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Lens Supports face cubic face one include to C.gaturing of timation, and quality first equipation and quality first equipating and quality first equality equipation and quality first equipa	Wiper	Smart wiper			
Focal Length56 mm-223 mmSupport sup to 5 face database; registers person one point of the set face similarity: compare faces with 10,000 faces.Max. ApertureF14-F4.5F14-F4.5Auto TrackingYesField of View $400^{-1}$ $400^{-1}$ Video CompressionSupport sup to 5 face database; registers person one point of the set faces with 10,000 faces.Optical Zoom $400^{-1}$ $1.52^{-1}$ Video CompressionH:636H;H:264B;Smart H:264B;M:BEGGbbClose focus Distance $0.5m-2m(1+6+5-5t)$ $5treaming CapabilityStreaming CapabilityStreaming CapabilityStreaming CapabilityClose focus DistanceObserveRecognizeIntelliveAttack StripAttack Add (Capa Capability)Streaming CapabilityStreaming CapabilityStreaming CapabilityDoRI DistanceObserveRecognizeIntelliveAttack StripAttack StripAttack StripAttack StripDoRI DistanceObserveRecognizeIntelliveAttack StripAttack StripAttack StripAttack StripDoRI DistanceOpticationStreaming CapabilityStreaming CapabilityStreaming CapabilityStreaming CapabilityStreaming CapabilityStreaming CapabilityDoRI DistanceOpticationStreaming CapabilityStreaming CapabilityStreaming CapabilityStreaming CapabilityStreaming CapabilityDoRI DistanceObserveRecognizeIntelliveAttack StripAttack StripAttack StripDoRI DistancePrincipicationStreaming CapabilityStreaming Capability$	Lens		Face Recognition		
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Optical Zoom40×VideOFocus ControlAuto; semi-uto; manualVideO CompressionNL5641;H.364B;Smart H.2654;H.264,MIPEG(Sub Stream);Smart H.2641;H.264B;Smart H.2654;H.264,MIPEG(SubClose Focus Distance0.5 m-2 m (L641-6.55 f)VideO CompressionStream);Smart H.2641;H.264B;Smart H.2659;H.264,MIPEG(Sub Stream);Smart H.2641;H.264B;Smart H.2659;H.264,MIPEG(SubIris ControlAuto; ManuelStreaming CapabilityStreaming CapabilityStreaming CapabilityDORI DistanceDeserveNeecognizeIdentifyMain stream: 4K/4M/1080p/960p/720p;Ql=25/30 (ps) Sub stream 1: DI/CIFQ (1-25/30 (ps) Sub stream 1: DI/CIFQ (1-25/30 (ps)) Sub stream 1: DI/CIFQ (1-25/30 (ps)) 	Max. Aperture	F1.4-F4.5			
Focus Control   Auto; semi-uto; manual   Video Compression   H_264H;H_264B;Smart H.264+;H.264M/PEG(Sub Stream);Smart H.264+;H.264M/PEG(Sub S	Field of View	H: 63.9°–2.1°; V: 37.3°–1.2°; D: 71.2°–2.4°	Auto Tracking	Yes	
Focus control     Stream     Stream <ths< td=""><td>Optical Zoom</td><td>40×</td><td>Video</td><td></td></ths<>	Optical Zoom	40×	Video		
Inits Control     Auto; Marual     Streaming Capability     Streaming Capability     Streaming Capability     Streaming Capability       Inits Control     Observe     Recognize     Identify     Auto; Marual     Au	Focus Control	Auto; semi-auto; manual	Video Compression		
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Detect     Observe     Recognize     Identify       4,400.0 m     1,738.0 m     880.0 m     440.0 m       1,4435.59 ft)     1,738.0 m     2,887.14 ft)     (1,443.57 ft)       50DRI Distance     30DRI (Detect, Observe, Recognize, Identify) is a standard system (EN-62567-64) for defining the ability of a person viewing the video fring the ability of a person viewing the video fring the ability of a person viewing the video fring the ability of a person viewing the video fring the ability of a person viewing the video fring the ability of a person viewing the video fring the ability of a person viewing the video fring the ability of a person viewing the video fring the ability of a person viewing the video fring the ability of a person viewing the video fring the ability of a person view in the light function distances, refer to installation and commission and the filter thicklight function distances, refer to installation and commission and the filter thicklight function distances, refer to installation and commission and the filter thicklight function distances, refer to installation and commission and the filter thicklight function distances free for the stallation and commission and the filter thicklight function distances free for the stallation and commission and the filter function distances free for the stallation and commission and the filter function distances free for the stallation and commission and the filter function distances free for the stallation and commission and the filter function distances free for the stallation and commission and the filter function distances free for the stallation and commission and commission and the filter function distances for the stallation and commission and commission and filter function distances for the stallation and filt	Iris Control	Auto; Manual	Decelution		
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table do not reflect intelligent function distances, refer to installation and commissioning manual/project design tool.Video Bit RateL264: 512 kbps-16384 kbps H.255: 256 kbps-9984 kbpsPTZDay/NightAuto (ICR)/Color/B/WPan-Tilt RangePan: 0' to 360° endless Tilt: -30° to +90°, auto flip 180°BLCVideo Bit RateManual Control SpeedPan: 0.1/s-240°/s Tilt: 0.1's-575'sHLCVoltePreset SpeedPan: 200/s; Tilt: 100°/sMite BalanceAuto; indior; outdoor; ATW; manual; sodium lamp; natural light; street lampPreset300Auto; and and ControlAuto; manualPattern5San5San	DORI Distance	of a person viewing the video to distinguish persons	Bit Rate Control	CBR/VBR	
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Preset 300 Gain Control Auto; manual   Tour 8 (up to 32 presets per tour) Noise Reduction 2D NR; 3D NR   Pattern 5 Region of Interest (Rol) Yes	Preset Speed	Pan: 220°/s; Tilt: 100°/s	White Balance		
Pattern 5 Scan 5	Preset	300	Gain Control		
Scan 5	Tour	8 (up to 32 presets per tour)	Noise Reduction	2D NR; 3D NR	
Scan 5 Defog Optical Defog	Pattern	5	Region of Interest (Rol)	Yes	
	Scan	5	Defog	Optical Defog	

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Digital Zoom	16×	
Image Rotation	180°	
Privacy Masking	Up to 24 areas can be set, with up to 8 areas in the same view	
S/N Ratio	≥55 dB	
Audio		
Audio Compression	G.711a; G.711Mu; G7221; G726; MP2L2; G729	
Network		
Network Port	RJ-45 (10/100 Base-T)	
4G	Yes	
Carrier Network System	4G;5G	
Wireless Carrier Frequency Band	5G NR: N1/2/3/5/7/8/25/38/40/41/48/66/77/78/79 LTE-TDD: Band 34/38/39/40/41/42/48 LTE-FDD: Band 1/2/3/4/5/7/19/25/30/32/66 UMTS: Band 1/2/3/4/5/8/19	
Max Transmission Power	5G: Power class2: 26 dBm + 2/-3 dB Power class3: 23 dBm ± 2 dB 4G: Power class2: 26 dBm + 2/-3 dB Power class3: 23 dBm ± 2 dB 3G: Power class3: 24 dBm + 1/-3 dB	
Network Protocol	TCP; FTP; RTMP; IPv6; IPv4; DNS; RTCP; PPP0E; NTP; RTP; 802.1x; HTTPS; SNMP; DDNS; UPnP; ICMP; UDP; IGMP; HTTP; DHCP; SMTP; SNMPv1/v2c/v3 (MIB-2); Qos; RTSP; ARP	
Interoperability	ONVIF (ProfileS&G&T); CGI; Dahua SDK	
Streaming Method	Unicast/Multicast	
User/Host	20 (total bandwidth: 64 M)	
Storage	FTP; Micro SD card (512 GB); NAS	
Browser	IE 9 and later versions Chrome 41 and later versions Firefox 50 and later versions iOS 10 and later versions	
Management Software	DMSS; DSS pro	
Mobile Client	iOS; Android	
Certification		
Certifications	CE: EN55032/EN55024/EN50130-4/EN55035/ EN61000-3-2/EN61000-3-3/EN62368-1 FCC: Part15 subpartB	
Port		
Analog Output	1 channel (CVBS output, BNC)	
RS-485	1 (baud rate: 1200 bps-9600 bps)	
Audio Input	1 channel (LINE IN, bare wire)	
Audio Output	1 channel (LINE OUT,bare wire)	
Alarm Linkage	Capture; preset; tour; pattern; recordings; alarm digital input; send email	
Alarm Event	Motion/Tampering detection; audio detection; network disconnection detection; IP conflict detection; memory card state detection; memory space detection	
Alarm I/O	7/2	
Audio I/O	1/1	

Power				
Power Supply	36 VDC/3 A±25%			
Power Consumption	Basic: 22 W Max.: 53 W (illuminator + PTZ + pulling stream in 5G)			
Environment				
Operating Temperature	-40 °C to +70 °C (-40 °F to +158 °F)			
Operating Humidity	≤95%			
Storage Temperature	-40 °C to +70 °C (-40 °F to +158 °F)			
Storage Humidity	≤95%			
Protection	IP67, TVS 8000 V lightning proof; surge protection; voltage transient protection			
Structure				
Product Dimensions	415.9 mm × Φ262.0 mm (16.37" × Φ10.32")			
Net Weight	8.5 kg (18.74 lb)			
Gross Weight	13.3 kg (29.32 lb)			

Ordering Information					
Туре	Model	Description			
8M WizMind PTZ Camera	DH-SD8A840PA-HNF-5G	8MP 40x 5G Starlight WizMind Network PTZ Camera			
Accessories	DC36V/2.23A	Power Adapter			
	PFB306W	Wall Mount Bracket			
	PFA118	Mount Adapter			
	PFB710C	Ceiling Mount Bracket			
	PFA150	Pole Mount Bracket			
	PFB301S-E	Plane Mount Bracket			
	PFA120	Junction Box			
	PFB301C	Ceiling Mount Bracket			
	PFA151	Corner Mount Bracket			

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### Accessories

### Included:



DC36V/2.23A Power Adapter

Optional:



PFA118 Mount Adapter



PFB301S-E Plane Mount Bracket



PFA151 Corner Mount Bracket



PFB306W Wall Mount Bracket



PFB710C Ceiling Mount Bracket



PFA120 Junction Box



PFA150 Pole Mount Bracket



PFB301C Ceiling Mount Bracket

Wall Mount	Ceiling Mount	Ceiling Mount
PFB306W+PFA120	PFA118+PFB710C	PFA118+PFB301C
	Î	
Pole Mount(Vertical)	Corner Mount	Pole Mount(Horizontal)
PFB306W+PFA150	PFB306W+PFA151	PFA118+PFB301C+PFA150
Plane Mount PFA118+PFB3015—E		

### Dimensions (mm[inch])





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