



# DH-PTZ85848-HNF-PA

8MP 48x Starlight IR WizMind Network Positioning System



Wiz Mind

# System Overview

Al series products adopt the most advanced Al technologies, including deep learning algorithms that primarily target people and vehicles, which provides higher flexibility and accuracy for end-users. This enables the Dahua Al series to offer various advanced applications such as Face Recognition, ANPR, Metadata, People Counting, and traffic data statistics. The complete lineup of Dahua Al includes network (PTZ) cameras, network video recorders, servers, and more devices. Beyond seeing the world, the power of Al allows devices to perceive the environment and understand the world in a better way.

### **Functions**

### **Perimeter Protection**

Automatically filters out false alarms caused by animals, rustling leaves, bright lights, and more, and uses secondary recognition during target detection to improve alarm accuracy.

### Starlight Technology

For challenging low-light conditions, Dahua's Starlight Ultra-low Light Technology offers the best in light sensitivity, capturing color in vivid detail, even in lighting as low as 0.005 lux. The camera uses a set of optical features to balance light throughout the scene, producing clear images in dark environments.

### PFA Technology

PFA technology has introduced new methods of judgment that ensure the accuracy and predictability of the direction of subject distance adjustment. The result is a set of advanced focusing algorithms that ensure image clarity when zooming and that shorten focus time. This makes the camera highly advanced in its functions, substantially improving the quality of your experience.

- 1/1.8" 8Megapixel STARVIS™ CMOS
- 48× optical zoom
- Starlight technology
- Max. 25/30 fps@8M
- IR distance up to 400 m
- H.265 encoding
- Two-way audio
- IP67
  - Auto-tracking
  - Perimeter protection
  - face recognition



### Environment (-40 °C to +70 °C, IP67)

Developed to operate in extreme conditions, Dahua camera can function in temperatures ranging from -40 °C to +70 °C (-40 °F to +158 °F) at 95% humidity. It was subjected to rigorous dust and water immersion tests, gaining its IP67 Ingress Protection certification, making it suitable for demanding outdoor applications.

### Auto-tracking

This feature controls the pan, tilt and zoom actions of the camera to automatically track an object in motion, to keep it in view of the camera. Tracking can be triggered manually or automatically by defined rules. Once a rule is triggered, the camera can zoom in and track the defined target automatically.

### 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%.

# Scenes

The Dahua PTZ AI network camera adopts advanced CNN deep learning algorithms to support Perimeter Protection. This highly accurate camera possesses a wide monitoring range and the PFA algorithm, allowing it to always present a clear, focused image while zooming. Leveraging the latest in starlight technology, the camera has strong low light performance, smooth controls, high-grade protection, and produces high quality images, meeting most of the requirements of video surveillance applications.

# **Technical Specification**

# Camera

Camera				
Image Sensor	1/1.8" CMOS			
Pixel	8 MP			
Max. Resolution	3840 (H) × 2160 (V)			
ROM	8 GB			
RAM	2 GB			
Electronic Shutter Speed	1/1 s-1/30,000 s			
Scanning System	Progressive			
Min. Illumination	Color: 0.005 lux@F1.4 B/W: 0.0005 lux@F1.4 0 lux (IR light on)			
Illumination Distance	400 m (1,312.34 ft) (IR)			
Illuminator On/Off Control	Zoom Prio; Manual; Off			
Illuminator Number	8 (IR)			
Wiper	Yes			
Lens				
Focal Length	6.25 mm–300 mm			
Max. Aperture	F1.4-F4.5			
Field of View	H: 64.9°–1.8°; V: 38°–1.3°; D: 71.3°–1.9°			
Optical Zoom	48×			
Focus Control	Auto; semi-auto; manual			
Close Focus Distance	0.5 m-2 m (1.64 ft-6.56 ft)			
Iris Control	Auto; manual			
	Detect	Observe	Recognize	Identify
DORI Distance	6,000 m (19,685.04 ft)	2,381 m (7,811.68 ft)	1,200 m (3,937.01 ft)	600 m (1,968.50 ft)

Pan/Tilt Range	Pan: 0° to 360° endless Tilt: –45° to +90°
Manual Control Speed	Pan: 0.1°/s-160°/s Tilt: 0.1°/s-60°/s
Preset Speed	Pan: 160°/s; Tilt: 60°/s
Preset	300
Tour	8 (up to 32 presets per tour)

Pattern	5
Scan	5
Power-off Memory	Yes
Idle Motion	Preset; Pattern; Tour; Scan
PTZ Protocol	DH-SD Pelco-P/D (auto recogniton)
Intelligence	
Video Metadata	Support human body, human face, motor vehicle and non-motor vehicle image capture and attributes extraction.
IVS (Perimeter Protection)	Tripwire; intrusion; climbing fences; loitering detection; abandoned/missing object; fast moving; parking detection; people gathering; vehicle/human alarm classification.
Face Recognition	Yes
Video	
Video Compression	H.265; H.264M; H.264H; MJPEG; Smart H.265; Smart H.264
Streaming Capability	3 streams
Resolution	8M (3840 × 2160); 4M (2560 × 1440); 1080p (1920 × 1080); 960p (1280 × 960); 720p (1280 × 720); D1 (704 × 576/704 × 480); VGA (640 × 480); CIF (352 × 288/352 × 240)
Video Frame Rate	Main stream: 8M/4M/1080p/960p/720p (1–25/30 fps) Sub stream 1: D1/VGA/CIF (1–25/30 fps) Sub stream 2: 1080p/960p/720p (1–25/30 fps)
Bit Rate Control	CBR; VBR
Video Bit Rate	H.264: 3328-16384 kbps H.265: 1280-9984 kbps
Day/Night	Auto (ICR); Color; B/W
BLC	Yes
WDR	Yes
HLC	Yes
White Balance	Auto; indoor; outdoor; tracking; manual; sodium lamp; natural light; street lamp
Gain Control	Auto; manual
Noise Reduction	2D NR; 3D NR
Motion Detection	Yes
Region of Interest (RoI)	Yes
Defog	Optical
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; G.726; MPEG2-Layer2; G722.1; G729; PCM

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#### Network RJ-45 (10/100 Base-T) Network Port HTTP; HTTPS; IPv4; RTSP; UDP; SMTP; NTP; DHCP; DNS; Network Protocol DDNS; IPv6; 802.1x; QoS; FTP; UPnP; ICMP; SNMP; IGMP; RTP; PPPoE; RTMP; TCP Interoperability ONVIF (Profle S&G&T); GB/T28181; CGI Streaming Method Unicast; Multicast User/Host 20 (total bandwidth: 64 M) Storage FTP; Micro SD card (512 GB); NAS IE 7 and later versions Chrome 45 and later versions Browser Firefox 52ESR and earlier versions Safari Management Software Smart PSS; DSS; IVSS Mobile Client iOS; Android Port Analog Output 1 channel (CVBS output, BNC) RS-485 1 (baud rate: 1200 bps-115200 bps) Audio Input 1 channel (LINE IN, bare wire) Audio Output 1 channel (LINE OUT, bare wire) Two-way Audio Yes Alarm Input 7 (on-off value input: 0-5 VDC) 2 Alarm Output Capture; preset; tour; pattern; recordings on SD card; Alarm Linkage alarm digital input; client E-map; send email Motion/tampering detection; audio detection; network disconnection detection; IP conflict detection; decoder Alarm Event state detection; memory card state detection; memory space detection; power exception detection Power 36 VDC, 5 A (± 25%) Power Supply Basic: 22 W Power Consumption Max.: 63 W (illuminator + wiper + PTZ) Environment -40 °C to +70 °C (-40 °F to 158 °F) **Operating Temperature** Operating Humidity ≤95% IP67; TVS 6000 V lightning proof; surge protection; Protection voltage transient protection Structure

Casing	ADC12
Product Dimensions	344.6 mm × 252.2 mm × 499.8 mm (13.57" × 9.93" × 19.68") (L × W × H)
Net Weight	15.4 kg (33.95 lb)
Gross Weight	23.7 kg (52.25 lb)

#### **Ordering Information** Part Number Туре Description 8MP 48x Starlight IR WizMind Network DH-PTZ85848-HNF-PA Positioning System 8M Camera 8MP 48x Starlight IR WizMind Network PTZ85848-HNF-PA Positioning System DC36V/5A Power Adapter Accessories DH-PFB741W Wall Mount

# Accessories

Included:

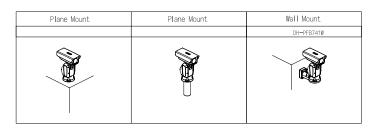


DC36V/5A Power Adapter

Optional:

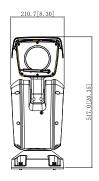


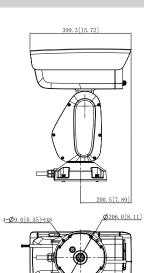
DH-PFB741W Wall Mount



# Wiz Mind | DH-PTZ85848-HNF-PA

# Dimensions (mm[inch])





Ø188.0[7.40]

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