

DH-PTZ85448-HNF-PA-FL

4MP 48x Starlight Laser AI 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 0.001 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" 4Megapixel STARVIS™ CMOS
- 48× optical zoom
- Starlight technology
- Max. 25/30 fps@4M
- Laser distance up to 1000 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	4 MP			
Max. Resolution	2560 (H) × 1440 (V)			
ROM	8 GB			
RAM	2 GB			
Electronic Shutter Speed	1/1 s-1/30,000 s			
Scanning System	Progressive			
Min. Illumination	Color: 0.001 lux@F1.4 B/W: 0.0001 lux@F1.4 0 lux (laser on)			
Illumination Distance	1,000 m (3,280.84 ft)			
Illuminator On/Off Control	Zoom Prio; Manual; Off			
Illuminator Number	1 (laser)			
Wiper	Yes			
Lens				
	6.25 mm-300) mm		
Lens	6.25 mm-300 F1.4-F4.5) mm		
Lens Focal Length	F1.4-F4.5		.99°; D: 69.76°-	-1.97°
Lens Focal Length Max. Aperture	F1.4-F4.5		.99°; D: 69.76°-	-1.97°
Lens Focal Length Max. Aperture Field of View	F1.4–F4.5 H: 62.36°–1.7	1°; V: 36.55°–0	.99°; D: 69.76°-	-1.97°
Lens Focal Length Max. Aperture Field of View Optical Zoom	F1.4-F4.5 H: 62.36°-1.7 48×	1°; V: 36.55°–0 ito; manual	.99°; D: 69.76°∙	-1.97°
Lens Focal Length Max. Aperture Field of View Optical Zoom Focus Control	F1.4–F4.5 H: 62.36°–1.7 48× Auto; semi-au	1°; V: 36.55°–0 ito; manual	.99°; D: 69.76°-	-1.97°
LensFocal LengthMax. ApertureField of ViewOptical ZoomFocus ControlClose Focus DistanceIris Control	F1.4–F4.5 H: 62.36°–1.7 48× Auto; semi-au 0.5 m–2 m (1.	1°; V: 36.55°–0 ito; manual	.99°; D: 69.76°- Recognize	-1.97° Identify
LensFocal LengthMax. ApertureField of ViewOptical ZoomFocus ControlClose Focus Distance	F1.4–F4.5 H: 62.36°–1.7 48× Auto; semi-au 0.5 m–2 m (1. NA	1°; V: 36.55°–0 ito; manual 64–6.56 ft)		
LensFocal LengthMax. ApertureField of ViewOptical ZoomFocus ControlClose Focus DistanceIris Control	F1.4–F4.5 H: 62.36°–1.7 48× Auto; semi-au 0.5 m–2 m (1. NA Detect 6,000 m	1°; V: 36.55°–0 ito; manual 64–6.56 ft) Observe 2,381 m	Recognize 1,200 m	Identify 600 m

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	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: 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: 2816–13056 kbps H.265: 1024–7936 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

Network	
Network Port	RJ-45 (10/100 Base-T)
Network Protocol	HTTP; HTTPS; IPv4; RTSP; UDP; SMTP; NTP; DHCP; DNS; 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
Browser	IE 7 and later versions Chrome 45 and later versions 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)
Alarm Output	2
Alarm Linkage	Capture; preset; tour; pattern; recordings on SD card; alarm digital input; client E-map; send email
Alarm Event	Motion/tampering detection; audio detection; network disconnection detection; IP conflict detection; decoder state detection; memory card state detection; memory space detection; power exception detection
Power	
Power Supply	36 VDC, 5 A (± 25%)
Power Consumption	Basic: 22 W Max.: 63 W (illuminator + wiper + PTZ)
Environment	
Operating Temperature	-40 °C to +70 °C (-40 °F to 158 °F)
Operating Humidity	≤95%
Protection	IP67; TVS 6000 V lightning proof; surge 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)
	19.00 / (2.4.14.14)
Net Weight	15.4 kg (33.95 lb)

Ordering Information Туре Part Number Description 4MP 48x Starlight Laser AI Network DH-PTZ85448-HNF-PA-FL Positioning System 4M Camera 4MP 48x Starlight Laser AI Network PTZ85448-HNF-PA-FL Positioning System DC36V/5A Power Adapter Accessories DH-PFB741W Wall Mount Bracket

Accessories

Included:



DC36V/5A Power Adapter

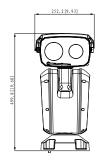
Optional:

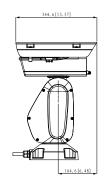


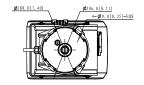
DH-PFB741W Wall Mount Bracket

Plane Mount	Plane Mount	Wall Mount
		DH-PFB741W

Dimensions (mm[inch])







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