DH-PTZ85848-HNF-WA-FL

8MP 48x Starlight Laser WizMind Network Positioning System

· 1/1.8" 8Megapixel CMOS

· Powerful 48x optical zoom

· Starlight technology

· Max. 25/30 fps@4K

· Laser distance up to 1000 m

· Deep-learning-based perimeter protection

· Auto-tracking and IVS

· IP67

H.265	WDR	ICR D/N	0.001Lux	IP67	Metadata

WizMind

Launched by Dahua Technology, Dahua WizMind is a full portfolio of solutions composed of project-oriented products including IPC, 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

Dahua PTZ WizMind network camera adopts advanced CNN deep learning algorithms to support Perimeter Protection with high accuracy. This camera possess wide monitoring range and PFA algorithm that can always present a clear, focused image while zooming. The camera has very excellent low light performance due to adopting the latest starlight technology. The camera is equipped with smooth control, high quality image and good protection, which makes it meet most of the requirements of video surveillance applications.

Functions

Perimeter Protection

Automatically filtering out false alarms caused by animals, rustling leaves, bright lights, etc. Enables system to act secondary recognition for the targets. Improving alarm accuracy.

Starlight Technology

For challenging low-light applications, Dahua's Starlight Ultra-low Light Technology offers best-in-class light sensitivity, capturing color details in low light down to 0.001 lux. The camera uses a set of optical features to balance light throughout the scene, resulting in clear images in dark environments.

PFA Technology

PFA technology has innovatively introduced new methods of judgment to ensure the accuracy and predictability of the direction of subject distance adjustment. The result is a set of advanced focusing algorithms. PFA ensures clarity of the image throughout the process of zooming and shortens focus time. The realization of PFA technology substantially improves user experience and increases product value.

Environmental

Dahua cameras operate in extreme temperature environments, rated for use in temperatures from -40 °C to +70 °C (-40 °F to +158 °F) with 95% humidity. Subjected to rigorous dust and water immersion tests and certified to the IP67 Ingress Protection rating makes it suitable for demanding outdoor applications.

Protection

The camera allows for ±25% input voltage tolerance, suitable for the most unstable conditions for outdoor applications. Its 6KV lightning rating provides effective protection for both the camera and its structure against lightning.

Interoperability

The camera conforms to the ONVIF (Open Network Video Interface Forum) specifications, ensuring interoperability between network video products regardless of manufacturer.

Wide Dynamic Range

The camera achieves vivid images, even in the most intense contrast lighting conditions, using industry-leading wide dynamic range (WDR) technology. For applications with both bright and low lighting conditions that change quickly, True WDR (120 dB) optimizes both the bright and dark areas of a scene at the same time to provide usable video.

Auto-tracking

This feature controls the pan/tilt/zoom actions of the camera to automatically track an object in motion and to keep it in the scene. The tracking action 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, flexible multi-frame reference structure and intelligent noise reduction to deliver high-quality video without straining the network. Smart H.265+ technology reduces bit rate and storage requirements by up to 70% when compared to standard H.265 video compression.

ONVIF

Technical Specification

Camera

Image Sensor	1/1.8" CMOS
Pixel	8MP
Max. Resolution	3840 (H) × 2160 (V)
ROM	8 GB
RAM	2 GB
Electronic Shutter Speed	1/3 s–1/100000 s
Scanning System	Progressive
Min. Illumination	Color: 0.005 Lux@F1.4 B/W: 0.0005 Lux@F1.4 0 Lux (laser on)
Illumination Distance	1000 m (3280.84 ft)
Illuminator On/Off Control	Zoom Prio/Manual/Off
Illuminator Number	1 laser
Wiper	Support

Lens

Focal Length	6.25 mm–300 mm (0.25"–11.81")
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	48x
Focus Control	Auto/Semi-Auto/Manual
Close Focus Distance	0.5 m–2 m (1.64 ft–6.56 ft)
Iris Control	Auto

DORI Distance	Detect	Observe	Recognize	Identify
	6000 m (19685.04 ft)	2381 m (7811.68 ft)	1200 m (3937.01 ft)	600 m (1968.50 ft)

PTZ

Pan/Tilt Range	Pan: 0°–360° endless Tilt: -45°–90° endless
Manual Control Speed	Pan: 0.1°–160°/s Tilt: 0.1°–60°/s
Preset Speed	Pan: 160°/s; Tilt: 60°/s
Presets	300
Tour	8 tours (up to 32 presets per tour)
Pattern	5
Scan	5
Power-off Memory	Support
Idle Motion	Preset/Tour/Pattern/Scanning
Protocol	DH-SD Pelco-P/D (auto recognition)

General Intelligence

Event Trigger	Motion detection, video tampering, scene changing, network disconnection, IP address conflict, illegal access, and storage anomaly.
IVS	Support

Artificial Intelligence

Video Metadata	Support human body, human face, motor vehicle and non-motor vehicle image capture and attributes extraction.
Perimeter Protection	Tripwire and intrusion. Support alarm triggering by target types (human and vehicle). Support filtering false alarms caused by animals, rustling leaves, bright lights, etc.
Auto Tracking	Support

Video

Compression	H.265; H.264B; H.264M; H.264H; MJPEG; smart H.265; smart H.264
Streaming Capability	3 streams
Resolution	4K (3840x2160); 1080P (1920 × 1080); 1.3M (1280 x 960); 720P (1280 × 720); D1 (704 × 576); CIF (352 × 288)
Frame Rate	Main stream: 4K(1–25/30 fps), 1080P/1.3M/720P (1–25/30 fps) Sub stream 1: D1/CIF (1–25/30 fps) Sub stream 2: 1080P/1.3M/720P (1–25/30 fps), D1/CIF (1–25/30 fps)
Bit Rate Control	Variable/Constant
Bit Rate	H.264: 32 Kbps–8192 Kbps H.265: 32 Kbps–8192 Kbps
Day/Night	Auto (ICR)/Color/B/W
BLC	Support
WDR	120 dB
HLC	Support
White Balance	Auto/Indoor/Outdoor/Tracking/Manual/Sodium lamp/Natural light/Street lamp
Gain Control	Auto/Manual
Noise Reduction	2D/3D
Motion Detection	Support
Region of Interest (RoI)	Support
Image Stabilization	Electronic
Defog	Optical
Digital Zoom	16x
Flip	180°
Privacy Masking	Up to 24 areas, and up to 8 areas in the same view
S/N Ratio	55dB

Audio

Compression	G.711a; G.711mu; G.726; AAC; G.722.1; G.729; MPEG2-Layer2

Network

Ethernet	RJ-45 (10/100Base-T)
Protocol	IPv4; IPv6; HTTP; HTTPS; 802.1x; Qos; FTP; SMTP; UPnP; SNMPv1/v2c/v3(MIB-2); DNS; DDNS; NTP; RTSP; RTP; TCP; UDP; IGMP; ICMP; DHCP; PPPoE; ARP; RTCP
Interoperability	ONVIF Profile S&G&T; CGI

Streaming Method	Unicast/Multicast
User/Host	20 (Total bandwidth 64M)
Storage	FTP; Micro SD card (256 G)
Browser	IE7 and later versions Chrome 45 and later versions Firefox 52ESR and earlier versions Safari
Management Software	Smart PSS; DSS; Easy4ip; Smart Player
Mobile Phone	iPhone/iPad/Android/Windows Phone

Certification

Certifications	CE: EN55032/EN55024/EN50130-4 FCC: Part15 subpartB, ANSI C63.4-2014

Port

Analog Output	1 (CVBS output, BNC port)
RS-485	1 (Baud rate range: 1200 bps–115200 bps)
Audio Input	1 (LINE IN; bare wire)
Audio Output	1
Alarm I/O	7/2 Digital input (0–5V DC)
Alarm Linkage	Capture; preset; tour; pattern; SD card record; trigger digital output; client electronic map; send email
Alarm Event	Motion/tampering detection; audio detection; network disconnection detection; IP conflict detection; encoder state detection; memory card state detection; memory space detection
Optical Fiber	100M single fiber FC Transmission specification: 1310nm TX/1550nm RX Distance: 20 km

Power

Power Supply	DC36V/5A ± 25%
Power Consumption	Basic: 32.4W Max: 67.5W (PTZ rotating, illuminator on, wiper on)

Environment

Operating Temperature	-40°C to +70°C (-40°F to 158°F)
Operating Humidity	≤95%
Protection	IP67; TVS 6000V lightning proof; surge protection

Structure

Dimensions	722mm×622mm×413mm(28.4" × 24.5" × 16.3")
Net Weight	15.4 kg (33.95 lb)

Ordering Information

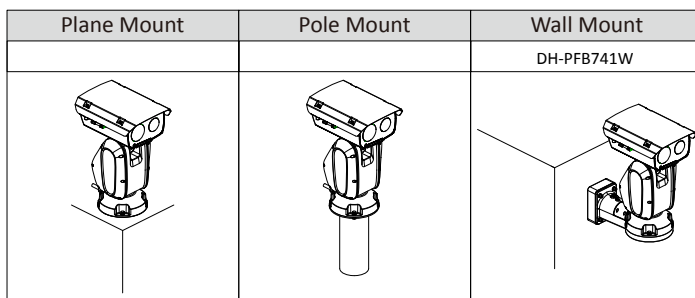| Type	Model	Description
4K WizMind Positioning System	DH-PTZ85848-HNF-WA-FL	8MP 48x Starlight Laser WizMind Network Positioning System, WDR, PAL
	DH-PTZ85848N-HNF-WA-FL	8MP 48x Starlight Laser WizMind Network Positioning System, WDR, NTSC
	PTZ85848-HNF-WA-FL	8MP 48x Starlight Laser WizMind Network Positioning System, WDR, PAL
	PTZ85848N-HNF-WA-FL	8MP 48x Starlight Laser WizMind Network Positioning System, WDR, NTSC
Accessories	DH-PFB741W	Bracket + Junction Box
	DC36V/5A	Power Adapter

Accessories

Included:

DC36V/5A
Power Adapter

Optional:

DH-PFB741W
Bracket + Junction Box

Plane Mount	Pole Mount	Wall Mount
		DH-PFB741W

Dimensions (mm[inch])