DH-PTZ83440-HNF-PA

4MP 40× Starlight IR AI Network Positioning System

WizMind

- · 1/1.8" 4Megapixel STARVIS™ CMOS
- · Powerful 40x optical zoom
- · Starlight technology
- · Max. 25/30 fps@4M
- · IR distance up to 350 m
- · Perimeter protection
- · Video Metadata
- · Face recognition
- · Auto-tracking

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 possesses wide monitoring range and PFA algorithm that can always present a clear and focused image while zooming. The camera has excellent low light performance due to the latest starlight technology. The camera is equipped with smooth control, high quality image and good protection, enabling it meet most of the requirements of video surveillance applications.

Functions

Perimeter Protection
Automatically filters out false alarms caused by animals, rustling leaves, bright lights, etc. Enables system to act secondary recognition for the targets. Improves 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 0.005 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.

Environment
Dahua cameras can 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.

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 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.

Technical Specification

Camera

Image Sensor	1/1.8" CMOS
Pixel	4MP
Max. Resolution	2560 (H) × 1440 (V)
ROM	8 GB
RAM	2 GB
Electronic Shutter Speed	1/1–1/30,000 s
Scanning System	Progressive
Min. Illumination	Color: 0.001 Lux@F1.4 B/W: 0.0001 Lux@F1.4 0 Lux (IR light on)
Illumination Distance	350 m (1148.29 ft)
Illuminator On/Off Control	Zoom Prio; Manual; Smart IR; Off
Illuminator Number	10 (IR light)
Wiper	Yes

Lens

Focal Length	5.5 mm–220 mm			
Max. Aperture	F1.4–F4.5			
Field of View	H: 61.8°–2.2° V: 36.3°–1.3° D: 69.2°–2.4°			
Optical Zoom	40×			
Focus Control	Auto; Semi-Auto; Manual			
Close Focus Distance	0.5 m–2.0 m (1.64 ft–6.56 ft)			
Iris Control	Auto			
DORI Distance	Detect	Observe	Recognize	Identify
	3034.5 m (9955.71 ft)	1204.2 m (3950.79 ft)	606.9 m (1991.14 ft)	303.4 m (995.41 ft)

PTZ

Pan/Tilt Range	Pan: 0° to 360° endless Tilt: –45° to +90°
Manual Control Speed	Pan: 0.1°–160°/s Tilt: 0.1°–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
Protocol	DH-SD

Intelligence

Video Metadata	Support human body, human face, motor vehicle and non-motor vehicle image capture and attributes extraction.
IVS (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.
Face Recognition	Yes
Auto Tracking	Yes

Video

Compression	H.264; H.264H; H.265; MJPEG (Sub Stream); Smart H.265+; Smart H.264+
Streaming Capability	3 streams
Resolution	4 M (2560 × 1440); 1080p (1920 × 1080); 1.3 M (1280 × 960); 720p (1280 × 720); D1 (704 × 576); CIF (352 × 288)
Video Frame Rate	Main stream: 4 M/1080p/1.3 M/720p (1–25/30 fps) Sub stream 1: D1/CIF (1–25/30 fps) Sub stream 2: 1080p/1.3 M/720p (1–25/30 fps)
Bit Rate Control	CBR; VBR
Bit Rate	Default resolution of the main stream: H264: 512–13056 Kbps H265: 204–7936 Kbps
Day/Night	Auto (ICR); Color; B/W
BLC	Yes
WDR	120 dB
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

Compression	G.711a; G.711mu; G.726; G722.1; G.729; MPEG2-Layer2; G723

Network

Ethernet	RJ-45 (10/100 Base-T)
Protocol	IPv4; IPv6; HTTP; HTTPS; 802.1x; QoS; FTP; SMTP; UPnP; SNMP; DNS; DDNS; NTP; RTSP; RTP; TCP; UDP; IGMP; ICMP; DHCP; PPPoE; RTMP

Interoperability	ONVIF (Profile S&G&T); CGI
Streaming Method	Unicast; Multicast
User/Host	20 (total bandwidth: 64 M)
Storage	FTP; Micro SD card (max. 256 G); NAS
Browser	IE7 and later Chrome 45 and later Firefox 52ESR and earlier 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–9600 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: 0–5V DC)
Alarm Output	2
Alarm Linkage	Capture; preset; tour; pattern; SD card recording; triggering on-off value output; client electric map; sending email
Alarm Event	Motion/tampering detection; audio detection; network disconnection detection; IP conflict detection; encoder state detection; memory card state detection; memory space detection; power exception detection

Power

Power Supply	36 V DC, 5A ± 25%
Power Consumption	Basic: 19 W Max.: 60 W (working PTZ, IR 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

Casing	ADC12
Product Dimensions	366.5 mm × 210.7 mm × 498.7 mm (14.43" × 8.30" × 19.63") (L × W × H)
Net Weight	14 kg (30.86 lb)
Gross Weight	18.5 kg (40.79 lb)

Ordering Information

Type	Model	Description
4M Camera	DH-PTZ83440-HNF-PA	4MP 40x Starlight IR AI Network Positioning System
	PTZ83440-HNF-PA	4MP 40x Starlight IR AI Network Positioning System
	DH-PTZ83440N-HNF-PA	4MP 40x Starlight IR AI Network Positioning System
	PTZ83440N-HNF-PA	4MP 40x Starlight IR AI Network Positioning System
Accessories	PFB741W	Wall Mount
	36V DC/5A	Power Adapter

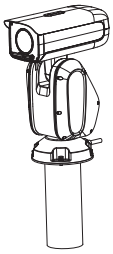
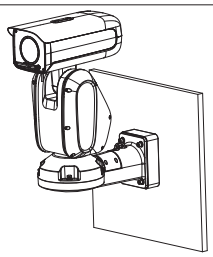
Accessories

Included:

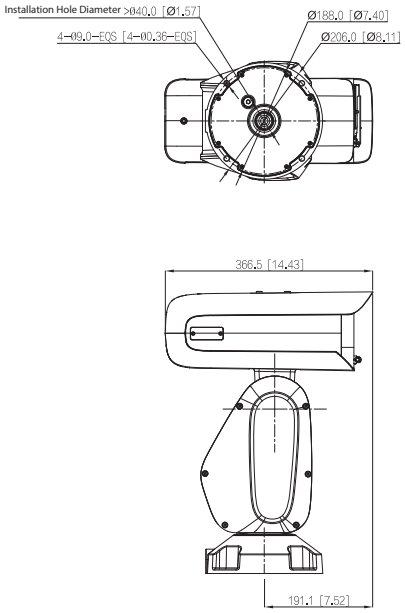
36V DC/5A
Power Adapter

Optional:

PFB741W
Wall Mount

Pole Mount	Wall Mount
	PFB741W
	

Dimensions (mm[inch])



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