DH-PTZ1A225-HNR-GB

2MP 25× Starlight IR Positioning System

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

With its powerful optical zoom, and accurate pan and tilt capabilities, the PTZ camera provides an all-in-one solution for long distance video surveillance of outdoor scenes. Together with infrared illumination and Starlight Technology, the camera is a great solution for dark, low light conditions. The series combines a day and night mechanical IR cut filter to produce high quality images in variable lighting conditions during the day.

Functions

Smart H.265+ & Smart H.264+

With advanced scene-adaptive rate control algorithm, Dahua smart encoding technology realizes the higher encoding efficiency than H.265 and H.264, provides high-quality video, and reduces the cost of storage and transmission.

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.

- 1/2.8" 2Megapixel STARVIS™ CMOS.
- 25x optical zoom.
- Starlight technology.
- IR distance up to 150 m.
- Auto Tracking 3.0.
- Perimeter protection.
- Face detection.
- Video Metadata.
- IP67.

Starlight Technology

With advanced image processing technology and optical technology, Dahua Starlight technology can provide clear colorful video in the environment of low illuminance. It widely applies to various environments of low illuminance.

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.

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.

Technical Specification

Camera

Image Sensor	1/2.8" CMOS
Pixel	2 MP
Max. Resolution	1920 (H) × 1080 (V)
ROM	4GB EMMC
RAM	1 GB
Electronic Shutter Speed	1/1 s–1/30,000 s
Scanning System	Progressive
Min. Illumination	Color: 0.005 lux@F1.6 B/W: 0.0005 lux@F1.6 0 lux (IR light on)
Illumination Distance	150 m (492.13 ft) (IR)
Illuminator On/Off Control	Zoom Prio; Manual; Auto; Off
Illuminator Number	4 (IR)

Lens

Focal Length	4.8 mm–120 mm
Max. Aperture	F1.6–F3.5
Field of View	H: 58.5°–2.8° V: 33.2°–1.5° D: 67.5°°–3.2°
Optical Zoom	25×
Focus Control	Auto; semi-auto; manual
Close Focus Distance	0.1 m–1.5 m (0.33 ft–4.92 ft)
Iris Control	Auto; manual

	Detect	Observe	Recognize	Identify
	1655 m (5429.79 ft)	654 m (2145.67 ft)	331 m (1085.96 ft)	165 m (541.34 ft)
DORI Distance	*DORI (Detect, Observe, Recognize, Identify) is a standard system (EN-62676-4) for defining the ability of a person viewing the video to distinguish persons or objects within a covered area. The numbers in this table do not reflect intelligent function distances. For intelligent function distances, refer to installation and commissioning manual/project design tool.			

PTZ

Pan/Tilt Range	Pan: 0° to 360° endless Tilt: −90° to +90°, auto flip 180°
Manual Control Speed	Pan: 0.1°/s–120°/s Tilt: 0.1°/s–75°/s
Preset Speed	Pan: 160°/s Tilt: 110°/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

Intelligence

Video Metadata	Motor vehicle, non-motor vehicle, face, and human body detection; optimization; capturing pictures; uploading high-quality snapshots; extracting 12 attributes from vehicles
IVS (Perimeter Protection)	Tripwire; intrusion; crossing fence detection; loitering detection; abandoned/missing object; fast moving; parking detection; people gathering; vehicle/human alarm classification; linkage tracking
Face Detection	Supports face detection, face bounding box, optimization, capturing snapshots, enhancing face images, and uploading high-quality face snapshots, and extracts 6 attributes and 8 expressions from face images. Face cutout is also offered, where you can cutout one face at a time and customize the size to be a one-inch photo. The supported methods for capturing snapshots are real-time capturing, optimization and quality first
People Counting	Supports tripwire for people counting at entrances and exits, counting the number of people staying in an area and queuing in an area, and displaying and exporting reports based on the day, week and month
Auto Tracking	Yes
SMD	SMD 4.0
Acupick	Uses deep learning algorithms and works with back-end devices to accurately match targets, such as people and motor vehicles, and search through live and recorded videos to quickly locate targets
Auto Patrol	It triggers the IVS rule when a target is detected and makes the camera link with the PTZ to rotate to the position of the target and patrol based on its presets

Video

Video Compression	H.264H; H.264B; Smart H.265+; H.264; H.265; Smart H.264+; MJPEG (Sub Stream)
Streaming Capability	3 streams
Resolution	1080p (1920 × 1080); 1.3M (1280 × 960); 720p (1280 × 720); D1 (704 × 576); VGA (640 × 480); CIF (352 × 288)
Video Frame Rate	Main stream: 1080p/1.3M/720p@(1-50/60 fps) Sub stream 1: D1/VGA/CIF@(1-25/30 fps) Sub stream 2: 1080p/1.3M/720p@(1-25/30 fps)
Bit Rate Control	CBR/VBR
Video Bit Rate	H.264: 64 kbps–10496 kbps H.265: 25 kbps–6400 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
Image Stabilization	Electronic (EIS)
Defog	Electronic
Digital Zoom	16×

Image Rotation	180°
Privacy Masking	Up to 24 areas can be set, with up to 8 areas in the same view; multiple colors available
S/N Ratio	≥61 dB

Audio

Audio Compression	PCM; G.711a; G.711Mu; G.726; MPEG2-Layer2; G722.1; G729; G723

Network

Network Port	RJ-45 (10/100 Base-T)
Network Protocol	FTP;RTMP;IPv6;Bonjour;IPv4;DNS;RTCP;PPPoE;NTP;RTP;802.1x;HTTPS;SNMP;TCP/IP;DDNS;UPnP;NFS;ICMP;UDP;IGMP;HTTP;SSL;DHCP;SMTP;Qos;RTSP;ARP
Interoperability	CGI;SDK;ONVIF (Profile S&G&T);P2P
Streaming Method	Unicast/Multicast
User/Host	20 (total bandwidth: 64 M)
Storage	FTP/SFTP; Micro SD card (512 GB); NAS
Browser	IE 9 and later versions Chrome 41 and later versions Firefox 50 and later versions Safari 10 and later versions
Management Software	DMSS; DSS Pro
Mobile Client	iOS; Android

Port

Audio Input	1 channel (LINE IN, bare wire)
Audio Output	1 channel (LINE OUT,bare wire)
Alarm Linkage	Capture; preset; pattern; tour; recording; send email; alarm digital input
Alarm Event	Motion/tampering detection; audio detection; network disconnection detection; IP conflict detection; memory card state detection; memory space detection
Alarm I/O	2/1
Audio I/O	1/1

Power

Power Supply	12 VDC, 4 A ± 10% PoE+ (802.3at)
Power Consumption	Basic: 16 W Max.: 24 W (illuminator)

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 Material	Die cast aluminum: ADC12, spray finishing
Product Dimensions	161.0 mm × 135.3 mm × 291.5 mm (6.34" × 5.33" × 11.48") (L × W × H)

Net Weight	3.6 kg (7.94 lb)
Gross Weight	6.4 kg (14.11 lb)

2MP WizMind Positioning System	DH-PTZ1A225-HNR-GB	2MP 25× Starlight IR Positioning System
	PTZ1A225-HNR-GB	2MP 25× Starlight IR Positioning System
Accessories	DC 12V/4A	Power Adapter
	PFA730	Junction
	PFB730W	Wall Mount Bracket

Accessories

Included:

DC 12V/4A
Power Adapter
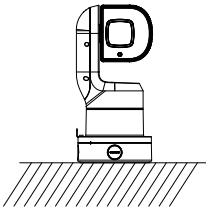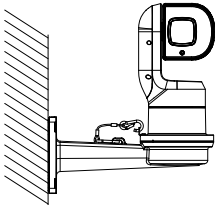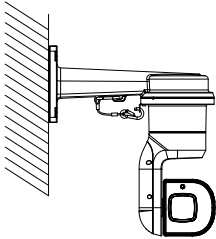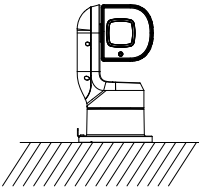

PFA730
Junction

Optional:

PFB730W
Wall Mount Bracket

Plane Mount	Wall Mount
PFA730	PFB730W
Wall Mount	Plane Mount
PFB730W	

Dimensions (mm[inch])

30.0 [1.18]
Ø141.0 [Ø5.55]
Ø20.0 [Ø0.79]
Ø155.0 [Ø6.10]
4−Ø4.8 [Ø0.19]

161.0 [6.34]
291.5 [11.48]
153.4 [6.04]