Dahua TECHNOLOGY

DH-PSDW83242M-A360-D845L-S3

32 MP Multi-Sensor 360° Panoramic PTZ Hubble WizMind Network Camera

WizMind

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

The Panoramic Network Camera + PTZ Camera can splice up to a 360° horizontal view to give you a wider view. Working with high-speed PTZ, the camera can display the details. With advanced video analysis algorithm, the camera supports linkage between panorama and details, and situation analysis.

Functions

Panoramic Splicing

With advanced splicing algorithm, Dahua Panoramic Splicing technology deletes overlapped area and splices multiple images to be a complete panorama. The field of view of the spliced image can be up to 180°, which largely improves surveillance efficiency and user experience. Generally, after splicing, the field of view of eight-sensor camera can be 360°.

AR Panorama

Dahua AR panorama technology generates wide-field of view through panoramic merging and splicing. The software overlaps the cameras as tags in the image. Click the tag to display the corresponding camera video, which makes monitoring visual and convenient, and improves command efficiency.

Perimeter Protection

With deep learning algorithm, Dahua Perimeter Protection technology can recognize human and vehicle accurately. In restricted area (such as pedestrian area and vehicle area), the false alarms of intelligent detection based on target type (such as tripwire, intrusion, fast moving, parking detection, loitering detection and gathering detection) are largely reduced.

- Panoramic parameters: 8 × 4 MP 1/1.8" CMOS image sensors. Outputs max. 32 MP (11520 × 2700)@25/30 fps.
- PTZ parameters: 1 × 8 MP 1/1.8" CMOS image sensors. Outputs max. 8 MP (3840 × 2160)@25/30 fps.
- PTZ camera: Built-in illuminators (2 × IR and 7 × laser), max. illumination distance: 500 m.
- PTZ camera: 45x optical zoom,16x digital zoom.
- H.265 codec, high compression rate, ultra-low bit rate.
- 3D NR, HLC, BLC, applicable to various monitoring scenes.
- ROI, SMART H.264+/H.265+, flexible coding, applicable to various bandwidth and storage environments.
- Alarm: 7 in, 3 out; audio: 2 in, 2 out; RS-485; BNC; supports max. 512 G SD card.
- Intelligent Functions:PTZ Camera: Perimeter Protection, Face Recognition and Video Metadata.
- GPS/BDS positioning.

| 32Mp | Panoramic Splicing | IP66 | Perimeter Protection | Face Recognition | Video Metadata |

Face Recognition

Dahua Face Recognition technology extracts the features of captured faces and compares them with that in face database to recognize the person identity.

Video Metadata

With deep learning algorithm, Dahua Video Metadata technology can detect, track, capture vehicle, non-motor vehicle and people, and select the best images, and extract attributes.

Cyber Security

Dahua network cameras employ a series of security technologies, including security authentication and authorization, access control protocols, trusted protection, encrypted transmission and encrypted storage. These technologies improve the camera's defense against external cyber threats and prevent malicious programs from compromising the device.

Technical Specification

Camera

Image Sensor	1/1.8" CMOS
Max. Resolution	11520 (H) × 2700 (V)
ROM	Panoramic network camera: 8 GB PTZ camera: 8 GB
RAM	Panoramic network camera: 4 GB PTZ camera: 4 GB
Scanning System	Progressive
Electronic Shutter Speed	Panoramic network camera: Auto/Manual 1/3 s-1/100,000 s PTZ Camera: Auto/Manual 1/1 s-1/300,000 s
Min. Illumination	Panoramic network camera:0.001 lux @F1.0(Color, 30 IRE); 0.0001 lux@F1.0 (B/W, 30 IRE) PTZ camera:0.001 lux @F1.5(Color, 30 IRE); 0.0001 lux @ F1.5(B/W, 30 IRE); 0 lux (Illuminator on)
S/N Ratio	>56 dB
Illumination Distance	Panoramic network camera: NA PTZ camera: ≥500 m (1640.42 ft) (Laser)
Illuminator On/Off Control	Auto; Zoomprio; Manual
Illuminator Number	Panoramic network camera:NA PTZ camera:7(LASER LED); 2(IR LED)

Lens

Lens Type	Panoramic network camera: Fixed-focal PTZ camera: Motorized vari-focal
Lens Mount	Panoramic network camera: M16 PTZ camera: Module
Focal Length	Panoramic network camera: 2.8 mm PTZ camera: 5.5 mm–248 mm
Max. Aperture	Panoramic network camera: F1.0 PTZ camera: F1.5–F5.3
Field of View	Panoramic network camera: H: 360°; V: 105° PTZ camera: H: 2.02°–64.4°; V: 1.14°–38.37°; D: 2.29°
Iris Control	Panoramic network camera: Fixed PTZ camera: Auto
Close Focus Distance	Panoramic network camera:1.4 m (4.59 ft) PTZ camera: 0.1 m–5 m (0.33 ft–16.4 ft) (T to W)

DORI Distance	Lens	Detect	Observe	Recognize	Identify
	Panoramic network camera	57.9 m (189.96 ft)	23.2 m (76.11 ft)	11.6 m (38.06 ft)	5.8 m (19.03 ft)
	PTZ camera	4420 m (14501.31 ft)	1768 m (5800.52 ft)	884 m (2900.26 ft)	442 m (1450.13 ft)

Intelligence

IVS (Perimeter Protection)	PTZ camera: Tripwire, intrusion, fast moving (the three functions support the classification and accurate detection of vehicle and human); parking detection, loitering detection, and people gathering.
Face Recognition	Face detection; track; snapshot; snapshot optimization; optimal face snapshot upload; face enhancement; face exposure; face attributes extraction including 6 attributes (gender, age, glasses, expressions, mask, and beard) and 8 expressions (angry, sad, disgusted, scared, surprised, calm, happy, confused); face snapshot set as face or one-inch photo; snapshot strategies (real-time snapshot, quality priority and optimization snapshot); face angle filter; optimization time setting. Supports adding 5 group face databases; registering person one by one or in batches; setting face similarity; and supports face comparison with the face database containing up to 10,000 face pictures.

Video Metadata	Motor vehicle, non-motor vehicle, face, human body detection; track; snapshot; snapshot optimization; optimal face snapshot upload. Motor vehicle attributes: license plate, vehicle type, vehicle color, vehicle logo and other attributes : seatbelt, smoking, calling. Non-motor vehicle attributes: type, color, number of people, top type and color, helmet. Human body attributes: gender, top/bottom type and color, bag, hat and umbrella. Face attributes: gender, age, expressions, glasses, face mask and beard.
Smart Search	Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos.

Video

Video Compression	H.265; H.264; H.264H; H.264B; MJPEG (Only supported by the sub stream)
Smart Codec	Smart H.265+; Smart H.264+
Video Frame Rate	Panoramic network camera: Main stream: 11520 × 2700@(1-25/30fps) Sub stream: 2048 × 680@(1-25/30fps) Third stream: 1920 × 1080@(1-25/30fps) PTZ camera: Main stream: 3840 × 2160@(1-25/30fps) Sub stream: 704 × 576@(1-25/30fps) Third stream: 1920 × 1080@(1-25/30fps)
Stream Capability	3 streams
Resolution	Panoramic network camera: Main stream: 11520 × 2700; 8192 × 1800; 7680 × 1680; 5760 × 1264; 4096 × 900 Sub Stream: 2048×452 Third Stream: 3840 × 832; 2560 × 560 PTZ camera: Main stream: 3840 × 2160; 2560 × 1440; 1960 × 1080; 1280 × 960; 1280 × 720 Sub Stream: 704 × 576; 352 × 288 Third Stream: 1920 × 1080; 1280 × 960; 1280 × 720
Bit Rate Control	CBR/VBR
Video Bit Rate	Panoramic network camera: H.264: 127 kbps–20736 kbps H.265: 50 kbps–12544 kbps PTZ camera: H.264: 32 kbps–27740 kbps H.265: 12 kbps –16572 kbps
Day/Night	Auto(ICR)/Color/B/W
BLC	Yes
HLC	Yes
WDR	Panoramic network camera: DWDR PTZ camera: 120 dB
Scene Self-adaptation (SSA)	Yes
White Balance	Auto; natural; street lamp; outdoor; manual; regional custom
Gain Control	Auto; Manual
Noise Reduction	3D NR
Motion Detection	OFF/ON (4 areas, rectangular)
Region of Interest (RoI)	Panoramic network camera: Yes (4 areas) PTZ camera: Yes (8 areas)
Image Stabilization	Panoramic network camera: NA PTZ camera: Optical Image Stabilization

Defog	Panoramic network camera: NA PTZ camera: Optical defog
Image Rotation	0°/180° (PTZ camera)
Privacy Masking	Panoramic network camera: 4 areas PTZ camera: 8 areas

Audio

Audio Compression	PCM; G.711a; G.711Mu; G.726; G.723

Alarm

Alarm Event	No SD card; SD card full; SD card error; SD card durability warning; network disconnection; IP conflict; illegal access; motion detection; video tampering; tripwire; intrusion; scene changing; audio detection; voltage detection; external alarm; security exception

Network

Network Port	RJ-45(10/100/1000 Base-T)
SDK and API	Yes
Network Protocol	IPv4; IPv6; HTTP; HTTPS; TCP; UDP; ARP; RTP ; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; SAMBA; PPPoE; 802.1x; SNMP
Cyber Security	Configuration encryption;trusted execution;Digest; security logs; WSSE; account lockout; syslog; video encryption; 802.1x; IP/MAC filtering; HTTPS; trusted upgrade; trusted boot; firmware encryption; generation and importing of X.509 certification
Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI
User/Host	20 (Total bandwidth: 400 M)
Storage	FTP; SFTP; NFS; SMB; Micro SD card (support max. 512 GB)
Browser	IE: IE 9, IE 10 and IE11 Chrome: Chrome 42 and earlier Firefox: Firefox 52 and earlier
Management Software	DSS

Certification

Certifications	CE-LVD:EN62368-1; CE-EMC:Electromagnetic Compatibility Directive 2014/30/EU; FCC:47 CFR FCC Part 15, Subpart B UL/CUL:UL62368-1 & CAN/CSA C22.2 No. 62368-1-14

PTZ Dome

Pan/Tilt Range	Pan: 0° to 360° endless Tilt: −12° to 90°, auto flip 180°
Manual Control Speed	Pan PTZ speed: 240°/s, Pan preset speed: 240°/s Tilt PTZ speed: 100°/s, Tilt preset speed: 100°/s
Positioning Accuracy	Pan: 0.05° Tilt: 0.05°
Remote PTZ Reset	Yes
Preset	300
Tour	8 (up to 32 presets per tour)
Pattern	5
Scan	5
Power-off Memory	Yes
Idle Motion	Preset/Pattern/Tour/Scan

Time Task	Yes
Three-dimensional Positioning	Yes
PTZ Limit	Yes
Position Display	Yes
Information Display	Yes
Time Display	Yes

Port

Optical Module Specification	SFP optical module, single mode, single fiber 20 KmTX-1310 nm/RX-1550 nm
Optical Fiber	FC
Optical Fiber Module Type	Gigabit SFP optical module, single mode, single fiber TX-1550 nm/RX-1310 nm
Audio Input	2 channels (terminal)
Audio Output	2 channels (terminal)
Alarm Input	7 channels in: 5mA 3V–5V DC
Alarm Output	3 channels out: 1,000mA 30V DC/500mA 50V AC
Analog Output	1 channel (CVBS output: BNC)

Power

| Power Supply	36 VDC
Power Consumption	Basic: 33.7 W (36 VDC) Max. (Basic power consumption + WDR + intelligence on + IR on + PTZ operation): 71.9 W (36 VDC) Heating: Panoramic network camera: 6 W (36 VDC); PTZ: 5.4 W

Environment

Operating Temperature	−40 °C to +70 °C (−40 °F to +158 °F)
Operating Humidity	≤95%
Storage Humidity	−40 °C to +70 °C (−40 °F to +158 °F)
Protection	IP66

Structure

Casing Material	Metal + plastic
Product Dimensions	Φ383 mm × 462 mm (15.07"× Φ18.19")
Net Weight	14.7 kg (32.41 lb)
Gross Weight	19.8 kg (43.65 lb)

Ordering Information

Type	Model	Description
Panoramic + PTZ camera	DH-PSDW83242M-A360-D845L-S3	32 MP Multi-Sensor 360° Panoramic PTZ Hubble WizMind Network Camera
	PSDW83242M-A360-D845L-S3	32 MP Multi-Sensor 360° Panoramic PTZ Hubble WizMind Network Camera
Accessories	36 VDC 5A Power Adapter	36 VDC 5A Power Adapter
	PFB710W-SG	Wall Mount Bracket
	PFB710C-SG	Ceiling Mount Bracket
	PFA153-SG	Pole Mount Bracket
	TF-P100	MicroSD Memory Card
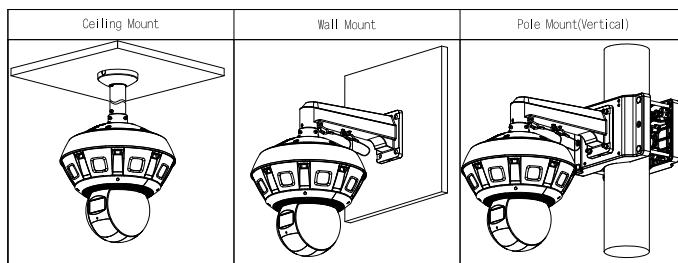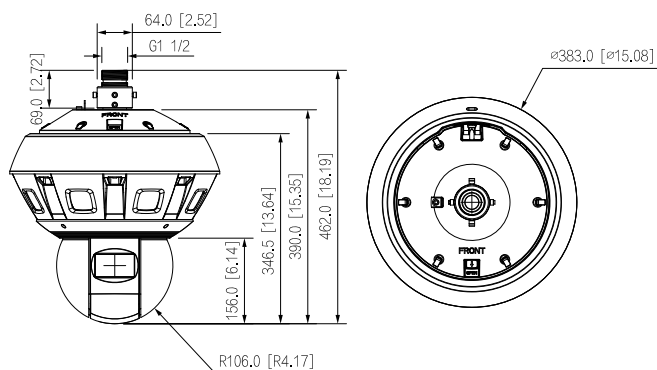
Accessories

Included:

36 VDC 5A
Power Adapter

Optional:

PFB710W-SG
Wall Mount
Bracket

PFB710C-SG
Ceiling Mount
Bracket

PFA153-SG
Pole Mount
Bracket

TF-P100
MicroSD
Memory Card

Ceiling Mount   Wall Mount   Pole Mount(Vertical)

Dimensions (mm[inch])

64.0 [2.52]
G1 1/2
69.0 [2.72]
346.5 [13.64]
390.0 [15.35]
462.0 [18.19]
156.0 [6.14]
R106.0 [R4.17]
⌀383.0 [⌀15.08]