

DH-PSDW81642M-A360-D440-S3

8x2MP Multi-Sensor Panoramic + PTZ WizMind Network Camera



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

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 360°, which largely improves surveillance efficiency and user experience. Generally, after splicing, the field of view of eight-sensor camera can be 360°.

Smart Tracking

With advanced algorithm, Dahua network camera can detect targets, track targets with speed dome, and view details.

- Panoramic network camera: Eight 1/1.8" 2Megapixel progressive CMOS
- PTZ camera: One 1/1.8" 4Megapixel progressive CMOS.
- 360-degree panoramic view.
- Smart H265+/H264+ encoding.
- WDR, 3D NR, HLC, BLC, applicable to various monitoring scenes.
- Illumination distance up to 400 m.
- 40x optical zoom.
- Smart tracking. GPS/BDS positioning.
- Tripwire; intrusion; parking detection.
- AR panorama technology; various AR tags can be overlaid.



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 and intrusion) are largely reduced.

Region of Interest (ROI)

Dahua Regions Of Interest (ROI) technology allows you to select the monitoring area of interest to improve image effect in the selected area.

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.

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.

Scene

Applicable to various industries such as traffic, culture, education, health, public security and more.

Technical Specification

Camera

Image Sensor	Panoramic network camera: 1/1.8"2 Megapixel progressive CMOS PTZ camera: 1/1.8"4 Megapixel progressive CMOS
Pixel	Panoramic network camera : 16 MP PTZ camera: 4 MP
Max. Resolution	8192 (H) × 1800 (V)
ROM	Panoramic network camera: 8 GB PTZ camera: 8 GB
RAM	Panoramic network camera: 4 GB PTZ camera: 2 GB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100,000 s
Min. Illumination	Panoramic network camera: 0.0005 lux@F1.0 (Color,30 IRE) 0.0002 lux@F1.0 (B/W,30 IRE) PTZ camera: 0.001 lux@F1.4 (Color,30 IRE) 0.0005 lux @F1.4(B/W,30 IRE); 0 lux (Illuminator on)
S/N Ratio	>56 dB
Illumination Distance	Panoramic network camera: No PTZ camera: ≥ 400 m (1312.34 ft)
Illuminator On/Off Control	Auto; Manual; Zoomprio
Illuminator Number	7 (IR LED)
Built-in Battery	Panoramic network camera: Horizontal welding/lithium battery/3 V PTZ camera: Horizontal welding/lithium battery/3 V

Lens

Lens Type	Panoramic network camera : Fixed-focal PTZ camera: Vari-focal				
Lens Mount	Panoramic network camera : M16 PTZ camera: Module				
Focal Length	Panoramic network camera : 2.8 mm PTZ camera: 5.5 mm–220 mm				
Max. Aperture	Panoramic network camera : F1.0 PTZ camera: F1.4				
Field of View	Panoramic network camera: H: 360°; V: 111° PTZ camera: H: 2.2°–61.8°; V: 1.3°–36.3°; D: 2.4°–69.2°				
Iris Control	Panoramic network camera: Fixed PTZ camera: Auto				
Iris Control Type	Panoramic network camera: No PTZ camera: P-iris				
Close Focus Distance	Panoramic network camera: 1.4 m (4.59 ft) PTZ camera: 0.5 m–2 m (1.64 ft–6.56 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	3030 m (9940.94 ft)	1204 m (3950.13 ft)	606 m (1988.19 ft)	303 m (994.10 ft)

PTZ

Pan/Tilt Range	Pan: 0° to 360° endless Tilt: –11° to 90°, auto flip 180°
Manual Control Speed	Pan: 240°/s Tilt: 100°/s

Telephoto Speed Limit	Yes
Positioning Accuracy	Pan: 0.05° Tilt: 0.05°
Positioning Accuracy Automatic Calibration	Yes
Remote Lens Reset	Yes
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
Scheduled Task	Preset;Pattern;Tour;Scan
3D Positioning	Yes
PTZ Limit	Yes
Position Display	Yes
Information Display	Yes
Time Display	Yes
PTZ Restart	Yes

Artificial Intelligence

IVS (Perimeter Protection)	Tripwire; intrusion; parking detection
----------------------------	--

Video

Video Compression	H.265; H.264; H.264H; H.264B; MJPEG (Only supported by the sub stream)
Smart Codec	Smart H.264+; Smart H.265+
Video Frame Rate	Panoramic network camera: Main stream: 8192 × 1800@(1–25 fps) sub stream: 2048 × 452@(1–25 fps) third stream: 3840 × 832@(1–25 fps) PTZ camera: Main stream: 2560 × 1440@(1–25 fps) sub stream: 704 × 576@(1–25 fps) third stream: 1920 × 1080@(1–25 fps)
Stream Capability	3 streams
Resolution	Panoramic network camera: Main stream: 8192 × 1800; 7680 × 1680; 5760 × 1264; 4096 × 900 sub stream: 2048 × 452 third stream: 3840 × 832; 2560 × 560 PTZ camera: Main stream: 2560 × 1440; 1920 × 1080; 1280 × 960; 1280 × 720 sub stream: 704 × 576; 640 × 480; 352 × 288 third stream: 1920 × 1080; 1280 × 960; 1280 × 720
Bit Rate Control	CBR/VBR
Video Bit Rate	Panoramic network camera: H.264: 112 kbps–37227 kbps H.265: 44 kbps–22546 kbps PTZ camera: H.264: 512 kbps–13056 kbps H.265: 204 kbps–7936 kbps

BLC	Yes
HLC	Yes
WDR	Panoramic network camera: No PTZ camera: 120 dB
Scene Self-adaptation (SSA)	Yes
White Balance	Auto; natural; street lamp; outdoor; manual; regional custom
Gain Control	Manual; Auto
Noise Reduction	3D NR
Motion Detection	OFF/ON (4 areas, rectangular)
Default Bit Rate with Default Resolution	Panoramic network camera: 6144 kbps (8192 × 1800) PTZ camera: 6144 kbps (2560 × 1440)
Region of Interest (RoI)	Panoramic network camera : Yes (4 areas) PTZ camera: Yes (8 areas)
Image Stabilization	Panoramic network camera: No PTZ camera: Electronic Image Stabilization (EIS)
Defog	Panoramic network camera: No PTZ camera: Optical defog
Image Flip	Panoramic network camera: No PTZ camera: Yes
Privacy Masking	Panoramic network camera : 4 areas PTZ camera: 24 areas (8 for each preset)
Language	English; Italian; Spanish; Russian; French; German; Portuguese; Polish; Korean; Persian; Czech; Dutch; Arabic; European Spanish

Certifications

Certifications	CE-LVD: EN62368-1; CE-EMC: EN55032; EN55035; EN61000-3-2; EN61000-3-3; EN50130-4; FCC: Part 15; Subpart B; UL: UL62368-1
----------------	---

Audio

Audio Port	Yes
Audio Compression	PCM; G.711a; G.711Mu; G.726; G.723; G.711a by default
Audio Sampling	8 kHz; 16 kHz; 32 kHz; 48 kHz; 64 kHz

Port

RS-485	1 (baud rate range:1200 bps–115200 bps)
Optical Module Specification	No
Optical Fiber	No
Optical Fiber Module Type	No
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)

Network

Network Port	RJ-45 (10/100/1000 Base-T)
--------------	----------------------------

SDK and API	Yes
Network Protocol	IPv4; IPv6; HTTP;TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; SAMBA; PPPoE; SNMP
Cyber Security	Video encryption; Firmware encryption; Configuration encryption; Digest; WSSE; Account lockout; Security logs; IP/MAC filtering; Generation and importing of X.509 certification; syslog; HTTPS; 802.1x; Trusted boot; Trusted execution; Trusted upgrade
Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI; P2P
User/Host	20 (Total bandwidth: 400 M)
Storage	FTP; SFTP; Micro SD card (support max. 512 GB); NAS
Browser	IE: IE9, IE10 and IE11 Chrome Firefox
Management Software	DSS

Power

Operating Voltage	36 VDC (±50%)
Power Supply	36 VDC
Power Consumption	Basic: 59 W (36 VDC) Max. (Basic power consumption + WDR + intelligence on + IR on + PTZ operation): 99 W (36 VDC)
ePoE	No

Environment

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

Structure

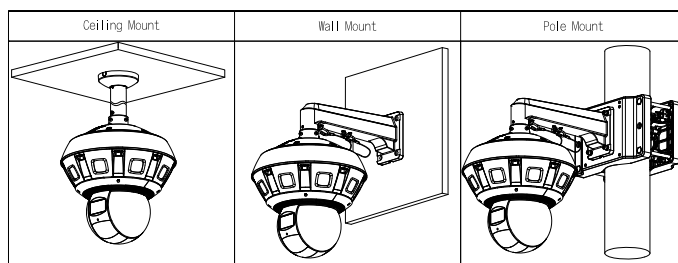
Casing Material	Metal + plastic
Product Dimensions	Φ383 mm × 462 mm (15.08"× Φ18.19")
Packaging Dimensions	500 mm × 500 mm × 658 mm (19.69" × 19.69" × 25.91") (L × W × H)
Net Weight	14.4 kg (31.75 lb)
Gross Weight	20.3 kg (44.75 lb)
Installation	Wall mount; ceiling mount; pole mount
Power Adapter	Included
Lens	Standard
Power Output	No

Others

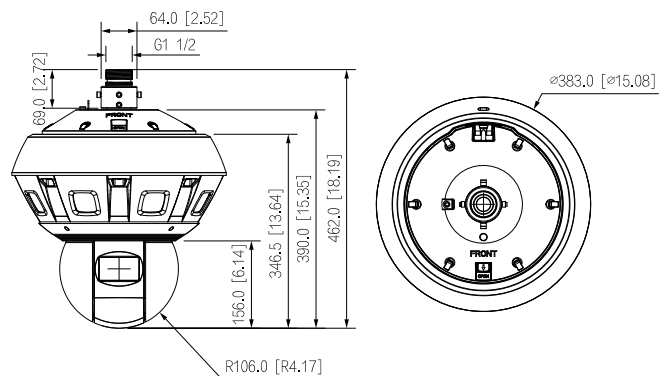
Position	GPS/BDS
Calibration	Manual/Auto

Ordering Information

Type	Model	Description
16MP Camera	DH-PSDW81642M-A360-D440-S3	8×2 MP Multi-Sensor Panoramic & PTZ WizMind Network Camera
Accessories	PBW059-00	Mount Adapter
	PFB718C-SG	Ceiling Mount Bracket
	PFB710W-SG	Wall/Pole Mount Bracket
	PFA153-SG	Pole Mount Bracket
	TF-P100	MicroSD Memory Card



Dimensions (mm[inch])



Accessories

Included:



PBW059-00
Mount
Adapter

Optional:



PFB718C-SG
Ceiling Mount
Bracket



PFB710W-SG
Wall/Pole Mount
Bracket



PFA153-SG
Pole Mount
Bracket



TF-P100
MicroSD
Memory Card