DH-PSDW8842M-A180

4 × 2MP Multi-Sensor Panoramic + PTZ WizMind Network Camera

WizMind

· Panoramic camera: Four 1/1.8'' 2 Megapixel progressive scan CMOS
· PTZ camera: One 1/1.8'' 4 Megapixel progressive scan CMOS
· Support 180-degree panoramic view
· Starlight+ technology
· Support Smart H265+/H264+ encoding
· Day/Night (ICR); 3D NR; AWB; AGC; BLC
· IR distance up to 400 m
· Smart tracking
· Tripwire
· Intrusion
· Crowd map

| 180° Panoramic | 8Mp | Starlight | H.265 | ICR D/N | 400m IR | TRACKING Smart Tracking | Tripwire | Intrusion |

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.

Series Overview

Starlight panoramic HD network camera, with all-in-one design, provides a 180°panorama and region of interest details at the same time. The panoramic network combines 4 sensors working in tandem to realize 180°panoramic surveillance; all-in-one module and high-speed PTZ camera provides the function of quick position details. In addition, with video analytic algorithm and multi-target track algorithm, the camera can automatically or manually detect tripwire and intrusion of mutiple targets in detection area, output alarm signal, and then link PTZ for smart tracking. With these excellent features, the camera can meet higher security requirements.

Functions

True Day/Night

A day/night mechanical IR cut filter makes this camera ideal for applications with fluctuating lighting conditions, delivering color images during the day and automatically switching to monochrome as the scene darkens.

Starlight Technology

Featured with Dahua Starlight Technology, the camera is ideal for applications with challenging light conditions. Its low light performance delivers usable video with minimal ambient light. Even in extreme low light conditions, Starlight Technology is capable of delivering color images in nearly complete darkness.

Crowd map

With deep learning algorithm, Dahua Crowd Map technology can detect the crowd density on the image, and display it on heat map; it can detect people quantity and density in selected area and set threshold. When the number or density is larger or smaller than the threshold, it triggers linkage.

Tripwire detection and intrusion detection

With advanced CNN algorithm, the detection distance,and the accuracy rate and timely rate of linkage track are much improved.

Smart 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.

ONVIF

Technical Specification

Camera

Image Sensor	Panoramic camera: 1/1.8"2Megapixel progressive CMOS PTZ camera: 1/1.8"4Megapixel progressive CMOS
Max. Resolution	Panoramic camera: 4096 (H) × 1800 (V) PTZ camera: 2560 (H) × 1440 (V)
ROM	Panoramic camera: 4 GB PTZ camera: 32 GB
RAM	Panoramic camera: 8 GB PTZ camera: 4 GB
Scanning System	Progressive
Electronic Shutter Speed	Panoramic camera: Auto/Manual 1/3 s–1/100,000 s PTZ camera: Auto/Manual 1/1 s-1/300,000 s
Min. Illumination	Panoramic camera: Color: 0.005 Lux @F2.0; B/ W: 0.0005 Lux @F2.0; PTZ camera: Color: 0.001 Lux @F1.3;B/ W: 0.0001 Lux @F1.3; 0 Lux @F1.3 (IR on)
S/N Ratio	Panoramic camera: 56 dB PTZ camera: 53.6 dB
Illumination Distance	PTZ camera: ≥ 400 m (1312.3 ft) (IR LED)
Illuminator On/Off Control	Auto/Manual
Illuminator Number	PTZ camera: 7 (IR LED)

Lens

Lens Type	Panoramic camera: Fixed-focal PTZ camera: Motorized vari-focal
Mount Type	Panoramic camera: M12 PTZ camera: Module
Focal Length	Panoramic camera: 5 mm PTZ camera: 5.6 mm-223 mm, 40x optical zoom
Max. Aperture	Panoramic camera: F2.0 PTZ camera: F1.3
Field of View	Panoramic camera: Horizontal: 180° Vertical: 84° PTZ camera: Horizontal: 2.27°–61.40° Vertical: 1.30°–35.99° Diagonal: 2.62°–68.18°
Iris Type	Panoramic camera: Fixed PTZ camera: Auto
Close Focus Distance	Panoramic camera: 1.2 m (3.9 ft) PTZ camera: 0.5 m (1.6 ft)

DORI distance		Detect	Observe	Recognize	Identify
	Panoramic camera	53.3 m (174.9 ft)	21.3 m (69.9 ft)	10.7 m (35.1 ft)	5.3 m (17.4 ft)
	PTZ camera	2873.1 m (9426.2 ft)	1149.2 m (3770.3 ft)	574.6 m (1885.2 ft)	287.3 m (942.6 ft)

Smart event

IVS	Intrusion, tripwire

Professional, Intelligent

Crowd Distribution Map	Crowd distribution map; global people counting; people counting in area; crowd density abnormality snapshot
Intelligent 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 sub stream)
Smart Codec	Smart H.264+ Smart H.265+
Video Frame Rate	Panoramic camera: Main stream: 4096 × 1800 @1–25/30 fps; sub stream 1: 1920 × 832 @1–25/30 fps; sub stream 2: 4800 × 1920 @1–25/30 fps PTZ camera: Main stream: 2560 × 1440 @1–25/30 fps; sub stream 1: 704 × 480 @1–25/30 fps; sub stream 2: 1920 × 1080 @1–25/30 fps
Stream Capability	3 streams
Resolution	Panoramic camera: 4096 × 1800; 4800 × 1920; 3840 × 1680; 3200 × 1280; 2880 × 1264; 2048 × 900; 1920 × 832; 1600 × 640; 1280 × 560; 1024 × 452 PTZ camera: 2560 × 1440; 2048 × 1536; 1920 × 1080; 1280 × 960; 1280 × 720; 704 × 576; 704 × 480; 352 × 288; 352 × 240
Bit Rate Control	Panoramic camera: CBR/VBR PTZ camera: CBR/VBR
Video Bit Rate	Panoramic camera: H.264: 256Kbps–25599Kbps H.265: 196Kbps–15494Kbps PTZ camera: H.264: 184 kbps–15104 kbps H.265: 110 kbps–9216 Kbps
Day/Night	Auto (ICR)/Color/B/W
BLC	Yes
HLC	Yes
WDR	Panoramic camera: True WDR:120 dB PTZ camera: True WDR:120 dB
Scene Self-adaptation	Yes
White Balance	Panoramic camera: Auto/Natural/Street lamp/Outdoor/Manual/Regional custom PTZ camera: Auto/Indoor/Outdoor/Tracking/Manual/Sodium lamp/Natural/Street lamp
Gain Control	Auto/Manual
Noise Reduction	Panoramic camera: 3D NR PTZ camera: 2D NR/3D NR
Motion Detection	OFF/ON (4 areas)
Region of Interest (RoI)	Panoramic camera: Yes (4 areas) PTZ camera: Yes (4 areas)
Electronic Image Stabilization (EIS)	PTZ camera: Yes
Smart Illumination	PTZ camera: Yes
Defog	PTZ camera: Yes
Privacy Masking	Panoramic camera: 4 areas PTZ camera: 8 areas

Audio

Audio Compression	G.711A; G.711Mu; G.726; AAC
Alarm	Alarm Event No SD card; SD card full; SD card error; network disconnection; IP conflict; illegal access; motion detection; video tampering; intrusion; tripwire; scene changing; audio detection and external alarm.

Network

SDK and API	Yes
Network	RJ-45 (10/100/1000 Base-T)
Protocol	HTTP; TCP; ARP; RTSP; RTP; UDP; RTCP; SMTP; FTP; DHCP; DNS; DDNS; PPPOE;IPv4/v6; SNMP; QoS; UPnP; NTP
Interoperability	ONVIF (Profile G/T/S); GB/T28181; CGI
User/Host	20 (Total bandwidth: 600 M)
Storage	FTP; SFTP; Micro SD card (support max. 512 G); Dahua Cloud; NAS
Browser	IE: IE7 and earlier Chrome: 42 and earlier Firefox: 52 and earlier Safari: 11 and earlier
Management Software	EVS; NVR; M70; DSS; Milestone; Genetec
Mobile Phone	IOS; Android

PTZ Dome

Pan Range	Pan: 0° to 360° endless Tilt: −12° to 90°, auto flip 180
Manual Control Speed	Pan: 0.1°/s–240°/s Tilt: 0.1°/s–100°/s
Remote Lens Reset	Yes
Remote PTZ Reset	Yes
Preset	300
Tour	8 (up to 32 presets per tour)
Pattern	5 patterns
Scan	5 auto scans
Power-off Memory	Yes
Idle Motion	Preset/Pattern/Tour/Scan
Time Task	Yes
3D Positioning	Yes
PTZ Limit	Yes
Position Display	Yes
Information Display	Yes
Time Display	Yes

Certifications

Certification	CE-LVD: EN60950-1 CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC: 47 CFR FCC Part 15, Subpart B UL/CUL: UL60950-1 CAN/CSA C22.2 No.60950-1-07

Port

Audio Input	2 channels (terminal)
Audio Output	2 channels (terminal)
Alarm Input	7 channels in: 5mA 3V–5V DC
Alarm Output	3 channels out: 300mA 12V DC

Optical Module Specification	SFP optical module, single mode, single fiber 20KmTX-1310nm/RX-1550nm
Optical Fiber	FC
Optical Fiber Module Type	Gigabit SFP optical module, single mode, single fiber TX-1550nm/RX-1310nm

Power

Power Supply	36V DC
Power Consumption	< 77.7W

Environment

Operating Conditions	−40°C to +70°C (-40°F to 158°F)
Operating Humidity	≤95%
Strorage Conditions	5°C –40°C (41°F–104°F) (The temperature difference of each day is within 15°C /59°F.)
Protection Grade	IP66;IK10(optional)

Structure

Casing	Metal + plastic
Dimensions	Φ383 mm × 389.8 mm (Φ15.1" × 15.3")
Net Weight	14.30 kg (31.5lb)
Gross Weight	19.50 kg (43.0lb)

Ordering Information

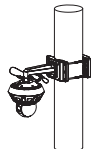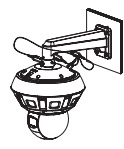| Type	Part Number	Description
Panoramic + PTZ camera	DH-PSDW81642M-A360	8 × 2MP Multi-Sensor Panoramic + PTZ WizMind Network Camera
	DH-PSDW8842M-A180	4 × 2MP Multi-Sensor Panoramic + PTZ WizMind Network Camera
Accessories	PFB710C	Hang-mounted bracket
	PFB710W	Wall-mounted bracket
	DH-PFA153	DH-PFA153-Heavy pole-mounted bracket-DH816W2

Accessories

Optional:

DH-PFA153
DH-PFA153-Heavy pole-mounted bracket-DH816W2

PFB710C
Hang-mounted bracket

PFB710W
Wall-mounted bracket

Pole Mount	Ceiling-mounted	Wall Mount
DH-PFA153	PFB710C	PFB710W

Dimensions (mm[inch])