DH-SDT7C424-4F-ZBZJ-APV-0400
4 MP 24x Startlight IR WizMind Network Panoramic + PTZ Camema

WizMind

- Panoramic: 1/1.8" 4 Megapixel F1.0 STARVIS™ CMOS
  Detail: 1/2.8" 4 Megapixel STARVIS™ CMOS
- 24× optical zoom, 16× digital zoom
- Starlight+ technology
- Max. 25/30 fps@4 MP
- IR distance up to 150 m
- Auto-tracking
- Perimeter protection
- Sound and light alarm

Full Color	Smart Illumination	ROI	Perimeter Protection	Sound and Light Alarm	4Mp
ITO Glass	WDR				

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

With its industry-leading deep learning algorithm, the camera has advanced monitoring functions and strong detection capabilities. It is equipped with GPU chip and Smart Codec (H.265), making it highly efficient at encoding for improved video quality with reduced bandwidth and storage requirements. The camera supports smart tracking, seeing both the panorama (complete) and detail (clear) with one product. It also supports monitoring and detection of multiple perimeters, and can perform large-scale detection through its 4 mm fixed focal. Detection is combined with sound and light alarm, broadcasting multiple warning recordings, which can be applied to different scenarios.

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.

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.

Smart Tracking
The camera supports smart tracking, seeing both the panorama (complete) and detail (clear) with one product.

Smart Illumination Technology
With its built-in IR illuminator (150 m), the camera balances and evens out the effect of illuminator by using an algorithm that matches zoom rate with IR illuminator power.

Smart H.265+
Smart H.265+ is the optimized implementation of the 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.

Scenes

The camera can be widely used in complex security monitoring scenes such as the periphery of residential areas, entrances and exits, subway entrances, sidewalks, pedestrian zones, roads, lookout post, parks, scenic areas, streets, stations, and perimeters.

Technical Specification

Camera

Image Sensor	Panoramic: 1/1.8" CMOS Detail: 1/2.8" CMOS
Pixel	Panoramic: 4 MP Detail: 4 MP
Max. Resolution	Panoramic: 2560 (H) × 1440 (V) Detail: 2560 (H) × 1440 (V)
ROM	Panoramic: 4 GB Detail: 256 MB
RAM	Panoramic: 1 GB Detail: 1 GB
Electronic Shutter Speed	Panoramic: 1/1 s–1/30,000 s Detail: 1/1 s–1/30,000 s
Scanning System	Progressive Scanning
Min. Illumination	Panoramic: Color: 0.001 lux@F1.0 B/W: 0.0001 lux@F1.0 0 lux (white light on) Detail: Color: 0.005 lux@F1.6 B/W: 0.0005 lux@F1.6 0 lux (IR light on)
Illumination Distance	30 m (98.44 ft) (white light) 150 m (49.13 ft) (IR)
Illuminator On/Off Control	Zoom Prio; manual; auto; off
Illuminator Number	Panoramic: 4x white light Detail: 2x white light; 4x IR

Lens

Focal Length	Panoramic: 4 mm Detail: 4.8 mm–115 mm
Max. Aperture	Panoramic: F1.0 Detail: F1.6–F3.6
Field of View	Panoramic: H: 95°; V: 52.5° ; D: 116° Detail: H: 53.1°–3.4°; V: 30.4°–1.95°; D: 59.3°–3.9°
Optical Zoom	24×
Focus Control	Auto; Semi-Auto; Manual
Close Focus Distance	Panoramic: 0.2 m (0.66 ft) Detail: 0.5 m–5 m (1.64 ft–16.4 ft)
Iris Control	Panoramic: Fixed Detail: Auto; manual; fixed

DORI Distance	Detect	Observe	Recognize	Identify
	Panorama: 102 m (334.66 ft) Detail: 1,928 m (6325.46 ft)	Panorama: 40.8 m (133.86 ft) Detail: 771.2 m (2530.18 ft)	Panorama: 20.4 m (66.9 ft) Detail: 385.6 m (1265.09 ft)	Panorama: 10.2 m (33.46 ft) Detail: 192.8 m (632.55 ft)

*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: −20° to +90°, auto flip 180°
Manual Control Speed	Pan: 0.1°–160°/s Tilt: 0.1°–120°/s
Preset Speed	Pan: 240°/s; Tilt: 200°/s
Preset	300
Tour	8 (up to 32 presets per tour)
Pattern	5
Scan	5
Power-off Memory	Yes
Idle Motion	Preset, Tour, Scan, Track
PTZ Protocol	DH–SD Pelco–P/D (auto recognition)

Intelligence

Face Detection	Yes
IVS (Perimeter Protection)	Tripwire; intrusion; climbing fences; loitering detection; abandoned/missing object; fast moving; parking detection; people gathering; vehicle/human alarm classification; linkage tracking
Auto Tracking	Yes

Video

Video Compression	H.265, H.264B, H.264M, H.264H ,MJPEG, smart H.265, smart H.264
Streaming Capability	3 streams
Resolution	Panoramic: 4M (2560 X 1440) , 1080p (1920 × 1080) , 1.3M (1280 × 960) , 720p (1280 ×720) , D1 (704 × 576/704 × 480) , CIF (352 × 288/352 × 240) Detail: 4M (2560 X 1440) , 1080p (1920×1080) , 1.3M (1280 × 960) , 720p (1280 ×720) , D1 (704 × 576/704 × 480) , CIF (352 × 288/352 × 240)
Default Bit Rate with Default Resolution	3072 Kbps (2560 × 1440, H.265)
Video Frame Rate	Panoramic: Main stream: 4M/1080p/1.3M/720p (1–25/30 fps) sub stream 1: D1/CIF (1–25/30 fps) sub stream 2: 720p/CIF (1–25/30 fps) Detail: Main stream: 4M/1080p/1.3M/720p (1–25/30 fps) sub stream 1: D1/CIF (1–25/30 fps) sub stream 2: 720p/CIF (1–25/30 fps)
Bit Rate Control	Constant Bite Rate; Variable Bite Rate
Video Bit Rate	H. 265: 1024 Kbps–7936 Kbps
Day/Night	Panoramic: Color/B/W Detail: Auto (ICR)/Color/B/W
BLC	Panoramic: Yes Detail: Yes
WDR	Yes
HLC	Panoramic: Yes Detail: Yes
White Balance	Panoramic: Auto; indoor; outdoor; tracking; manual; sodium lamp; natural light; street lamp Detail: Auto; indoor; outdoor; tracking; manual; sodium lamp; natural light; street lamp
Gain Control	Panoramic: Auto; manual Detail: Auto; manual

Noise Reduction	Panoramic: 2D NR; 3D NR Detail: 2D NR; 3D NR
Motion Detection	Yes
Region of Interest (RoI)	Yes
Defog	Panoramic: Electronic Defog Detail: Electronic Defog
Flip	180°
S/N Ratio	≥ 55 dB

Certification

Certifications	CE: EN55032/EN55024/EN50130-4 FCC: 47 CFR FCC Part15, Subpart B, Class A ANSI C63.4-2014

Audio

Audio Compression	G.711a; G.711Mu; G.726; MPEG2–Layer2; G722.1

Network

Network Port	RJ–45 (10/100 Base–T)
Network Protocol	HTTP; HTTPS; TCP/IP; IPv4; RTSP;UDP; SMTP; NTP; DHCP; DNS; DDNS; IPv6; 802.1x; SSL; Qos; FTP;UPnP; ICMP; SNMP; IGMP; ARP;RTCP; RTP; PPPoE; RTMP; Bonjour;SAMBA; NFS
Interoperability	ONVIF (Profle S&G&T); CGI; SDK
Streaming Method	Unicast/Multicast
User/Host	20
Storage	FTP; Micro SD card (128 GB)
Browser	IE7 and later versions Chrome 42 and earlier versions Firefox 52 and earlier versions Safari
Management Software	DMSS; DSS Pro
Mobile Client	IOS, Android, iPhone, iPad, Windows Phone

Port

Alarm I/O	2/1
Audio I/O	1/1
Two-way Audio	Yes
Alarm Linkage	Capture; preset; tour; pattern; recording; triggering on– off value output; audio; sending email
Alarm Event	Motion/tampering detection, audio detection; network disconnection detection; IP conflict detection; memory card state detection; memory space detection; power exception detection

Power

Power Supply	36 VDC/2.23 A ± 25% (included)
Power Consumption	Basic: 20 W Max. (illuminator + heater + PTZ working + sound and light alarm): 45 W

Environment

Operating Temperature	–40 °C to +65 °C (–40 °F to +149 °F)
Operating Humidity	≤ 95%
Protection	IP66; TVS 6000 V lightning proof, surge protection and voltage transient protection

Structure

Casing	Plastic + aluminum alloy
Product Dimensions	358 mm × Φ202 mm (14.09" × 7.95")
Packaging Dimensions	510.0 mm × 312.0 mm × 312.0 mm (21.42" × 7.70" × 6.75") (L × W × H)
Net Weight	5.6 kg (12.35 lb)
Gross Weight	7.15 kg (15.77 lb)

Ordering Information

Type	Part Number	Description
Network PTZ Camera	DH-SDT7C424-4F-ZBZJ- APV-0400	4 MP 24x Startlight White Light PTZ AI Network Camera
Accessories	36 VDC/2.23 A	Power Adapter
	PFB303W	Wall Mount
	PFA114	Mount Adapter
	PFB300C+PFA150	Pole Mount
	PFA150	Pole Mount
	PFA151	Corner Mount
	PFB300C	Ceiling Mount
	PFB301C	Ceiling Mount
	PFB301S-E	Plane Mount
	PFB303S	Parapet Mount

Accessories

Included:

36 VDC/2.23 A Power Adapter	PFB303W Wall Mount	PFA114 Mount Adapter

Optional:

PFB300C+PFA150 Pole Mount	PFA150 Pole Mount	PFA151 Corner Mount
PFB300C Ceiling Mount	PFB301C Ceiling Mount	PFB301S-E Plane Mount
PFB303S Parapet Mount		

Dimensions (mm[inch])

Φ47.0 [Φ1.85]
358.0 [14.09]
Φ202.0 [Φ7.95]
Φ170.0 [Φ6.69]
228.8 [9.01]
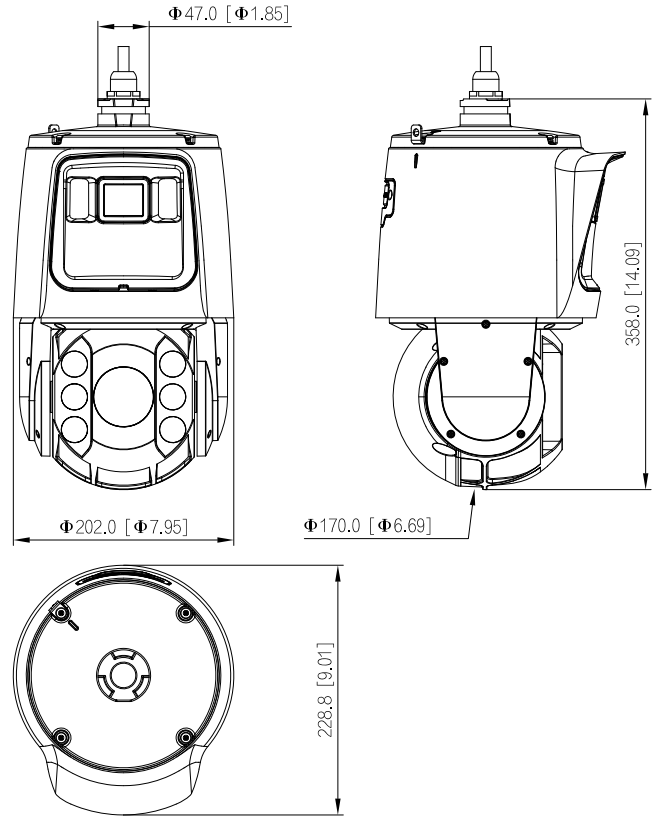
Wall Mount	Ceiling Mount	Ceiling Mount
PFA114+PFB303W+PFA120	PFA114+PFB300C	PFA114+PFB301C
Pole Mount(Vertical)	Corner Mount	Pole Mount(Horizontal)
PFA114+PFB303W+PFA150	PFA114+PFB303W+PFA151	PFA114+PFB300C+PFA150
Plane Mount	Parapet Mount	
PFA114+PFB301S−E	PFA114+PFB303S	