

# DH-SDT5X425-4Z4-FAJG-2812

4MP 25x Starlight IR WizMind Network Dual-PTZ Camera for Traffic



WizMind

- Dual PTZ system, dual vari-focal lens.
- 1/1.8" 4Megapixel CMOS.
- Powerful 25x optical zoom.
- Starlight technology.
- Max. 25/30 fps@4M.
- H.265 encoding.
- IP67.
- Illegal parking detection and checkpoint capture.



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 high-performance GPU chip, the device uses multiple deep learning algorithms to analyze data from complex scenes, and take snapshots of vehicles that are illegally parked. It has a dual-PTZ control system. The embedded panoramic and detail cameras can be rotated horizontally and vertically. The panoramic camera also links to the detail camera to perform tour, allowing you to configure multiple presets to increase coverage.

The device can be connected to 2 channel alarm inputs and 1 channel alarm output. Voice prompts are also broadcasted when an external speaker is connected to the device, providing warnings for drivers and allowing license plate numbers to be read out loud when a vehicle is illegally parked.

## Functions

### 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, a flexible multi-frame reference structure and intelligent noise reduction to deliver high-quality videos without straining the network. Smart H.265+ technology outranks standard H.265 video compression, reducing bit rate and storage requirements by up to 70%.

## Illegal Parking Capture

Empowered by deep learning algorithms, the device automatically detects and triggers alarms for illegal parking targets, and identifies vehicle attributes in designated areas. The camera supports zooming, capturing, and recognizing license plate numbers, vehicle types, vehicle colors, license plate colors and other motor vehicle attributes. The combination of long shots, close shots and detailed license plate snapshots form a complete chain of evidence on illegal behavior.

## Dual-PTZ System

Both the panorama camera and detail camera of the Dual-PTZ system can be moved horizontally and vertically.

## 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.

## Scene

The device can be widely used in a variety of scenes, such as urban roads, elevated roads, and expressways, that require a wide monitoring range and that need to collect evidence for illegal parking.

### Technical Specification

#### Camera

Image Sensor	Panorama: 1/1.8" CMOS Detail: 1/1.8" CMOS
Max. Resolution	2688 (H) x 1520 (V)
Effective Pixels	Panorama: 4MP Detail: 4MP
ROM	8 GB
RAM	4 GB
Electronic Shutter Speed	Panorama: 1/3 s–1/100000 s Detail: 1/1 s–1/100000 s
Scanning Mode	Progressive
Min. Illumination	Panorama: Color: 0.001 Lux@F1.6 B/W: 0.0001 Lux@F1.6 Detail: Color: 0.001 Lux@F1.6 B/W: 0.0001 Lux@F1.6 0 Lux (IR light on)
Illumination Distance	Panorama (white light): 30 m (98.43 ft) Detail (IR light): 100 m (328.08 ft)
Illuminator On/Off Control	Panorama: Zoom Prio; Manual; Auto; Off Detail: Zoom Prio; Manual; Auto; Off
Illuminator Number	Panorama: 4 white lights Detail: 4 IR lights

#### Lens

Focal Length	Panorama: 2.8 mm–12 mm Detail: 5.4 mm–135 mm				
Max. Aperture	Panorama: F1.3–F2.0 Detail: F1.6–F4.0				
Field of View	Panorama: H: 99.2°–45.8°; V: 59.7°–27°; D: 110.4°–51.7° Detail: H: 58°–3.5°; V: 35°–2°; D: 64°–4°				
Optical Zoom	Panorama: 4x Detail: 25x				
Focus Control	Auto/Semi-Auto/Manual				
Close Focus Distance	Panorama: 1 m–2.5 m (3.28 ft–8.20 ft) Detail: 0.5 m–7 m (1.64 ft–22.97 ft)				
Iris Control	Panorama: Auto Detail: Auto				
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	Panorama	129 m (423.23 ft)	51.3 m (168.31 ft)	25.4 m (83.33 ft)	12.2 m (40.03 ft)
	Detail	1688 m (5538.06 ft)	675 m (2214.57 ft)	337 m (1105.64 ft)	168 m (551.18 ft)

#### PTZ

Pan/Tilt Range	Panorama: Pan: 0°–360° endless; Tilt: 0°–30° Detail: Pan: 0°–305° (the angle between two cameras: -125° to +180°); Tilt: -10°–180°
Manual Control Speed	Panorama: Pan: 0.1°/s–100°/s; Tilt: 0.1°/s–25°/s Detail: Pan: 0.1°/s–400°/s; Tilt: 0.1°/s–200°/s
Preset Speed	Panorama: Pan: 100°/s; Tilt: 50°/s Detail: Pan: 360°/s; Tilt: 200°/s

Presets	300
Tour	8 (up to 32 preset per tour)
Scan	5
Power-off Memory	Yes
Idle Motion	Preset;Tour;Scan
PTZ Protocol	DH-SD Pelco-P/D(Auto recognition)

#### Intelligence

Illegal Parking Capture	Capture range radius: 4 m–60 m (13.12 ft–196.85 ft) (panoramic linkage mode), 120 m (393.70 ft) (detail camera); support adaptive multi-scenario tour detection; 2–6 snapshots can be set, and the capture interval can be set between each capturing; snapshot type includes long-distance, medium-distance, close-distance, and plate feature; support vehicle type, color, logo, series, license plate, plate color and other attribute recognition; support panorama-detail linkage capture, and multi-scenario tour; supports panoramic fixed capture, while detail camera capturing illegal parking, and independent multi-scenario tour.
Checkpoint Capture	Detects events for up to 2 lanes. Detects wrong-way driving and traffic congestion. Recognizes motor vehicle attributes, including license plates, plate color, vehicle color, and vehicle type.
Intelligence Note	ANPR of illegally parked vehicle: Supports adaptively loading its corresponding license plate recognition algorithm according to the area selected; integrate overseas general recognition algorithms to support license plate recognition containing letters and numbers; integrate special license plate recognition algorithm in EU; integrate Singapore and Malaysia special license plate recognition algorithms; integrate special license plate recognition algorithms for UAE, Saudi Arabia, Morocco, Oman, Egypt, Iraq, and Jordan

#### Video

Video Compression	Smart H.265+;H.265;Smart H.264+;H.264;H.264B; H.264H;MJPEG(Sub Stream)
Streaming Capability	3 Streams
Resolution	Panorama: 4M (2688 x 1520); 4M (2560 x 1440); 1080p (1920 x 1080); 960p (1280 x 960); 720p (1280 x 720); D1 (704 x 576) VGA (640 x 480); CIF (352 x 288) Detail: 4M (2688 x 1520); 4M (2560 x 1440); 1080p (1920 x 1080); 960p (1280 x 960); 720p (1280 x 720); D1 (704 x 576); VGA (640 x 480); CIF (352 x 288)
Video Frame Rate	Panoramic: Main stream: 4M/1080p/1.3M/720p (1–25/30 fps) Sub stream 1: D1/VGA/CIF (1–25/30 fps) Sub stream 2: 1080p/1.3M/720p/CIF (1–25/30 fps) Detail: Main stream: 4M/1080p/1.3M/720p (1–25/30 fps) Sub stream 1: D1/VGA/CIF (1–25/30 fps) Sub stream 2: 1080p/1.3M/720p/CIF (1–25/30 fps)
Bit Rate Control	CBR/VBR
Video Bit Rate	H.264: 512 Kbps–13056 Kbps H.265: 204 Kbps–7936 Kbps
Day/Night	Panorama: Auto (ICR) Detail: Auto (ICR)
BLC	Yes

WDR	Panoramic: 120dB Detail: 120dB
HLC	Yes
White Balance	Panorama: 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	Auto/Manual
Noise Reduction	2D NR; 3D NR
Motion Detection	Yes
Region of Interest (RoI)	Yes
Defog	Electronic
Digital Zoom	16x
Image Rotation	180°
S/N Ratio	Panorama: ≥ 55 dB Detail: ≥ 55 dB

### Certification

Certification	CE: EN55032/EN55024/EN50130-4 FCC: Part15 subpartB,ANSI C63.4- 2014"
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### Audio

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

Audio In	1 channel (LINE IN, bare wire)
Audio Out	1 channel (LINE OUT, bare wire)
Alarm I/O	2/1

### Network

Network Port	RJ-45 (10/100 Base-T)
Network Protocol	HTTP;HTTPS;IPv4;RTSP;UDP;SMTP;NTP;DHCP;DNS;DDN S;IPv6;802.1x;Qos;FTP;UPnP;ICMP;SNMP;SNMPv1/v2c/v3(MIB-2);IGMP;ARP;RTP;PPPoE;RTMP;TCP
Interoperability	ONVIF;CGI
Streaming Method	Unicast/Multicast
User/Host	20 (total bandwidth: 64 M)
Storage	FTP; Micro SD card (512 GB)
Browser	IE9 and later versions Chrome 41 and later versions Firefox 50 and later versions Safari 10 and later versions
Management Software	Cyber City
Mobile Client	iOS; Android

### Power

Power Supply	36 VDC/2.23 A ± 25% Hi-PoE
Power Consumption	Basic: 21 W Max.: 40 W (PTZ, zoom, focus, IR light, white light, and smart plan enabled)

### Environment

Operating Temperature	-40 °C to +65 °C (-40 °F to +149 °F)
Operating Humidity	≤95% (RH)
Protection	IP67; TVS 8000 V lightning protection; surge protection; voltage transient protection

### Construction

Dimensions	385 mm × Φ277 mm (15.16" × Φ10.91")
Net Weight	9 kg (19.84 lb)
Gross Weight	13.8 kg (30.42 lb)

### Ordering Information

Type	Part Number	Description
WizMind	DH-SDT5X425-4Z4-FAJG-2812	4MP 25x Starlight IR WizMind Network Dual-PTZ Camera for Traffic
Accessories	DC36V/2.23A	Power Adapter
	PFB306W-S	Wall Mount Bracket
	PFA151	Corner Mount Bracket
	PFA150	Pole Mount Bracket
	PFB300C-S	Ceiling Mount Bracket

### Accessories

Included:



DC36V/2.23A  
Power Adapter



PFB306W-S  
Wall Mount Bracket

Optional:



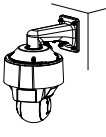
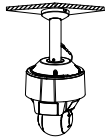
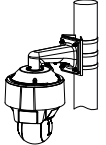
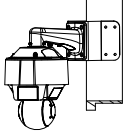
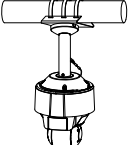
PFA151  
Corner Mount Bracket



PFA150  
Pole Mount Bracket



PFB300C-S  
Ceiling Mount Bracket

Wall Mount PFB300W-S 	Ceiling Mount PFB300C-S 	Pole Mount(Vertical) PFB300W-S+PFA150 
Corner Mount PFB300W-S+PFA151 	Pole Mount(Horizontal) PFB300C-S+PFA150 	

**Dimensions (mm[inch])**

