

DH-SDT5X405-4F-WA

4MP Starlight+ IR WizMind Network Dual-PTZ Camera




- Dual-PTZ system
- 1/1.8" 4Megapixel CMOS
- Powerful 5x optical zoom
- Starlight+ technology
- Max. 25/30fps@4M
- Deep-learning-based auto tracking and perimeter protection
- Support Hi-PoE
- H.265 Encoding
- IP67



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

Dahua PTZ WizMind network camera adopts advanced CNN deep learning algorithms to support face recognition with high accuracy. The Dual 4MP Starlight Smart Capture Camera consists of panorama camera and PTZ camera. Panorama camera captures panoramas, and then PTZ camera takes detailed snapshots of objects and keeps tracking objects after rule violations occur. This camera possess wide monitor range and PFA algorithm that can always present a clear, focused image while zooming.

Functions

Dual-PTZ System

Panorama camera and Detail camera of the Dual-PTZ system system can be adjusted horizontally and vertically.

Face Recognition

Once facial features are extracted from captured faces, they are stored in a database where they can be easily searched and compared against other images. Once a successful match is found, the system outputs the result. The Dahua Face Recognition camera supports a built-in database that stores up to 10,000 facial images, helping the camera achieve real-time face capture and comparison.

Starlight+ Technology

For challenging low-light applications, Dahua's Starlight Ultra-low Light Technology offers best-in-class light sensitivity, capturing color details in low light down to 0.001 lux. The camera uses a set of optical features to balance light throughout the scene, resulting in clear images in dark environments.

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.

Metadata

Metadata is feature attribute information extracted from a target object which can be used for data retrieval. There are four kinds of metadata supported by Dahua PTZ WizMind camera: human face, human body, motor vehicle and non-motor vehicle metadata. Facial information includes gender, age, glasses, masks, beards, etc. Human body information includes hat, top, top color, bottom, bottom color, bag, etc. Motor vehicle information includes plate color, type, vehicle color, sunshield, ornament, calling, seatbelt, smoking, annual inspection sticker, etc. Non-motor vehicle information includes type, color, top type, top color, people number, etc.

Smart tracking

Human, motor vehicle, and non-motor vehicle, or their combinations can be set as objects. Once the objects selected trigger detection rules (like tripwire and intrusion), the detail camera will track them automatically.

Perimeter Protection

Automatically filtering out false alarms caused by animals, rustling leaves, bright lights, etc. Enables system to act secondary recognition for the targets. Improving alarm accuracy.

Interoperability

The camera conforms to the ONVIF (Open Network Video Interface Forum) specifications, ensuring interoperability between network video products regardless of manufacturer.

Technical Specification

Camera

Image Sensor	Panoramic: 1/1.8" CMOS Detail: 1/1.8" CMOS
Pixel	Panoramic: 4MP Detail: 4MP
Max. Resolution	Panoramic: 2688 (H) ×1520 (V) Detail: 2688 (H) ×1520 (V)
ROM	8GB
RAM	4GB
Electronic Shutter Speed	Panoramic: 1/3 s–1/100000 s Detail: 1/1 s–1/100000 s
Scanning System	Interlaced
Min. Illumination	Panoramic: Color: 0.0005Lux@F1.0 B/W: 0.0001Lux@F1.0 Detail: Color: 0.001Lux@F1.3 B/W: 0.0001Lux@F1.3 0Lux (IR light on)
Illumination Distance	Panoramic (white light): 20 m (75.46 ft)—face recognition 30 m (98.43 ft)—video metadata Detail (IR light): 100 m (328.08 ft)
Illuminator On/Off Control	Panoramic: SmartIR/Manual/Off Detail: Zoom Prio/Manual/SmartIR/Off
Illuminator Number	4 IR lights; 4 white lights

Lens

Focal Length	Panoramic: 6 mm Detail: 10 mm–50 mm			
Max. Aperture	Panoramic: F1.0 Detail: F1.3–F1.5			
Field of View	Panoramic: H: 57°; V: 31°; D: 66° Detail: H: 45°–10°; V: 26°–5.7°; D: 51°–11.5°			
Optical Zoom	5x			
Focus Control	Auto/Semi-Auto/Manual			
Close Focus Distance	Panoramic: 0.2 m (0.66 ft) Detail: 0.5 m–3 m (1.64 ft–9.84 ft)			
Iris Control	Panoramic: Fixed Detail: Auto			
DORI Distance	Detect	Observe	Recognize	Identify
	Panoramic: 110 m (360.89 ft) Detail: 690 m (2263.78 ft)	Panoramic: 44 m (144.36 ft) Detail: 276 m (905.51 ft)	Panoramic: 22 m (72.18 ft) Detail: 138 m (452.76 ft)	Panoramic: 11 m (36.09 ft) Detail: 69 m (226.38 ft)

PTZ

Pan/Tilt Range	Panoramic: Pan: 0°–360° endless; Tilt: 0°–30° Detail: Pan: 0°–250°; Tilt: -10°–90°
Manual Control Speed	Panoramic: Pan: 0.1°/s–100°/s; Tilt: 0.1°/s–25°/s Detail: Pan: 0.1°/s–120°/s; Tilt: 0.1°/s–50°/s
Preset Speed	Panoramic: Pan: 100°/s; Tilt: 50°/s Detail: Pan: 360°/s; Tilt: 200°/s
Presets	300
Tour	8 (up to 32 presets per tour)

Pattern	5
Scan	5
Power-off Memory	Support
Idle Motion	Preset/Tour/Pattern/Scanning
Protocol	DH-SD Pelco-P/D (auto recognition)

Artificial Intelligence

Video Metadata	Support human body, human face, motor vehicle and non-motor vehicle image capture and attributes extraction.
Perimeter Protection	Tripwire and intrusion. Support alarm triggering by target types (human and vehicle). Support filtering false alarms caused by animals, rustling leaves, bright lights, etc.
Face Recognition	Support

Video

Compression	H.265/H.265+/H.264+/H.264/MJPEG (sub stream)
Streaming Capability	3 streams
Resolution	Panoramic: 4M (2688 × 1520); 4M (2560 × 1440); 1080P (1920 × 1080); 960P (1280 × 960); 720P (1280 × 720); D1 (704 × 576/704 × 480); CIF (352 × 288/352 × 240) Detail: 4M (2688 × 1520); 4M (2560 × 1440); 1080P (1920 × 1080); 960P (1280 × 960); 720P (1280 × 720); D1 (704 × 576/704 × 480); CIF (352 × 288/352 × 240)
Frame Rate	Main stream: 4M/1080P/1.3M/720P (1–25/30 fps) Sub stream 1: D1/CIF (1–25/30 fps) Sub stream 2: 1080P/1.3M/720P/CIF (1–25/30 fps)
Bit Rate Control	Variable Bit Rate/Constant Bit Rate
Bit Rate	H.264: 2816 kbps–13056 kbps H.265: 1024 kbps–7936 kbps
Day/Night	Panoramic: Color/B/W; Detail: Auto (ICR)
BLC	Support
WDR	Panoramic: 120dB; Detail: 120dB
HLC	Support
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	Auto/Manual
Noise Reduction	2D/3D
Motion Detection	Support
Region of Interest (RoI)	Support
Image Stabilization	Electronic
Defog	Support
Digital Zoom	16x
Flip	0°/180°
Audio	
Compression	G.711A; G.711Mu; G.726; AAC; MPEG2-Layer2; G.722.1; G.729

Network

Ethernet	RJ-45 (10/100Base-T)
Protocol	IPv4; IPv6; HTTP; HTTPS; 802.1x; Qos; FTP; SMTP; UPnP; SNMP; DNS; DDNS; NTP; RTSP; RTP; TCP; UDP; IGMP; ICMP; DHCP; PPPoE; ARP; SNMPv1/v2c/v3(MIB-2); RTCP
Interoperability	ONVIF Profile S&G&T; CGI
Streaming Method	Unicast/Multicast
User/Host	20 (Total bandwidth 64M)
Storage	P2P; FTP; Micro SD (128G)
Browser	IE7 and later versions Chrome 45 and earlier versions Firefox 52 and earlier versions Safari 12 and earlier versions
Management Software	SmartPSS/DSS/NVR

Certification

Certifications	CE: EN55032/EN55024/EN50130-4 FCC: Part15 subpartB,ANSI C63.4-2014
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Port

Audio Input	1 (LINE IN bare wire)
Audio Output	1 (LINE OUT bare wire)
Alarm I/O	2/1 Digital input: 0-5V DC

Power

Power Supply	DC36V/2.23A±25% Hi-PoE
Power Consumption	Basic: 21W Max.: 40W (PTZ, zoom, focus, IR light, white light, and smart plan enabled)

Environment

Operating Temperature	-40°C to +70°C (-40°F to +158°F)
Operating Humidity	≤95%
Protection	IP67; TVS 8000V lightning protection; surge protection

Structure

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	Model	Description
4MP WizMind Dual-PTZ Camera	DH-SDT5X405-4F-WA	4MP Starlight+ IR WizMind Network Dual-PTZ Camera, PAL
	DH-SDT5X405N-4F-WA	4MP Starlight+ IR WizMind Network Dual-PTZ Camera
	SDT5X405-4F-WA	4MP Starlight+ IR WizMind Network Dual-PTZ Camera
	SDT5X405N-4F-WA	4MP Starlight+ IR WizMind Network Dual-PTZ Camera

Accessories	DC36V/2.23A	Power Adapter
	PFB306W-S	Wall Mount Bracket
	PFA150	Pole Mount Bracket
	PFB300C-S	Ceiling Mount Bracket

Accessories

Included:



DC36V/2.23A
Power Adapter



PFB306W-S
Wall Mount Bracket

Optional:



PFA150
Pole Mount Bracket



PFB300C-S
Ceiling Mount Bracket

Wall Mount	Pole Mount	Ceiling Mount
PFB306W-S	PFA150+PFB306W-S	PFB300C-S

Dimensions (mm[inch])

