dahua TECHNOLOGY

4MP Enhanced Starlight Network PTZ Camera (32x)

WizSense Analytics and Low-light Technology

WizSense

- 1/2.8-in. 4MP CMOS Sensor
- 4MP (2560 x 1440) at 30 fps Maximum Resolution
- AI Coding, Smart H.265+ and Smart H.264+ Dual Codec
- Powerful 32x Optical Zoom
- Enhanced Starlight Technology for Low-light Applications
- True Wide Dynamic Range (120 dB)
- Analytics+ Function: Perimeter Protection, Upgraded SMD+, Auto-tracking, Face Detection, PFA Technology
- IK10 Vandal Resistance, TVS 6000 V Surge Protection
- Five-year Warranty*

WizSense Series devices combine Dahua's powerful Analytics+ with an intuitive and easy to use interface. WizSense devices offer Smart Motion Detection and Perimeter Protection functions that focus on human and vehicular images and ignore irrelevant images to capture important video while reducing false alarms. WizSense Series devices provide powerful general security for small to medium size businesses at a sensible price.

System Overview

With its powerful optical zoom and accurate pan and tilt capabilities, this PTZ camera provides an all-in-one solution for small and medium-sized scenes. It has Enhanced Starlight technology to capture highly detailed images in lighting conditions as low as 0.005 lux. The camera offers smooth control and high-grade protection that enable it to meet the security requirements of a variety of security applications.

Functions

Enhanced Starlight Technology

For challenging low-light applications, Dahua's Enhanced Starlight technology offers best-in-class light sensitivity to capture full-color images in lighting as low as 0.005 lux. The camera uses a set of optical features to balance light throughout the scene to produce clear images in dark environments.

True Wide Dynamic Range (120 dB)

For applications with lighting conditions that change quickly, True WDR (120 dB) optimizes both the bright and dark areas of a scene simultaneously to provide usable video.

Perimeter Protection

Dahua Analytics+ includes Tripwire and Intrusion functions that offer custom tripwires based on object type for automation in limited access areas. Perimeter Protection requires less pixels to detect an object to deliver improved accuracy and decreased false alarms due to lights, weather, trees, or animals.

Auto-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.

Upgraded Smart Motion Detection+

Upgraded Smart Motion Detection+, a component of Dahua's Analytics+ technology, improves alarm accuracy and decreases the number of false alarms. The advanced upgraded SMD+ algorithm analyzes a scene for human or vehicle motion, while filtering out other motion due to trees, leaves, animals, weather, and triggers an alarm when detected. Upgraded SMD+ also saves time when searching recorded video by filtering false alarms and allowing quick retrieval of an alarm due to a person or vehicle.

Predictive Focus Analysis (PFA) Technology

The camera uses innovative PFA Technology to improve zoom accuracy and to decrease focus time. A series of advanced algorithms more accurately judge the direction and the distance to a subject, improving picture clarity throughout the zooming process.

Environmental

The camera complies with the IK10 Vandal Resistance impact rating making it capable of withstanding the equivalent of 5 kg (11.02 lbs) of force dropped from a height of 40 cm (15.75 in.).

Supporting a ±25% input voltage tolerance, this camera suits even the most unstable power supply conditions. Its 6KV lightning rating provides protection against the camera and its structure from the effects of lightning.

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*Warranty applies to products sold through an authorized Dahua Dealer.

Technical Specification

Camera

Image Sensor		1/2.8-in. CMOS
Effective Pixels		2560 (H) × 1440 (V)
RAM/ROM		1 GB/4 GB
Scanning System		Progressive
Electronic Shutter Speed		1/1 s to 1/30,000 s
Minimum Illumination	Color	0.005 lux at F1.6
	B/W	0.0005 lux at F1.6

Lens

Focal Length		4.8 mm to 154 mm			
Maximum Aperture		F1.6 to F4.0			
Angle of View	Horizontal	55.8° to 2.3°			
	Vertical	31.9° to 1.3°			
	Diagonal	63.7° to 2.7°			
Optical Zoom		32x			
Focus Control		Automatic, Semi-automatic, Manual			
Iris Control		Auto, Manual			
Close Focus Distance		0.1 m to 1.5 m			
DORI[1] Distance		Detect	Observe	Recognize	Identify
		3,080 m (10,104.99 ft)	1,216.6 m (3,991.47 ft)	616 m (2,021.00 ft)	308 m (1,010.50 ft)

Pan/Tilt/Zoom

Pan/Tilt Range	Pan	0° to 360° endless
	Tilt	0° to 90°, Automatic Flip 180°
Manual Control Speed	Pan	0.1°/s to 350°/s
	Tilt	0.1°/s to 250°/s
Preset Speed	Pan	500°/s
	Tilt	500°/s
Presets		300
PTZ Mode		5 Patterns, 8 Tours (Up to 32 Presets per Tour), 5 Scans
Power Up Action		Auto restore to previous PTZ and lens status after power failure
Idle Motion		Activate Preset/Scan/Tour/Pattern if there is no command in the specified period
PTZ Protocol		DH-SD

Video

Video Compression		AI Coding, H.264H, H.264B, Smart H.265+, H.264, H.265, MJPEG (Sub Stream 1), Smart H.264+
Streaming Capability		Three (3) Streams
Resolution		4MP (2560 × 1440), 3MP (2048 × 1536), 2304 × 1296, 1080p (1920 × 1080), 720p (1280 × 720), D1 (704 × 576/704 × 480), CIF (352 × 288/352 × 240)
Frame Rate	Main Stream	4MP/3MP/1080p/1.3MP/720p at 1 to 30 fps
	Sub Stream 1	D1/CIF at 1 to 30 fps
	Sub Stream 2	1080p/1.3M/720p at 1 to 30 fps
Bit Rate Control		CBR/VBR
Bit Rate	H.264	96 to 14,848 Kbps
	H.265	38 to 8,960 Kbps
Day/Night		Auto (ICR), Color, B/W
Backlight Compensation		BLC, True WDR (120 dB), HLC
White Balance		Auto, Indoor, Outdoor, Tracking, Manual, Sodium Lamp, Natural Light, Street Lamp
Gain Control		Auto, Manual
Noise Reduction		2D, 3D
Advanced Features		Region of Interest (RoI), Electronic Image Stabilization (EIS), Electronic Defog, Motion Detection

Digital Zoom	16x
Image Rotation	180°
Privacy Masking	Up to 24 areas (8 areas allowed per view)
S/N Ratio	≥ 55 dB

Audio

Compression	PCM, G.711a, G.711Mu, G.726, MPEG2-Layer2, G722.1, G729, G723, AAC

Network

Ethernet	One (1) RJ-45 Port (10/100 Base-T)
Protocol	FTP, RTMP, IPv6, Bonjour, IPv4, DNS, RTCP, PPPoE, NTP, RTP, 802.1x, HTTPS, SNMP, TCP/IP, DDNS, UPnP, NFS, ICMP, UDP, IGMP, HTTP, SSL, DHCP, SMTP, Qos, RTSP, ARP
Interoperability	CGI, SDK, ONVIF (Profile S, G, T), P2P
Streaming Method	Unicast/Multicast
Maximum User Access	20 Users (Total Bandwidth 64 Mbps)
Edge Storage	Micro SD Slot (Max. 512 GB), FTP/SFTP, NAS
Browser	Safari (iOS 10 or Later), Microsoft Edge, Google Chrome 41 or Later, Firefox 50 or Later
Management Software	DSS Professional, DMSS
Mobile Client	iOS, Android

Certifications

CE	EN55032, EN55024, EN50130-4
FCC	Part 15 Subpart B, ANSI C63.4-2014
UL	UL62368-1 + CAN/CSA C22.2, No. 62368-1

Interface

Audio	Input	One (1) Channel (LINE IN, bare wire)
	Output	One (1) Channel (LINE OUT,bare wire)
Alarm	Input	Two (2) Channels
	Output	One (1) Channel
Alarm Linkage		Capture, Recoding, Send Email, Preset, Tour, Pattern, Alarm Digital Output, Audio
Alarm Output		Motion/Tampering Detection, Audio Detection, Network Disconnection Detection, Ip Conflict Detection, Memory Card State Detection, Memory Space Detection

Electrical

Power Supply		24 VDC/2.5 A ± 25% (Included) PoE+ (802.3at)
Power Consumption	Basic	13 W
	Maximum	16 W (PTZ)

Environmental

Operating Temperature	−30 °C to 60 °C (−22 °F to 140 °F)
Operating Humidity	≤ 95% RH
Vandal Resistance	IK10
Surge Protection	TVS 6000 V

Construction

Product Dimensions	176.6 mm × 198.0 mm (6.95 in. × 7.80 in.)
Net Weight	2.2 kg (4.85 lb)
Gross Weight	3.7 kg (8.16 lb)

Analytics+ Functions

Perimeter Protection	Detects human or vehicle violations using the following methods: **Tripwire**: a target crosses a defined line. **Intrusion**: a target enters or exits a defined perimeter.

Face Detection	• Detects and captures a snapshot of a human face in a defined area within a scene.
Upgraded Smart Motion Detection+	• Differentiates between and classifies human and vehicle objects. • Filters false alarms due to leaves, lights, animals, and other inconsequential objects. • Extracts human or vehicle objects from recorded video for quick target search and retrieval.

Intelligent Video System (IVS) Functions

IVS triggers an alarm and takes a defined action for the following events:

Standard Features	• Tampering with the camera. • Error writing to an onboard Micro SD card. • Error sending or receiving data over the network. • Unauthorized access to the camera
Premium Features	
Tripwire	A target crosses a user-defined line.
Intrusion	A target enters or exits a defined perimeter.
Abandoned/Missing Object	A target leaves an object in designated area, or a target removes an object from the same designated area.
Advanced Features	
Fast Moving	Target exceeds a set speed when exiting a defined area
Parking Detection	Vehicle remains in a defined area without motion for a set period of time.
People Gathering	Specified number of people remain inside a defined area for a set time.
Vehicle/Human Alarm Classification	Detects human or vehicle violations using Tripwire or Intrusion detection methods.
Linkage Tracking	Controls the pan/tilt/zoom actions of the camera to automatically track humans/vehicles in motion and to keep the target in the scene.
Auto-tracking	Controls the pan/tilt/zoom actions of the camera to automatically track an object in motion and to keep it in the scene.
Loitering Detection	Target is in motion inside a defined area longer than a specified amount of time.

Ordering Information

Type	Part Number	Description
Network Camera	52C432GBNR	4MP 32x Starlight WizSense Network PTZ Camera
Accessories (Included)	DC 24 V/2.5 A	Power Adapter
Accessories (Optional)	DHI-TF-P100 Series	MicroSDXC Memory Cards
	DH-PFM900-E	Integrated Mount Tester
	PC-H84.5-147	Polycarbonate Smoke Tinted Bubble

Accessories

Included:

**DC24V/2.5A
Power Adapter**

Optional:

**DHI-TF-P100 Series
MicroSDXC Memory Cards**

**DH-PFM900-E
Integrated Mount Tester**

**PC-H84.5-147
Polycarbonate Smoke
Tinted Bubble**

For all possible accessory combinations for this camera, please scan or click the QR code below to go to our accessory selector.

Dimensions

mm [in.]