



- 1/2.8" STARVISTM CMOS
- Powerful 32x optical zoom
- Starlight technology
- Max. 25/30fps@4M
- Deep-learning-based auto tracking and perimeter protection
- Support PoE+
- SMD
- IR distance up to 150 m
- IP66

# THC432XIPIR

4MP 32x Starlight IR PTZ AI Network Camera



## Functions

### Starlight Technology

For challenging low-light applications, 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.

### Wide Dynamic Range

The camera achieves vivid images, even in the most intense contrast lighting conditions, using industry-leading wide dynamic range (WDR) technology. For applications with both bright and low lighting conditions that change quickly, True WDR (120 dB) optimizes both the bright and dark areas of a scene at the same time to provide usable video.

### 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.

### 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.

### SMD

With Deep-Learning Algorithm, SMD filters the motion detection alarm triggered by non-concerned target and recognize human and vehicle effectively, sending alarms when human and vehicle intrudes.

### Environmental

Cameras operate in extreme temperature environments, rated for use in temperatures from -40 °C to +70 °C (-40 °F to +158 °F) with 95% humidity. The camera complies with the IK10 Vandal Resistance impact rating. Subjected to rigorous dust and water immersion tests and certified to the IP67 Ingress Protection rating makes it suitable for demanding outdoor applications.

### Protection

The camera allows for ±25% input voltage tolerance, suitable for the most unstable conditions for outdoor applications. Its 8KV lightning rating provides effective protection for both the camera and its structure against lightning.

### 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	1/2.8" STARVISTM CMOS
Max. Resolution	2560 (H) x 1440 (V)
Effective Pixels	4MP
ROM	4GB
RAM	1GB
Electronic Shutter Speed	1/3–1/30000 s
Scanning System	Progressive
Min. Illumination	Color: 0.005Lux@F1.3 B/W: 0.0005Lux@F1.3 0Lux (IR light on)
IR Distance	150 m (492.13 ft)
IR On/Off Control	Zoom Prio/Manual/SmartIR
IR LEDs Number	4
Lens	
Focal Length	4.9 mm–156 mm 2.8 mm; 3.6 mm
Max. Aperture	F1.35–F4.4

Field of View	H: 68.28°–2.24°; V: 38.9°–1.27°; D: 68.28°–1.44°				
Optical Zoom	32x				
Focus Control	Auto/Semi-Auto/Manual				
Close Focus Distance Iris Control	0.1 m–1.5 m (0.33 ft–4.92 ft )				
DORI DistanceMount Type	Auto/Manual				
Focal Length					
Max. Aperture	Lens	Detect	Observe	Recognize	Identify
Field of View	W	85.5 m	34.2 m	17.1 m	8.6 m
Iris Type	T	110.3 m	44.1 m	22.1 m	11.0 m
Close Focus Distance					
DORI Distance	Tripwire; intrusion (Recognition of human and vehicle)				
	Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos				
<b>Professional, Intelligent</b>	H.265; H.264; H.264H; H.264B; MJPEG(only supported by sub stream)				
Perimeter Protection	Smart H.265+ / Smart H.264+				
Intelligent Search	Main stream: 3840 × 2160 @(1–20 fps by default) 3840 × 2160 @(1–25/30 fps when AI function disabled) sub stream: 704 × 576 @(1–25				
<b>Video</b>	fps)/704 × 480 @ (1–30 fps) third stream: 1920 × 1080 @(1–25/30 fps)				
Video Compression	3 streams				
Smart Codec	8M (3840 × 2160); 6M (3072 × 2048); 5M (3072 × 1728/2592 × 1944); 4M (2688 × 1520); 3M (2048 × 1536/2304 × 1296); 1080p (1920 ×				
Video Frame Rate	1080); 1.3M (1280 × 960); 720p (1280 × 720); D1(704 × 576/704 × 480); VGA (640 × 480); CIF (352 × 288/352 × 240)				
	CBR/VBR				
Stream Capability	H.264: 3 Kbps–8192 Kbps H.265: 3 Kbps–8192 Kbps				
Resolution	Auto(ICR)/Color/B/W				
	Yes				
Bit Rate Control	Yes				
Video Bit Rate	120 dB				
Day/Night	Auto/natural/street lamp/outdoor/manual/regional custom				
BLC	Auto/Manual				
HLC	3D DNR				
WDR	OFF/ON (4 areas, rectangular)				
White Balance	Yes (4 areas)				
Gain Control	Yes				
Noise Reduction	0°/90°/180°/270° (Support 90°/270° with 1920 × 1080 resolution and lower.)				
Motion Detection	Yes				
Region of Interest(Roi)	4 areas				
Smart Illumination					
Image Rotation	G.711a; G.711Mu; G726				
Mirror					
Privacy Masking	- AS:				
<b>Audio</b>	No SD card; SD card full; SD card error; service life warning (only supported by Dahua card); network disconnection; IP conflict; illegal				
Audio Compression	access; motion detection; video tampering; intrusion; tripwire; scene changing; audio detection; voltage detection; external alarm; SMD;				
<b>Alarm</b>	safety exception				
Alarm Event	-S:				
	No SD card; SD card full; SD card error; service life warning (only supported by Dahua card); network disconnection; IP conflict; illegal				
	access; motion detection; video tampering; intrusion; tripwire; scene changing; voltage detection; SMD; safety exception				
	RJ-45 (10/100 Base-T)				
	Yes				
	IPv4;IPv6;HTTP;HTTPS;TCP;UDP;ARP;RTP;RTSP;RTCP; RTMP;SMTP;FTP;SFTP;DHCP;DNS;DDNS;QoS;UPnP;NTP; Multicast;ICMP;IGMP;NFS;PP-				
<b>Network</b>	PoE;802.1x;SNMP				
Network	ONVIF(Profile S/Profile G);CGI;P2P;Milestone;Genetec				

Cyber Security	Video encryption; firmware encryption; configuration encryption; Digest; WSSE; account lockout; security logs; IP/MAC filtering; generation and importing of X.509 certification; syslog; HTTPS; 802.1x; trusted boot; trusted execution; trusted upgrade
User/Host	20 (Total bandwidth: 72 M)
Storage	FTP; SFTP; Micro SD Card (support max. 256 G); Dahua Cloud; NAS
Browser	IE: IE8, IE9, IE11 Chrome Firefox
Management Software	Smart PSS, DSS, DMSS
Mobile Phone	IOS; Android
<b>Certification</b>	
Certification	CE-LVD: EN62368-1
	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
<b>Port</b>	
Audio Input	1 channel (RCA port) (Only - AS supports)
Audio Output	1 channel (RCA port) (Only - AS supports)
Alarm Input	1 channel in: 5mA 3V-5V DC (Only- AS supports)
Alarm Output	1 channel out: 300mA 12V DC (Only- AS supports)
<b>Power</b>	
Power Supply	12V DC/PoE (802.3af)
Power Consumption	Basic power consumption: 2.7W (12V DC); 3.6W (PoE) Max. power consumption (WDR + H.265 +IR LED intensity): 6W (12V DC); 7W (PoE)
<b>Environmental</b>	
Operating Conditions	-40°C to +55°C (-40°F to +131°F)/Less than 95% RH
Storage Conditions	-40°C to +60°C (-40°F to +140°F)
Protection Grade	IP67; IK10
<b>Structure</b>	
Casing	Metal
Dimensions	81 mm × Φ109.9 mm (3.2" × Φ4.3")
Net Weight	378 g (0.8 lb)
Gross Weight	523 g (1.2 lb)

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