DH-SD6CE445XA-HNR

4MP 45x Starlight IR WizSense Network PTZ Camera

· 1/2.8" 4Megapixel STARVIS™ CMOS
· Powerful 45x optical zoom
· Starlight technology
· Max. 25/30fps@4MP
· Deep-learning-based auto tracking and perimeter protection
· Face detection
· SMD Plus
· IR distance up to 250m
· IP67 , IK10

Launched by Dahua Technology, WizSense is a series of AI products and solutions that adopt independent AI chip and deep learning algorithm. It focuses on human and vehicle with high accuracy, enabling users to fast act on defined targets. Based on Dahua's advanced technologies, WizSense provides intelligent, simple and inclusive products and solutions.

System Overview

Featuring powerful optical zoom and accurate pan/tilt/zoom performance, this camera can provide large monitoring range and great detail. The camera has very excellent low light performance due to adopting the latest starlight technology. The camera is equipped with smooth control, high quality image and good protection, which make it can meet most of the requirements of video surveillance applications.

Functions

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 0.005lux. 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.

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.

Perimeter Protecton
Automatcally fltering out false alarms caused by animals, rustling leaves, bright lights, etc. Enables system to act secondary recogniton for the targets. Improving alarm accuracy.

Environmental
Dahua cameras operate in extreme temperature environments, rated for use in temperatures from -40°C ~ 70°C (-40°F ~ +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 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.

SMD Plus
With Deep-Learning Algorithm, Dahua SMD Plus filters the motion detection alarm triggered by non-concerned target and recognizes human and vehicle effectvely, sending alarms when human and vehicle intrude.

Technical Specification

Camera

Image Sensor	1/2.8" STARVIS™ CMOS
Pixels	4 MP
Max. Resolution	2560(H) x 1440(V)
Scanning System	Progressive
Electronic Shutter Speed	1/1s~1/30,000s
Minimum Illumination	Color: 0.005Lux@F1.6; B/W: 0.0005Lux@F1.6; 0Lux@F1.6 (IR on)
Illumination Distance	Distance up to 250m (820ft)
Illumination On/Off Control	Auto/Manual
Illuminator Number	6

Lens

Focal Length	3.95mm~177.75mm
Max. Aperture	F1.6~ F4.95
Angle of View	H: 70.3° ~ 1.8°; V: 37° ~ 1°; D: 69.3° ~ 2°
Optical Zoom	45x
Focus Control	Auto/Manual
Iris Control	Auto/Manual
Close Focus Distance	10mm~ 3000mm

DORI Distance

Detect	Observe	Recognize	Identify
3176m(10420ft)	1271m(4170ft)	635m(2083f)	318m(1043f)

PTZ

Pan/Tilt Range	Pan: 0° ~ 360° endless; Tilt: -20° ~ 90°,auto flip 180°
Manual Control Speed	Pan: 0.1° ~260° /s; Tilt: 0.1° ~120° /s
Preset Speed	Pan: 300° /s; Tilt: 200° /s
Presets	300
Tour	8 (up to 32 presets per tour)
Pattern	5
Pan	5
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
Protocol	DH-SD, Pelco-P/D (Auto recognition)

Artificial Intelligence

Perimeter Protection	Tripwire, Intrusion. Support alarm triggering by target types(human and vehicle) Filtering out false alarms caused by animals, rustling leaves, bright lights, etc
Auto Tracking	Support

Video Structuralization	Support human, motor vehicle and non-motor vehicle image capture
SMD Plus	Support
Face Detection	Support

General Intellgence

Event Trigger	Motion detection, Video tampering , Scene changing, Network disconnection, IP address conflict, Illegal Access, Storage anomaly
General Intelligence	Object Abandoned/Missing

Video

Compression	H.265+/H.265/H.264+/H.264/MJPEG(Sub Stream)
Streaming Capability	3 Streams
Resolution	4M(2560×1440)/3M(2048×1536)/1080P(1920× 1080)/720P(1280×720)/D1(704×576/704×480)/ CIF(352×288/352×240)
Frame Rate	Main stream: 4M/3M(1~25/30fps), 1080P/1.3M/ 720P(1~25/30fps) Sub stream1: D1/CIF(1 ~ 25/30fps) Sub stream2: 1080P(1 ~ 25/30fps), 720P(1 ~ 25/30fps)
Bit Rate Control	CBR/VBR
Bit Rate	H.265/H.264: 3Kbps ~ 20480Kbps
Day/Night	Auto(ICR) / Color / B/W
BLC	Support
WDR	120dB
HLC	Support
White Balance	Auto, ATW, Indoor, Outdoor, Manual
Gain Control	Auto / Manual
Noise Reduction	Ultra DNR (2D/3D)
Motion Detection	Support
Region of Interest	Support
Image Stabilization	Electronic
Defog	Support
Digital Zoom	16x
Flip	180°
Privacy Masking	Up to 24 areas

Audio

Compression	G.711a/G.711Mu/AAC/G.722 / G.726/G.729/MPEG2-L2

Network

Ethernet	RJ-45 (10Base-T/100Base-TX)
Protocol	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, RTCP, RTSP, RTP, SMTP, NTP, DHCP, DNS,PPPOE,DDNS,FTP, IP Filter,QoS,Bonjour,802.1x
Interoperability	ONVIF Profile S&G&T, API
Streaming Method	Unicast / Multicast
User/Host	20 users

Storage	NAS (Network Attached Storage),Local PC for instant recording, Micro SD card 256GB
Browser	IE, Chrome, Firefox, Safari
Management Software	Smart PSS, DSS, DMSS
Smart Phone	IOS, Android

Certifications

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

Port

RS485	1
Audio I/O	1/1
Alarm I/O	7/2

Power

Power Supply	AC24V/3A(±25%), PoE+(802.3at)
Power Consumption	13W, 26W(IR On, Heater On)

Environment

Operating Conditions	-40°C ~ 70°C (-40°F ~ +158°F) / Less than 95% RH
Protection	IP67, IK10

Structure

Casing	Metal
Dimensions	φ209×337.4mm
Net Weight	5.9kg(13lb)
Gross Weight	9.6kg(21.16lb)

Ordering Information

Type	Part Number	Description
4MP WizSense PTZ Camera	DH-SD6CE445XA-HNR	4MP 45x Starlight IR WizSense Network PTZ Camera, WDR, PAL
	DH-SD6CE445XAN-HNR	4MP 45x Starlight IR WizSense Network PTZ Camera, WDR, NTSC
	SD6CE445XA-HNR	MP 45x Starlight IR WizSense Network PTZ Camera, WDR, PAL
	SD6CE445XAN-HNR	MP 45x Starlight IR WizSense Network PTZ Camera, WDR, NTSC
Accessories	PFB305W	Wall Mount Bracket
	AC24V/3A	Power Adapter
	PFA111	Mount Adapter
	PFA140	Power Box
	PFB300C	Ceiling Mount Bracket
	PFA120	Junction Box
	PFA150	Pole Mount Bracket
	PFA151	Corner Mount Bracket
	PFB303S	Parapet Mount Bracket

Accessories

Included:

PFB305W Wall Mount Bracket

AC24V/3A Power Adapter

Optional:

PFA111 Mount Adapter

PFA140 Power Box

PFB300C Ceiling Mount Bracket

PFA120 Junction Box

PFA150 Pole Mount Bracket

PFA151 Corner Mount Bracket

PFB303S Parapet Mount Bracket

Ceiling Mount	Junction Mount
PFA111 + PFB300C	PFB305W
Power Box Mount	Pole Mount
PFB305W + PFA140	PFB305W + PFA150
Corner Mount	Parapet Mount
PFB305W + PFA151	PFA111+ PFB303S

Dimensions (mm)

a)hua TECHNOLOGY