

# DH-SD6AE233XA-HNR

2MP 33x Starlight + IR WizMind Network PTZ Camera



WizMind

- 1/1.8" 2Megapixel CMOS
- Powerful 33x optical zoom
- Starlight technology
- Max. 50/60fps@1080P
- Deep-learning-based auto tracking and perimeter protection
- Support Hi-PoE
- IR distance up to 200m
- SMD PLUS
- IP67, IK10



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

Featuring powerful optical zoom and accurate pan/tilt/zoom performance, this camera provides an all-in-one solution for capturing long distance video surveillance for outdoor applications. Together with infrared illumination and Starlight Technology, the camera is the perfect solution for dark, lowlight applications. The series combines a day/night mechanical IR cut filter for the highest image quality in variable lighting conditions during the day, and True WDR for applications with direct sunlight or glare.

## 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 0.001 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.

### 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.

### Environmental

Dahua 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.

### SMD PLUS

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

## Technical Specification

### Camera

Image Sensor	1/1.8" CMOS
Pixel	2MP
Max. Resolution	1920 (H) x 1080 (V)
Scanning System	Progressive
Electronic Shutter Speed	1/1s–1/30,000s
Min. Illumination	Color: 0.001Lux@F1.5; B/W: 0.0001Lux@F1.5; 0Lux@F1.5 (IR on)
Illumination Distance	Distance up to 200m (656ft)
Illuminator On/Off Control	Auto/Manual
Illuminator Number	10

### Lens

Focal Length	5.8mm–191.4mm			
Max. Aperture	F1.5–F4.8			
Field of View	H: 60.1° – 3.2° V: 35.3° – 1.8°; D: 67.9° – 3.7°			
Optical Zoom	33x			
Focus Control	Auto/Manual			
Iris Control	Auto/Manual			
Close Focus Distance	100mm–1000mm			
DORI Distance	Detect	Observe	Recognize	Identify
	1655m (5430ft)	622m (2041ft)	331m (1086ft)	165m (541ft)

### PTZ

Pan/Tilt Range	Pan: 0° –360° endless; Tilt: -20° – 90°, auto flip 180°
Manual Control Speed	Pan: 0.1° –200° /s; Tilt: 0.1° –120° /s
Preset Speed	Pan: 240° /s; Tilt: 200° /s
Presets	300
Tour	8 (up to 32 presets per tour)
Pattern	5
Scan	5
Speed Adjustment	Support
Power-off Memory	Support
Idle Motion	Preset/Tour/Pattern/Scanning
Protocol	DH-SD, Pelco-P/D (Auto recognition)

### General Intelligence

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

### Artificial Intelligence

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.
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SMD PLUS	Support
Auto Tracking	Support
Face Detection	Support
Smart Capture	Support human, motor vehicle and non-motor vehicle image capture.

### Video

Compression	H.265+/H.265/H.264+/H.264/MJPEG(Sub Stream)
Streaming Capability	3 Streams
Resolution	1080P(1920×1080)/1.3M(1280×960)/720P(1280×720)/D1(704×576/ 704×480)/CIF(352×288/352×240)
Frame Rate	Main stream: 1080P/1.3M/ 720P(1~50/60fps)
	Sub stream1: D1/CIF(1 ~ 25/30fps)
	Sub stream2: 1080P/1.3M/720P/D1/CIF (1~25/30fps)
Bit Rate Control	Variable/Constant
Bit Rate	H.265/H.264: 3Kbps – 20480Kbps
Day/Night	Auto(ICR)/Color/B/W
BLC	Support
WDR	120 dB
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.722.1; G.726; MPEG2-Layer2; G.729
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### 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	19 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
Mobile Phone	IOS, Android
Certification	
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%), Hi-PoE
Power Consumption	20W, 32W (IR on)
Environment	
Operating Conditions	-40°C ~ 70°C (-40°F ~ +158°F) / Less than 95% RH
Ingress Protection	IP67
Vandal Resistance	IK10
Structure	
Casing	Metal
Dimensions	Φ240(mm) x 382 (mm)
Net Weight	6.75kg(14.88lb)
Gross Weight	10.1kg(22.27lb)

### Ordering Information

Type	Model	Description
2MP WizMind PTZ Camera	DH-SD6AE233XA-HNR	2MP 33x Starlight+ IR PTZ WizMind Network Camera, WDR, PAL
	DH-SD6AE233XAN-HNR	2MP 33x Starlight+ IR PTZ WizMind Network Camera, WDR, NTSC
	SD6AE233XA-HNR	2MP 33x Starlight+ IR PTZ WizMind Network Camera, WDR, PAL
	SD6AE233XAN-HNR	2MP 33x Starlight+ IR PTZ WizMind Network Camera, WDR, NTSC
Accessories	PFB303W	Wall Mount Bracket
	PFA111	Mount Adapter
	AC24V/3A	Power 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:



PFB303W  
Wall Mount Bracket



PFA111  
Mount Adapter



AC24V/3A  
Power Adapter

Optional:



PFA140  
Power Box



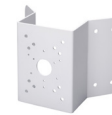
PFB300C  
Ceiling Mount Bracket



PFA120  
Junction Box



PFA150  
Pole Mount Bracket



PFA151  
Corner Mount Bracket



PFB303S  
Parapet Mount Bracket

Wall Mount	Ceiling Mount	Pole Mount(Horizontal)
PFA111+PFB303W+PFA120	PFA111+PFB300C	PFA111+PFB300C+PFA150
Pole Mount(Vertical)	Corner Mount	Parapet Mount
PFA111+PFB303W+PFA150	PFA111+PFB303W+PFA151	PFA111+PFB303S

**Dimensions (mm)**

