

DH-SD6CE445XA-HNR

4MP 45x Starlight IR PTZ AI Network 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
- IR distance up to 250m
- IP67 , IK10



AI series products adopt the most advanced AI technologies, including deep learning algorithms that primarily target people and vehicles, which provides higher flexibility and accuracy for end-users. This enables the Dahua AI series to offer various advanced applications such as Face Recognition, ANPR, Metadata, People Counting, traffic data statistics, etc. The complete lineup of Dahua AI includes network (PTZ) cameras, network video recorders, servers, and more devices. Beyond seeing the world, the power of AI allows devices to perceive the environment and understand the world in a better way.

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 filtering 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.

Technical Specification

Camera

| | |
|--------------------------|--|
| Image Sensor | 1/2.8" STARVIS™ CMOS |
| Effective Pixels | 2560(H) x 1440(V), 4 Megapixels |
| 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) |
| IR Distance | Distance up to 250m (820ft) |
| IR On/Off Control | Auto/Manual |
| IR LEDs | 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

*Note: The DORI distance is a "general proximity" of distance which makes it easy to pinpoint the right camera for your needs. The DORI distance is calculated based on sensor specification and lab test result according to EN 62676-4 which defines the criteria for Detect, Observe, Recognize and Identify respectively.

| 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 |
| PTZ Mode | 5 Patern, 8 Tour(up to 32 preset per tour), Auto Pan, 5 Auto Scan |
| Speed Setup | Human-oriented focal Length/ speed adaptation |
| 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, vehicle and non-vehicle image capture |

General Intelligence

| | |
|----------------------|---|
| 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 |
| Backlight Compensation | BLC / HLC / WDR (120dB) |
| White Balance | Auto, ATW, Indoor, Outdoor, Manual |
| Gain Control | Auto / Manual |
| Noise Reduction | Ultra DNR (2D/3D) |
| Motion Detection | Support |
| Region of Interest | Support |
| Electronic Image Stabilization (EIS) | Support |
| 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, API |
| Streaming Method | Unicast / Multicast |
| Max. User Access | 20 users |
| Edge Storage | NAS (Network Attached Storage),Local PC for instant recording, Micro SD card 256GB |
| Web Viewer | 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 |
|----------------|--|

Interface

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

Electrical

| | |
|-------------------|----------------------------|
| Power Supply | AC24V/3A(±25%) |
| Power Consumption | 13W, 26W(IR On, Heater On) |

Environmental

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

Construction

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

Ordering Information

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

Accessories

Included:



PFB305W
Wall Mount



AC24V/3A
Power Adapter

Optional:



PFA111
Mount Adapter



PFA140
Power Box



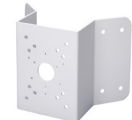
PFB300C
Ceiling Mount



PFA120
Junction Box



PFA150
Pole Mount



PFA151
Corner Mount



PFB303S
Parapet Mount

| 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)

