

DH-SD2A500-GN-A-PV

5 MP IR and White Light Full-color Network PT Camera



- 1/2.8" 5Megapixel STARVIS™ CMOS
- Max. 20 fps@5MP
- Human detection
- Tripwire, intrusion
- H.265 encoding
- PoE
- Two-way audio
- Sound and light alarm
- IR and white light, three night view modes
- IP66



System Overview

Driven by advanced smart H.265 encoding technology, Dahua Smart Dual Illuminators Camera combines precision and reliability into one powerful camera, achieving high encoding efficiency, producing seamless videos and reducing cost on transmission and storage. To meet a wide range of shooting situations, this series of high-performant cameras features functions such as infrared and warm light smart illumination, human shape detection, and siren and light active deterrence. It also achieves the application of retrospect, intervention and precaution, delivering the convenience needed in a modern camera.

Functions

Smart Dual Illuminators

Dahua Smart Dual Illuminators technology adopts smart algorithm to detect targets. Usually, the IR illuminator is on at night; when the target appears in the monitoring area, the white light is on, and the camera records the full-color video and information of key events. That is, the camera links snapshot and video with full-color image. When the target is out of the monitoring area, the white light is off and the IR illuminator is on, which reduces light pollution efficiently.

Siren and Light Active Deterrence

The camera supports the white light alarm and voice alarm when perimeter event occurs, to realize the deterrence and effective intervention. The camera is built in the alarm voice, and supports customized voice importing.

IVS

With advanced video algorithm, Dahua IVS technology supports intelligent functions, such as tripwire and intrusion.

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, WDR optimizes both the bright and dark areas of a scene at the same time to provide usable video.

Smart H.265+

Smart H.265+ is the optimized implementation of the H.265 codec that uses a scene-adaptive encoding strategy, dynamic GOP, dynamic ROI, flexible multi-frame reference structure and intelligent noise reduction to deliver high-quality video without straining the network. Smart H.265+ technology reduces bit rate and storage requirements by up to 70% when compared to standard H.265 video compression.

Scene

It is suitable for use by families and in fish ponds, orchards, rural courtyards, small factories, supermarkets and other similar locations.

Technical Specification

Camera

| | |
|----------------------------|---|
| Image Sensor | 1/2.8" CMOS |
| Pixel | 5MP |
| Max. Resolution | 2560 (H) × 1920 (V) |
| ROM | 128 MB |
| RAM | 128 MB |
| Electronic Shutter Speed | 1/3 s–1/100,000 s |
| Scanning System | Progressive |
| Min. Illumination | Color: 0.005 lux@F1.6 B/W: 0.0005 lux@F1.6 0 lux (illuminator on) |
| Illumination Distance | 30 m (98.42 ft) (IR) 30 m (98.42 ft) (white light) |
| Illuminator On/Off Control | Manual; auto; off |
| Illuminator Number | 1 (IR light) 2 (white light) |

Lens

| | | | | |
|----------------------|-----------------------------------|-----------------------|----------------------|----------------------|
| Focal Length | 4.0 mm | | | |
| Max. Aperture | F1.6 | | | |
| Field of View | H: 80.4° V: 58.1° D: 104.8° | | | |
| Close Focus Distance | 0.3 m (0.98 ft) | | | |
| Iris Control | Fixed | | | |
| DORI Distance | Detect | Observe | Recognize | Identify |
| | 77.4 m (253.94 ft) | 31.0 m (101.71 ft) | 15.5 m (50.85 ft) | 7.74 m (25.39 ft) |

PTZ

| | |
|----------------------|---------------------------------------|
| Pan/Tilt Range | Pan: 0° to 345° Tilt: 0° to +80° |
| Manual Control Speed | Pan: 0.1°–74°/s Tilt: 0.1°–36.4°/s |
| Preset Speed | Pan: 62°/s; Tilt: 36.3°/s |
| Preset | 300 |
| Power-off Memory | Support |
| Idle Motion | Preset |

Smart Event

| | |
|-----|---------------------|
| IVS | Tripwire; intrusion |
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Video

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|----------------------|--|
| Video Compression | Smart H.265; H.265; Smart H.264; H.264; H.264B; MJPEG (Sub Stream) |
| Streaming Capability | 2 Streams |
| Resolution | 5M (2560 × 1920); 4M (2560 × 1440); 1080P (1920 × 1080); 960P (1280 × 960); 720P (1280 × 720); D1 (704 × 576/704 × 480); CIF (352 × 288/352 × 240) |
| Video Frame Rate | Main stream: 5M(1–20fps); 4M/1080P/1.3M/720P (1–25/30fps) Sub stream 1: D1/CIF (1–25/30fps) |

| | |
|------------------|---|
| Bit Rate Control | Variable Bit Rate/Constant Bit Rate |
| Video Bit Rate | H.264: 32 Kbps–8192 Kbps H.265: 32 Kbps–8192 Kbps |
| Day/Night | Auto (ICR)/Color/B/W |
| BLC | Support |
| WDR | DWDR |
| HLC | Support |
| White Balance | Auto/Indoor/Outdoor/Tracking/Manual/Sodium lamp/ Natural/Street lamp |
| Gain Control | Auto/Manual |
| Noise Reduction | 2D/3D |
| Motion Detection | Support |
| Image Rotation | 180° |
| S/N Ratio | ≥ 55 dB |

Audio

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|-------------------|--|
| Audio Compression | G.711a; G.711Mu; G.726; G722.1; G.729; MPEG2-Layer2; G723 |
|-------------------|--|

Network

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|---------------------|--|
| Network Port | RJ-45 (10/100 Base-T) |
| Network Protocol | HTTP; HTTPS; TCP/IP; IPv4; RTSP; UDP; SMTP; NTP; DHCP; DNS; DDNS; IPv6; SSL; FTP; ARP; RTCP; RTP; IP Filter; RTMP; TCP |
| Interoperability | ONVIF; CGI |
| Streaming Method | Unicast; multicast |
| User/Host | 20 |
| Storage | FTP; Micro SD card (512 GB) |
| Browser | IE: IE 7 and later Chrome; 42 and earlier Firefox; 52 and earlier Safari |
| Management Software | Smart PSS; DMSS; player; configtool; NVR; Smart Player |
| Mobile Client | IOS; Android; iPhone; iPad; Windows Phone |

Certification

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

Port

| | |
|---------------|--|
| Audio Input | 1 channel (built-in MIC) |
| Audio Input | 1 channel (built-in Speaker) |
| Audio I/O | 1/1 |
| Two-way Audio | Support |
| Alarm Linkage | Capture; preset; recording; audio; sending email |
| Alarm Event | Motion/Tampering detection; audio detection; network disconnection detection; IP conflict detection; memory card state detection; memory space detection; power exception detection |

Power

| | |
|-------------------|---|
| Power Supply | 12 VDC/1.5 A ± 10% PoE (802.3af) |
| Power Consumption | Basic: 4 W Max.: 12.95 W (illuminator) |

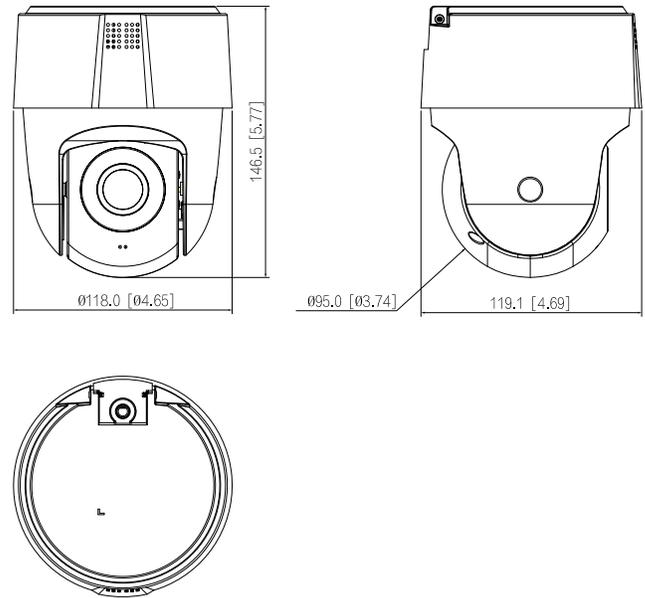
Environment

| | |
|-----------------------|--|
| Operating Temperature | -30 °C to +55 °C (-22 °F to +131 °F) |
| Operating Humidity | ≤ 95% RH |
| Protection | IP66, TVS 2000 V lightning proof; surge protection; voltage transient protection |

Construction

| | |
|--------------------|---------------------------------------|
| Product Dimensions | 146.5 mm × Φ118.0 mm (5.77" × Φ4.65") |
| Net Weight | 0.5 kg (1.10 lb) |
| Gross Weight | 1 kg (2.20 lb) |

Dimensions (mm[inch])



Ordering Information

| Type | Model | Description |
|------------------------|--------------------|--|
| 5M Camera | DH-SD2A500-GN-A-PV | 5MP IR and White Light PT Network Camera |
| | SD2A500-GN-A-PV | 5MP IR and White Light PT Network Camera |
| Accessories (optional) | 12 VDC/1.5A | Power Adapter |

Accessories

Optional:



12 VDC/1.5A
Power Adapter

| Wall Mount | Ceiling Mount |
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