

# DH-IPC-HFW3866TP-ZAS-AUS

8MP IR Vari-focal Bullet WizSense Network Camera



#### Wiz Sense

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.

#### **Series Overview**

Dahua WizSense 3 Series Network Camera greatly saves on bandwidth and storage space through its AI Coding technology. Driven by its advanced deep learning algorithms, the camera supports intelligent functions such as perimeter protection, smart motion detection (SMD), Quick Pick, and AI SSA (AI Scene Self-adaptation), making it easy and convenient to use. Starlight technology and its large aperture lens also allow the camera to produce clear, vivid images even in poor lighting conditions.

#### **Functions**

#### SMD 4.0

Dahua Smart Motion Detection technology works with intelligent algorithms to classify targets that trigger motion detection alarms. It filters out objects that are not targets, such as small and large animals, to avoid triggering false alarms. With an AI NVR, Quick Pick technology becomes available, allowing you to easily search for and pick out human and vehicle targets from SMD event videos, prioritizing the highest matches.

#### AI SSA

Dahua AI Scene Self-adaptation (AI SSA) adopts deep learning algorithms to detect environmental conditions, such as rain, fog, backlight, low light and flicker, to adjust the parameters of the image to suit the conditions, ensuring that clear images are always produced.

#### Smart H.265+ & Smart H.264+

With advanced scene-adaptive rate control algorithm, Dahua smart encoding technology realizes the higher encoding efficiency than H.265 and H.264, provides high-quality video, and reduces the cost of storage and transmission.

- 8-MP 1/2.8" CMOS image sensor, excellent low luminance performance and high definition of images.
- Outputs max. 8 MP (3840 × 2160) @25/30 fps.
- H.265 codec, high compression rate, ultra-low bit rate.
- Built-in IR LED, max. IR distance: 60 m.
- ROI, SMART H.264 +/H.265+, flexible coding, applicable to various bandwidth and storage environments.
- Rotation mode, WDR, 3D NR, HLC, BLC, digital watermarking, applicable to various monitoring scenes.
- Supports the AFSA (Anti-flicker Self-adaption) function, which
  automatically eliminates flicker.
- Intelligent detection: Intrusion, tripwire (support the classification and accurate detection of vehicle and human).
- Abnormality detection: Motion detection, privacy masking, scene changing, audio detection, no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, and voltage detection.
- Alarm: 1 in, 1 out (Only ZAS supports); audio: 1 in, 1 out (Only ZAS supports); max. 256 G Micro SD card. built-in Mic.
- 12 VDC/PoE power supply facilitates installation.
- IP67, IK10 (optional) protection.
- SMD 4.0, AI SSA.



#### **Perimeter Protection**

With deep learning algorithm, Dahua Perimeter Protection technology can recognize human and vehicle accurately. In restricted area (such as pedestrian area and vehicle area), the false alarms of intelligent detection based on target type (such as tripwire, intrusion) are largely reduced.

#### Protection (IP67, Wide Voltage)

IP67: The camera passes a series of strict test on dust and soak. It has dust-proof function, and the enclosure can works normal after soaking in 1 m deep water for 30 minutes.

Wide voltage: The camera allows  $\pm 30\%$  (for some power supplies) input voltage tolerance (wide voltage range), and it is widely applied to outdoor environment with instable voltage.

#### **Cyber Security**

Dahua network cameras employ a series of security technologies, including security authentication and authorization, access control protocols, trusted protection, encrypted transmission and encrypted storage. These technologies improve the camera's defense against external cyber threats and prevent malicious programs from comprising the device.

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#### **Technical Specification**

Smart Search

Smart Codec

AI Coding

Video Compression

Video

| Camera                     |      |  |                        |                      |                      |
|----------------------------|------|--|------------------------|----------------------|----------------------|
| Image Sensor               |      | 1/2.8" CMOS  |                        |                      |                      |
| Max. Resolution            |      | 3840 (H) × 2160 (V)  |                        |                      |                      |
| ROM                        |      | 128 MB   |                        |                      |                      |
| RAM                        |      | 1 GB   |                        |                      |                      |
| Scanning System            |      | Progressive  |                        |                      |                      |
| Electronic Shutter Speed   |      | Auto/Manual 1/3 s-1/100,000 s  |                        |                      |                      |
| Min. Illumination          |      | 0.007 lux@F1.5 (Color, 30 IRE)<br>0.0007 lux@F1.5 (B/W, 30 IRE)<br>0 lux (Illuminator on)    |                        |                      |                      |
| S/N Ratio                  |      | >56 dB   |                        |                      |                      |
| Illumination Distance      |      | 60 m (196.85 ft)   |                        |                      |                      |
| Illuminator On/Off Control |      | Auto/Manual  |                        |                      |                      |
| Illuminator Number         |      | 4 (IR LED)   |                        |                      |                      |
| Pan/Tilt/Rotation Range    |      | Pan: 0°–360°; Tilt: 0°–90°; Rotation: 0°–360°  |                        |                      |                      |
| Lens                       |      |  |                        |                      |                      |
| Lens Type                  |      | Motorized vari-focal   |                        |                      |                      |
| Lens Mount                 |      | ф14  |                        |                      |                      |
| Focal Length               |      | 2.7 mm-13.5 mm   |                        |                      |                      |
| Max. Aperture              |      | F1.5   |                        |                      |                      |
| Field of View              |      | Horizontal: 109°–30°<br>Vertical: 56° –17°<br>Diagonal: 131° –35°                            |                        |                      |                      |
| Iris Control               |      | Fixed  |                        |                      |                      |
| Close Focus Distance       |      | 0.8 m (2.62 ft)  |                        |                      |                      |
| DORI<br>Distance           | Lens | Detect   | Observe                | Recognize            | Identify             |
|                            | W    | 88.3 m<br>(289.70 ft)  | 35.3 m<br>(115.81 ft)  | 17.7 m<br>(58.07 ft) | 8.8 m<br>(28.87 ft)  |
|                            | Т    | 289.7 m<br>(950.46 ft)   | 115.7 m<br>(379.59 ft) | 57.9m<br>(189.96 ft) | 29.0 m<br>(95.14 ft) |
| Intelligence               |      |  |                        |                      |                      |
| IVS (Perimeter Protection) |      | Tripwire, intrusion (support the classification and accurate detection of vehicle and human) |                        |                      |                      |
| AI SSA                     |      | Yes  |                        |                      |                      |
| Quick Pick                 |      | With AI NVR, quickly pick up the human/vehicle targets                                       |                        |                      |                      |

that users are interested in from SMD events Work together with Smart NVR to perform refine

videos

by the sub stream) Smart H.265+

Smart H.264+ AI H.265

AI H.264

intelligent search, event extraction and merging to event

H.265; H.264; H.264H; H.264B; MJPEG (only supported

| Video Frame Rate               | Main stream: 3840 × 2160 @ $(1-25/30)$ fps<br>Sub stream 1: 704 × 576 @ $(1-25 fps)/704 × 480 @$<br>(1-30 fps)<br>Sub stream 2: 1920 × 1080 @ $(1-25/30 fps)$<br>*The values above are the max. frame rates of each<br>stream; for multiple streams, the values will be subjected<br>to the total encoding capacity   |  |  |  |  |
|--------------------------------|---|--|--|--|--|
| Stream Capability              | 3 streams   |  |  |  |  |
| Resolution                     | 8M (3840 × 2160); 6M (3072 × 2048); 5M (3072 ×<br>1728/2592 × 1944); 4M (2688 × 1520); 3.6M (2560 ×<br>1440); 3M (2048 × 1536); 3M (2304 × 1296); 1080p<br>(1920 × 1080); 1.3M(1280 × 960); 720p (1280 × 720); D1<br>(704 × 576/704×480); CIF (352 × 288/352 × 240); VGA<br>(640 × 480)   |  |  |  |  |
| Bit Rate Control               | CBR/VBR   |  |  |  |  |
| Video Bit Rate                 | H.264: 3 kbps–8192 kbps<br>H.265: 3 kbps–8192 kbps  |  |  |  |  |
| Day/Night                      | Auto (ICR)/Color/B/W  |  |  |  |  |
| BLC                            | Yes   |  |  |  |  |
| HLC                            | Yes   |  |  |  |  |
| WDR                            | 120 dB  |  |  |  |  |
| Scene Self-adaptation<br>(SSA) | Yes   |  |  |  |  |
| White Balance                  | Auto; natural; street lamp; outdoor; manual; regional custom  |  |  |  |  |
| Gain Control                   | Auto  |  |  |  |  |
| Noise Reduction                | 3D NR   |  |  |  |  |
| Motion Detection               | OFF/ON (4 areas, rectangular)   |  |  |  |  |
| Image Stabilization            | Electronic Image Stabilization (EIS)  |  |  |  |  |
| Region of Interest (RoI)       | Yes (4 areas)   |  |  |  |  |
| Defog                          | Yes   |  |  |  |  |
| AFSA                           | Yes   |  |  |  |  |
| Image Rotation                 | 0°/90°/180°/270° (support 90°/270° with 2688 $\times$ 1520 resolution and lower)  |  |  |  |  |
| Mirror                         | Yes   |  |  |  |  |
| Privacy Masking                | 4 areas   |  |  |  |  |
| Audio                          |   |  |  |  |  |
| Built-in MIC                   | Yes   |  |  |  |  |
| Audio Compression              | G.711a; G.711Mu; PCM; G.726; G.723  |  |  |  |  |
| Alarm                          |   |  |  |  |  |
| Alarm Event                    | -ZAS:<br>No SD card; SD card full; SD card error; service life<br>warning (only supported by Dahua card); network<br>disconnection; IP conflict; illegal access; motion<br>detection; video tampering; intrusion; tripwire; scene<br>changing; audio detection; voltage detection; defocus<br>detection; external alarm; SMD; safety exception<br>-ZS:<br>No SD card; SD card full; SD card error; service life<br>warning (only supported by Dahua card); network<br>disconnection; IP conflict; illegal access; motion<br>detection; video tampering; intrusion; tripwire; scene<br>changing; audio detection; voltage detection; defocus<br>detection; SMD; safety exception |  |  |  |  |
|                                |   |  |  |  |  |

Main stream: 3840 × 2160 @ (1-25/30) fps

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#### Network

| Network   |   |  |  |  |  |
|---|---|--|--|--|--|
| Network Port  | RJ-45 (10/100 Base-T)   |  |  |  |  |
| SDK and API   | Yes   |  |  |  |  |
| Network Protocol  | IPv4; IPv6; HTTP;TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP;<br>SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP;<br>Multicast; ICMP; IGMP; NFS; SAMBA; PPPoE; SNMP   |  |  |  |  |
| Cyber Security  | Video encryption; Firmware encryption; Configuration<br>encryption; Digest; WSSE; Account lockout; Security logs;<br>IP/MAC filtering; Generation and importing of X.509<br>certification; syslog; HTTPS; 802.1x; Trusted boot; Trusted<br>execution; Trusted upgrade |  |  |  |  |
| Interoperability  | ONVIF (Profile S/Profile G/Profile T); CGI; P2P; Milestone;<br>Genetec  |  |  |  |  |
| User/Host   | 20 (Total bandwidth: 64 M)  |  |  |  |  |
| Storage   | FTP; SFTP; Micro SD card (support max. 256 G); NAS  |  |  |  |  |
| Browser   | IE: IE11<br>Chrome<br>Firefox   |  |  |  |  |
| Management Software   | Smart PSS; DSS; DMSS  |  |  |  |  |
| Mobile Client   | IOS; Android  |  |  |  |  |
| Certification   |   |  |  |  |  |
| Certifications  | CE-LVD: EN62368-1;<br>CE-EMC: Electromagnetic Compatibility Directive<br>2014/30/EU;<br>FCC: 47 CFR FCC Part 15, Subpart B;<br>UL/CUL: UL62368-1 & CAN/CSA C22.2 No. 62368-1-14   |  |  |  |  |
| Port  |   |  |  |  |  |
| Audio Input   | 1 channel (RCA port) (Only- ZAS supports)   |  |  |  |  |
| Audio Output  | 1 channel (RCA port) (Only- ZAS supports)   |  |  |  |  |
| Alarm Input   | 1 channel in: 5 mA 3–5 VDC (Only- ZAS supports)   |  |  |  |  |
| Alarm Output  | 1 channel out: 300 mA 12 VDC (Only- ZAS supports)   |  |  |  |  |
| Power   |   |  |  |  |  |
| Power Supply  | 12 VDC/PoE (802.3af)  |  |  |  |  |
| Power Consumption   | Basic: 4 W (12 VDC); 4.9 W (PoE)<br>Max. (WDR + IR intensity + Intelligence): 9.2 W (12 VDC);<br>10.5 W (PoE)   |  |  |  |  |
| Environment   |   |  |  |  |  |
| Operating Temperature   | –30 °C to +60 °C (–22 °F to 140 °F) /Less than 95% RH   |  |  |  |  |
| Storage Temperature   | -40°C to +60°C (-40°F to 140°F)   |  |  |  |  |
| Protection  | IP67  |  |  |  |  |
| Structure   |   |  |  |  |  |
| Casing  | Metal   |  |  |  |  |
| Product Dimensions      244.1 mm × 79.0 mm × 75.9 mm        (9.61" × 3.11" × 3.00") (L × W × H) |   |  |  |  |  |
| Net Weight  | 820 g (1.81 lb)   |  |  |  |  |
| Gross Weight  | 1090 g (2.40 lb)  |  |  |  |  |
|   |   |  |  |  |  |

| Ordering Information |                          |   |  |  |
|----------------------|--------------------------|---|--|--|
| Туре                 | Model                    | Description   |  |  |
|                      | DH-IPC-HFW3866TP-ZAS-AUS | 8MP IR Vari-focal Bullet WizSense<br>Network Camera |  |  |
| 8MP Camera           | DH-IPC-HFW3866TP-ZAS-AUS | 8MP IR Vari-focal Bullet WizSense<br>Network Camera |  |  |
|                      | PFA130-E                 | Junction Box  |  |  |
|                      | PFA135                   | Junction Box  |  |  |
| Accessories          | PFA152-E                 | Pole Mount  |  |  |
| (Optional)           | PFM321D                  | 12 VDC 1 A Power Adapter                            |  |  |
|                      | PFM900-E                 | Integrated Mount Tester                             |  |  |
|                      | TF-P100                  | TLC SD Card   |  |  |

Accessories

#### Optional:



Junction

Box

PFM321D

12 VDC 1 A

Power Adapter





PFA152-E Pole Mount



PFM900-E

Integrated Mount Tester

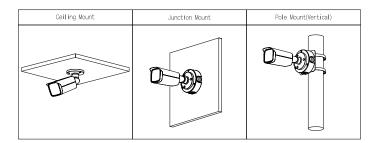
PFA135

Junction

Box

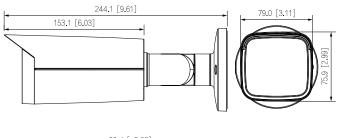


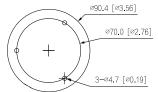
TF-P100 TLC SD Card



## Wiz Sense | DH-IPC-HFW3866TP-ZAS-AUS

### Dimensions (mm[inch])





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