

# DH-HAC-HDBW3802E-ZH

8MP HDCVI WDR IR-Dome Camera

## HDCVI



- 1/2" 8MP progressive scan CMOS
- 3x optical motorized zoom lens
- Max. 15fps@3840×2160
- 120dB true WDR, 3DNR
- Intelligent functions
- Max. 50m IR distance, smart IR
- IP67 & IK10 ingress protection
- Dual voltage input(DC12V/AC24V±25%)
- DC12V voltage output
- Up to 500m transmission with RG59 coaxial cable



### System Overview

The 4K HDCVI camera adopts a high performance ISP and advanced 1/2" 8MP image sensor, ultra-long IR range, and motorized zoom lens, enabling a wider range of coverage and superior image details with 4K resolution. That makes it easy to collect evidence for effective playback and analysis. Its wide field of view and 4K resolution makes the camera an ideal choice for large-size businesses and places such as airports, stadiums, parking lots, and shopping malls.

### Functions

#### 4K Technology

4K technology as a revolutionary breakthrough in image, which enhance the expressive image of essence, allowing users to experience the best picture with more details and wider coverage brought about by the visual feast. For the purposes of 4K surveillance with four times the 1080P resolution, presented to the user with more details. Under the same scenario by raising the amount of pixels with the larger sensor it will reduce the total quantity of cameras and finally lower the whole project cost.

#### 4 Signals over 1 Coaxial Cable

HDCVI technology supports 4 signals to be transmitted over 1 coaxial cable simultaneously, i.e. video, audio\*, data and power. Dual-way data transmission allows the HDCVI camera to interact with the HCVR, such as sending control signal or triggering alarm. Moreover, HDCVI technology supports PoC for construction flexibility.

\* Audio input is available for some models of HDCVI cameras.

#### Long Distance Transmission

HDCVI technology guarantees real-time transmission at long distance without any loss. It supports up to 700m transmission for 4K and 4MP HD video via coaxial cable, and up to 300m via UTP cable.\*

\*Actual results verified by real-scene testing in Dahua's test laboratory.

#### Simplicity

HDCVI technology inherits the born feature of simplicity from traditional analog surveillance system, making itself a best choice for investment protection. HDCVI system can seamlessly upgrade the traditional analog system without replacing existing coaxial cabling. The plug and play approach enables full HD video surveillance without the hassle of configuring a network.

### Multi-outputs

The camera supports HDCVI and CVBS signal outputs simultaneously with two BNC connectors. Multi-outputs facilitates construction in such situations as debugging through a tester. It also offers the possibility for cooperating with multiple devices including analog matrix or monitor.

### Smart IR

The camera is designed with array LED IR illumination for best lowlight performance at maximum distance. Smart IR is a technology to ensure brightness uniformity in B/W image under low illumination. Dahua's unique Smart IR adjusts to the intensity of camera's infrared LEDs to compensate for the distance of an object, and prevents IR LEDs from overexposing images as the object comes closer to the camera.

### Wide Dynamic Range

Embedded with industry leading wide dynamic range (WDR) technology, vivid pictures are achieved even in the most intense contrast lighting conditions. True WDR (120dB) optimizes both the bright and dark areas of a scene at the same time to provide amazing usable video.

### Advanced 3DNR

3DNR is noise reduction technology that detects and eliminates random noises by comparing two sequential frames. Dahua's advanced 3DNR technology allows remarkable noise reduction with little impact to sharpness, especially under limited lighting condition. Besides, the advanced 3DNR effectively decreases the band width and saves the storage space.

### Protection & Power Output

The camera's outstanding reliability is unsurpassed due to its rugged design. IP67&IK10 ingress protection makes it suitable for most environment such as bank, manufacturing and commercial facilities.

Supporting dual voltage input (DC 12V±25%/AC 24V±25%) and DC12V max 4W voltage output. This camera suits even the most unstable power supply conditions. Its 4KV lightning rating provides protection against the camera and its structure from the effects of lightning.

| Technical Specification  |                                            |
|--------------------------|--------------------------------------------|
| Camera                   |                                            |
| Image Sensor             | 1/1.8" CMOS                                |
| Effective Pixels         | 3840(H)×2160(V), 8MP                       |
| Scanning System          | Progressive                                |
| Electronic Shutter Speed | 1/1s~1/100,00s                             |
| Minimum Illumination     | 0.005Lux/F1.5(Color), 30IRE,0Lux/F1.5(B/W) |
| S/N Ratio                | More than 65dB                             |
| IR Distance              | Up to 50m (164feet)                        |
| IR On/Off Control        | Auto / Manual                              |
| IR LEDs                  | 3                                          |

|                      |                            |
|----------------------|----------------------------|
| Lens                 |                            |
| Lens Type            | Motorized lens / Auto iris |
| Mount Type           | Board-in                   |
| Focal Length         | 3.7-11mm                   |
| Max Aperture         | F1.5                       |
| Angle of View        | H: 112°~46°                |
| Focus Control        | Auto / Manual              |
| Close Focus Distance | 200mm(7.87")               |

| 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. |                   |            |             |
|                                                                                                                                                                                                                                                                                                                              | DORI Definition   | Distance   |             |
|                                                                                                                                                                                                                                                                                                                              |                   | Wide       | Tele        |
| Detect                                                                                                                                                                                                                                                                                                                       | 25px/m (8px/ft)   | 83m(273ft) | 190m(624ft) |
| Observe                                                                                                                                                                                                                                                                                                                      | 63px/m (19px/ft)  | 33m(109ft) | 76m(250ft)  |
| Recognize                                                                                                                                                                                                                                                                                                                    | 125px/m (38px/ft) | 17m(54ft)  | 38m(125ft)  |
| Identify                                                                                                                                                                                                                                                                                                                     | 250ppm (76px/ft)  | 8m(27ft)   | 19m(62ft)   |

|                       |                                                         |
|-----------------------|---------------------------------------------------------|
| Pan / Tilt / Rotation |                                                         |
| Pan/Tilt/Rotation     | Pan: 0° ~ 355°<br>Tilt: 0° ~ 85°<br>Rotation: 0° ~ 355° |

|              |                                                                                 |
|--------------|---------------------------------------------------------------------------------|
| Video        |                                                                                 |
| Resolution   | 8MP (3840×2160)                                                                 |
| Frame Rate   | PAL:3840×2160@12.5fps,2560x1440@25fps;<br>NTSC:3840×2160@15fps,2560x1440@30fps; |
| Video Output | 1-channel HDCVI 4K video output & 1-channel CVBS video output                   |

|                 |                     |
|-----------------|---------------------|
| Day/Night       | Auto (ICR) / Manual |
| OSD Menu        | Multi-language      |
| BLC Mode        | BLC / HLC / WDR     |
| WDR             | 120dB               |
| Gain Control    | AGC                 |
| Noise Reduction | 2D/3D               |
| White Balance   | Auto / Manual       |
| Smart IR        | Auto / Manual       |

|                |                                                                                                                                   |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Certifications |                                                                                                                                   |
| Certifications | CE (EN55032, EN55024, EN50130-4)<br>FCC (CFR 47 FCC Part 15 subpartB, ANSI C63.4-2014)<br>UL (UL60950-1+CAN/CSA C22.2 No.60950-1) |

|                 |                    |
|-----------------|--------------------|
| Interface       |                    |
| Audio Interface | 1-channel audio in |
| Alarm I/O       | 2/1                |

|                   |                         |
|-------------------|-------------------------|
| Eelectrical       |                         |
| Power Supply      | 12V DC ±25%/24V AC ±25% |
| Power Output      | DC 12V/Max 4W           |
| Power Consumption | Max 12.4W               |

|                                        |                                                                                                      |
|----------------------------------------|------------------------------------------------------------------------------------------------------|
| Environmental                          |                                                                                                      |
| Operating Conditions                   | -40°C ~ +60°C (-40°F ~ +140°F) / Less than 95% RH<br>* Start up should be done at above-40°C (-40°F) |
| Storage Conditions                     | -40°C ~ +60°C (-40°F ~ +140°F) / Less than 95% RH                                                    |
| Ingress Protection & Vandal Resistance | IP67 & IK10                                                                                          |

|              |                                 |
|--------------|---------------------------------|
| Construction |                                 |
| Casing       | Aluminium                       |
| Dimensions   | Φ159.1mm×117.9mm (Φ6.26"×4.64") |
| Net Weight   | 0.90kg (1.98lb)                 |
| Gross Weight | 1.20kg (2.65lb)                 |

## Ordering Information

| Type        | Part Number               | Description                                            |
|-------------|---------------------------|--------------------------------------------------------|
| 8MP Camera  | DH-HAC-HDBW3802EP-ZH-3711 | 8Megapixel 4K WDR IR-Bullet Camera with heater,PAL     |
|             | DH-HAC-HDBW3802EN-ZH-3711 | 8Megapixel 4K WDR IR-Bullet Camera with heater, NTSC   |
| Accessories | PFA138                    | Junction box (For use alone)                           |
|             | PFB210W                   | Wall mount (For use alone or with PFA152-E pole mount) |
|             | PFA152-E                  | Pole mount (For use with PFB210W wall mount)           |
|             | PFA101                    | Mount adapter (For use with PFB300C ceiling mount)     |
|             | PFB300C                   | Ceiling mount (For use with PFA101 mount adapter)      |
|             | PFB201C                   | In-ceiling mount                                       |
|             | PFM800-E                  | 1 Channel Passive HDCVI Balun                          |
|             | PFM320                    | 12V 2A Power Adapter                                   |
|             | PFM320D-015               | 12V 1.5A Power Adapter                                 |

## Dimensions (mm/inch)

Optional:



PFA138  
Junction box



PFB210W  
Wall mount



PFA152-E  
Pole mount



PFA101  
Mount adapter



PFB300C  
Ceiling mount



PFB201C  
In-ceiling mount



PFM800-E  
Passive HDCVI Balun



PFM320  
12V 2A Power Adapter



PFM320D-015  
Power Adapter

| In-ceiling Mount | Junction Mount   | Pole Mount        |
|------------------|------------------|-------------------|
| PFB201C          | PFA138           | PFB210W+PFA152-E  |
|                  |                  |                   |
| Ceiling Mount    | Wall Mount       |                   |
| PFA101+PFB300C   | PFB210W (Indoor) | PFB210W (Outdoor) |
|                  |                  |                   |

## Dimensions (mm/inch)

