

# DH-HAC-HFW1500R-Z-IL-A

5MP Smart Dual Light HDCVI Motorized Vari-Focal Bullet Camera



## Series Overview

The Lite Series is a great choice for consumers looking for high quality monitoring products at a reasonable price. Its low cost and high performance make it ideal for residential areas and SMB solutions. This series is equipped with a wide range of technologies, such as full-color and starlight, providing various solutions for different scenarios.

## Functions

### Built-in Mic

Audio signal transmission over coaxial cables is supported by the HDCVI camera. It adopts a unique audio processing and transmission technology that restores source audio and eliminates noise, ensuring the quality and reliability of the audio information that is collected. This becomes important for video surveillance applications that use audio information as a type of supplementary evidence.

### Smart Dual Light

With its smart dual light mechanism, the camera automatically turns on the white light when Perimeter Protection/SMD Plus function of AI XVR detects a target in the rule area to capture clear, vivid images. When the target leaves the rule area, the camera automatically switches over from the white light to the IR light to significantly reduce light pollution.

### Smart Zoom Lighting

Smart zoom lighting automatically adjusts the brightness of the illuminator based on the zoom level, ensuring clear, stable images in low-light conditions across all focal lengths. Smart brightness control reduces power consumption and saves energy.

- \* The parameters and datasheets below can only be applied to 1500-IL-S3 series.
- \* In order to use the 5 MP 16:9 and the Smart Dual Light HDCVI camera, the firmware of XVR must be upgraded to V4.001.0000004.1.R.220323 or later version.
- Max. 25 fps@5 MP (16:9 video output).
- Starlight, 3D NR.
- Smart Dual Light.
- Smart Zoom Lighting.
- 80 m illumination distance.
- Built-in MIC.
- 2.7–13.5 mm motorized lens.
- CVI/CVBS/AHD/TVI switchable.
- IP67, 12 VDC.



## Super Adapt

With its intelligent algorithm, the camera automatically adjusts its parameters to provide optimal performance and vivid images.

## Advanced 3DNR

Dahua's advanced 3DNR technology reduces image noise with little to no impact on image sharpness, especially in poor lighting conditions. It detects the noise, and compares the sequential frames to effectively reduce the noise. It also makes efficient use of bandwidth, saving on storage space.

## Protection (IP67, Wide Voltage)

**IP67:** The camera passed a series of rigorous dust and immersion tests. Its enclosure is both dust-proof and waterproof, and can function normally while being immersed in 1 m deep water for up to 30 minutes.

**Wide voltage:** The camera has  $\pm 30\%$  input voltage tolerance (for some power supplies) and a wide voltage range, making it suitable for a variety of outdoor scenarios.

Technical Specification

|                            |                                                                                         |
|----------------------------|-----------------------------------------------------------------------------------------|
| Camera                     |                                                                                         |
| Image Sensor               | 5 MP CMOS                                                                               |
| Max. Resolution            | 2880 (H) × 1620 (V)                                                                     |
| Scanning System            | Progressive                                                                             |
| Electronic Shutter Speed   | PAL: 1/25 s–1/100,000 s<br>NTSC: 1/30 s–1/100,000 s                                     |
| Min. Illumination          | 0.01 lux@F1.6 (Color, 30 IRE)<br>0.001 lux@F1.6 (B/W, 30 IRE)<br>0 lux (Illuminator on) |
| S/N Ratio                  | >65 dB                                                                                  |
| Illumination Distance      | IR: 80.0 m (262.47 ft);Warm light: 60.0 m (196.85 ft)                                   |
| Illuminator On/Off Control | Auto                                                                                    |
| Illuminator Number         | 4 (Multi-core light)                                                                    |
| Angle Adjustment           | Pan: 0°–360°<br>Tilt: 0°–90°<br>Rotation: 0°–360°                                       |

|                      |                                                  |
|----------------------|--------------------------------------------------|
| Lens                 |                                                  |
| Lens Type            | Motorized vari-focal                             |
| Auto Focus           | No                                               |
| Lens Mount           | ϕ14                                              |
| Focal Length         | 2.7 mm–13.5 mm                                   |
| Max. Aperture        | F1.6                                             |
| Field of View        | H: 32.7°–111.8°; V: 18.4°–58.3°; D: 37.5°–135.2° |
| Iris Control         | Fixed                                            |
| Close Focus Distance | 1.2 m (3.94 ft)                                  |

|               |                                                                                                                                                                                                                                                                                                                                                                                 |                         |                        |                        |                       |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|------------------------|------------------------|-----------------------|
| DORI Distance | Lens                                                                                                                                                                                                                                                                                                                                                                            | Detect                  | Observe                | Recognize              | Identify              |
|               | W                                                                                                                                                                                                                                                                                                                                                                               | 65.4 m<br>( 214.57 ft)  | 26.2 m<br>( 85.96 ft)  | 13.1 m<br>( 42.98 ft)  | 6.5 m<br>( 21.46 ft)  |
|               | T                                                                                                                                                                                                                                                                                                                                                                               | 202.0 m<br>( 662.73 ft) | 80.8 m<br>( 265.09 ft) | 40.4 m<br>( 132.55 ft) | 20.2 m<br>( 66.27 ft) |
|               | *DORI (Detect, Observe, Recognize, Identify) is a standard system (EN-62676-4) for defining the ability of a person viewing the video to distinguish persons or objects within a covered area. The numbers in this table do not reflect intelligent function distances. For intelligent function distances, refer to installation and commissioning manual/project design tool. |                         |                        |                        |                       |
|               |                                                                                                                                                                                                                                                                                                                                                                                 |                         |                        |                        |                       |

|                  |                                                                                                                                                                                                                                                                        |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Video            |                                                                                                                                                                                                                                                                        |
| Video Frame Rate | CVI:<br>PAL: 5M@25 fps; 5M@12.5 fps; 4M@25 fps; 1080p@25 fps<br>NTSC: 5M@25 fps; 5M@20 fps; 5M@10 fps; 4M@30 fps; 1080p@30 fps<br>AHD:<br>PAL: 4M@25 fps<br>NTSC: 4M@30 fps<br>TVI:<br>PAL: 5M 16:9@20 fps<br>NTSC: 5M 16:9@20 fps<br>CVBS:<br>PAL: 960H<br>NTSC: 960H |

|                   |                                                                                                                |
|-------------------|----------------------------------------------------------------------------------------------------------------|
| Resolution        | 5M (2880 × 1620); 4M (2560 × 1440); 1080p (1920 × 1080); 960H (960 × 576/960 × 480); TVI 5M 16:9 (2960 × 1665) |
| Day/Night         | Auto(ICR)/Color/B/W                                                                                            |
| BLC               | BLC; HLC; WDR                                                                                                  |
| WDR               | DWDR                                                                                                           |
| White Balance     | Auto;Area white balance                                                                                        |
| Gain Control      | Auto/Manual                                                                                                    |
| Noise Reduction   | 3D NR                                                                                                          |
| Illumination Mode | Smart IR&WL (CVI, TVI); WL Mode; IR Mode                                                                       |
| Mirror            | Yes                                                                                                            |
| Privacy Masking   | Off/On (8 areas, rectangle)                                                                                    |

|                |                                                  |
|----------------|--------------------------------------------------|
| Certification  |                                                  |
| Certifications | CE-LVD: EN 62368-1<br>CE-EMC: EN 55032; EN 55035 |

|                  |                  |
|------------------|------------------|
| Audio            |                  |
| Built-in Mic     | Yes              |
| Camera Audio     | CVI; TVI         |
| Pick-up Distance | 8.0 m (26.25 ft) |

|              |                                                                       |
|--------------|-----------------------------------------------------------------------|
| Port         |                                                                       |
| Video Output | Video output choices of CVI/TVI/AHD/CVBS by one BNC port (DIP Switch) |

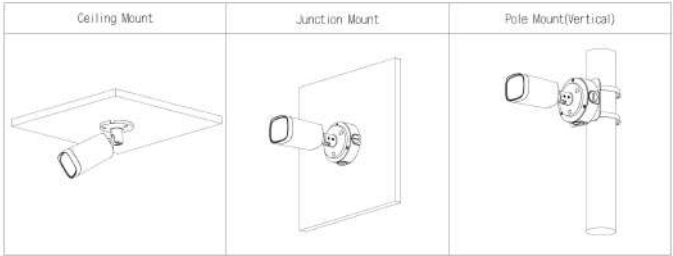
|                   |                           |
|-------------------|---------------------------|
| Power             |                           |
| Power Supply      | 12 VDC (±30%)             |
| Power Consumption | Max 7.4 W (12 VDC, IR on) |

|                       |                                                                                                                                                              |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Environment           |                                                                                                                                                              |
| Operating Temperature | –30 °C to +60 °C (–22 °F to +140 °F)                                                                                                                         |
| Operating Humidity    | <95% (RH), non-condensing                                                                                                                                    |
| Storage Temperature   | –30 °C to +60 °C (–22 °F to +140 °F)                                                                                                                         |
| Storage Humidity      | <95% (RH), non-condensing                                                                                                                                    |
| Protection            | IP67                                                                                                                                                         |
| Anti-corrosion Level  | Basic Protection<br>*The products are designed for general use and are applicable even in areas with no specific requirements for anti-corrosion protection. |

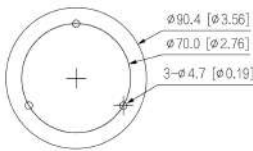
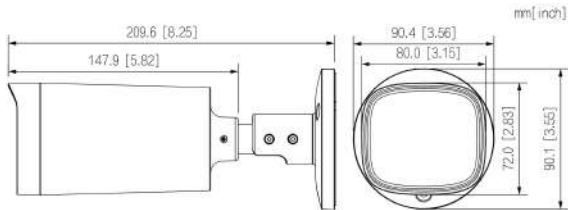
|                    |                                                                     |
|--------------------|---------------------------------------------------------------------|
| Structure          |                                                                     |
| Casing Material    | Metal                                                               |
| Product Dimensions | 209.9 mm × 90.4 mm × 90.4 mm (8.26" × 3.56" × 3.56")<br>(L × W × H) |
| Net Weight         | 0.54 kg (1.19 lb)                                                   |
| Gross Weight       | 0.70 kg (1.54 lb)                                                   |
| Installation       | Wall mount; ceiling mount; vertical pole mount                      |

Ordering Information

| Type                   | Model                   | Description                                                        |
|------------------------|-------------------------|--------------------------------------------------------------------|
| HDCVI CAMERA           | DH-HAC-HFW1500RN-Z-IL-A | SMP Smart Dual Light HDCVI Motorized Vari-Focal Bullet Camera,NTSC |
|                        | DH-HAC-HFW1500RP-Z-IL-A | SMP Smart Dual Light HDCVI Motorized Vari-Focal Bullet Camera,PAL  |
| Accessories (Optional) | DH-PFA130-E             | Water-proof Junction Box                                           |
|                        | G3416GW                 | G3/4" Water Joint                                                  |
|                        | DH-PFA151               | Corner Mount Bracket                                               |
|                        | DH-PFA152-E             | Pole Mount Bracket                                                 |
|                        | DH-PFA135               | Junction Box                                                       |
|                        | DH-PFM800-4K            | 1 Channel Passive HDCVI Balun                                      |
|                        | DH-PFM321-EN            | DC12V1A power adapter                                              |
|                        | DH-PFM320D-EN           | DC12V2A power adapter                                              |
|                        | PFM904                  | Integrated Mount Tester                                            |



Dimensions (mm[inch])



Accessories

Optional:



DH-PFA130-E  
Water-proof Junction Box



DH-PFA135  
Junction Box



DH-PFA151  
Corner Mount Bracket



DH-PFA152-E  
Pole Mount Bracket



DH-PFM320D-EN  
DC12V2A power adapter



DH-PFM321-EN  
DC12V1A power adapter



DH-PFM800-4K  
1 Channel Passive HDCVI  
Balun



G3416GW  
G3/4" Water Joint



PFM904  
Integrated Mount Tester