

# DH-HAC-HDBW1500R-Z

5MP Starlight HDCVI IR Dome Camera



\* The parameters and datasheets below can only be applied to 1500-S2 series.

- Max 25 fps@5MP (16:9 video output)
- CVI/CVBS/AHD/TVI switchable
- 2.7 mm–12 mm motorized lens
- Max. IR length 30 m, Smart IR
- IP67, IK10, 12V DC



## System Overview

Experience 5MP full HD video and the simplicity of using existing cabling infrastructure with HDCVI. The Lite series 5MP HDCVI camera features a compact design and offers a high quality image at a friendly price. It offers various motorized/fixed lens models with a multi-language OSD and HD/SD switchable output. Its structural flexibility and high cost-performance make the camera an ideal choice for SMB solutions.

## Functions

### 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 XVR, 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 700 m for 5MP HD video through coaxial cable, and up to 300 m through 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.

### Smart IR

The camera is designed with IR LED illumination for best lowlight performance. 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 come closer to the camera.

### Multi-formats

The camera supports multiple video formats including HDCVI, CVBS and other two common HD analog formats in the market. The four formats can be switched over through OSD menu. This feature makes the camera compatible with most end users' existing HD/SD DVRs.

### Multi-language OSD

OSD menu provides multiple image adjustments and function settings to meet the requirements of different monitoring scenes. The OSD menu includes configurations such as backlight mode, day/night, white balance, privacy mask and motion detect. The camera supports 11 languages for OSD menu, namely, Chinese, English, French, German, Spanish, Portuguese, Italian, Japanese, Korean, Russian and Polish.

### Protection

The camera's outstanding reliability is unsurpassed due to its rugged design. The camera is protected against water and dust with IP67 ranking, making it suitable for indoor or outdoor environments. With working temperature range of  $-30^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$  ( $-22^{\circ}\text{F}$  to  $+140^{\circ}\text{F}$ ), the camera is designed for extreme temperature environments. Supporting  $\pm 30\%$  input voltage tolerance, 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    |        |                                                                                                                                                                                                                              |                     |                     |              | White Balance         |                   | Auto; manual                                                                                                                                                                                                                                    |                    |                                                          |  |                                                            |  |
|----------------------------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------------------|--------------|-----------------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------------------------------------------------|--|------------------------------------------------------------|--|
| Camera                     |        |                                                                                                                                                                                                                              |                     |                     |              | Gain Control          |                   | Auto; manual                                                                                                                                                                                                                                    |                    |                                                          |  |                                                            |  |
| Image Sensor               |        | 1/2.7 inch CMOS                                                                                                                                                                                                              |                     |                     |              | Noise Reduction       |                   | 2D NR                                                                                                                                                                                                                                           |                    |                                                          |  |                                                            |  |
| Max. Resolution            |        | 2880 (H) × 1620 (V)                                                                                                                                                                                                          |                     |                     |              | Smart IR              |                   | Yes                                                                                                                                                                                                                                             |                    |                                                          |  |                                                            |  |
| Pixel                      |        | 5MP                                                                                                                                                                                                                          |                     |                     |              | Mirror                |                   | Off/On                                                                                                                                                                                                                                          |                    |                                                          |  |                                                            |  |
| Scanning System            |        | Progressive                                                                                                                                                                                                                  |                     |                     |              | Privacy Masking       |                   | Off/On (8 areas, rectangle)                                                                                                                                                                                                                     |                    |                                                          |  |                                                            |  |
| Electronic Shutter Speed   |        | PAL: 1/25 s–1/100,000 s<br>NTSC: 1/30 s–1/100,000 s                                                                                                                                                                          |                     |                     |              | Certifications        |                   | CE (EN55032:2015, EN 61000-3-2:2014, EN 61000-3-3:2013, EN55024:2010+A1:2015, EN 55035:2017, EN50130-4:2011+A1:2014, EN 62368-1:2014+A11:2017)<br>FCC (CFR 47 FCC Part 15 subpartB, ANSI C63.4-2014)<br>UL (UL60950-1+CAN/CSA C22.2 No.60950-1) |                    |                                                          |  |                                                            |  |
| S/N Ratio                  |        | > 65 dB                                                                                                                                                                                                                      |                     |                     |              |                       |                   |                                                                                                                                                                                                                                                 |                    |                                                          |  |                                                            |  |
| Min. Illumination          |        | 0.005 Lux/F1.6, 30IRE, 0 Lux IR on                                                                                                                                                                                           |                     |                     |              |                       |                   |                                                                                                                                                                                                                                                 |                    |                                                          |  |                                                            |  |
| Illumination Distance      |        | 30 m (98.4 ft)                                                                                                                                                                                                               |                     |                     |              |                       |                   |                                                                                                                                                                                                                                                 |                    |                                                          |  |                                                            |  |
| Illuminator On/Off Control |        | Auto; manual                                                                                                                                                                                                                 |                     |                     |              |                       |                   |                                                                                                                                                                                                                                                 |                    |                                                          |  |                                                            |  |
| Illuminator Number         |        | 2                                                                                                                                                                                                                            |                     |                     |              | Port                  |                   | Video Output                                                                                                                                                                                                                                    |                    | Video output choices of CVI/TVI/AHD/CVBS by one BNC port |  |                                                            |  |
| Pan/Tilt/Rotation Range    |        | Pan: 0°–355°<br>Tilt: 0°–75°<br>Rotation: 0°–355°                                                                                                                                                                            |                     |                     |              |                       |                   |                                                                                                                                                                                                                                                 |                    |                                                          |  |                                                            |  |
| Lens                       |        |                                                                                                                                                                                                                              |                     |                     |              | Power                 |                   | Power Supply                                                                                                                                                                                                                                    |                    | DC 12V ±30%                                              |  |                                                            |  |
| Lens Type                  |        | Motorized vari-focal                                                                                                                                                                                                         |                     |                     |              |                       |                   |                                                                                                                                                                                                                                                 |                    |                                                          |  |                                                            |  |
| Auto Focus                 |        | N/A                                                                                                                                                                                                                          |                     |                     |              | Power Consumption     |                   | Max 5.5W (12V DC, IR on)                                                                                                                                                                                                                        |                    | Environment                                              |  |                                                            |  |
| Mount Type                 |        | φ14                                                                                                                                                                                                                          |                     |                     |              |                       |                   |                                                                                                                                                                                                                                                 |                    |                                                          |  |                                                            |  |
| Focal Length               |        | 2.7 mm–12 mm                                                                                                                                                                                                                 |                     |                     |              | Operating Temperature |                   | –30°C to +60°C (–22°F to +140°F); < 95% (non-condensation)                                                                                                                                                                                      |                    | Storage Temperature                                      |  | –30°C to +60°C (–22°F to +140°F); < 95% (non-condensation) |  |
| Max. Aperture              |        | F1.6                                                                                                                                                                                                                         |                     |                     |              |                       |                   |                                                                                                                                                                                                                                                 |                    |                                                          |  |                                                            |  |
| Field of View              |        | Diagonal: 39°–130°<br>Horizontal: 34°–107°<br>Vertical: 19°–55°                                                                                                                                                              |                     |                     |              | Protection Grade      |                   | IP67, IK10                                                                                                                                                                                                                                      |                    | Structure                                                |  |                                                            |  |
| Iris Type                  |        | Fixed iris                                                                                                                                                                                                                   |                     |                     |              |                       |                   |                                                                                                                                                                                                                                                 |                    |                                                          |  |                                                            |  |
| Close Focus Distance       |        | 0.5 m (1.64 ft)                                                                                                                                                                                                              |                     |                     |              | Casing                |                   | Metal throughout the whole casing                                                                                                                                                                                                               |                    | Camera Dimensions                                        |  | φ122 mm × 88.9 mm (φ4.8" × 3.5")                           |  |
| DORI Distance              | Lens   | Detect                                                                                                                                                                                                                       | Observe             | Recognize           | Identify     |                       |                   |                                                                                                                                                                                                                                                 |                    |                                                          |  |                                                            |  |
|                            | 2.7 mm | 69 m (226.37 ft)                                                                                                                                                                                                             | 27.6 m (90.55 ft)   | 13.8 m (45.27 ft)   | Gross Weight |                       | 0.62 kg (1.34 lb) |                                                                                                                                                                                                                                                 |                    |                                                          |  |                                                            |  |
|                            | 12 mm  | 191.6 m (628.6 ft)                                                                                                                                                                                                           | 76.64 m (251.44 ft) | 38.32 m (125.72 ft) |              |                       |                   |                                                                                                                                                                                                                                                 | 19.16 m (62.86 ft) |                                                          |  |                                                            |  |
| Video                      |        |                                                                                                                                                                                                                              |                     |                     |              | Ordering Information  |                   |                                                                                                                                                                                                                                                 |                    |                                                          |  |                                                            |  |
| Frame Rate                 |        | CVI:<br>PAL: 5M@25 fps; 4M@25 fps; 1080P@25 fps<br>NTSC: 5M@25 fps; 4M@30 fps; 1080P@30 fps<br>AHD:<br>PAL: 4M@25 fps;<br>NTSC: 4M@30 fps<br>TVI:<br>PAL: 4M@25 fps;<br>NTSC: 4M@30 fps<br>CVBS:<br>PAL: 960H;<br>NTSC: 960H |                     |                     |              | Type                  |                   | Part Number                                                                                                                                                                                                                                     |                    | Description                                              |  |                                                            |  |
|                            |        |                                                                                                                                                                                                                              |                     |                     |              | 5MP Starlight Camera  |                   | DH-HAC-HDBW1500RP-Z 2.7 mm–12 mm                                                                                                                                                                                                                |                    | 5MP Starlight HDCVI IR Dome Camera                       |  |                                                            |  |
|                            |        |                                                                                                                                                                                                                              |                     |                     |              |                       |                   | DH-HAC-HDBW1500RN-Z 2.7 mm–12 mm                                                                                                                                                                                                                |                    |                                                          |  |                                                            |  |
| Resolution                 |        | 5M (2880 × 1620); 4M (2560 × 1440); 1080p (1920 × 1080); 960H (960 × 576/960 × 480)                                                                                                                                          |                     |                     |              | Accessories           |                   | PFA123                                                                                                                                                                                                                                          |                    | IP66 Junction Box                                        |  |                                                            |  |
| Day/Night                  |        | Auto switch by ICR                                                                                                                                                                                                           |                     |                     |              |                       |                   | PFA137                                                                                                                                                                                                                                          |                    | Junction Box                                             |  |                                                            |  |
| BLC                        |        | BLC/HLC/DWDR                                                                                                                                                                                                                 |                     |                     |              |                       |                   | PFB203W                                                                                                                                                                                                                                         |                    | Wall Mount Bracket (Use alone or with PFA152-E)          |  |                                                            |  |
| WDR                        |        | DWDR                                                                                                                                                                                                                         |                     |                     |              |                       |                   | PFA152-E                                                                                                                                                                                                                                        |                    | Pole Mount Bracket (Use with PFB203W)                    |  |                                                            |  |
|                            |        |                                                                                                                                                                                                                              |                     |                     |              |                       |                   | PFB220C                                                                                                                                                                                                                                         |                    | Ceiling Mount Bracket (Use with PFA106)                  |  |                                                            |  |
|                            |        |                                                                                                                                                                                                                              |                     |                     |              | PFA106                |                   | Mount Adapter (Use with PFB220C)                                                                                                                                                                                                                |                    |                                                          |  |                                                            |  |

|                                                |                          |
|------------------------------------------------|--------------------------|
| PFB200C                                        | In-ceiling Mount Bracket |
| PFM800-4K                                      | Passive HDCVI Balun      |
| PFM321D                                        | 12V 1A Power Adapter     |
| PFM820<br>(Only 1080P and below are available) | UTC Controller           |
| PFM904                                         | Integrated Mount Tester  |

## Accessories

### Optional:



PFA123  
IP66 Junction Box



PFA137  
Junction Box



PFB203W  
Wall Mount Bracket  
(For use alone or with  
PFA152-E)



PFA152-E  
Pole Mount Bracket  
(For use with PFB203W)



PFB220C  
Ceiling Mount Bracket  
(For use with PFA106)



PFA106  
Mount Adapter  
(For use with PFB220C)



PFB200C  
In-ceiling Mount Bracket



PFM800-4K  
Passive HDCVI Balun



PFM321D  
12V 1A Power Adapter

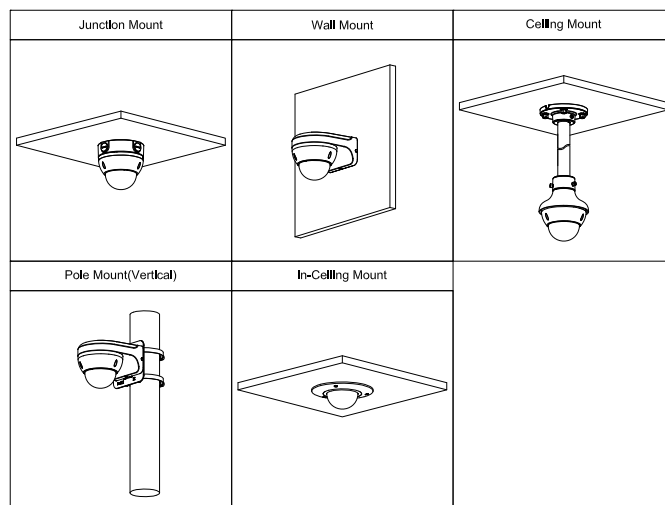


PFM820  
(Only 1080P and below are available)  
UTC Controller



PFM904  
Integrated Mount Tester

## Installation



## Dimensions (mm [inch])

