

# DH-HAC-HFW1509TM-A-LED

5MP Full-color HDCVI Fixed-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

### Full-color

With its advanced image processing algorithm and capability to absorb large quantities of light, the camera provides 24/7 color monitoring that collects clear and highly detailed information, significantly increasing the reliability of the human and vehicle images that are collected as evidence for intelligent analysis.

### Wide Dynamic Range

With its advanced Wide Dynamic Range technology (WDR), the camera captures highly detailed images and produces high-definition recordings in high-contrast lighting conditions, and in scenes with backlighting or shadows.

### Smart Light+

Equipped with advanced LEDs and beam processing technology, the camera effectively reduces interference of stray light, ensuring concentrated illumination within the lens's field of view. This allows the camera to easily produce clear images that reveal the fine details of targets even in low light conditions.

\* The parameters and datasheets below can only be applied to 1509-S3 series.

\* In order to use the 5MP 16:9 HDCVI camera, the firmware of XVR must be upgraded to V4.001.0000001.0.R.200908 or later version

- Max 25 fps@5MP (16:9 video output)
- Super Adapt, 120 dB true WDR, 3D NR
- 24/7 color imaging
- Smart Light+
- Smart Area Lighting
- Built-in Mic
- 40 m illumination distance
- CVI/CVBS/AHD/TVI switchable
- 3.6 mm fixed lens
- IP67, 12 VDC



### Smart Area Lighting

Automatically adjusts the intensity of the brightness and exposure for the left and right areas in the video based on the proportion and position of the targets to reveal more details in the image.

### Broadcast-quality Audio

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.

### Super Adapt

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

### Advanced 3DNR

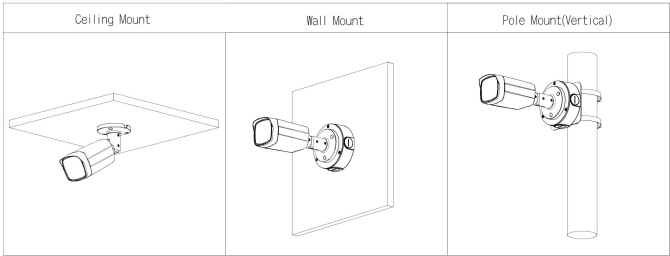
Dahua's advanced 3DNR technology reduces image noise with little to no impact on image sharpness, especially in poor lighting conditions. It detects the noise, and compares the sequential frames to effectively reduce the noise. It also makes efficient use of bandwidth, saving on storage space.

| Technical Specification    |                                                                                                                                                                                                                                                                                                                                                                                 |                        |                        |                       |                      |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|------------------------|-----------------------|----------------------|
| Camera                     |                                                                                                                                                                                                                                                                                                                                                                                 |                        |                        |                       |                      |
| Image Sensor               | 5 MP CMOS                                                                                                                                                                                                                                                                                                                                                                       |                        |                        |                       |                      |
| Max. Resolution            | 2880 (H) × 1620 (V)                                                                                                                                                                                                                                                                                                                                                             |                        |                        |                       |                      |
| Scanning System            | Progressive                                                                                                                                                                                                                                                                                                                                                                     |                        |                        |                       |                      |
| Electronic Shutter Speed   | PAL: 1/3 s–1/100,000 s;<br>NTSC: 1/4 s–1/100,000 s                                                                                                                                                                                                                                                                                                                              |                        |                        |                       |                      |
| Min. Illumination          | 0.0005 lux@F1.0 (Color, 30 IRE)<br>0 lux (Illuminator on)                                                                                                                                                                                                                                                                                                                       |                        |                        |                       |                      |
| S/N Ratio                  | >65 dB                                                                                                                                                                                                                                                                                                                                                                          |                        |                        |                       |                      |
| Illumination Distance      | 40 m (131 ft)                                                                                                                                                                                                                                                                                                                                                                   |                        |                        |                       |                      |
| Illuminator On/Off Control | Auto/Manual                                                                                                                                                                                                                                                                                                                                                                     |                        |                        |                       |                      |
| Illuminator Number         | 4 (Warm light)                                                                                                                                                                                                                                                                                                                                                                  |                        |                        |                       |                      |
| Angle Adjustment           | Pan: 0°–360°<br>Tilt: 0°–90°<br>Rotation: 0°–360°                                                                                                                                                                                                                                                                                                                               |                        |                        |                       |                      |
| Lens                       |                                                                                                                                                                                                                                                                                                                                                                                 |                        |                        |                       |                      |
| Lens Type                  | Fixed-focal                                                                                                                                                                                                                                                                                                                                                                     |                        |                        |                       |                      |
| Auto Focus                 | No                                                                                                                                                                                                                                                                                                                                                                              |                        |                        |                       |                      |
| Lens Mount                 | M12                                                                                                                                                                                                                                                                                                                                                                             |                        |                        |                       |                      |
| Focal Length               | 3.6 mm                                                                                                                                                                                                                                                                                                                                                                          |                        |                        |                       |                      |
| Max. Aperture              | F1.0                                                                                                                                                                                                                                                                                                                                                                            |                        |                        |                       |                      |
| Field of View              | H: 88°; V: 46°; D: 104°                                                                                                                                                                                                                                                                                                                                                         |                        |                        |                       |                      |
| Iris Control               | Fixed                                                                                                                                                                                                                                                                                                                                                                           |                        |                        |                       |                      |
| Close Focus Distance       | 2.3 m (7.55 ft)                                                                                                                                                                                                                                                                                                                                                                 |                        |                        |                       |                      |
| DORI Distance              | Lens                                                                                                                                                                                                                                                                                                                                                                            | Detect                 | Observe                | Recognize             | Identify             |
|                            | 3.6 mm                                                                                                                                                                                                                                                                                                                                                                          | 80.0 m<br>( 262.47 ft) | 32.0 m<br>( 104.99 ft) | 16.0 m<br>( 52.49 ft) | 8.0 m<br>( 26.25 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;<br>1080p@25 fps<br>NTSC: 5M@25 fps; 5M@10 fps; 4M@30 fps;<br>1080p@30 fps<br>AHD:<br>PAL: 4M@25 fps<br>NTSC: 4M@30 fps<br>TVI:<br>PAL: 5M 16:9@20 fps; 4M@25 fps<br>NTSC: 5M 16:9@20 fps; 4M@30 fps<br>CVBS:<br>PAL: 960H                                                                                                       |                        |                        |                       |                      |

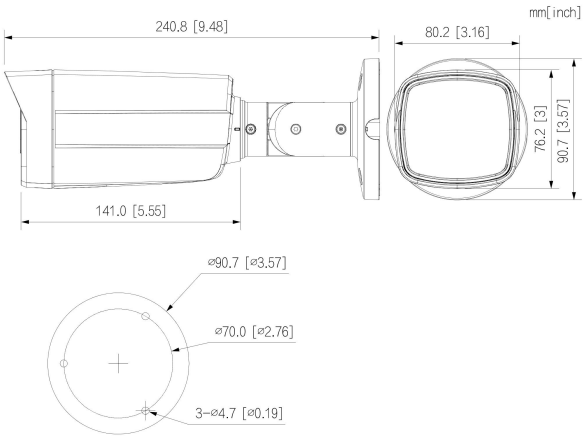
|                       |                                                                                                                |
|-----------------------|----------------------------------------------------------------------------------------------------------------|
| Video Frame Rate      | NTSC: 960H                                                                                                     |
| Resolution            | 5M (2880 × 1620); TVI 5M 16:9 (2960 × 1665); 4M (2560 × 1440); 1080p (1920 × 1080); 960H (960 × 576/960 × 480) |
| Day/Night             | Color                                                                                                          |
| BLC                   | BLC; HLC; WDR; HLC-Pro                                                                                         |
| WDR                   | 120 dB                                                                                                         |
| White Balance         | Auto;Area white balance                                                                                        |
| Gain Control          | Auto/Manual                                                                                                    |
| Noise Reduction       | 3D NR                                                                                                          |
| Illumination Mode     | Smart Light                                                                                                    |
| Defog                 | Electronic defog                                                                                               |
| Digital Zoom          | 4×                                                                                                             |
| Mirror                | Yes                                                                                                            |
| Privacy Masking       | Off/On (8 areas, rectangle)                                                                                    |
| Pick-up Distance      | 8 m (26.25 ft)                                                                                                 |
| Certification         |                                                                                                                |
| Certifications        | CE-LVD: EN 62368-1;<br>CE-EMC: EN 55032; EN 55035;                                                             |
| Audio                 |                                                                                                                |
| Built-in Mic          | Yes                                                                                                            |
| Port                  |                                                                                                                |
| Video Output          | Video output choices of CVI/TVI/AHD/CVBS by one BNC port                                                       |
| Upgrade Port          | 42                                                                                                             |
| Power                 |                                                                                                                |
| Power Supply          | 12 VDC ± 30% (It is recommended to use a power adapter to supply the power for one camera)                     |
| Power Consumption     | Max 9 W (12 VDC, LED on)                                                                                       |
| Environment           |                                                                                                                |
| Operating Temperature | –40 °C to +60 °C (–40 °F to +140 °F)                                                                           |
| Operating Humidity    | <95% (RH), non-condensing                                                                                      |
| Storage Temperature   | –40 °C to +60 °C (–40 °F to +140 °F)                                                                           |
| Storage Humidity      | <95% (RH), non-condensing                                                                                      |
| Protection            | IP67                                                                                                           |
| Anti-corrosion Level  | Basic Protection                                                                                               |
| Structure             |                                                                                                                |
| Casing Material       | Metal                                                                                                          |
| Product Dimensions    | 240.8 mm × 80.2 mm × 90.7 mm (9.48" × 3.16" × 3.57")<br>(L × W × H)                                            |
| Net Weight            | 0.66 kg (1.46 lb)                                                                                              |
| Gross Weight          | 0.85 kg (1.87 lb)                                                                                              |

|              |                                                |
|--------------|------------------------------------------------|
| Installation | Wall mount; ceiling mount; vertical pole mount |
|--------------|------------------------------------------------|

| Ordering Information   |                         |                                                     |
|------------------------|-------------------------|-----------------------------------------------------|
| Type                   | Model                   | Description                                         |
| HDCVI CAMERA           | DH-HAC-HFW1509TMN-A-LED | 5MP Full-color HDCVI Fixed-focal Bullet Camera,NTSC |
|                        | DH-HAC-HFW1509TMP-A-LED | 5MP Full-color HDCVI Fixed-focal Bullet Camera,PAL  |
| Accessories (Optional) | DH-PFA151               | Corner Mount Bracket                                |
|                        | G3416GW                 | G3/4" Water Joint                                   |
|                        | DH-PFA130-E             | Water-proof Junction Box                            |
|                        | 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<br>Water-proof Junction Box                                             | DH-PFA135<br>Junction Box                                                           | DH-PFA151<br>Corner Mount Bracket                                                   |
|  |  |  |
| DH-PFA152-E<br>Pole Mount Bracket                                                   | DH-PFM320D-EN<br>DC12V2A power adapter                                              | DH-PFM321-EN<br>DC12V1A power adapter                                               |
|  |  |  |
| DH-PFM800-4K<br>1 Channel Passive HDCVI<br>Balun                                    | G3416GW<br>G3/4" Water Joint                                                        | PFM904<br>Integrated Mount Tester                                                   |