# DH-HAC-HDW1500CLQ-IL-A
## 5MP Smart Dual Light HDCVI  Fixed-focal Quick-to-install Eyeball Camera

* The parameters and datasheets below can only be applied to1500-IL series.
* In order to use the 5MP 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@5MP (16:9 video output).

· Smart Dual Light.

· 20 m illumination distance.

· Super Adapt.

· Built-in MIC.

· Quick-to-install eyeball saves installation time.

· 3.6 mm fixed lens (2.8 mm optional).

· CVI/CVBS/AHD/TVI switchable.

· IP67, 12 VDC.

## System 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

### 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.

### 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.

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

### 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 ±30% input voltage tolerance (for some power supplies) and a wide voltage range, making it suitable for a variety of outdoor scenarios.

### 4 Signals over 1 Coaxial Cable
HDCVI technology supports 4 signals (video, audio*, data and power) which are simultaneously transmitted over a coaxial cable. Dual-way data transmission allows the HDCVI camera to interact with the XVR to perform various actions such as sending control signals and triggering alarms. HDCVI technology also supports PoC, which makes the camera easy and quick to install.

* Audio input is available for select HDCVI camera models.

### Long Distance Transmission
HDCVI technology provides long distance transmission in real time without transmission loss. It supports transmission distances up to 700 m for 2-MP/5-MP/8-MP HD videos through coaxial cables, and up to 300 m through UTP cables. The results were obtained and verified through rigorous testing in Dahua's test laboratory.

### Simplicity
HDCVI technology inherits the simplicity of traditional analog surveillance systems, making it a great mechanism for protecting your valuables. HDCVI can be upgraded from the traditional analog system without replacing the existing coaxial cabling. Its plug and play design enables it to produce high-definition videos during surveillance without the hassle of configuring a network.
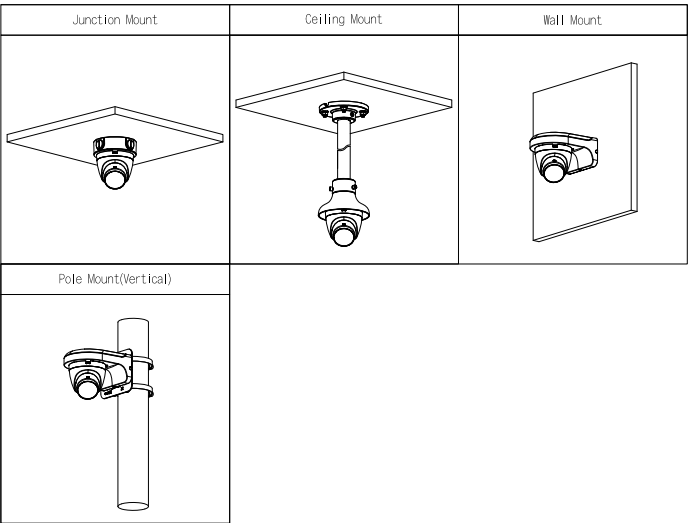
### Multi-language OSD
The OSD offers multiple functions to meet the many requirements of a monitoring scene, such as backlight mode, day/night mode, white balance, privacy mask, and motion detection. 11 languages are available for OSD: Chinese, English, French, German, Spanish, Portuguese, Italian, Japanese, Korean, Russian and Polish.
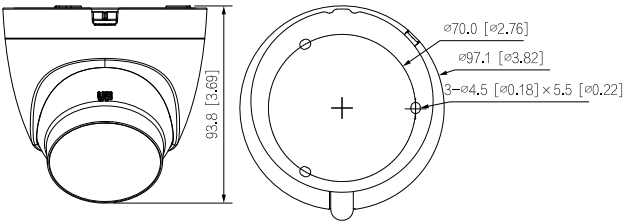
### Easy Installation
The camera comes with an easy-to-install eyeball and pedestal, that cuts down on installation time and cost, outranking conventional eyeballs.

## Technical Specification

### Camera

| | |
|---|---|
| Image Sensor | 5 MP CMOS |
| Max. Resolution | 2880 (H) × 1620 (V) |
| Scanning System | Progressive |
| Electronic Shutter Speed | PAL: 1/25 s–1/100000 s<br>NTSC: 1/30 s–1/100000 s |
| Min. Illumination | 0.05 lux@F1.6 (Color, 30 IRE)<br>0.005 lux@F1.6 (B/W, 30 IRE)<br>0 lux (Illuminator on) |
| S/N Ratio | >65 dB |
| Illumination Distance | IR: 20 m (65.62 ft)<br>Warm Light: 20 m (65.62 ft) |
| Illuminator On/Off Control | Auto/Manual |
| Illuminator Number | 2 (Warm light);2 (IR light) |
| Angle Adjustment | Pan: 0°–360°<br>Tilt: 0°–78°<br>Rotation: 0°–360° |

### Lens

| | |
|---|---|
| Lens Type | Fixed-focal |
| Lens Mount | M12 |
| Focal Length | 2.8 mm; 3.6 mm |
| Max. Aperture | F1.6 |
| Field of View | 2.8 mm: H: 106°; V: 56°; D: 125°<br>3.6 mm: H: 92°; V: 48°; D: 109° |
| Iris Control | Fixed |
| Close Focus Distance | 2.8 mm: 0.8 m (2.62 ft)<br>3.6 mm: 1.3 m (4.27 ft) |

| DORI Distance | Lens | Detect | Observe | Recognize | Identify |
|---|---|---|---|---|---|
| | 2.8 mm | 56 m (183.73 ft) | 22.4 m (73.49 ft) | 11.2 m (36.75 ft) | 5.6 m (18.37 ft) |
| | 3.6 mm | 76 m (249.34 ft) | 30.4 m (99.74 ft) | 15.2 m (49.87 ft) | 7.6 m (24.93 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; 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 |
| Resolution | 5M (2880 × 1620); 4M (2560 × 1440); 1080p (1920 × 1080); 960H (960 × 576/960 × 480) |
| Day/Night | Auto(ICR)/Color/B/W |

| | |
|---|---|
| BLC | BLC; HLC; DWDR; |
| WDR | DWDR |
| White Balance | Auto;Area white balance |
| Gain Control | Auto/Manual |
| Noise Reduction | 2D NR |
| Illumination Mode | Smart IR&WL; 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;<br>FCC: 47 CFR FCC Part 15, Subpart B |

### Port

| | |
|---|---|
| Video Output | Video output choices of CVI/TVI/AHD/CVBS by one BNC port |
| Audio Input | One channel built-in mic |

### Power

| | |
|---|---|
| Power Supply | 12 VDC ± 30% |
| Power Consumption | Max 4.5 W (12 VDC, WLED on) |

### Environment

| | |
|---|---|
| Operating Temperature | −40 °C to +55 °C (−40 °F to +131 °F) |
| Operating Humidity | <95% (RH), non-condensing |
| Storage Temperature | −40 °C to +55 °C (−40 °F to +131 °F) |
| Storage Humidity | <95% (RH), non-condensing |
| Protection | IP67 |

### Structure

| | |
|---|---|
| Casing Material | Plastic |
| Product Dimensions | φ97.1 mm × 93.8 mm (φ3.82" × 3.69") |
| Net Weight | 0.19 kg (0.42 lb) |
| Gross Weight | 0.3 kg (0.66 lb) |
| Installation | Wall mount; ceiling mount; vertical pole mount |

# Lite Series | DH-HAC-HDW1500CLQ-IL-A

## Ordering Information

| Type | Model | Description |
|---|---|---|
| 5M Camera | DH-HAC-HDW1500CLQP-IL-A | 5MP Smart Dual Light HDCVI Fixed-focal Quick-to-install Eyeball Camera, PAL |
| | DH-HAC-HDW1500CLQN-IL-A | 5MP Smart Dual Light HDCVI Fixed-focal Quick-to-install Eyeball Camera, NTSC |
| Accessories (Optional) | PFA13G | Junction Box |
| | PFB205W-E | Wall Mount Bracket |
| | PFA152-E | Pole Mount Bracket |
| | PFA109 | Mount Adapter |
| | PFB220C | Ceiling Mount Bracket |
| | PFM800-4K | 1-CH Passive Video Balun |
| | PFM321D | 12V 1A Power Adapter |
| | PFM904 | Integrated Mount Tester |

## Accessories

Optional:



PFA13G
Junction
Box



PFB205W-E
Wall Mount
Bracket



PFA152-E
Pole Mount
Bracket



PFA109
Mount Adapter



PFB220C
Ceiling Mount
Bracket



PFM800-4K
1 Channel Passive
HDCVI Balun



PFM321D
12V 1A Power
Adapter



PFM904
Integrated Mount
Tester



Junction Mount | Ceiling Mount | Wall Mount | Pole Mount(Vertical)

## Dimensions (mm [inch])



∅70.0 [∅2.76]
∅97.1 [∅3.82]
3−∅4.5 [∅0.18]×5.5 [∅0.22]
93.8 [3.69]