

# DH-HAC-HDW1200EM(-A)

## 2MP HDCVI IR Eyeball Camera



\* The parameters and datasheets below can only be applied to 1200-SS series.

- Max 30fps@1080P
- HD and SD output switchable
- 3.6mm fixed lens (2.8 mm, 6 mm optional)
- Built-in mic(-A)
- Max. IR length 50m, Smart IR
- IP67, DC12V



### System Overview

Experience 1080P full HD video and the simplicity of using existing cabling infrastructure with HDCVI. The Lite series 1080P 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 makes 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 800m(1080p)/1200m(720P) transmission via coaxial cable, and up to 300m(1080P)/450m(720P) via UTP cable.\*

\*This function is available for select models.

#### 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-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 -40 °C to +60 °C (-40 °F to +140 °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

#### Camera

|                             |   |
|-----------------------------|---|
| Image Sensor                | 1/2.7 inch CMOS                                   |
| Effective Pixels            | 1920(H)×1080(V), 2MP                              |
| Scanning System             | Progressive                                       |
| Electronic Shutter Speed    | PAL: 1/25s–1/100000s<br>NTSC: 1/30s–1/100000s     |
| S/N Ratio                   | >65dB   |
| Minimum Illumination        | 0.02Lux/F1.9, 30IRE, 0Lux IR on                   |
| Fill Light Working Distance | 50 m (164 ft)                                     |
| IR On/Off Control           | Auto; manual                                      |
| IR LED Number               | 1   |
| Pan/Tilt/Rotation Range     | Pan: 0°–360°<br>Tilt: 0°–78°<br>Rotation: 0°–360° |

#### Lens

|                      |   |                      |                      |                     |                    |
|----------------------|---|----------------------|----------------------|---------------------|--------------------|
| Lens Type            | Fixed-focal   |                      |                      |                     |                    |
| Mount Type           | M12   |                      |                      |                     |                    |
| Focal Length         | 2.8 mm; 3.6 mm; 6 mm  |                      |                      |                     |                    |
| Max. Aperture        | F1.9  |                      |                      |                     |                    |
| Field of View        | 2.8 mm: 119° x 101° x 54°<br>(diagonal x horizontal x vertical)<br>3.6 mm: 100° x 84° x 45°<br>(diagonal x horizontal x vertical)<br>6 mm: 60° x 56° x 30° (diagonal x horizontal x vertical) |                      |                      |                     |                    |
| Iris Type            | Fixed iris  |                      |                      |                     |                    |
| Close Focus Distance | 2.8 mm: 0.5 m (1.7 ft)<br>3.6 mm: 0.8 m (2.6 ft)<br>6 mm: 2 m (6.6 ft)  |                      |                      |                     |                    |
| DORI Distance        | Lens  | Detect               | Observe              | Recognize           | Identify           |
|                      | 2.8 mm  | 38.6 m<br>(126.6 ft) | 15.4 m<br>(50.5 ft)  | 7.7 m<br>(25.3 ft)  | 3.9 m<br>(12.8 ft) |
|                      | 3.6 mm  | 49.7 m<br>(163.1 ft) | 19.9 m<br>(65.3 ft)  | 9.9 m<br>(32.5 ft)  | 5 m<br>(16.4 ft)   |
|                      | 6 mm  | 82.8 m<br>(271.7 ft) | 33.1 m<br>(108.6 ft) | 16.6 m<br>(54.5 ft) | 8.3 m<br>(27.2 ft) |

#### Video

|               |   |
|---------------|---|
| Frame Rate    | CVI: 1080P@25/30fps; 720P@25/30fps;<br>720P@50/60fps;<br>AHD: 1080P@25/30fps; 720P@25/30fps;<br>TVI: 1080P@25/30fps; 720P@25/30fps;<br>720P@50/60fps;<br>CVBS: 960H |
| Resolution    | 1080P (1920×1080); 720P (1280×720); 960H (960×576/960×480)  |
| Day/Night     | Auto switch by ICR  |
| BLC           | BLC/HLC/DWDR  |
| WDR           | DWDR  |
| White Balance | Auto; manual  |

|                  |                            |
|------------------|----------------------------|
| Gain Control     | Auto; manual               |
| Noise Reduction  | 2D NR                      |
| Smart IR         | Yes                        |
| Electronic Defog | Yes                        |
| Mirror           | Off/On                     |
| Privacy Masking  | Off/On (8 area, rectangle) |

#### Certifications

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

#### Port

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

#### Power

|                   |                          |
|-------------------|--------------------------|
| Power Supply      | 12V ±30% DC              |
| Power Consumption | Max 3.2W (12V DC, IR on) |

#### Environment

|                       |  |
|-----------------------|--|
| Operating Temperature | -40°C to +60°C (-40°F to 140°F); <95% (non-condensation) |
| Storage Temperature   | -40°C to +60°C (-40°F to 140°F); <95% (non-condensation) |
| Protection Grade      | IP67   |

#### Structure

|                   |                                      |
|-------------------|--------------------------------------|
| Casing            | Metal throughout the whole casing    |
| Camera Dimensions | φ106.0 mm × 93.6 mm (φ4.17" × 3.69") |
| Net Weight        | 0.44 Kg (0.97 lb)                    |
| Gross Weight      | 0.59 Kg (1.3 lb)                     |

**Ordering Information**

| Type                    | Part Number               | Description   |
|-------------------------|---------------------------|---|
| 2MP Camera              | DH-HAC-HDW1200EMP 2.8mm   | 2MP HDCVI IR Eyeball Camera                         |
|                         | DH-HAC-HDW1200EMN 2.8mm   |   |
|                         | DH-HAC-HDW1200EMP 3.6mm   |   |
|                         | DH-HAC-HDW1200EMN 3.6mm   |   |
|                         | DH-HAC-HDW1200EMP 6mm     |   |
|                         | DH-HAC-HDW1200EMN 6mm     |   |
|                         | DH-HAC-HDW1200EMP-A 2.8mm |   |
|                         | DH-HAC-HDW1200EMN-A 2.8mm |   |
|                         | DH-HAC-HDW1200EMP-A 3.6mm |   |
|                         | DH-HAC-HDW1200EMN-A 3.6mm |   |
|                         | DH-HAC-HDW1200EMP-A 6mm   |   |
| DH-HAC-HDW1200EMN-A 6mm |                           |   |
| Accessories             | PFA139                    | Junction box  |
|                         | PFA130-E                  | P66 Junction box                                    |
|                         | PFB204W                   | Wall Mount Bracket (For use alone or with PFA152-E) |
|                         | PFA152-E                  | Pole Mount Bracket (For use with PFB204W)           |
|                         | PFA106                    | Mount Adapter (For use with PFB220C)                |
|                         | PFB220C                   | Ceiling Mount Bracket (For use with PFA106)         |
|                         | PFM800-E                  | Passive HDCVI Balun                                 |
|                         | PFM321D                   | 12V 1A Power Adapter                                |
|                         | PFM904                    | Integrated Mount Tester                             |

**Accessories**

Optional:



| Ceiling Mount | Wall Mount | Hanging Mount  | Pole Mount       |
|---------------|------------|----------------|------------------|
| PFA130-E      | PFB204W    | PFA106+PFB220C | PFA152-E+PFB204W |
|               |            |                |                  |

**Dimensions (mm[inch])**

