

5MP HDCVI Fixed Eyeball Camera

Starlight IR Camera with 16:9 Aspect Ratio



- 1/2.7-in. 5 MP Progressive-scan CMOS Sensor
- 5 MP (2880 x 1620) at 25 fps Maximum Resolution
- 2.8 mm Fixed Lens
- 16:9 Aspect Ratio for no Image Stretching
- Starlight Technology for Low-light Applications
- True Wide Dynamic Range (120 dB) and 3D Noise Reduction
- Built-in Microphone
- HDCVI, AHD, TVI, or CVBS Output, Switchable
- Maximum IR Length 60 m (196.85 ft), Smart IR
- ArcticPro Series Camera - Operational down to -40°C (-40°F)
- IP67 Ingress Protection
- Five-year Warranty*



System Overview

Experience the superior clarity of Dahua's 5 MP HDCVI cameras for vast coverage and superior image details. The 5 MP HDCVI series leverages existing coax infrastructures to deliver forensic-level images seamlessly and over long distances. The HDCVI camera offers multiple output formats that are easily switchable and a 16:9 aspect ratio. With a 16:9 format, images maintain a true, undistorted view without stretching, a feature not found on many 5MP HD over coax cameras. The camera is suitable for most applications, offering IR illumination for difficult lighting conditions, input voltage tolerance for inconsistent power supplies, and IP67 certification for operation in harsh outdoor environmental conditions.

Functions

Three Signals over One Coaxial Cable

HDCVI technology simultaneously transmits video, audio, and data over a single coaxial cable. Dual-way data transmission allows the HDCVI camera to communicate with an HDCVI DVR to send control signals or to trigger alarms.

Starlight Technology

For challenging low-light applications, Dahua's Starlight Ultra-low Light Technology offers best-in-class light sensitivity, capturing details in low-light applications. The camera uses a set of optical features to balance light throughout the scene, resulting in clear images in dark environments.

Long Distance Transmission

HDCVI technology guarantees real-time transmission over long distances without loss of video quality. HDCVI cameras provide the same resolution as most IP network camera systems using existing RG-59, RG-6, or CAT 6 UTP cabling.

Simplicity

HDCVI technology seamlessly integrates traditional analog surveillance systems with upgraded, high-quality HD video, making it the best choice to protect security investments. The plug and play approach enables full HD video surveillance without the hassles of configuring a network.

Smart IR

With IR illumination, detailed images can be captured in low light or total darkness. The camera's Smart IR technology adjusts the intensity of the camera's infrared LEDs to compensate for the distance of an object. Smart IR technology prevents IR LEDs from whitening out images as they come closer to the camera. The camera's integrated infrared illumination provides high-performance in extreme low-light environments.

Multiple-format Support

The camera supports multiple video formats including, HDCVI, CVBS, AHD, and TVI. The camera can switch between these four formats via the OSD menu or the switch located on the video output cable, making the camera compatible with not only HDCVI DVRs but also most existing HD/SD DVRs.

ArcticPro

The Dahua ArcticPro Series of extreme-environment cameras combine temperature-tolerant components with a waterproof enclosure to ensure flawless operation in temperatures as low as -40°C (-40°F) without the need for an internal heater. The lack of a heater reduces the camera's power consumption and saves operating costs. For applications that demand high-resolution video with advanced features in extremely cold environments, the Dahua ArcticPro Series offers a camera to satisfy the most demanding requirements.

True Wide Dynamic Range

The camera achieves vivid images, even in the most intense contrast lighting conditions, using industry-leading wide dynamic range (WDR) technology. For applications with both bright and low lighting conditions that change quickly, True WDR (120 dB) optimizes both the bright and dark areas of a scene at the same time to provide usable video.

Protection

The camera is subjected to rigorous dust and water immersion tests and certified to the IP67 Ingress Protection rating making it suitable for demanding outdoor applications. The camera allows for $\pm 30\%$ input voltage tolerance, suitable for the most unstable conditions for outdoor applications, and its 4KV lightning rating provides effective protection for both the camera and its structure against lightning.

Technical Specification

Camera

| | |
|---------------------------|--|
| Image Sensor | 1/2.7-in. CMOS Sensor |
| Effective Pixels | 2880 (H) x 1620 (V), 5 MP |
| Aspect Ratio ¹ | 16:9 |
| Scanning System | Progressive |
| Electronic Shutter Speed | 1/4 s to 1/100,000 s |
| Minimum Illumination | Color: 0.001 lux at F1.6, 30 IRE 0 lux with IR on |
| S/N Ratio | More than 65 dB |
| IR Distance | Up to 60.0 m (196.85 ft) |
| IR On/Off Control | Auto, Manual |
| IR LEDs | Two (2) |

Lens

| | |
|----------------------|---|
| Lens Type | Fixed-focal |
| Mount Type | M12 |
| Focal Length | 2.8 mm |
| Maximum Aperture | F1.6 |
| Angle of View | Horizontal: 111° Vertical: 58° Diagonal: 132° |
| Iris Type | Fixed |
| Close Focus Distance | 900 mm (35.43 in.) |

Installation Angle

| | |
|-------|--|
| Range | Pan: 0° to 360° Tilt: 0° to 78° Rotation: 0° to 360° |
|-------|--|

DORI Distances²

| Detect (8 ppf) | Observe (19 ppf) | Recognize (38 ppf) | Identify (76 ppf) |
|------------------------|-----------------------|-----------------------|----------------------|
| 63.60 m (208.70 ft) | 25.40 m (83.30 ft) | 12.70 m (41.70 ft) | 6.40 m (21.0 ft) |

Video

| | | | |
|--------------------|---|---|--|
| Resolution Output | 5 MP (2880 x 1620), 4 MP (2560 x 1440), 1080p (1920 x 1080), 720p (1280 x 720), 960H (960 x 480), D1 (704 x 480), CIF (352 x 240) | | |
| Maximum Frame Rate | HDCVI | 5 MP at 25 fps, 4 MP at 30 fps, 1080p at 30 fps | |
| | AHD | 4 MP at 30 fps | |
| | TVI | 4 MP at 30 fps | |
| | CVBS | 960H | |
| Video Output | One (1) BNC Output, HDCVI, AHD, TVI, CVBS switchable | | |

| | | |
|---------------------------------|--------------------------------|--|
| Video Transmission ³ | RG-59/U Coax | 720p: 800 m (2624.67 ft) 1080p: 500 m (1640.42 ft) 5 MP: 500 m (1640.42 ft) |
| | RG-6/U Coax | 720p: 1200 m (3937.01 ft) 1080p: 800 m (2624.67 ft) 5 MP: 700 m (2296.59 ft) |
| | CAT 6 UTP (balun required) | 720p: 450 m (1476.38 ft) 1080p: 300 m (984.25 ft) 5 MP: 300 m (984.25 ft) |
| Day/Night | Auto (ICR) | |
| OSD Menu | Multi-language | |
| BLC Mode | BLC, HLC, HLC-Pro, True WDR | |
| WDR | 120 dB | |
| Gain Control | Auto, Manual | |
| Noise Reduction | 3D NR | |
| White Balance | Auto, Manual | |
| Advanced Features | Smart IR Mirror | |
| Privacy Masking | Off, On (8 Areas, rectangular) | |

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, |
| Safety | UL60950-1 EN 62368-1:2014+A11:2017 CAN/CSA C22.2 No.60950-1 |
| Electromagnetic Compatibility (EMC) | CFR 47 FCC Part 15 subpart B ANSI C63.4-2014 |

Interface

| | |
|----------------------|--|
| Audio | One (1) Built-in Microphone |
| Electrical | |
| Power Supply | 12 VDC ±30% |
| Power Consumption | Maximum 5.9 W (12 VDC, IR on) |
| Environmental | |
| Operating Conditions | -40° C to +60° C (-40° F to +140° F) Less than 95% RH, non condensing |
| Storage Conditions | -40° C to +60° C (-40° F to +140° F) Less than 95% RH, non condensing |
| Ingress Protection | IP67 |

Construction

| | |
|--------------|---|
| Casing | Metal |
| Dimensions | ø106.0 mm x 93.60 mm (ø4.17 in. x 3.69 in.) |
| Net Weight | 0.48 kg (1.56 lb) |
| Gross Weight | 0.63 kg (1.39 lb) |

1. To view the 16:9 video output on a Dahua HDCVI DVR you must update the DVR to the latest firmware. Obtain the latest firmware on the Dahua Wiki at <https://dahua.wiki.com/Recorders>.

2. The DORI distance is a measure of the general proximity for a specific classification to help pinpoint the right camera for your needs. The DORI distance is calculated based on sensor specifications and lab test results according to EN 62676-4, the standard that defines the criteria for the Detect, Observe, Recognize and Identify classifications.

3. Transmission distance results verified by real-scene testing in Dahua's test laboratory. Actual transmission distances may vary due to external influences, cable quality, and wiring structures.

Ordering Information

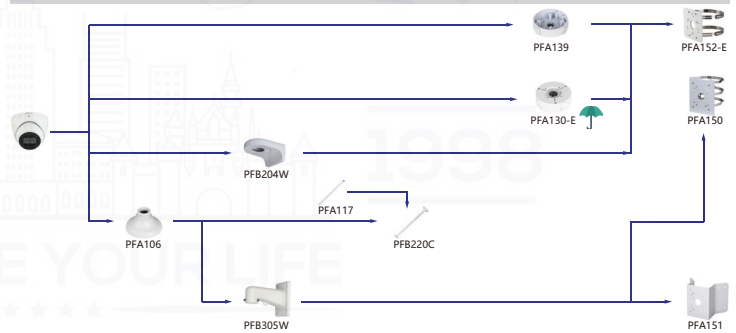
| Type | Part Number | Description |
|-----------------------|---------------|---|
| 5 MP HDCVI Camera | A52BJ62 | 5 MP Starlight HDCVI IR 2.8 mm Fixed Lens Eyeball Camera, 16:9 Aspect Ratio |
| Accessories, optional | PFA106 | Mount Adapter |
| | PFA117 | Extension Pole for PFB220C |
| | PFA130-E | Waterproof Junction Box |
| | PFA139 | Junction Box |
| | PFA150 | Pole Mount (Use with PFA106 and PFB305W) |
| | PFA151 | Corner Mount (Use with PFA106 and PFB305W) |
| | PFA152-E | Pole Mount (Use with PFA130-E, PFA139, or PFB204W) |
| | DH-PFA200G | Gang Box Adapter |
| | PFB204W | Wall Mount (Use alone or with PFA152-E pole mount) |
| | PFB220C | Pole Mount (Use with PFA106 mount adapter) |
| | PFB305W | Wall Mount (Use alone or with PFA150 or PFA151) |
| | DH-PFM321D-US | 12 VDC, 1 A Power Adapter |
| | DH-PFM800-4K | 4K Passive HDCVI Balun |

Accessories

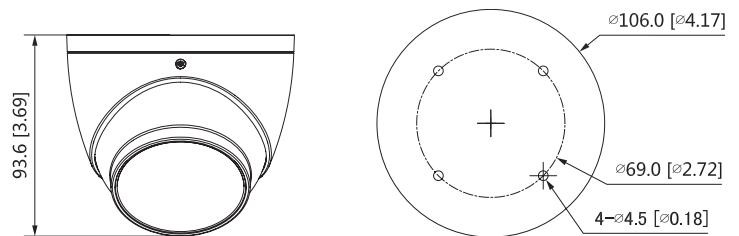
Optional:



Mounting Diagram



Dimensions (mm/in.)



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