DH-HAC-HDW1249X-IL-A-PRO

2MP WizColor HDCVI Fixed-focal Eyeball Camera



* In order to use the Smart Dual Light HDCVI camera, the firmware of XVR must be upgraded to V4.001.0000004.1.R.220323 or later version.
- Max. 30 fps@1080p
- AI-ISP.
- Distortion Correction.
- Smart Dual Light.
- Smart Light+.
- 50 m illumination distance
- Super Adapt, 3D NR
- Built-in Dual 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



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

WizColor Technology

Dahua WizColor Technology seamlessly combines with the powerful AI-ISP and large aperture in cameras. This unique integration enables cameras to effortlessly capture high-quality images with vibrant colors during nighttime scenarios, ensuring fine details are preserved and minimizing motion blur. Unlike traditional self-illuminating cameras, Dahua WizColor Technology maximizes the utilization of weak light sources, such as moonlight and city lights reflected in the sky, delivering captivating full-color images of the entire scene. It also ensures that monitoring distances are not compromised at night due to limited illumination ranges, facilitating full-color image capture even over long distances.

AI-ISP

With AI ISP technology, the camera is able to easily adapt to scenes, producing high quality images that reveal the fine details of targets.

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.

Distortion Correction

With advanced distortion correction algorithm, Dahua Distortion Correction corrects the image distortion in both horizontal and vertical directions to be consistent with the actual situation.

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.

Built-in Dual Mic

Equipped with Dual Mic audio processing technology combined with intelligent noise reduction algorithms, HDCVI cameras effectively suppress environmental background noise and enhance audio clarity and pickup distance, ensuring the authenticity and reliability of the captured audio information. This technology protects the integrity of audio evidence in video surveillance, making it particularly suitable for scenes that require both audio and videos for verification.

Easy Installation

HDCVI eyeball comes with a quick-to-install pedestal, which makes it easier to install than conventional eyeballs and reduces cost on time and labor.

Protection

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.

Technical Specification

Camera

Image Sensor	2 MP CMOS
Max. Resolution	1920 (H) × 1080 (V)
Scanning System	Progressive
Electronic Shutter Speed	PAL: 1/25 s–1/100,000 s NTSC: 1/30 s–1/100,000 s
Min. Illumination	0.0001 lux@F1.0 (Color, 30 IRE) 0.00001 lux@F1.0 (B/W, 30 IRE) 0 lux (Illuminator on)
S/N Ratio	>65 dB
Illumination Distance	50 m (164.04 ft)
Illuminator On/Off Control	Auto/Manual
Illuminator Number	4 (Multi-core light)
Angle Adjustment	Pan: 0°–360° Tilt: 0°–78° Rotation: 0°–360°

Lens

Lens Type	Fixed-focal				
Lens Mount	M12				
Focal Length	2.8 mm; 3.6 mm				
Max. Aperture	F1.0				
Field of View	2.8 mm: H: 101.8°; V: 54.4°; D: 122.1° 3.6 mm: H: 84.2°; V: 45.3°; D: 98.9°				
Iris Control	Fixed				
Close Focus Distance	2.8 mm: 1.1 m (3.61 ft) 3.6 mm: 1.6 m (5.25 ft)				
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	2.8 mm	45.6 m (149.61 ft)	18.2 m (59.71 ft)	9.1 m (29.86 ft)	4.6 m (15.09 ft)
	3.6 mm	55.6 m (182.41 ft)	22.2 m (72.83 ft)	11.1 m (36.42 ft)	5.6 m (18.37 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: PAL: 1080p@25 fps; NTSC: 1080p@30 fps; AHD: PAL: 1080p@25 fps; NTSC: 1080p@30 fps; TVI: PAL: 1080p@25 fps; NTSC: 1080p@30 fps; CVBS: PAL: 960H; NTSC: 960H
Resolution	1080p (1920 × 1080); 960H (960 × 576/960 × 480)
Day/Night	Auto(ICR)/Color/B/W
BLC	BLC; HLC; WDR
WDR	130 dB
White Balance	Auto
Gain Control	Auto
Noise Reduction	3D NR
Motion Detection	Yes (It needs to be controlled through the XVR)
Illumination Mode	Yes (It needs to be controlled through the XVR)
Mirror	Yes (It needs to be controlled through the XVR)

Certification

Certifications	CE-LVD: EN 62368-1; CE-EMC: EN 55032; EN 55035;

Audio

Built-in Mic	Yes, built-in dual Mic
Camera Audio	CVI
Pick-up Distance	12 m (39.37 ft)

Port

Video Output	Video output choices of CVI/TVI/AHD/CVBS by one BNC port (DIP Switch)

Power

Power Supply	12 VDC (±30%)
Power Consumption	Max 5.6 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

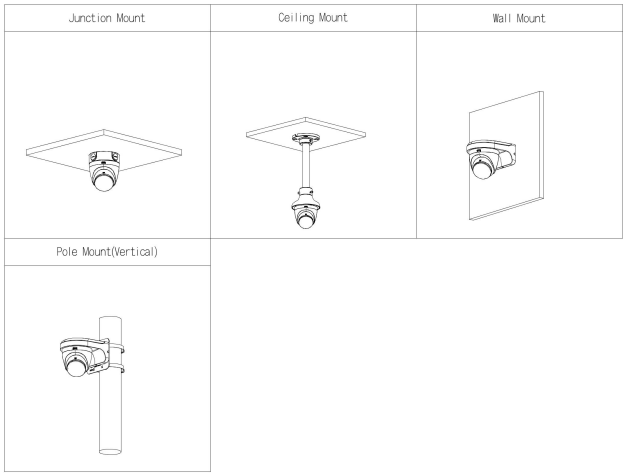
Structure

Casing Material	Dome (metal + plastic) + plastic enclosure
Product Dimensions	Φ109.9 mm × 102.2 mm (Φ4.33" × 4.02")
Net Weight	0.33 kg (0.73 lb)
Gross Weight	0.45 kg (0.99 lb)
Installation	Wall mount; ceiling mount; vertical pole mount

Ordering Information

Type	Model	Description
HDCVI CAMERA	DH-HAC-HDW1249XN-IL-A-PRO	2MP WizColor HDCVI Fixed-focal Eyeball Camera,NTSC
	DH-HAC-HDW1249XP-IL-A-PRO	2MP WizColor HDCVI Fixed-focal Eyeball Camera,PAL

Type	Model	Description
Accessories (Optional)	DH-PFA109	Mount Adapter
	DH-PFB220C	Ceiling Mount Bracket
	DH-PFB305W	Wall Mount Bracket
	DH-PFA151	Corner Mount Bracket
	DH-PFA150	Pole Mount Bracket
	DH-PFB2203W	Wall Mount Bracket
	DH-PFA156	Pole Mount Bracket
	DH-PFA13G	Junction Box
	DH-PFM800-E	1 Channel Passive HDCVI Balun
	DH-PFM321-EN	DC12V1A power adapter
	DH-PFM320D-EN	DC12V2A power adapter
	PFM904	Integrated Mount Tester



Accessories

Optional:



DH-PFA109
Mount Adapter



DH-PFA13G
Junction Box



DH-PFA150
Pole Mount Bracket



DH-PFA151
Corner Mount Bracket



DH-PFA156
Pole Mount Bracket



DH-PFB2203W
Wall Mount Bracket

DH-PFB220C
Ceiling Mount Bracket



DH-PFB305W
Wall Mount Bracket



DH-PFM320D-EN
DC12V2A power adapter



DH-PFM321-EN
DC12V1A power adapter

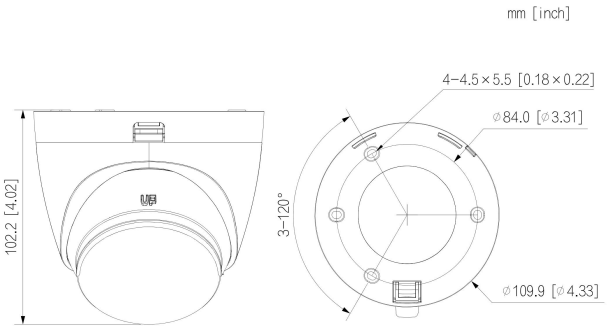


DH-PFM800-E
1 Channel Passive HDCVI Balun



PFM904
Integrated Mount Tester

Dimensions (mm[inch])



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