alhua TECHNOLOGY

DH-HAC-HDW1231TMQ-Z-A

2MP Starlight Quick-to-install IR Eyeball Camera

· Max. 30 fps@1080P

· Starlight, 130dB true WDR, 3D NR

· Auto focus, 2.7 mm–12 mm motorized lens

· Quick-to-install eyeball saves installation time

· CVI/CVBS/AHD/TVI switchable

· Super Adapt

· Built-in mic

· Max. IR length 60 m, Smart IR

· IP67, 12V DC

Lite Series | 2Mp | Audio | Starlight | WDR | IP67 | 60mIR

System Overview

Lite Series is suitable for users who requires high quality monitoring products at areasonable price. It is cost effective and offers high performance, which makes it an ideal choice for residential and small-medium business applications. This series offers an option of a wide range of technologies such as Full-color and Starlight, providing various solutions for different scenarios.

Functions

Starlight

With the adoption of large sized high performance sensor and large aperture lens, the camera is able to provide incomparable performance even under extreme lowlight environment. The starlight feature allows more details to be captured and accurate color to be recognized at night or in scenes with limited illumination.

Broadcast-quality Audio

Audio information is used as supplementary evidence in video surveillance applications. The HDCVI camera supports audio signal transmission over coaxial cable. In addition, it adopts unique audio processing and transmission technology that best restores source audio and eliminates noise, guaranteeing the quality and effectiveness of collected audio information.

* Audio input is available for some models of HDCVI cameras.

Wide Dynamic Range

With advanced Wide Dynamic Range (WDR) technology, Dahua HDCVI camera provides clear details in the environment of strong brightness contrast. The bright and dark area can get clear video even in high brightness environment or with backlight shadow.

Super Adapt

Embedded with intelligent algorithm, for changing external environment, camera can automatically adjust parameters to present the optimal image, and it solves the trouble of configuration.

Advanced 3D NR

3D NR is noise reduction technology that detects and eliminates random noises by comparing two sequential frames. Dahua's advanced 3D NR technology allows remarkable noise reduction with little impact to sharpness, especially under limited lighting condition. Besides, the advanced 3D NR effectively decreases the band width and saves the storage space.

Smart Illumination

The camera is designed with IR 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 comes closer to the camera.

Easy Installation

HDCVI quick-to-install eyeball adopts quick-to-install pedestal, which can achieve easier installation than conventional eyeball.Quick-to-install camera reduces time and labor costs.

Protection (IP67, wide voltage)

IP67: The camera passes a series of strict test on dust and soak. It has dust-proof function, and the enclosure can works normal after soaking in 1 m deep water for 30 mins.
Wide voltage: The camera allows ±30% (for some power supplies) input voltage tolerance (wide voltage range), and it is widely applied to outdoor environment with instable voltage.

Technical Specification

Camera

Pixel	2MP
Image Sensor	1/2.8"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	0.002lux/F1.5, 30IRE, 0Lux IR on
S/N Ratio	> 65 dB
Illumination Distance	60 m (196.9 ft)
Illuminator On/Off Control	Auto
Illuminator Number	2 (IR light)
Pan/Tilt/Rotation Range	Pan: 0°–360° Tilt: 0°–78° Rotation: 0°–360°

Lens

Lens Type	Motorized vari-focal
Auto Focus	Yes
Lens Mount	φ14
Focal Length	2.7 mm-12 mm
Max. Aperture	F1.5
Field of View	Diagonal: 38°– 123° Horizontal: 33°–102° Vertical: 19°–53°
Iris Control	Fixed
Close Focus Distance	0.5 m (1.6ft)

	Lens	Detect	Observe	Recognize	Identify
DORI Distance	2.7 mm	47.6 m (156.2 ft)	19.0 m (62.3 ft)	9.5 m (31.2 ft)	4.76 m (15.6 ft)
	12 mm	132.1 m (433.4 ft)	52.9 m (173.6 ft)	26.4 m (86.6 ft)	13.2 m (43.3 ft)

Video

Video Frame Rate	CVI: PAL: 1080P@25fps; NTSC: 1080P@30fps; AHD: PAL: 1080P@25fps; NTSC: 1080P@30fps; TVI: PAL: 1080P@25fps; NTSC: 1080P@30fps; CVBS: PAL: 960×576H; NTSC: 960×480H;
Resolution	1080P (1920 × 1080); 960H (960 × 576/960 × 480)
Day/Night	Auto (ICR)
BLC	BLC/WDR/HLC
WDR	130 dB

White Balance	Auto/Area WB
Gain Control	Auto/Manual
Noise Reduction	3D NR
Smart Illumination	Yes
Mirror	Yes
Privacy Masking	Off/On (8 areas, 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, EN 62368-1:2014+A11:2017) FCC (CFR 47 FCC Part 15 subpartB, ANSI C63.4-2014) UL (UL60950-1+CAN/CSA C22.2 No.60950-1)

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	12V DC±30%
Power Consumption	Max. 6.4W (12V DC, IR on)

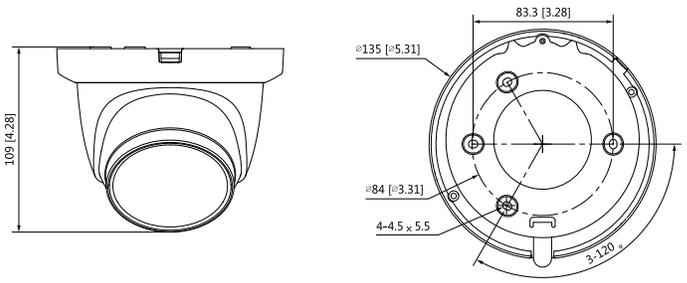### Environment

Operating Temperature	−30°C to +60°C (−22°F to +140°F); < 95% (non-condensation)
Storage Temperature	−30°C to +60°C (−22°F to +140°F); < 95% (non-condensation)
Protection	IP67

Structure

Casing	Metal dome+metal cover+plastic decorative ring
Camera Dimensions	φ135 mm × 109 mm (φ5.31" × 4.28")
Net Weight	0.51 kg (1.1 lb)
Gross Weight	0.69 kg (1.5 lb)

Ordering Information

Type	Part Number	Description
2M Camera	DH-HAC-HDW1231TMQP-Z-A 2.7-12mm	2MP Starlight Quick-to-install IR Eyeball Camera, PAL
	DH-HAC-HDW1231TMQN-Z-A 2.7-12mm	2MP Starlight Quick-to-install IR Eyeball Camera, NTSC
Accessories	PFA13F	Junction Box
	PFB211W	Wall Mount Bracket
	PFA152-E	Pole Mount Bracket
	PFM800-E	Passive HDCVI Balun
	PFM321D	12V 1A Power Adapter
	PFM820	UTC Controller
	PFM904	Integrated Mount Tester

Dimensions (mm[inch])

83.3 [3.28]
109 [4.28]
⌀135 [⌀5.31]
⌀84 [⌀3.31]
4-4.5 x 5.5
3-120°

Accessories

Optional:

PFA13F Junction Box

PFB211W Wall Mount Bracket

PFA152-E Pole Mount Bracket

PFM800-E Passive HDCVI Balun

PFM321D 12V 1A Power Adapter

PFM820 UTC Controller

PFM904 Integrated Mount Tester

Junction Mount	Wall Mount	Pole Mount(Vertical)