dahua TECHNOLOGY

DH-HAC-HDW1231TRQ-A
2MP Starlight HDCVI Quick-to-install IR Eyeball Camera

· Max 30 fps@1080P

· Starlight, 130 dB true WDR, 3D NR

· 3.6 mm fixed lens (2.8 mm optional)

· CVI/CVBS/AHD/TVI switchable

· Super Adapt

· Built-in mic

· Max. IR length 25 m, Smart IR

· Quick-to-install saves installation time

Lite Series | 2Mp | Starlight | Audio | WDR | Easy Installation | 25mIR

System Overview

Lite Series is suitable for users who requires high quality monitoring products at a reasonable 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.

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 3DNR

3DNR is noise reduction technology that detects and eliminates random noises by comparing two sequential frames. Dahua's advanced 3DNR technology allows remarkable noise reduction with little impact to sharpness, especially under limited lighting condition. Besides, the advanced 3DNR 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 come 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.

Technical Specification

Camera

Image Sensor	1/2.8" CMOS
Max. Resolution	1920 (H) × 1080 (V)
Pixel	2MP
Scanning System	Progressive
Electronic Shutter Speed	PAL: 1/25 s–1/100,000 s NTSC: 1/30 s–1/100,000 s
S/N Ratio	> 65 dB
Min. Illumination	0.002 Lux/F1.6, 30 IRE, 0 Lux IR on
Illumination Distance	25 m (80 ft)
Illuminator On/Off Control	Auto; manual
Illuminator Number	1 (IR light)
Pan/Tilt/Rotation Range	Pan: 0°–360° Tilt: 0°–78° Rotation: 0°–360°

Lens

Lens Type	Fixed lens
Mount Type	M12
Focal Length	2.8 mm; 3.6 mm
Max. Aperture	F1.6
Field of View	2.8 mm: H: 107°; V: 56°; D: 127° 3.6 mm: H: 86°; V: 46°; D: 101°
Iris Type	Fixed iris
Close Focus Distance	2.8 mm: 0.7 m (2.3 ft) 3.6 mm: 1.1 m (3.6 ft)

DORI Distance	Lens	Detect	Observe	Recognize	Identify
	2.8 mm	43.9 m (144 ft)	17.5 m (57.4 ft)	8.8 m (28.9 ft)	4.4 m (14.4 ft)
	3.6 mm	53.7 m (176.2 ft)	21.5 m (70.5 ft)	10.7 m (35.1 ft)	5.4 m (17.7 ft)

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: 960 × 576H; NTSC: 960 × 480H
Resolution	1080P (1920 × 1080); 960H (960 × 576/960 × 480)
Day/Night	Auto switch by ICR
BLC	BLC/WDR/HLC
WDR	130 dB
White Balance	Auto; manual
Gain Control	Auto; manual
Noise Reduction	3D NR

Smart IR	Yes
Mirror	Off/On
Privacy Masking	Off/On (8 area, rectangle)

Certifications

Certifications	CE (EN55032, EN55024, EN50130-4) 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 ±30% DC
Power Consumption	Max 2.8 W (12V DC, IR on)

Environment

Operating Temperature	−40°C to +50°C (−40°F to 122°F); < 95% (non-condensation)
Storage Temperature	−40°C to +50°C (−40°F to 122°F); < 95% (non-condensation)

Structure

Casing	Plastic throughout the whole casing
Camera Dimensions	Φ97.1 mm × 93.0 mm (Φ3.82" × 3.66")
Net Weight	0.17 kg (0.37 lb)
Gross Weight	0.23 kg (0.51 lb)

Ordering Information

Type	Part Number	Description
2M Camera	DH-HAC-HDW1231TRQP-A	2MP Starlight HDCVI Quick-to-install IR Eyeball Camera
	DH-HAC-HDW1231TRQN-A	2MP Starlight HDCVI Quick-to-install IR Eyeball Camera
Accessories (Optional)	PFA13G	Junction box
	PFA130-E	IP66 Junction box
	PFB205W	Wall Mount Bracket (For use alone or with PFA152-E)
	PFA152-E	Pole Mount Bracket (For use with PFB204W)
	PFM800-E	Passive HDCVI Balun
	PFM321	12V 1A Power Adapter
	PFM820	UTC Controller
	PFM904	Integrated Mount Tester

Accessories

Optional:

PFA13G
Junction Box

PFA130-E
IP66 Junction box

PFB205W
Wall Mount Bracket
(For use alone or with
PFA152-E)

PFA152-E
Pole Mount Bracket
(For use with PFB204W)

PFM800-E
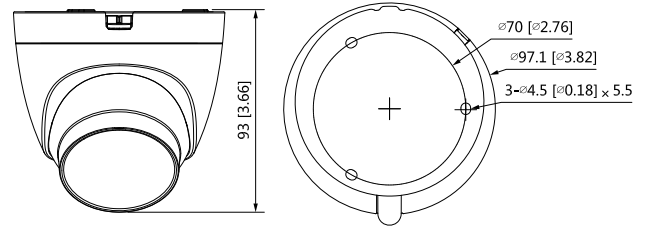Passive HDCVI Balun

PFM321
12V 1A Power Adapter

PFM820
UTC Controller

PFM904
Integrated Mount Tester

Junction Mount	Wall Mount	Ceiling Mount
Pole Mount(Vertical)		

Dimensions (mm [inch])

⌀70 [⌀2.76]
⌀97.1 [⌀3.82]
3-⌀4.5 [⌀0.18] x 5.5

93 [3.66]