dhua TECHNOLOGY

DH-HAC-HDW2241T-Z-A-POC

2 MP Starlight HDCVI Motorized Vari-focal IR Eyeball Camera

* The parameters and datasheets below can only be applied to 2241-S2-POC series.

· Max 30 fps@1080p

· Starlight, 130 dB true WDR, 3D NR

· Auto focus,2.7 mm–13.5mm motorized lens

· CVI/CVBS/AHD/TVI switchable

· Super Adapt

· Built-in mic

· Max. IR length 60 m, Smart IR

· IP67,PoC (only CVI)/12V±30% DC

System Overview

Built for convenience, the PoC Series features highly reliable cameras that are powered directly by recorders on the same coaxial cable* that its videos are transmitted over. HDCVI PoC technology greatly reduces material and installation cost, making it an ideal choice for customers who are on a tight budget and are working with scenes that require complex deployment.

*We recommend choosing RG59 or RG6 cable for PoC transmission.

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 surveil-lance applications. The HDCVI camera supports audio signal transmis-sion 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 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.

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 minutes.
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

Image Sensor	2 MP CMOS
Max. Resolution	1920 (H) × 1080 (V)
Pixel	2 MP
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	0.001 Lux/F1.6, 30 IRE, 0 Lux IR on
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
Mount Type	φ14
Focal Length	2.7 mm-13.5 mm
Max. Aperture	F1.6
Field of View	Diagonal: 131°–35° Horizontal: 108°–30° Vertical: 56°–17°
Iris Type	Fixed
Close Focus Distance	0.8 m (2.6 ft)

DORI Distance	Lens	Detect	Observe	Recognize	Identify
	2.7 mm	44.1 m (144.7 ft)	17.6 m (57.7 ft)	8.8 m (28.9 ft)	4.4 m (14.4 ft)
	13.5 mm	144.8 m (475.1 ft)	57.9 m (190 ft)	28.9 m (94.8 ft)	14.8 m (48.6 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.
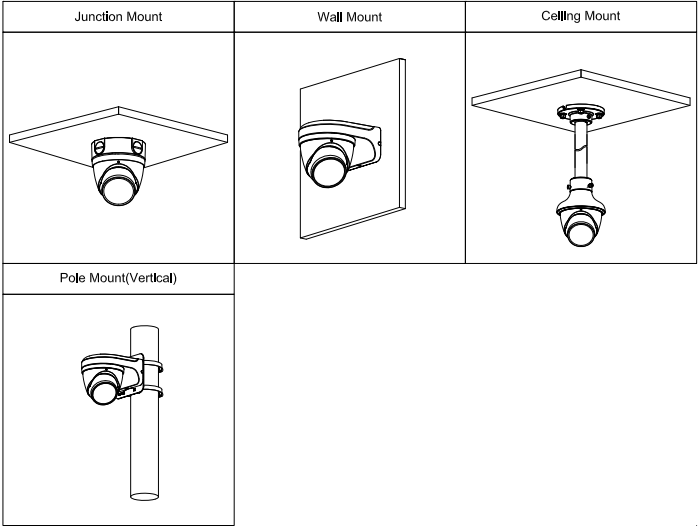
Video

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	130dB
White Balance	Auto/Area WB
Gain Control	Auto; manual
Noise Reduction	3D NR
Smart IR	Yes
Mirror	Yes
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	POC (only CVI)/12V±30% DC
Power Consumption	Max6.4W (12V DC, IR on) PoC (AT)

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 Grade	IP67

Structure

Casing	Metal throughout the whole casing
Camera Dimensions	φ122 mm × 104.8 mm (φ4.80" × 4.13")
Net Weight	0.60kg(1.3lb)
Gross Weight	0.76kg(1.7lb)

Ordering Information

Type	Model	Description
2 MP Camera	DH-HAC-HDW2241TP-Z-A-POC	2 MP Starlight HDCVI Motorized Vari-focal IR Eyeball Camera, PAL
	DH-HAC-HDW2241TN-Z-A-POC	2 MP Starlight HDCVI Motorized Vari-focal IR Eyeball Camera, NTSC
Accessories (Optional)	PFA130-E	Water-proof Junction Box
	PFB203W	Wall Mount Bracket
	PFA152-E	Pole Mount Bracket
	PFA106	Mount Adapter
	PFB220C	Ceiling Mount Bracket
	PFM321D	12V 1A Power Adapter
	PFM904	Integrated Mount Tester

Junction Mount	Wall Mount	Ceiling Mount

Pole Mount(Vertical)

Accessories

Optional:

PFA130-E
Water-proof Junction Box

PFB203W
Wall Mount Bracket

PFA152-E
Pole Mount Bracket

PFA106
Mount Adapter

PFB220C
Ceiling Mount Bracket

PFM321D
12V 1A Power Adapter

PFM904
Integrated Mount Tester

Dimensions (mm[inch])

104.8 [4.13]

∅122.0 [∅4.80]

∅84.0 [∅3.31]

3−∅4.5 [∅0.18]