

DH-HAC-HDW2241TMQ-A

2MP Starlight HDCVI Fixed IR Quick-to-install Eyeball Camera



System Overview

Pro Series is a perfect choice for SMB solutions and projects where both high reliability and flexibility are required. All cameras are equipped with Starlight feature, 120dB true WDR and 3DNR, and are able to provide clear images and rich details even under tough lighting conditions.

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.

Multiple-formats

The camera supports multiple video formats including HDCVI, CVBS, and other two common HD analog formats in the market. A DIP switch located on the cable allows you to quickly toggle formats, further simplifying installation and debugging. This feature makes the camera compatible with not only XVRs, but also most existing HD/SD XVRs. * DIP Switch 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.

- * The parameters and datasheets below can only be applied to2241-S2 series.
- Max 30 fps@1080p
- · Starlight, 130 dB true WDR, 3D NR
- · 3.6 mm fixed lens (2.8 mm, 6 mm optional)
- · CVI/CVBS/AHD/TVI switchable
- Super Adapt
- \cdot Built-in mic
- · Max. IR length 60 m, Smart IR
- IP67, DC12 V



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.

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 $\pm 30\%$ (for some power supplies) input voltage tolerance (wide voltage range), and it is widely applied to outdoor environment with instable voltage.

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.

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Technical S	pecification				Day/Night	
Camera						BLC
Image Sensor		2MP CMOS				WDR
Max. Resolution		1920 (H) × 1080 (V)				White Balance
Pixel		2MP				Gain Control
Scanning System		Progressive				Noise Reduction
Electronic Shutter Speed		PAL: 1/25 s-1/100,000 s NTSC: 1/30 s-1/100,000 s				Smart IR
S/N Ratio		> 65 dB				Mirror
Min. Illumination		0.001 Lux/F1.6, 30 IRE, 0 Lux IR on				Privacy Masking
Illumination Distance		60 m (196.9 ft)				Certifications
Illuminator On/Off Control		Auto; manual				
Illuminator Number		2 (IR light)				Certifications
Pan/Tilt/Rotation Range		Pan: 0°–360° Tilt: 0°–78° Rotation: 0°–360°				Port
Lens	lens		300	Video Output		
Lens Type		Fixed lens				Audio Input
Mount Type		M12				Power
Focal Length		2.8 mm; 3.6 mm; 6 mm				Power Supply
Max. Aperture		F1.6				Power Consumption
		2.8 mm:H: 109°; V: 58°; D: 127°				Environment
Field of View		3.6 mm:H: 86°; V: 46°; D: 101° 6 mm:H: 54°; V: 29°; D: 63°				Operating Tempera
Iris Type		Fixed iris				Storage Temperatur
Close Focus Distance		2.8 mm: 0.7 m (2.3 ft) 3.6 mm: 1.1 m (3.6 ft) 6 mm: 2.8 m (9.2 ft)				Protection Grade
	Lens	Detect	Observe	Recognize	Identify	Structure
DORI Distance	2.8 mm	42.2 m	16.9 m	8.4 m 4.2 m (27.6 ft) (13.8 ft)		Casing
	2.0 mm	(138.5 ft)	(55.4 ft)		(13.8 ft) 5.4 m	Camera Dimensions
	3.6 mm	53.7 m (176.2 ft)	21.5 m (70.5 ft)	(35.1 ft)	(17.7 ft)	Net Weight
	6 mm	88.3 m (289.7 ft)	35.3 m (115.8 ft)	17.7 m (58.1 ft)	8.8 m (28.9 ft)	Gross Weight

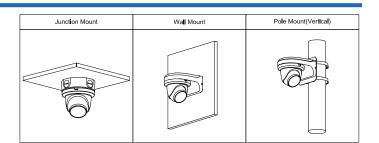
Day/Night	Auto switch by ICR			
BLC	BLC/WDR/HLC			
WDR	130 dB			
White Balance	Auto; manual			
Gain Control	Auto; manual			
Noise Reduction	3D NR			
Smart IR	Yes			
Mirror	Off/On			
Privacy Masking	Off/On (8 area, rectangle)			
Certifications				
Certifications	CE (EN55032, EN55024, EN50130-4) FCC (CFR 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 (DIP Switch)			
Audio Input	One channel built-in mic			
Power				
Power Supply	12 V ±30% DC			
Power Consumption	Max 5.1 W (12 V DC, IR on)			
Environment				
Operating Temperature	–40 °C to +60 °C (–40 °F to 140 °F); < 95% (non-condensation)			
Storage Temperature	–40 °C to +60 °C (–40 °F to 140 °F); < 95% (non-condensation)			
Protection Grade	IP67			
Structure				
Casing	Metal throughout the whole casing			
Camera Dimensions	Φ121.9 mm × 99.1 mm (Φ4.8" × 3.9")			
Net Weight	0.43 kg (0.95 lb)			
Gross Weight	0.6 kg (1.32 lb)			

Video

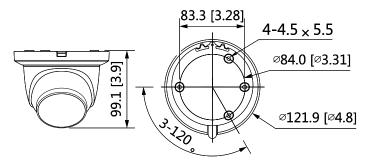
	CVI:	
	PAL: 1080p@25 fps;	
	NTSC: 1080p@30 fps;	
	AHD:	
	PAL: 1080p@25 fps;	
Frame Rate	NTSC: 1080p@30 fps;	
Flame Rate	TVI:	
	PAL: 1080p@25 fps;	
	NTSC: 1080p@30 fps;	
	CVBS:	
	PAL: 960 × 576H;	
	NTSC: 960 × 480H	
Resolution	1080p (1920 × 1080); 960H (960 × 576 / 960 × 480)	

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Ordering Information						
Туре	Model	Description				
2M Camera	DH-HAC- HDW2241TMQP-A	2MP Starlight HDCVI Fixed IR Quick-to-install Eyeball Camera, PAL				
	DH-HAC- HDW2241TMQN-A	2MP Starlight HDCVI Fixed IR Quick-to-install Eyeball Camera, NTSC				
	PFA130-E	Water-proof Junction Box				
	PFB205W	Wall Mount Bracket				
	PFA152-E	Pole Mount Bracket				
Accessories	PFB220C	Ceiling Mount Bracket of Mini Dome & Eyeball Camera				
(Optional)	PFA109	Mount Adapter				
	PFM800-E	Passive HDCVI Balun				
	PFM321D	12 V 1A Power Adapter				
	PFM904	Integrated Mount Tester				



Dimensions (mm[inch])



Accessories

Optional:



PFA130-E Water-proof Junction Box

PFB205W



Wall Mount Bracket

PFA152-E Pole Mount Bracket



PFA109

Mount Adapter



PFB220C Ceiling Mount Bracket of Mini Dome & Eyeball Camera

PFM321D

12V 1A Power Adapter



PFM904

PFM800-E Passive HDCVI Balun



Integrated Mount Tester