

# DH-HAC-HFW2241TU-Z-A

2MP Starlight HDCVI Motorized Vari-focal IR Bullet Camera



#### **Series 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, 130 dB 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.

#### **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.

- The parameters and datasheets below can only be applied to 2241-S2 series.
- Max 30 fps@1080p.
- Starlight, 130 dB true WDR, 3D NR.
- Auto focus, 2.7 mm-13.5 mm motorized lens.
- · CVI/CVBS/AHD/TVI switchable.
- Super Adapt.
- Built-in mic.
- Max. IR length 80 m, Smart IR.
- IP67,DC 12V.



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

#### **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.

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Technical Specification			Gain Control	
Camera		ſ	Noise Reduction	
Image Sensor	2MP CMOS	9	Smart IR	
Max. Resolution	1920 (H) × 1080 (V)	ſ	Mirror	
Pixel	2MP	F	Privacy Masking	
Scanning System	Progressive	(	Certifications	
Electronic Shutter Speed	PAL: 1/25 s-1/100,000 s NTSC: 1/30 s-1/100,000 s	C	Certifications	
S/N Ratio	>65 dB	ſ	UL (UL60950-1+CAN/CSA C22.2 No.60950-1) Port	
Min. Illumination	0.001 lux/F1.5, 30 IRE, 0 lux IR on			
Illumination Distance	80 m (262.5 ft)	\	Video Output	
Illuminator On/Off Control	Auto	ŀ	Audio Input	
Illuminator Number	4 (IR light)	F	Power	
Pan/Tilt/Rotation Range	Pan: 0°–360° Tilt: 0°–90°	F	Power Supply	
	Rotation: 0°–360°	F	Power Consumption	
Lens		E	Environment	
Lens Type	Motorized Vari-focal	C	Operating Temperature	-
Auto Focus	Yes	S	Storage Temperature	-3 co
Mount Type	φ14	F	Protection Grade	IP6
Focal Length	2.7 mm–13.5 mm	9	Structure	
Max. Aperture	F1.5	(	Casing	Metal t
Field of View	Diagonal: 131°–35° Horizontal: 108°–30° Vertical: 56°–17°	C	Camera Dimensions	244.1 mr
Iris Type	Fixed	٦	Net Weight	0.79 kg (
Close Focus Distance	0.8 m (2.6 ft )	(	Gross Weight	1.07 kg (2
DORI Distance	2.7 mm: D: 44.1 m (144.7 ft); O: 17.6 m (57.7 ft); R: 8.8 m (28.9 ft); I: 4.4 m (14.4 ft) 13.5 mm: D: 144.8 m (475.1 ft); O: 57.9 m (190 ft); R: 28.9 m (94.8 ft); I: 14.8 m (48.6 ft)			

Video

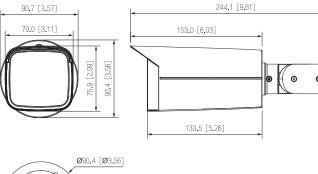
VIGCO				
Frame Rate	CVI: PAL: 1080p@25 fps; NTSC: 1080p@30 fps; AHD: PAL: 1080p@25 fps; NTSC: 1080p@30 fps; TVI: PAL: 1080p@25 fps; NTSC: 1080p@30 fps; CVBS: PAL: 960 × 576H; NTSC: 960 × 480H;			
Resolution	1080p (1920 × 1080); 960H (960 × 576/960 × 480)			
Day/Night	Auto switch by ICR			
BLC	BLC/WDR/HLC			
WDR	130 dB			
White Balance	Auto/Area WB			

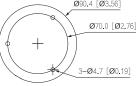
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#### **Ordering Information**

Туре	Model	Description	
2MP Camera	DH-HAC-HFW2241TUP-Z-A	2MP Starlight HDCVI IR Bullet Camera, PAL	
	DH-HAC-HFW2241TUN-Z-A	2MP Starlight HDCVI IR Bullet Camera, NTSC	
Accessories (Optional)	PFA130-E	Water-proof Junction Box	
	PFA152-E	Pole Mount Bracket	
	PFM800-E	Passive HDCVI Balun	
	PFM321D	DC12V1A Power Adapter	
	PFM904	Integrated Mount Tester	

### Dimensions (mm[inch])







## Accessories

Optional:







PFA130-E Water-proof Junction Box



PFA152-E Pole Mount Bracket



PFM321D DC12V1A Power Adapter

PFM904 Integrated Mount Tester



PFM800-E Passive HDCVI Balun

Ceiling Mount Junction Mount Pole Mount(Vertical)